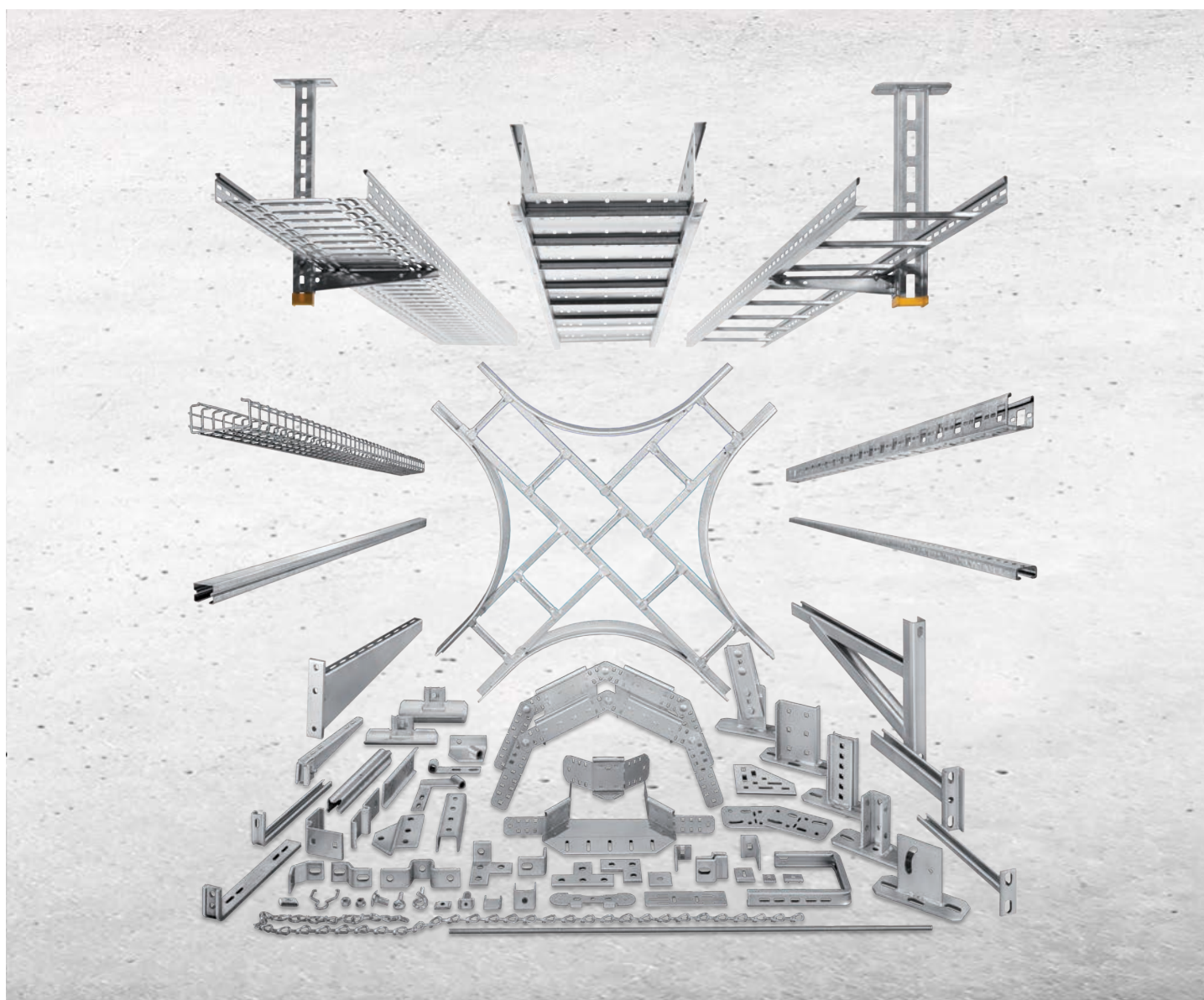


Cable support systems

Catalogue



PohlCon Benelux Cable Support B.V.

Meerheide 212
5521 DW Eersel
The Netherlands
Phone +31 497 799 700

info@pohlconbenelux.com
www.pohlconbenelux.com

Legend

A	Cross section (useable) of cable tray
a	Wire distance
B	Width
D Ø	Diameter
d	Thickness
F _D	dowel load
G	Weight per piece
H	Height
H _{max}	Maximum height
IK	Internal hexagon
k	Clamping range
L	Length
L _{min}	Minimum length
I _y	Torque of inertia around y-axis
I _z	Torque of inertia around z-axis
M	Torque
I	Capacity
P	Load
P _{max}	Maximum permissible load
P _{zul}	Permissible load
Q _{LK}	Distributed load power cable
Q _{SK}	Distributed load control cable
R	Radius
StA	Distance between supports
SW	Wrench size
t	Material thickness
T	Depth
W _y	Resisting torque around y-axis
W _z	Resisting torque around z-axis
B	Steel, untreated and non-corrosive
E	Stainless steel, material no. 1.4301 (ANSI 304) (V2A)
304	Stainless steel, material no. 1.4301 (ANSI 304) (V2A)
E4	Stainless steel, 1.4404 (ANSI 316 L)
316	Stainless steel, 1.4404 (ANSI 316 L)
EPDM	Ethylene-propylene-caoutchouc
F	Hot-dip galvanized, according to EN ISO 1461
HDG	Hot-dip galvanized, according to EN ISO 1461
GV	Fastenings galvanized, according to ISO 4042
M	Sand blasted and imprimer
PA	Polyamide
PE	Polyethylen
PG	Pre-galvanized, according to EN ISO 10346
PVC	Polyvinyl chloride
S	Continuously hot galvanized (Sendzimir process) (EN 10346) (10244-2 for wire)
	Do not walk upon!
	TÜV approved
	Certified according to Germanischer Lloyd

Cable support systems

Information

Wire-mesh cable trays	A
-----------------------	-------------------

Cable trays	B
-------------	-------------------

Cable ladders	C
---------------	-------------------

Wide-span systems	D
-------------------	-------------------

Vertical ladders	E
------------------	-------------------

Support systems	F
-----------------	-------------------

PUK STRUT	G
-----------	-------------------

Fastenings	H
------------	-------------------

Cable support trough	I
----------------------	-------------------

Line of protection tubes	J
--------------------------	-------------------

Light channel system	K
----------------------	-------------------

Ship ladders	L
--------------	-------------------

Cable channels	M
----------------	-------------------

Planning	N
----------	-------------------

Assembly	O
----------	-------------------



Wire-mesh Cable trays



Wire-mesh cable trays	A03-A06
Cover	A07-A08
Accessories	A09-A17

Numeric index

Wire-mesh Cable trays

B

BBS Bolt flush cutter 40° [A16](#)
BKST mounting clamp, vertical [A14](#)
BKWT mounting clamp, horizontal [A15](#)

D

DKO-COM Roof block for mounting Cable trays/Wire-mesh Cable trays [A17](#)

G

G 100 wire mesh cable tray [A04](#)
G 50 wire mesh cable tray [A03](#)
GBH 30 spacer bar for wire mesh tray detent dimension 30 [A15](#)
GBH 50 spacer bar for wire mesh tray detent dimension 50 [A16](#)
GD wire-mesh cable tray cover [A07](#)
GDR wire-mesh cable tray cover with bar lock [A08](#)
GD-SW wire-mesh cable tray storm protection angle [A09](#)
GH fastening hooks [A16](#)
GI wire mesh cable tray [A05](#)
GKAB drop-out plate [A14](#)
GTD 30 wire-mesh cable support W-shape [A06](#)
GTDW wire-mesh cable support G-shape [A05](#)
GTR 100 wire-mesh cable tray barrier strip [A13](#)
GTR 50 wire-mesh cable tray barrier strip [A12](#)
GTR 60 wire-mesh cable tray barrier strip [A13](#)
GV 30 wire-mesh cable tray coupler [A10](#)
GVD 30 wire-mesh cable tray coupler [A11](#)
GVK Wire-mesh cable tray coupler clamp [A12](#)
GV-L 30 wire-mesh cable tray coupler [A11](#)
GVU wire-mesh cable tray coupler [A12](#)

K

KZF cold zinc paint [A17](#)
KZS cold zinc spray [A17](#)

M

MP-G assembly plate [A10](#)
MP-G90 assembly plate 90° [A09](#)

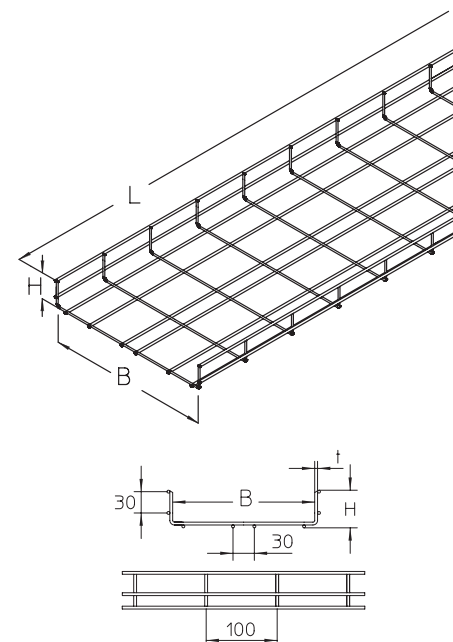
G 50 wire mesh cable tray , height=53 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For a load diagram, see the chapter planning.

article number	H mm	B mm	L mm	a mm	t mm	G kg
S						
G 50-10S	53	100	3000	30	4,0	2,30
G 50-20S	53	200	3000	30	4,0	3,20
G 50-30S	53	300	3000	30	4,0	4,10
G 50-40S	53	400	3000	30	4,5	6,30
G 50-50S	53	500	3000	30	4,5	7,40
G 50-60S	53	600	3000	30	4,5	8,50
F						
G 50-10F	53	100	3000	30	4,0	2,40
G 50-20F	53	200	3000	30	4,0	3,30
G 50-30F	53	300	3000	30	4,0	4,20
G 50-40F	53	400	3000	30	4,5	6,50
G 50-50F	53	500	3000	30	4,5	7,70
G 50-60F	53	600	3000	30	4,5	8,80
E						
G 50-10E	53	100	3000	30	4,0	2,30
G 50-20E	53	200	3000	30	4,0	3,20
G 50-30E	53	300	3000	30	4,0	4,10
G 50-40E	53	400	3000	30	4,5	6,30
G 50-50E	53	500	3000	30	4,5	7,40
G 50-60E	53	600	3000	30	4,5	8,50

accessories optional:

GV 30	wire-mesh cable tray coupler	(page A10)
GVD 30	wire-mesh cable tray coupler	(page A10)
GV-L 30	wire-mesh cable tray coupler	(page A11)
GVU	wire-mesh cable tray coupler	(page A12)
GVK	Wire-mesh cable tray coupler clamp	(page A12)
GTR 50	wire-mesh cable tray barrier strip	(page A12)
MP-G	assembly plate	(page A10)
KLU	fixing set	(page H07)



Wire-mesh Cable trays

G 100 wire mesh cable tray , height=103 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

For a load diagram, see the chapter planning.

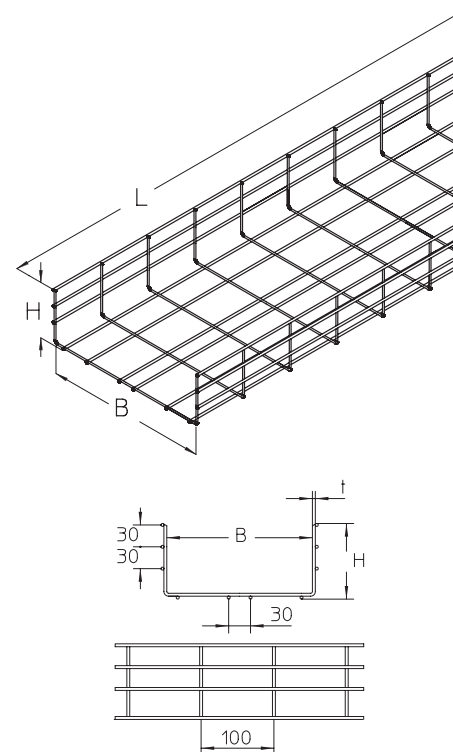
For an application example, see the chapter assembly.



article number	H mm	B mm	L mm	a mm	t mm	G kg
S						
G 100-10S	103	100	3000	30	4,0	3,20
G 100-20S	103	200	3000	30	4,0	4,10
G 100-30S	103	300	3000	30	4,5	6,30
G 100-40S	103	400	3000	30	4,5	7,40
G 100-50S	103	500	3000	30	4,5	8,50
G 100-60S	103	600	3000	30	4,5	9,60
F						
G 100-10F	103	100	3000	30	4,0	3,30
G 100-20F	103	200	3000	30	4,0	4,20
G 100-30F	103	300	3000	30	4,5	6,50
G 100-40F	103	400	3000	30	4,5	7,70
G 100-50F	103	500	3000	30	4,5	8,80
G 100-60F	103	600	3000	30	4,5	9,90
E						
G 100-10E	103	100	3000	30	4,0	3,20
G 100-20E	103	200	3000	30	4,0	4,10
G 100-30E	103	300	3000	30	4,5	6,30
G 100-40E	103	400	3000	30	4,5	7,40
G 100-50E	103	500	3000	30	4,5	8,50
G 100-60E	103	600	3000	30	4,5	9,60
E4						
G 100-10E4	103	100	3000	30	4,0	3,30
G 100-20E4	103	200	3000	30	4,0	4,20
G 100-30E4	103	300	3000	30	4,5	6,50
G 100-40E4	103	400	3000	30	4,5	7,70

accessories optional:

GV 30	wire-mesh cable tray coupler	(page A10)
GVD 30	wire-mesh cable tray coupler	(page A11)
GV-L 30	wire-mesh cable tray coupler	(page A11)
GVU	wire-mesh cable tray coupler	(page A12)
GVK	Wire-mesh cable tray coupler clamp	(page A12)
GTR 100	wire-mesh cable tray barrier strip	(page A06)
MP-G	assembly plate	(page A10)
KLU	fixing set	(page H07)



Wire-mesh Cable trays

GI wire mesh cable tray , height=60 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For a load diagram, see the chapter planning.

article number	H mm	B mm	L mm	a mm	t mm	G kg
S						
GI 06S	60	60	3000	30	4,5	4,10
GI 12S	60	120	3000	30	4,5	5,20
GI 20S	60	200	3000	30	4,5	5,60
GI 30S	60	300	3000	30	4,5	6,80
F						
GI 06F	60	60	3000	30	4,5	4,40
GI 12F	60	120	3000	30	4,5	5,60
GI 20F	60	200	3000	30	4,5	6,00
GI 30F	60	300	3000	30	4,5	7,30
E						
GI 06E	60	60	3000	30	4,5	4,10
GI 12E	60	120	3000	30	4,5	5,20
GI 20E	60	200	3000	30	4,5	5,60
GI 30E	60	300	3000	30	4,5	6,90

accessories optional:

GV 30	wire-mesh cable tray coupler	(page A10)
GVD 30	wire-mesh cable tray coupler	(page A11)
GV-L 30	wire-mesh cable tray coupler	(page A11)
GVU	wire-mesh cable tray coupler	(page A12)
GVK	Wire-mesh cable tray coupler clamp	(page A12)
GTR 60	wire-mesh cable tray barrier strip	(page A13)
MP-G	assembly plate	(page A10)
KLU	fixing set	(page H07)

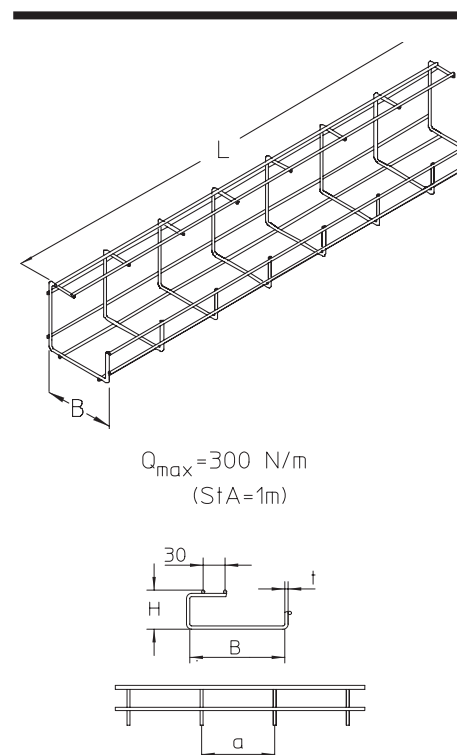
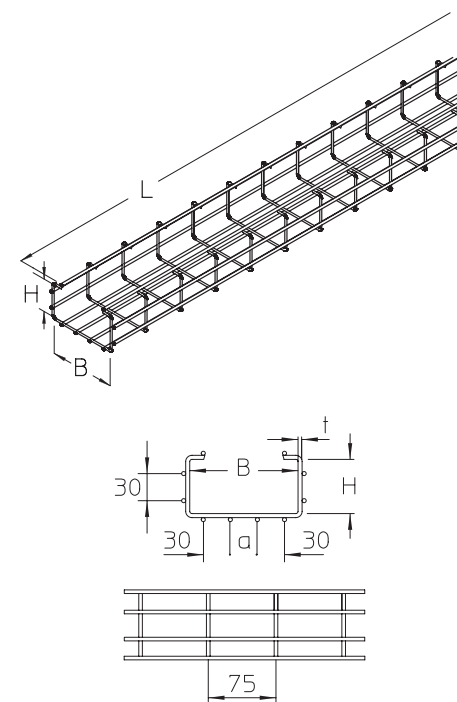
GTDW wire-mesh cable support G-shape

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	a mm	t mm	G kg
S						
GTDW 8S	48	80	3000	100	4,0	2,30
GTDW 10S	99	100	3000	100	4,0	3,20
GTDW 13S	53	130	3000	200	4,5	1,70
F						
GTDW 8F	48	80	3000	100	4,0	2,40
GTDW 10F	99	100	3000	100	4,0	3,30

accessories optional:

GV 30	wire-mesh cable tray coupler	(page A10)
GVD 30	wire-mesh cable tray coupler	(page A11)
GV-L 30	wire-mesh cable tray coupler	(page A11)
GVU	wire-mesh cable tray coupler	(page A12)
GVK	Wire-mesh cable tray coupler clamp	(page A12)
MP-G	assembly plate	(page A10)
KLU	fixing set	(page H07)



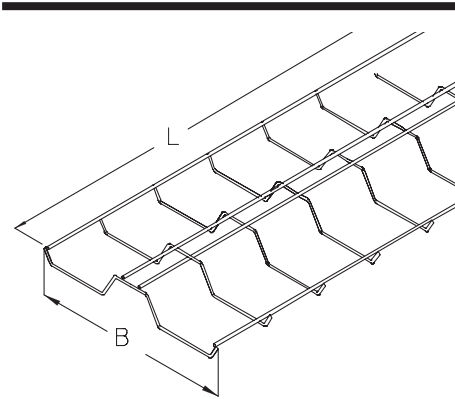
Wire-mesh Cable trays

GTD 30 wire-mesh cable support W-shape

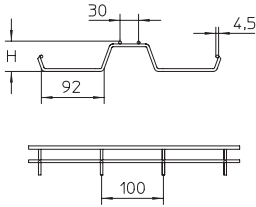
For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	G kg
S				
GTD 30S	50	300	3000	2,40
F				
GTD 30F	50	300	3000	2,50
E				
GTD 30E	50	300	3000	2,80

- accessories optional:
- GV-L 30** wire-mesh cable tray coupler (page A11)
 - GVD 30** wire-mesh cable tray coupler (page A11)
 - GVU** wire-mesh cable tray coupler (page A12)
 - GVK** Wire-mesh cable tray coupler clamp (page A09)



$Q_{max}=300\text{ N/m}$
($S\ddagger A=1m$)



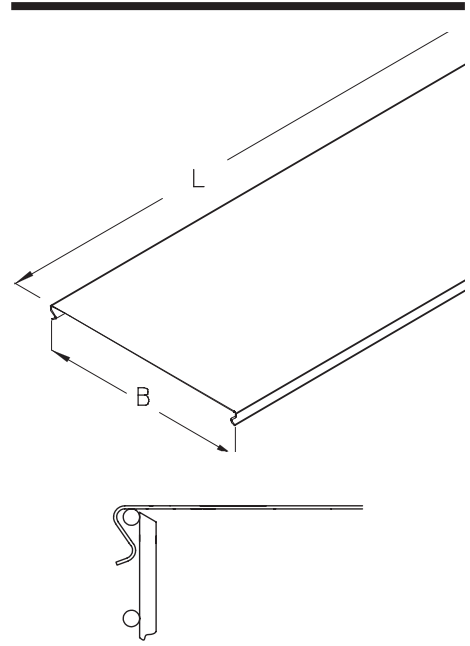
Wire-mesh Cable trays

Cover

GD wire-mesh cable tray cover

Wire-mesh cable tray cover, positive locking.

article number	B mm	L mm	G kg
S			
GD 06S	60	3000	1.96
GD 10S	100	3000	2.67
GD 20S	200	3000	4.43
GD 30S	300	3000	8.27
GD 40S	400	3000	10.62
GD 50S	500	3000	16.22
GD 60S	600	3000	19.16
F			
GD 06F	60	3000	2.05
GD 10F	100	3000	2.73
GD 20F	200	3000	4.64
GD 30F	300	3000	8.69
GD 40F	400	3000	11.21
GD 50F	500	3000	17.14
GD 60F	600	3000	20.28
E			
GD 06E	60	3000	2.11
GD 10E	100	3000	2.86
GD 20E	200	3000	4.76
GD 30E	300	3000	8.32
GD 40E	400	3000	10.69
GD 50E	500	3000	16.32
GD 60E	600	3000	19.29



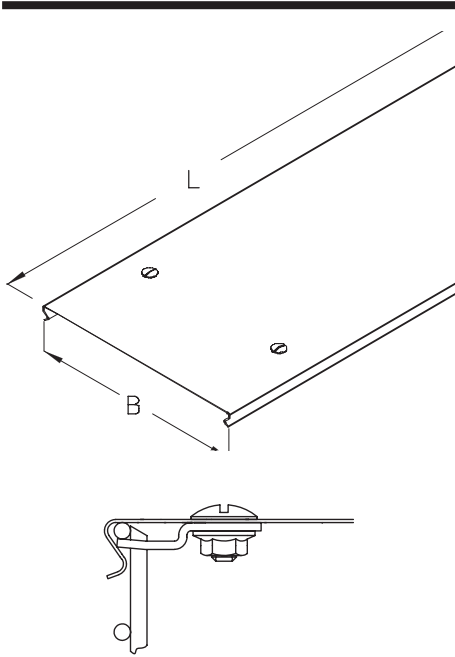
Wire-mesh Cable trays

Cover

GDR wire-mesh cable tray cover with bar lock

Wire-mesh cable tray cover, positive locking, with additional bar locks.
Installation of covers in outdoor areas requires additional provisions against storm forces.
Turning bolts are in no case sufficient as security provision.

article number	B mm	L mm	G kg
S			
GDR 06S	60	3000	2.17
GDR 10S	100	3000	2.40
GDR 20S	200	3000	4.15
GDR 30S	300	3000	7.90
GDR 40S	400	3000	10.25
GDR 50S	500	3000	15.73
GDR 60S	600	3000	18.67
F			
GDR 06F	60	3000	2.18
GDR 10F	100	3000	2.40
GDR 20F	200	3000	4.15
GDR 30F	300	3000	7.90
GDR 40F	400	3000	10.25
GDR 50F	500	3000	15.73
GDR 60F	600	3000	18.67
E			
GDR 06E	60	3000	2.19
GDR 10E	100	3000	2.60
GDR 20E	200	3000	4.50
GDR 30E	300	3000	7.94
GDR 40E	400	3000	10.31
GDR 50E	500	3000	15.16
GDR 60E	600	3000	18.01



GD-SW wire-mesh cable tray storm protection angle

Protection angle for additional securing of wire-mesh cable tray covers especially in outdoor use.
Storm protection angles, suitable for outdoor use. According to assembly instructions you should use at least 6 safety elements for each 3 meters cable path cover.

article number	H mm	B mm	L mm	G kg
F				
GD-SW F	33	25	20	0.07

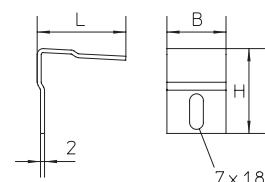
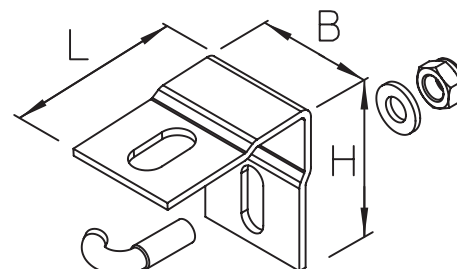
accessories included:

1x US 6X12E	square washer, DIN 125	(page H39)
1x SEMSS 6E	hexagon-nut, self-locking, DIN 985	(page H42)
1x GH 6X24E	fastening hooks	(page A16)

E				
GD-SW E	33	25	20	0.07

accessories included:

1x US 6X12E	square washer, DIN 125	(page H39)
1x SEMSS 6E	hexagon-nut, self-locking, DIN 985	(page H42)
1x GH 6X24E	fastening hooks	(page A16)



MP-G90 assembly plate 90°

Assembly plate for fixing of distribution boxes.

article number	H mm	B mm	G kg
S			
MP-G90 50S	198	120	0.16

accessories included:

1x SEMS 8	hexagon nut with flange, DIN EN 1661	(page H41)
1x FRSV 8X16	round-head screw with short square, DIN 603	(page H34)
1x GV-L 30F	wire-mesh cable tray connector	(page A11)

F			
MP-G90 50F	198	120	0.17

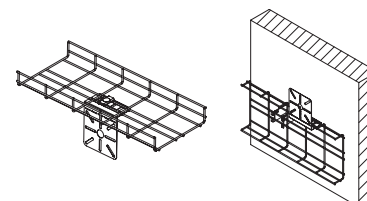
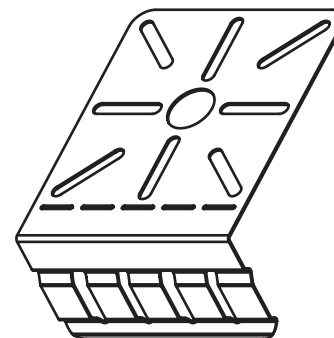
accessories included:

1x SEMS 8E	hexagon nut with flange, DIN EN 1661	(page H41)
1x FRSV 8X16E	round-head screw with short square, DIN 603	(page H34)
1x GV-L 30F	wire-mesh cable tray connector	(page A11)

E4			
MP-G90 50E4	198	120	0.16

accessories included:

1x US 8X17E4	square washer, DIN 125	(page H39)
1x SEM 8E4	hexagon-nut, DIN 934	(page H41)
1x SES 8X20E4	hexagon head bolt, DIN 933	(page H37)
1x GV-L 30E4	wire-mesh cable tray connector	(page A11)



Wire-mesh Cable trays

Accessories

MP-G assembly plate

For an application example, see the chapter assembly.

article number	H mm	B mm	G kg
S			
MP-G 50S	198	120	0,16

accessories included:

1 x SEMS 8	hexagon nut, self-locking, DIN 6923	(page H41)
1 x FRSV 8x16	round-head screw with short square	(page H34)
1 x GV-L 30F	wire-mesh cable tray coupler	(page A11)

article number	H mm	B mm	G kg
F			
MP-G 50F	198	120	0,17

accessories included:

1 x SEMS 8E	hexagon nut, self-locking, DIN 6923	(page H41)
1 x FRSV 8x16E	round-head screw with short square	(page H34)
1 x GV-L 30F	wire-mesh cable tray coupler	(page A11)

article number	H mm	B mm	G kg
E4			
MP-G 50E4	198	120	0,16

accessories included:

1 x US 8x17E4	square washer, DIN 125	(page H39)
1 x SEM 8E4	hexagon-nut, DIN 934	(page H41)
1 x SES 8x20E4	hexagon head bolt, DIN 933	(page H37)
1 x GV-L 30E4	wire-mesh cable tray coupler	(page A11)

GV 30 wire-mesh cable tray coupler

For an application example, see the chapter assembly.

article number	G kg
S	
GV 30S	0,04

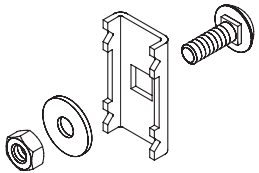
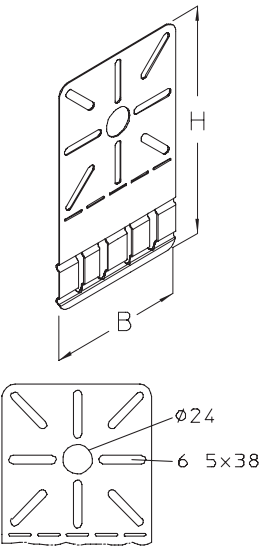
accessories included:

1 x GV-L 30F	wire-mesh cable tray coupler	(page A11)
1 x FRSV 8x16	round-head screw with short square	(page H34)
1 x SEM 8	hexagon-nut, DIN 934	(page H41)
1 x US 8x25	square washer, DIN 9021	(page H39)

article number	G kg
F	
GV 30F	0,04

accessories included:

1 x GV-L 30F	wire-mesh cable tray coupler	(page A11)
1 x FRSV 8x16E	round-head screw with short square	(page H34)
1 x SEM 8E	hexagon-nut, DIN 934	(page H41)
1 x US 8x25E	square washer, DIN 9021	(page H39)



Wire-mesh Cable trays

Accessories

GVD 30 wire-mesh cable tray coupler

For an application example, see the chapter assembly.

article number	G kg
S	
GVD 30S	0,05

accessories included:

1 x SEMS 8	hexagon nut, self-locking, DIN 6923	(page H41)
1 x FRS 8x25	round-head screw with square, DIN 603	(page H35)
2 x GV-L 30F	wire-mesh cable tray coupler	(page A11)

article number	G kg
F	
GVD 30F	0,06

E	
GVD 30E	0,05

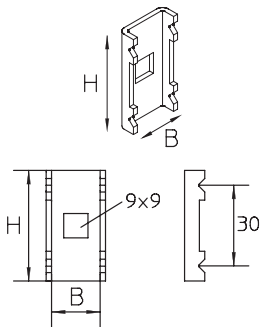
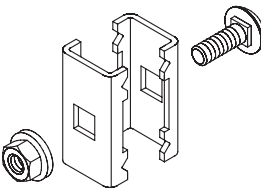
accessories included:

1 x FRS 8x25E	round-head screw with square, DIN 603	(page H35)
1 x SEMS 8E	hexagon nut, self-locking, DIN 6923	(page H41)
2 x GV-L 30E	wire-mesh cable tray coupler	(page A11)

GV-L 30 wire-mesh cable tray coupler

For an application example, see the chapter assembly.

article number	H mm	B mm	G kg
F			
GV-L 30F	41	18	0,02
E			
GV-L 30E	41	18	0,02
E4			
GV-L 30E4	41	18	0,02



Wire-mesh Cable trays

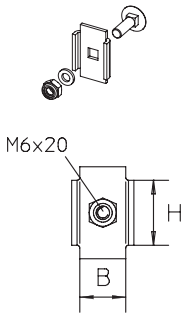
Accessories

GVK Wire-mesh cable tray coupler clamp

For an application example, see the chapter assembly.

article number	H mm	B mm	G kg
F			
GVK F	24	17	0,02
E			
GVK E	24	17	0,02

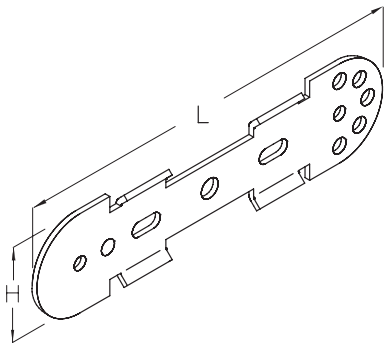
accessories included:
1 x **SEMSS 6E** hexagon-nut, self-locking, DIN 985 (page H42)



GVU wire-mesh cable tray coupler

For an application example, see the chapter assembly.

article number	H mm	L mm	G kg
F			
GVU F	46	185	0,13
E			
GVU E	46	185	0,10



GTR 50 wire-mesh cable tray barrier strip

For an application example, see the chapter assembly.

article number	H mm	L mm	G kg
S			
GTR 50S	33	3000	1,60

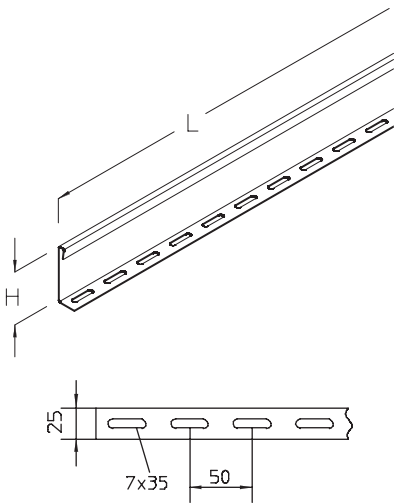
accessories included:
3 x **KLU** fixing set (page H07)

article number	H mm	L mm	G kg
F			
GTR 50F	33	3000	1,70

accessories included:
3 x **KLU F** fixing set (page H08)

article number	H mm	L mm	G kg
E			
GTR 50E	33	3000	1,60

accessories included:
3 x **KLU E** fixing set (page H08)



GTR 60 wire-mesh cable tray barrier strip

For an application example, see the chapter assembly.

article number	H mm	L mm	G kg
S			
GTR 60S	50	3000	1,90

accessories included:
3 x **KLU** fixing set (page H07)

article number	H mm	L mm	G kg
F			
GTR 60F	50	3000	2,10

accessories included:
3 x **KLU F** fixing set (page H08)

article number	H mm	L mm	G kg
E			
GTR 60E	50	3000	1,90

accessories included:
3 x **KLU E** fixing set (page H08)

GTR 100 wire-mesh cable tray barrier strip

For an application example, see the chapter assembly.

article number	H mm	L mm	G kg
S			
GTR 100S	75	3000	2,50

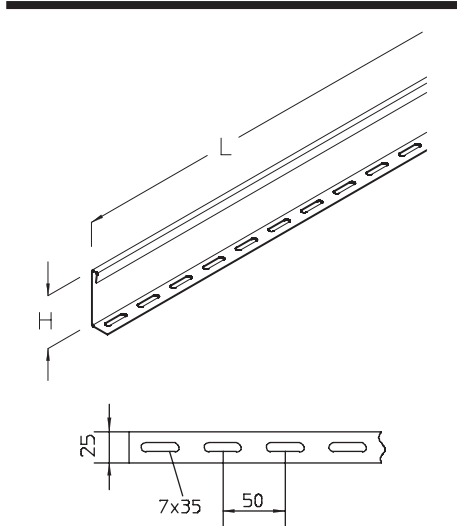
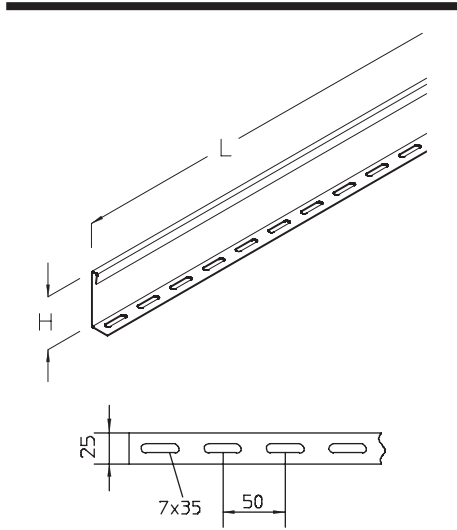
accessories included:
3 x **KLU** fixing set (page H07)

article number	H mm	L mm	G kg
F			
GTR 100F	75	3000	2,70

accessories included:
3 x **KLU F** fixing set (page H08)

article number	H mm	L mm	G kg
E			
GTR 100E	75	3000	2,70

accessories included:
3 x **KLU E** fixing set (page H08)



Wire-mesh Cable trays

Accessories

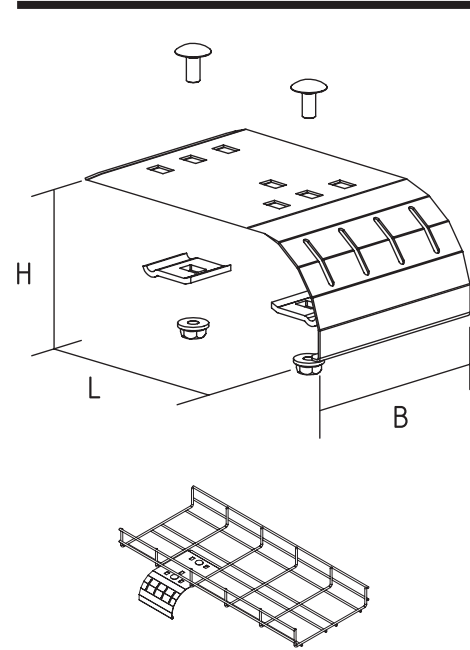
GKAB end plate

Wire mesh cable tray drop-out plate for cable-friendly vertical direction changes in wire mesh cable tray with any longitudinal or cross wire spacing of 100 mm.

article number	H mm	B mm	L mm	G kg
S				
GKAB S	54,80	94	149,60	0.18

accessories included:

2x KLU F	fixing set	(page H08)
2x FRSV 6X12	round-head screw with short square, DIN 603	(page H34)
2x SEMS 6	hexagon nut with flange, DIN EN 1661	(page H41)

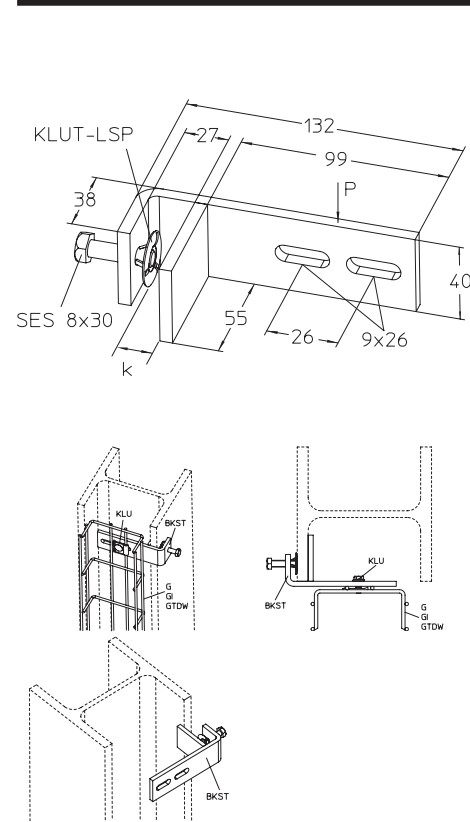


BKST mounting clamp, vertical

article number	B mm	L mm	K mm	T mm	G kg
F					
BKST 015F	40	132	15	6.00	0.44

accessories included:

1x SES 8X30F	hexagon head bolt, DIN 933	(page H37)
1x KLUT-LSP	varnish protection plat	(page H09)



Wire-mesh Cable trays

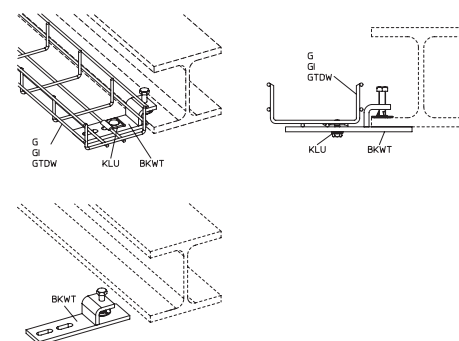
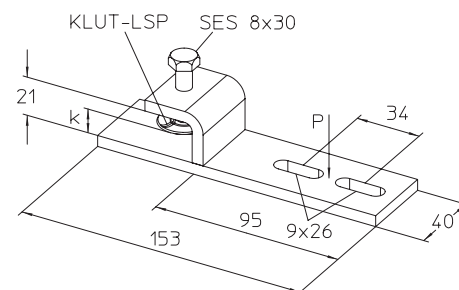
Accessories

BKWT mounting clamp, horizontal

article number	B mm	L mm	K mm	T mm	G kg
F					
BKWT 015F	40	153	15	6.00	0.44

accessories included:

1x SES 8X30F	hexagon head bolt, DIN 933	(page H37)
1x KLUT-LSP	varnish protection plat	(page H09)



GBH 30 spacer bar for wire mesh tray detent dimension 30

article number	H mm	B mm	L mm	a mm	G kg
S					
GBH 30S	45	50	100	30	0.27

accessories included:

1x GBH-SL S	spacer bar safety lug	
1x FRSV 6X12	round-head screw with short square, DIN 603	(page H34)
1x SEMS 6	hexagon nut with flange, DIN EN 1661	(page H41)

F					
GBH 30F	45	50	100	30	0.25

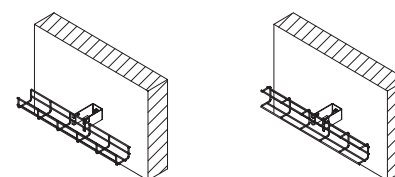
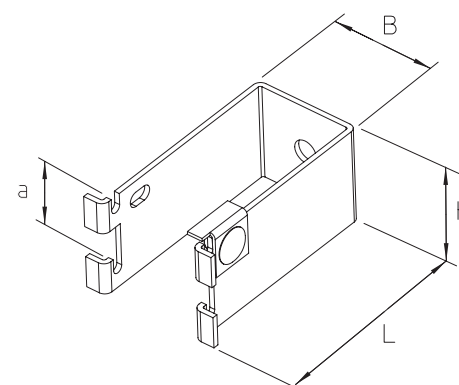
accessories included:

1x GBH-SL F	spacer bar safety lug	
1x FRSV 6X12E	round-head screw with short square, DIN 603	(page H34)
1x SEMS 6E	hexagon nut with flange, DIN EN 1661	(page H41)

E					
GBH 30E	45	50	100	30	0.27

accessories included:

1x GBH-SL E	spacer bar safety lug	
1x FRSV 6X12E	round-head screw with short square, DIN 603	(page H34)
1x SEMS 6E	hexagon nut with flange, DIN EN 1661	(page H41)

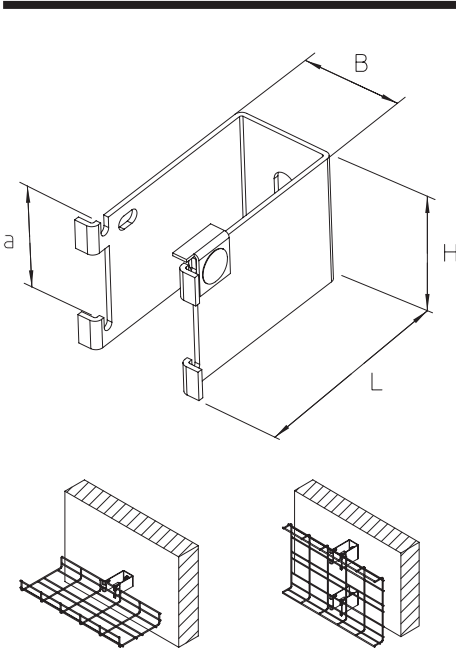


Wire-mesh Cable trays

Accessories

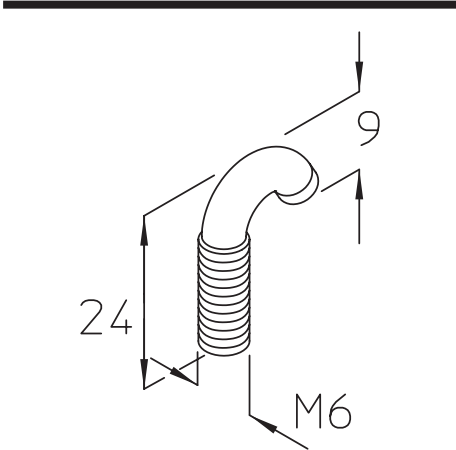
GBH 50 spacer bar for wire mesh tray detent dimension 50

article number	H mm	B mm	L mm	a mm	G kg
S					
GBH 50S	65	50	100	50	0.37
accessories included: 1x GBH-SL S spacer bar safety lug 1x FRSV 6X12 round-head screw with short square, DIN 603 (page H34) 1x SEMS 6 hexagon nut with flange, DIN EN 1661 (page H41)					
F					
GBH 50F	65	50	100	50	0.34
accessories included: 1x GBH-SL F spacer bar safety lug 1x FRSV 6X12E round-head screw with short square, DIN 603 (page H34) 1x SEMS 6E hexagon nut with flange, DIN EN 1661 (page H41)					
E					
GBH 50E	65	50	100	50	0.37
accessories included: 1x GBH-SL E spacer bar safety lug 1x FRSV 6X12E round-head screw with short square, DIN 603 (page H34) 1x SEMS 6E hexagon nut with flange, DIN EN 1661 (page H41)					



GH fastening hooks

article number	G kg
E	
GH 6X24E	0.01



BBS Bolt flush cutter 40°

article number	G kg
E	
BS	1.96

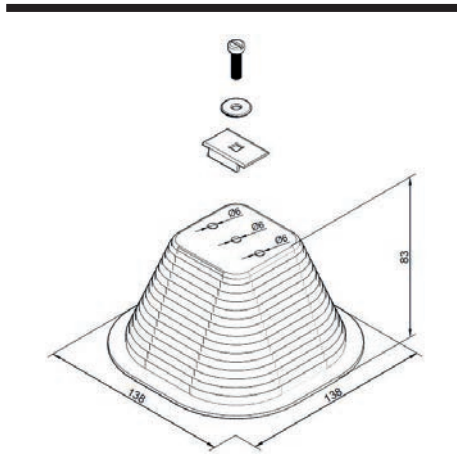


DKO-COM Roof block for mounting Cable trays/Wire-mesh Cable trays

article number	L mm	B mm	H mm	a mm	G kg
PE					
DKO	138	138	83	30	1

accessories included:

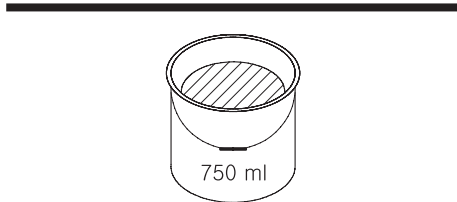
1x FKS 6x20	slotted cylinder-head screw	(page H35)
1x US 6x18	square washer, DIN 125	(page H39)
1x GVK F	Wire-mesh cable tray connector clamp	(page A12)



KZF cold zinc paint

For assembly instructions, see the chapter assembly.

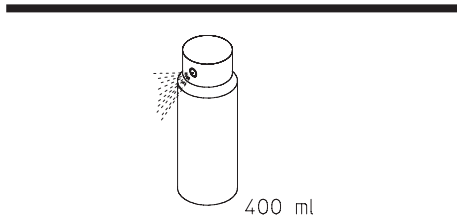
article number	I ml	G kg
KZF	750	1,93



KZS cold zinc spray

For assembly instructions, see the chapter assembly.

article number	I ml	G kg
KZS	400	0,40





Cable trays

Cable trays	B03-B16
Fittings	B17-B40
Accessories of cable trays	B41-B50
Accessories of cable installation trays	B51-B53
Cover	B54-B64



Numeric index

Cable trays

A

AHB suspension-bow [B52](#)
KSB edge protection strip [B50](#)
KSR cable protection ring [B52](#)

K

KZF cold zinc paint [B50](#)
KZS cold zinc spray [B50](#)

M

MKB adhesive metal strip [B64](#)
MP-RG assembly plate [B50](#)

R

R 110 cable tray [B11](#)
R 35 cable tray [B03](#)
R 60 cable tray [B04](#)
R 85 cable tray [B09](#)
RA 110 cable tray branch-piece, height=110 mm [B31](#)
RA 35 cable tray branch-piece, height=35 mm [B30](#)
RA 60 cable tray branch-piece, height=60 mm [B29](#)
RA 85 cable tray branch-piece, height=85 mm [B30](#)
RAA 110 cable tray attachment branch-piece, height=110 mm [B28](#)
RAA 35 cable tray attachment branch-piece, height=35 mm [B27](#)
RAA 60 cable tray attachment branch-piece, height=60 mm [B27](#)
RAA 85 cable tray attachment branch-piece, height=85 mm [B28](#)
RAAD cable tray attachment branch-piece cover [B60](#)
RAADR cable tray attachment branch-piece cover with bar lock [B60](#)
RAB 110 cable tray closing panel, height=110 mm [B43](#)
RAB 35 cable tray closing panel, height=35 mm [B41](#)
RAB 60 cable tray closing panel, height=60 mm [B41](#)
RAB 85 cable tray closing panel, height=85 mm [B42](#)
RAD cable tray branch-piece cover [B61](#)
RADR cable tray branch-piece cover with bar lock [B61](#)
RAE 110 cable tray attachment corner, height=110 mm [B26](#)
RAE 60 cable tray attachment corner, height=60 mm [B26](#)
RAED cable tray attachment corner cover [B58](#)
RB 110 cable tray bend, height=110 mm [B20](#)
RB 35 cable tray bend, height=35 mm [B17](#)
RB 60 cable tray bend, height=60 mm [B18](#)
RB 85 cable tray bend, height=85 mm [B19](#)
RB45 110 cable tray bend, height=110 mm [B25](#)
RB45 60 cable tray bend, height=60 mm [B24](#)
RB45 85 cable tray bend, height=85 mm [B25](#)
RBD cable tray bend cover [B57](#)
RBD45 cable tray bend cover [B59](#)
RBDR cable tray bend cover with bar lock [B58](#)
RBDR45 cable tray bend cover with bar lock [B59](#)
RBV 35 cable tray bend, variable, height=35 mm [B21](#)
RBV 60 cable tray bend, variable, height=60 mm [B22](#)
RBV 85 cable tray bend, variable, height=85 mm [B22](#)
RD cable tray cover [B54](#)
RDKL 110 cable tray cover clamp [B57](#)
RDKL 60 cable tray cover clamp [B56](#)
RDR cable tray cover with bar lock [B55](#)
RDS cable tray, heavy [B56](#)
RDSR cable tray cover with bar lock, heavy [B56](#)
RD-SW cable tray storm protection angle [B57](#)
REB cable tray end-plate [B36](#), [B44](#)
RG 110 cable tray [B13](#)
RG 35 cable tray [B03](#)
RG 60 cable tray [B07](#)
RG 85 cable tray [B09](#)
RGL 60 cable tray [B06](#)
RGS 110 cable tray [B14](#)
RGS 60 cable tray [B08](#)
RGS 85 cable tray [B10](#)
RGV 110 cable tray coupler, height=110 mm [B46](#)

RGV 35 cable tray coupler, height=35 mm [B45](#)
RGV 60 cable tray coupler, height=60 mm [B45](#)
RGV 85 cable tray coupler, height=85 mm [B46](#)
RGVS cable tray snap coupler [B46](#)
RGVST RGVS assembly tool [B47](#)
RI 60 cable installation tray, height=60 mm [B15](#)
RIA 60 cable installation tray branch, height=60 mm [B32](#)
RIADS cable installation tray branch cover, heavy [B32](#)
RIB 60 cable installation tray bend, height=60 mm [B32](#)
RIBDS cable installation tray bend cover, heavy [B33](#)
RID cable installation tray cover [B51](#)
RIDR cable installation tray cover with bar lock [B52](#)
RIS 60 cable installation tray heavy, height=60 mm [B16](#)
RIV 60 cable tray coupler, height=60 mm [B51](#)
RK 110 cable tray crossover, height=110 mm [B35](#)
RK 35 cable tray crossover, height=35 mm [B33](#)
RK 60 cable tray crossover, height=60 mm [B34](#)
RK 85 cable tray crossover, height=85 mm [B34](#)
RKD cable tray cross-piece cover [B62](#)
RKDR cable tray cross-piece cover with bar lock [B62](#)
RR 110 cable tray reducer, height=110 mm [B39](#)
RR 35 cable tray reducer, height=35 mm [B38](#)
RR 60 cable tray reducer, height=60 mm [B38](#)
RR 85 cable tray reducer, height=85 mm [B39](#)
RRD cable tray reducer cover [B63](#)
RRDR cable tray reducer cover with bar lock [B63](#)
RS 110 cable tray [B12](#)
RS 60 cable tray [B05](#)
RTR 110 cable tray barrier strip, height=110 mm [B49](#)
RTR 35 cable tray barrier strip, height=35 mm [B48](#)
RTR 60 cable tray barrier strip, height=60 mm [B48](#)
RTR 85 cable tray barrier strip, height=85 mm [B49](#)
RVB 110 cable tray vertical bend, height=110 mm [B37](#)
RVB 35 cable tray vertical bend, height=35 mm [B36](#)
RVB 60 cable tray vertical bend, height=60 mm [B36](#)
RVB 85 cable tray vertical bend, height=85 mm [B37](#)

S

SRI 60 protection end cap [B53](#)

V

VB connectio [B47](#)

Cable trays

R 35 cable tray, not perforated, height=35 mm

For a load diagram, see the chapter planning.
For assembly instructions, see the chapter assembly.

article number	H mm	B mm	L mm	A cm ²	Q _{SK} kN/m	G kg
S						
R 35-05S	35	50	3000	15	0,02	2,90
R 35-10S	35	100	3000	31	0,05	3,70
R 35-20S	35	200	3000	63	0,10	5,50
R 35-30S	35	300	3000	96	0,15	7,30
F						
R 35-05F	35	50	3000	15	0,02	3,20
R 35-10F	35	100	3000	31	0,05	4,20
R 35-20F	35	200	3000	63	0,10	6,20
R 35-30F	35	300	3000	96	0,15	8,10

accessories optional:

RB 35	cable tray bend, height=35 mm	(page B17)
RAA 35	cable tray attachment branch-piece, height=35 mm	(page B27)
RA 35	cable tray branch-piece, height=35 mm	(page B30)
RK 35	cable tray crossover, height=35 mm	(page B33)
RVB 35	cable tray vertical bend, height=35 mm	(page B36)
RR 35	cable tray reducer, height=35 mm	(page B38)
RAB 35	cable tray closing panel, height=35 mm	(page B41)
REB	cable tray end-plate	(page B44)
RGV 35	cable tray coupler, height=35 mm	(page B45)
VB	connection plate	(page B47)
RTR 35	cable tray barrier strip, height=35 mm	(page B48)
KLR	fixing set	(page H33)

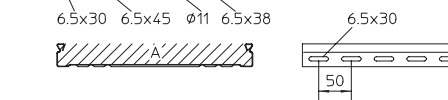
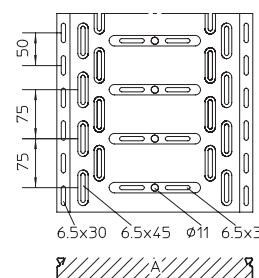
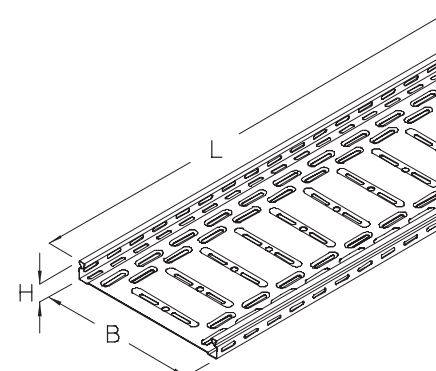
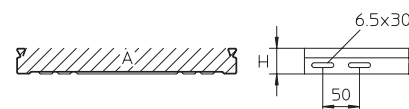
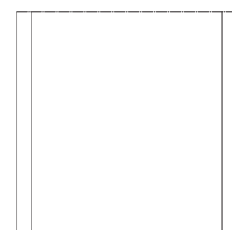
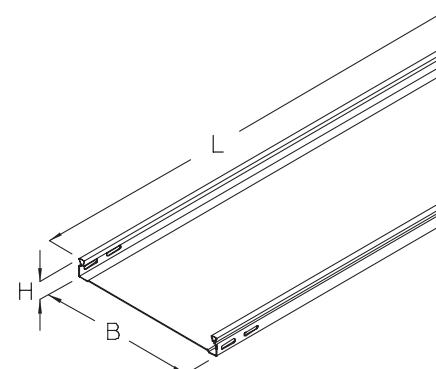
RG 35 cable tray, perforated, height=35 mm

For a load diagram, see the chapter planning.
For assembly instructions, see the chapter assembly.

article number	H mm	B mm	L mm	A cm ²	Q _{SK} kN/m	G kg
S						
RG 35-05S	35	50	3000	15	0,02	2,60
RG 35-10S	35	100	3000	31	0,05	3,30
RG 35-20S	35	200	3000	63	0,10	5,10
RG 35-30S	35	300	3000	96	0,15	6,70
F						
RG 35-05F	35	50	3000	15	0,02	2,90
RG 35-10F	35	100	3000	31	0,05	3,50
RG 35-20F	35	200	3000	63	0,10	5,50
RG 35-30F	35	300	3000	96	0,15	7,20

accessories optional:

RB 35	cable tray bend, height=35 mm	(page B17)
RAA 35	cable tray attachment branch-piece, height=35 mm	(page B27)
RA 35	cable tray branch-piece, height=35 mm	(page B30)
RK 35	cable tray crossover, height=35 mm	(page B33)
RVB 35	cable tray vertical bend, height=35 mm	(page B36)
RR 35	cable tray reducer, height=35 mm	(page B38)
RAB 35	cable tray closing panel, height=35 mm	(page B41)
REB	cable tray end-plate	(page B44)
RGV 35	cable tray coupler, height=35 mm	(page B45)
VB	connection plate	(page B47)
RTR 35	cable tray barrier strip, height=35 mm	(page B48)
KLR	fixing set	(page H33)



Cable trays

R 60 cable tray, not perforated, height=60 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

For a load diagram, see the chapter planning.

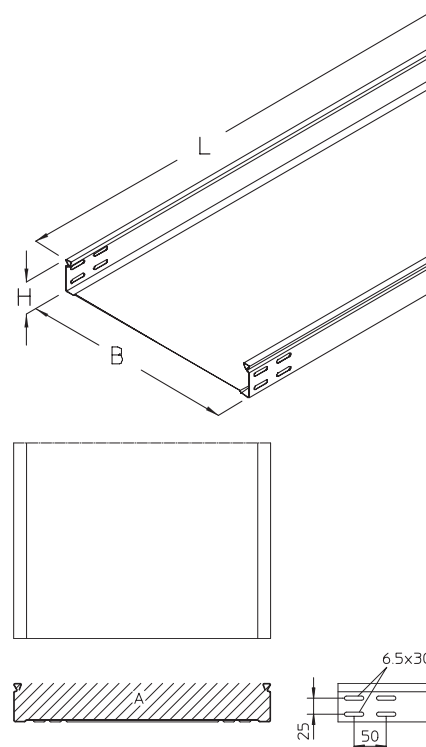
For assembly instructions, see the chapter assembly.



article number	H mm	B mm	L mm	A cm ²	Q _{SK} kN/m	G kg
S						
R 60-05S	60	50	3000	27	0,04	3,70
R 60-10S	60	100	3000	56	0,09	4,60
R 60-20S	60	200	3000	113	0,17	6,40
R 60-30S	60	300	3000	171	0,26	8,10
R 60-40S	60	400	3000	228	0,34	11,60
R 60-50S	60	500	3000	286	0,43	15,50
R 60-60S	60	600	3000	343	0,52	17,90
F						
R 60-05F	60	50	3000	27	0,04	4,20
R 60-10F	60	100	3000	56	0,09	5,20
R 60-20F	60	200	3000	113	0,17	7,10
R 60-30F	60	300	3000	171	0,26	9,10
R 60-40F	60	400	3000	228	0,34	12,80
R 60-50F	60	500	3000	286	0,43	16,90
R 60-60F	60	600	3000	343	0,52	19,50
E						
R 60-05E	60	50	3000	27	0,04	4,00
R 60-10E	60	100	3000	56	0,09	4,90
R 60-20E	60	200	3000	113	0,17	6,80
R 60-30E	60	300	3000	171	0,26	8,70
R 60-40E	60	400	3000	228	0,34	10,60
R 60-50E	60	500	3000	286	0,43	15,60
R 60-60E	60	600	3000	343	0,52	18,00

accessories optional:

RB 60	cable tray bend, height=60 mm	(page B18)
RB45 60	cable tray bend, height=60 mm	(page B24)
RAE 60	cable tray attachment corner, height=60 mm	(page B26)
RAA 60	cable tray attachment branch-piece, height=60 mm	(page B27)
RA 60	cable tray branch-piece, height=60 mm	(page B29)
RK 60	cable tray crossover, height=60 mm	(page B34)
RVB 60	cable tray vertical bend, height=60 mm	(page B36)
RR 60	cable tray reducer, height=60 mm	(page B38)
RAB 60	cable tray closing panel, height=60 mm	(page B41)
REB	cable tray end-plate	(page B44)
RGV 60	cable tray coupler, height=60 mm	(page B45)
RGVS	cable tray snap coupler	(page B46)
VB	connection plate	(page B47)
RTR 60	cable tray barrier strip, height=60 mm	(page B48)
KLR	fixing set	(page H33)



Cable trays

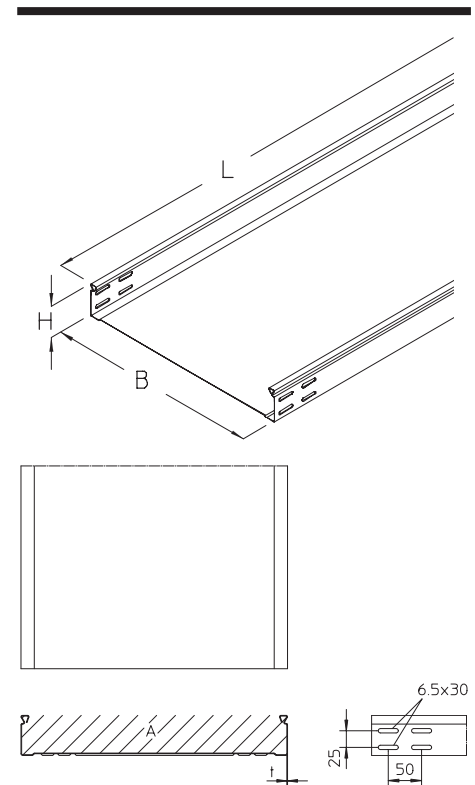
RS 60 cable tray, heavy, not perforated, height=60 mm

For a load diagram, see the chapter planning.
For assembly instructions, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	A cm ²	Q _{SK} kN/m	G kg
S							
RS 60-10S	60	100	3000	1,5	56	0,09	9,00
RS 60-20S	60	200	3000	1,5	113	0,17	12,60
RS 60-30S	60	300	3000	1,5	171	0,26	16,10
RS 60-40S	60	400	3000	1,5	228	0,34	19,60
RS 60-50S	60	500	3000	1,5	286	0,43	23,20
RS 60-60S	60	600	3000	1,5	343	0,52	26,70
F							
RS 60-10F	60	100	3000	1,5	56	0,09	9,60
RS 60-20F	60	200	3000	1,5	113	0,17	13,30
RS 60-30F	60	300	3000	1,5	171	0,26	17,10
RS 60-40F	60	400	3000	1,5	228	0,34	20,80
RS 60-50F	60	500	3000	1,5	286	0,43	24,60
RS 60-60F	60	600	3000	1,5	343	0,52	28,30

accessories optional:

RB 60	cable tray bend, height=60 mm	(page B18)
RB45 60	cable tray bend, height=60 mm	(page B24)
RAE 60	cable tray attachment corner, height=60 mm	(page B26)
RAA 60	cable tray attachment branch-piece, height=60 mm	(page B27)
RA 60	cable tray branch-piece, height=60 mm	(page B29)
RK 60	cable tray crossover, height=60 mm	(page B34)
RVB 60	cable tray vertical bend, height=60 mm	(page B36)
RR 60	cable tray reducer, height=60 mm	(page B38)
RAB 60	cable tray closing panel, height=60 mm	(page B41)
REB	cable tray end-plate	(page B44)
RGV 60	cable tray coupler, height=60 mm	(page B45)
VB	connection plate	(page B47)
RTR 60	cable tray barrier strip, height=60 mm	(page B48)
KLR	fixing set	(page H33)



Cable trays

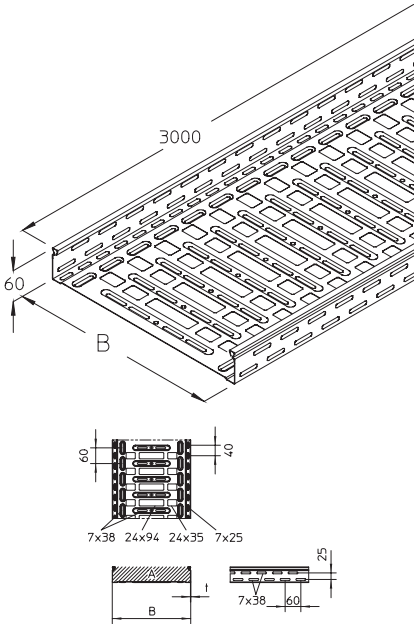
RGL 60 cable tray, perforated, light, height=60mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.
For assembly instructions, see the chapter assembly.



article number	H mm	B mm	L mm	A cm ²	Q _{SK} kN/m	G kg
S						
RGL 60-20S	60	200	3000	113	0,17	4,60
RGL 60-30S	60	300	3000	171	0,26	5,80
RGL 60-40S	60	400	3000	228	0,34	8,68
RGL 60-50S	60	500	3000	286	0,43	10,40
RGL 60-60S	60	600	3000	343	0,52	11,80
F						
RGL 60-20F	60	200	3000	113	0,17	5,80
RGL 60-30F	60	300	3000	171	0,26	6,80
RGL 60-40F	60	400	3000	228	0,34	9,05
RGL 60-50F	60	500	3000	286	0,43	11,50
RGL 60-60F	60	600	3000	343	0,52	12,80

accessories optional:		
RB 60	cable tray bend, height=60 mm	(page B18)
RB45 60	cable tray bend, height=60 mm	(page B24)
RAE 60	cable tray attachment corner, height=60 mm	(page B26)
RAA 60	cable tray attachment branch-piece, height=60 mm	(page B27)
RA 60	cable tray branch-piece, height=60 mm	(page B29)
RK 60	cable tray crossover, height=60 mm	(page B34)
RVB 60	cable tray vertical bend, height=60 mm	(page B36)
RR 60	cable tray reducer, height=60 mm	(page B38)
RAB 60	cable tray closing panel, height=60 mm	(page B41)
REB	cable tray end-plate	(page B44)
RGV 60	cable tray coupler, height=60 mm	(page B45)
RGVS	cable tray snap coupler	(page B46)
VB	connection plate	(page B47)
RTR 60	cable tray barrier strip, height=60 mm	(page B48)
KLR	fixing set	(page H33)



Cable trays

RG 60 cable tray, perforated, height=60 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

For a load diagram, see the chapter planning.

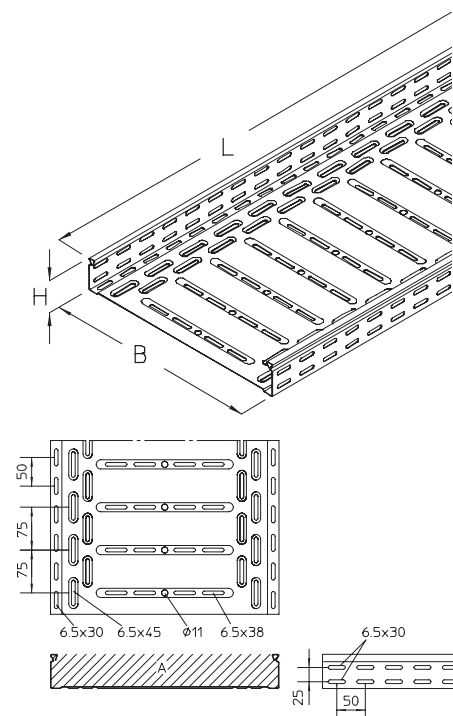
For an application example, see the chapter assembly.

For assembly instructions, see the chapter assembly.

article number	H mm	B mm	L mm	A cm ²	Q _{SK} kN/m	G kg
S						
RG 60-05S	60	50	3000	27	0,04	3,40
RG 60-10S	60	100	3000	56	0,09	4,50
RG 60-20S	60	200	3000	113	0,17	5,80
RG 60-30S	60	300	3000	171	0,26	7,50
RG 60-40S	60	400	3000	228	0,34	10,70
RG 60-50S	60	500	3000	286	0,43	14,30
RG 60-60S	60	600	3000	343	0,52	16,50
F						
RG 60-05F	60	50	3000	27	0,04	3,80
RG 60-10F	60	100	3000	56	0,09	4,80
RG 60-20F	60	200	3000	113	0,17	6,20
RG 60-30F	60	300	3000	171	0,26	8,00
RG 60-40F	60	400	3000	228	0,34	11,40
RG 60-50F	60	500	3000	286	0,43	15,30
RG 60-60F	60	600	3000	343	0,52	17,70
E						
RG 60-05E	60	50	3000	27	0,04	3,60
RG 60-10E	60	100	3000	56	0,09	4,50
RG 60-20E	60	200	3000	113	0,17	5,80
RG 60-30E	60	300	3000	171	0,26	7,50
RG 60-40E	60	400	3000	228	0,34	9,50
RG 60-50E	60	500	3000	286	0,43	12,10
RG 60-60E	60	600	3000	343	0,52	13,90

accessories optional:

RB 60	cable tray bend, height=60 mm	(page B18)
RB45 60	cable tray bend, height=60 mm	(page B24)
RAE 60	cable tray attachment corner, height=60 mm	(page B26)
RAA 60	cable tray attachment branch-piece, height=60 mm	(page B27)
RA 60	cable tray branch-piece, height=60 mm	(page B29)
RK 60	cable tray crossover, height=60 mm	(page B34)
RVB 60	cable tray vertical bend, height=60 mm	(page B36)
RR 60	cable tray reducer, height=60 mm	(page B38)
RAB 60	cable tray closing panel, height=60 mm	(page B41)
REB	cable tray end-plate	(page B44)
RGV 60	cable tray coupler, height=60 mm	(page B45)
RGVS	cable tray snap coupler	(page B46)
VB	connection plate	(page B47)
RTR 60	cable tray barrier strip, height=60 mm	(page B48)
KLR	fixing set	(page H33)



Cable trays

RGS 60 cable tray, heavy, perforated, height=60 mm

Only cable trays up to 300 mm wide are permissible for systems of function maintenance in fire protection as standard support structures according to DIN 4102-12. This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

For a load diagram, see the chapter planning.

For an application example, see the chapter assembly.

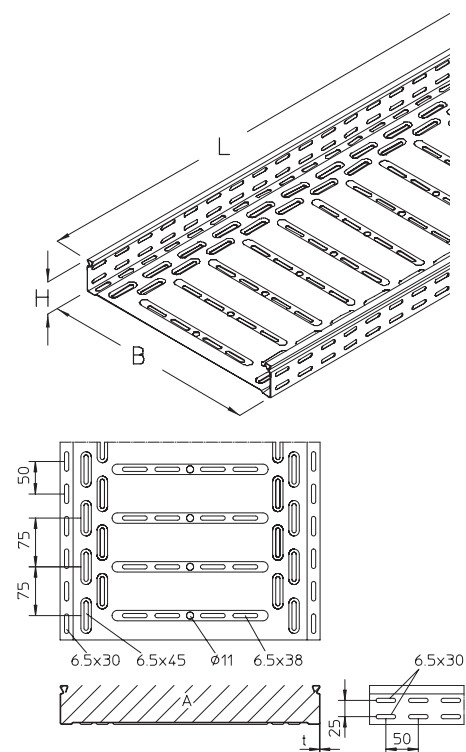
For assembly instructions, see the chapter assembly.



article number	H mm	B mm	L mm	t mm	A cm ²	Q _{SK} kN/m	G kg
S							
RGS 60-10S	60	100	3000	1,5	56	0,09	8,80
RGS 60-20S	60	200	3000	1,5	113	0,17	11,40
RGS 60-30S	60	300	3000	1,5	171	0,26	14,70
RGS 60-40S	60	400	3000	1,5	228	0,34	18,00
RGS 60-50S	60	500	3000	1,5	286	0,43	21,30
RGS 60-60S	60	600	3000	1,5	343	0,52	24,60
F							
RGS 60-10F	60	100	3000	1,5	56	0,09	9,40
RGS 60-20F	60	200	3000	1,5	113	0,17	12,20
RGS 60-30F	60	300	3000	1,5	171	0,26	15,70
RGS 60-40F	60	400	3000	1,5	228	0,34	19,30
RGS 60-50F	60	500	3000	1,5	286	0,43	22,80
RGS 60-60F	60	600	3000	1,5	343	0,52	26,30
E							
RGS 60-10E	60	100	3000	1,5	56	0,09	8,10
RGS 60-20E	60	200	3000	1,5	113	0,17	11,00
RGS 60-30E	60	300	3000	1,5	171	0,26	14,20
RGS 60-40E	60	400	3000	1,5	228	0,34	17,20
RGS 60-50E	60	500	3000	1,5	286	0,43	21,60
RGS 60-60E	60	600	3000	1,5	343	0,52	24,20

accessories optional:

RB 60	cable tray bend, height=60 mm	(page B18)
RB45 60	cable tray bend, height=60 mm	(page B24)
RAE 60	cable tray attachment corner, height=60 mm	(page B26)
RAA 60	cable tray attachment branch-piece, height=60 mm	(page B27)
RA 60	cable tray branch-piece, height=60 mm	(page B29)
RK 60	cable tray crossover, height=60 mm	(page B34)
RVB 60	cable tray vertical bend, height=60 mm	(page B36)
RR 60	cable tray reducer, height=60 mm	(page B38)
RAB 60	cable tray closing panel, height=60 mm	(page B41)
REB	cable tray end-plate	(page B44)
RGV 60	cable tray coupler, height=60 mm	(page B45)
VB	connection plate	(page B47)
RTR 60	cable tray barrier strip, height=60 mm	(page B48)
KLR	fixing set	(page H33)



Cable trays

R 85 cable tray, not perforated, height=85 mm

For a load diagram, see the chapter planning.
For assembly instructions, see the chapter assembly.

article number	H mm	B mm	L mm	A cm ²	Q _{SK} kN/m	G kg
S						
R 85-10S	85	100	3000	81	0,12	5,50
R 85-20S	85	200	3000	163	0,25	7,20
R 85-30S	85	300	3000	246	0,37	10,50
R 85-40S	85	400	3000	328	0,49	12,60
R 85-50S	85	500	3000	411	0,62	16,70
R 85-60S	85	600	3000	493	0,74	19,00
F						
R 85-10F	85	100	3000	81	0,12	6,10
R 85-20F	85	200	3000	163	0,25	8,10
R 85-30F	85	300	3000	246	0,37	11,60
R 85-40F	85	400	3000	328	0,49	13,90
R 85-50F	85	500	3000	411	0,62	18,20
R 85-60F	85	600	3000	493	0,74	20,80

accessories optional:

RB 85	cable tray bend, height=85 mm	(page B19)
RB45 85	cable tray bend, height=85 mm	(page B25)
RAA 85	cable tray attachment branch-piece, height=85 mm	(page B28)
RA 85	cable tray branch-piece, height=85 mm	(page B30)
RK 85	cable tray crossover, height=85 mm	(page B34)
RVB 85	cable tray vertical bend, height=85 mm	(page B37)
RR 85	cable tray reducer, height=85 mm	(page B39)
RAB 85	cable tray closing panel, height=85 mm	(page B42)
REB	cable tray end-plate	(page B44)
RGV 85	cable tray coupler, height=85 mm	(page B46)
VB	connection plate	(page B47)
RTR 85	cable tray barrier strip, height=85 mm	(page B49)
KLR	fixing set	(page H33)

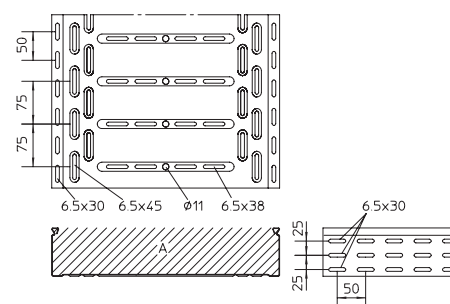
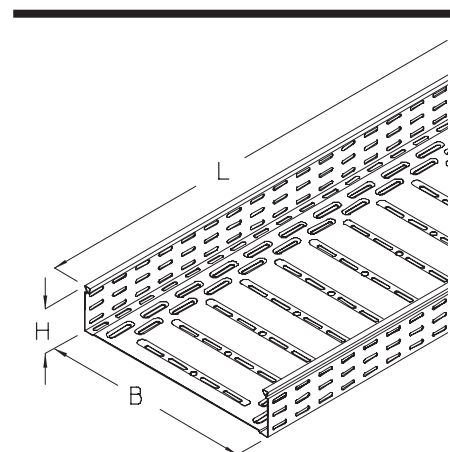
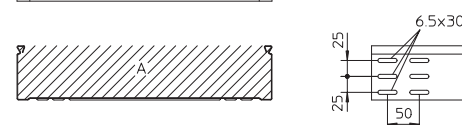
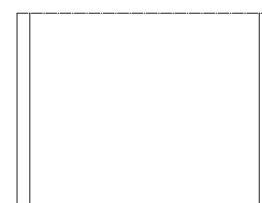
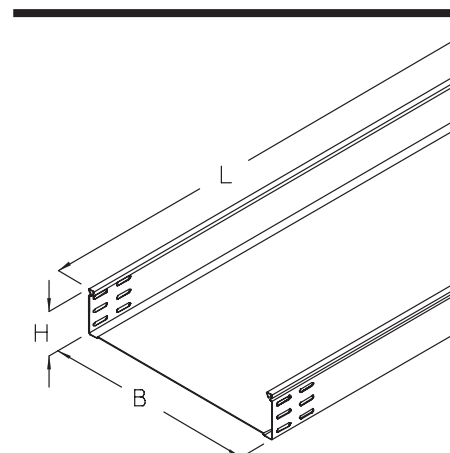
RG 85 cable tray, perforated, height=85 mm

For a load diagram, see the chapter planning.
For assembly instructions, see the chapter assembly.

article number	H mm	B mm	L mm	A cm ²	Q _{SK} kN/m	G kg
S						
RG 85-10S	85	100	3000	81	0,12	4,80
RG 85-20S	85	200	3000	163	0,25	6,60
RG 85-30S	85	300	3000	246	0,37	9,60
RG 85-40S	85	400	3000	328	0,49	11,60
RG 85-50S	85	500	3000	411	0,62	15,30
RG 85-60S	85	600	3000	493	0,74	17,50

accessories optional:

RB 85	cable tray bend, height=85 mm	(page B19)
RB45 85	cable tray bend, height=85 mm	(page B25)
RAA 85	cable tray attachment branch-piece, height=85 mm	(page B28)
RA 85	cable tray branch-piece, height=85 mm	(page B30)
RK 85	cable tray crossover, height=85 mm	(page B34)
RVB 85	cable tray vertical bend, height=85 mm	(page B37)
RR 85	cable tray reducer, height=85 mm	(page B39)
RAB 85	cable tray closing panel, height=85 mm	(page B42)
REB	cable tray end-plate	(page B44)
RGV 85	cable tray coupler, height=85 mm	(page B46)
VB	connection plate	(page B47)
RTR 85	cable tray barrier strip, height=85 mm	(page B49)
KLR	fixing set	(page H33)



Cable trays

RGS 85 cable tray, perforated, heavy, height=85mm

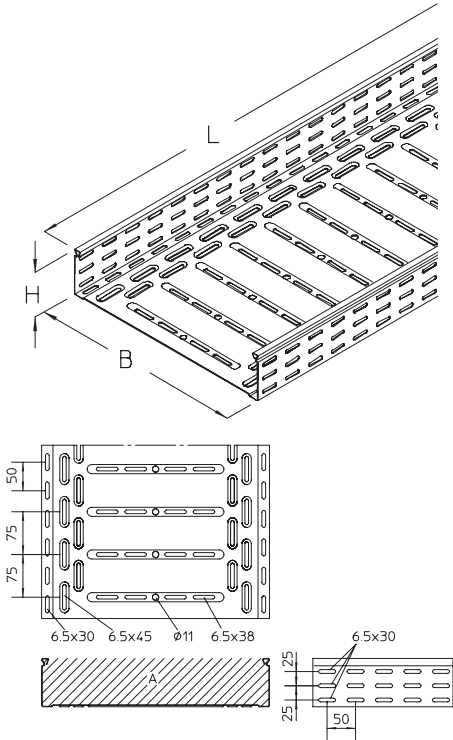
For assembly instructions, see the chapter assembly.



article number	H mm	B mm	L mm	t mm	A cm ²	Q _{SK} kN/m	G kg
S							
RGS 85-10S	85	100	3000	1,5	81	0,12	9,84
RGS 85-20S	85	200	3000	1,5	163	0,25	12,84
RGS 85-30S	85	300	3000	1,5	246	0,37	16,14
RGS 85-40S	85	400	3000	1,5	328	0,49	19,45
RGS 85-50S	85	500	3000	1,5	411	0,62	22,75
RGS 85-60S	85	600	3000	1,5	493	0,74	26,07

accessories optional:

RB 85	cable tray bend, height=85 mm	(page B19)
RB45 85	cable tray bend, height=85 mm	(page B25)
RAA 85	cable tray attachment branch-piece, height=85 mm	(page B28)
RA 85	cable tray branch-piece, height=85 mm	(page B30)
RK 85	cable tray crossover, height=85 mm	(page B34)
RVB 85	cable tray vertical bend, height=85 mm	(page B37)
RR 85	cable tray reducer, height=85 mm	(page B39)
RAB 85	cable tray closing panel, height=85 mm	(page B42)
REB	cable tray end-plate	(page B44)
RGV 85	cable tray coupler, height=85 mm	(page B46)
VB	connection plate	(page B47)
RTR 85	cable tray barrier strip, height=85 mm	(page B49)
KLR	fixing set	(page H33)



Cable trays

R 110 cable tray, not perforated, height=110 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

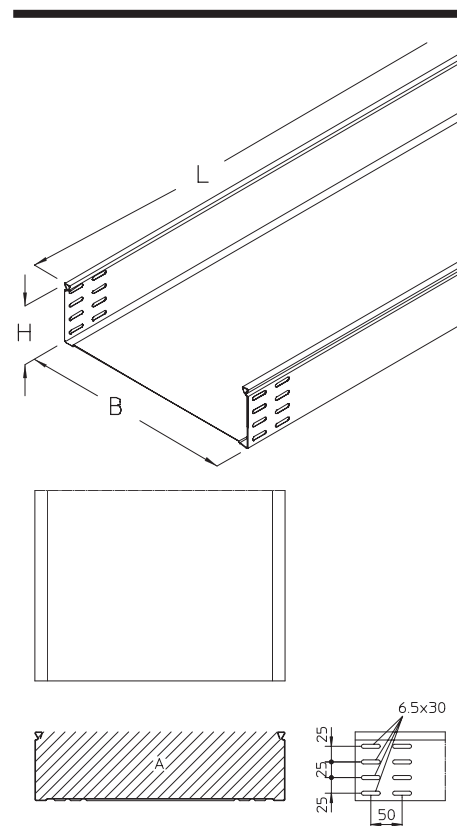
For a load diagram, see the chapter planning.

For assembly instructions, see the chapter assembly.

article number	H mm	B mm	L mm	A cm ²	Q _{SK} kN/m	G kg
S						
R 110-10S	110	100	3000	106	0,16	6,30
R 110-20S	110	200	3000	213	0,32	8,10
R 110-30S	110	300	3000	321	0,48	11,60
R 110-40S	110	400	3000	428	0,64	15,50
R 110-50S	110	500	3000	536	0,81	17,80
R 110-60S	110	600	3000	643	0,97	20,20
F						
R 110-10F	110	100	3000	106	0,16	7,10
R 110-20F	110	200	3000	213	0,32	9,10
R 110-30F	110	300	3000	321	0,48	12,80
R 110-40F	110	400	3000	428	0,64	16,90
R 110-50F	110	500	3000	536	0,81	19,40
R 110-60F	110	600	3000	643	0,97	22,00
E						
R 110-10E	110	100	3000	106	0,16	6,80
R 110-20E	110	200	3000	213	0,32	8,70
R 110-30E	110	300	3000	321	0,48	10,60
R 110-40E	110	400	3000	428	0,64	15,60
R 110-50E	110	500	3000	536	0,81	17,90
R 110-60E	110	600	3000	643	0,97	20,30

accessories optional:

RB 110	cable tray bend, height=110 mm	(page B20)
RB45 110	cable tray bend, height=110 mm	(page B25)
RAE 110	cable tray attachment corner, height=110 mm	(page B26)
RAA 110	cable tray attachment branch-piece, height=110 mm	(page B28)
RA 110	cable tray branch-piece, height=110 mm	(page B31)
RK 110	cable tray crossover, height=110 mm	(page B35)
RVB 110	cable tray vertical bend, height=110 mm	(page B37)
RR 110	cable tray reducer, height=110 mm	(page B39)
RAB 110	cable tray closing panel, height=110 mm	(page B43)
REB	cable tray end-plate	(page B44)
RGV 110	cable tray coupler, height=110 mm	(page B46)
VB	connection plate	(page B47)
RTR 110	cable tray barrier strip, height=110 mm	(page B49)
KLR	fixing set	(page H33)



Cable trays

RS 110 cable tray, heavy, not perforated, height=110 mm

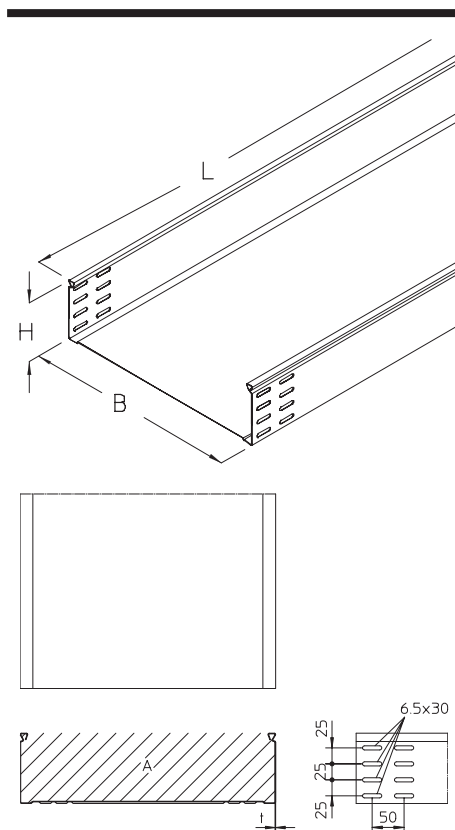
For a load diagram, see the chapter planning.

For assembly instructions, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	A cm ²	Q _{SK} kN/m	G kg
S							
RS 110-10S	110	100	3000	1,5	106	0,16	12,60
RS 110-20S	110	200	3000	1,5	213	0,32	16,00
RS 110-30S	110	300	3000	1,5	321	0,48	19,60
RS 110-40S	110	400	3000	1,5	428	0,64	23,10
RS 110-50S	110	500	3000	1,5	536	0,81	26,60
RS 110-60S	110	600	3000	1,5	643	0,97	30,20
F							
RS 110-10F	110	100	3000	1,5	106	0,16	13,30
RS 110-20F	110	200	3000	1,5	213	0,32	17,00
RS 110-30F	110	300	3000	1,5	321	0,48	20,80
RS 110-40F	110	400	3000	1,5	428	0,64	24,50
RS 110-50F	110	500	3000	1,5	536	0,81	28,20
RS 110-60F	110	600	3000	1,5	643	0,97	32,00

accessories optional:

RB 110	cable tray bend, height=110 mm	(page B20)
RB45 110	cable tray bend, height=110 mm	(page B25)
RAE 110	cable tray attachment corner, height=110 mm	(page B26)
RAA 110	cable tray attachment branch-piece, height=110 mm	(page B28)
RA 110	cable tray branch-piece, height=110 mm	(page B31)
RK 110	cable tray crossover, height=110 mm	(page B35)
RVB 110	cable tray vertical bend, height=110 mm	(page B37)
RR 110	cable tray reducer, height=110 mm	(page B39)
RAB 110	cable tray closing panel, height=110 mm	(page B43)
REB	cable tray end-plate	(page B44)
RGV 110	cable tray coupler, height=110 mm	(page B46)
VB	connection plate	(page B47)
RTR 110	cable tray barrier strip, height=110 mm	(page B49)
KLR	fixing set	(page H33)



RG 110 cable tray, perforated, height=110 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

For a load diagram, see the chapter planning.

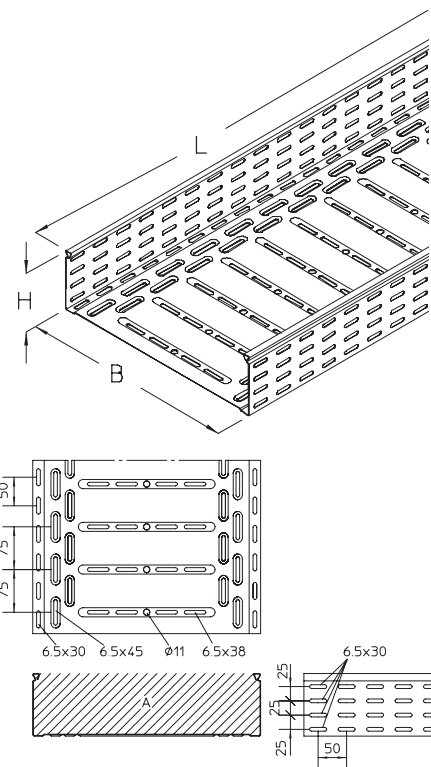
For an application example, see the chapter assembly.

For assembly instructions, see the chapter assembly.

article number	H mm	B mm	L mm	A cm ²	Q _{SK} kN/m	G kg
S						
RG 110-10S	110	100	3000	106	0,16	5,60
RG 110-20S	110	200	3000	213	0,32	7,30
RG 110-30S	110	300	3000	321	0,48	10,50
RG 110-40S	110	400	3000	428	0,64	14,10
RG 110-50S	110	500	3000	536	0,81	16,30
RG 110-60S	110	600	3000	643	0,97	18,50
F						
RG 110-10F	110	100	3000	106	0,16	6,00
RG 110-20F	110	200	3000	213	0,32	7,80
RG 110-30F	110	300	3000	321	0,48	11,20
RG 110-40F	110	400	3000	428	0,64	15,10
RG 110-50F	110	500	3000	536	0,81	17,40
RG 110-60F	110	600	3000	643	0,97	19,80
E						
RG 110-10E	110	100	3000	106	0,16	5,80
RG 110-20E	110	200	3000	213	0,32	7,50
RG 110-30E	110	300	3000	321	0,48	9,20
RG 110-40E	110	400	3000	428	0,64	12,10
RG 110-50E	110	500	3000	536	0,81	13,90
RG 110-60E	110	600	3000	643	0,97	15,80

accessories optional:

RB 110	cable tray bend, height=110 mm	(page B20)
RB45 110	cable tray bend, height=110 mm	(page B25)
RAE 110	cable tray attachment corner, height=110 mm	(page B26)
RAA 110	cable tray attachment branch-piece, height=110 mm	(page B28)
RA 110	cable tray branch-piece, height=110 mm	(page B31)
RK 110	cable tray crossover, height=110 mm	(page B35)
RVB 110	cable tray vertical bend, height=110 mm	(page B37)
RR 110	cable tray reducer, height=110 mm	(page B39)
RAB 110	cable tray closing panel, height=110 mm	(page B43)
REB	cable tray end-plate	(page B44)
RGV 110	cable tray coupler, height=110 mm	(page B46)
VB	connection plate	(page B47)
RTR 110	cable tray barrier strip, height=110 mm	(page B49)
KLR	fixing set	(page H33)



Cable trays

RGS 110 cable tray, heavy, perforated, height=110 mm

For a load diagram, see the chapter planning.

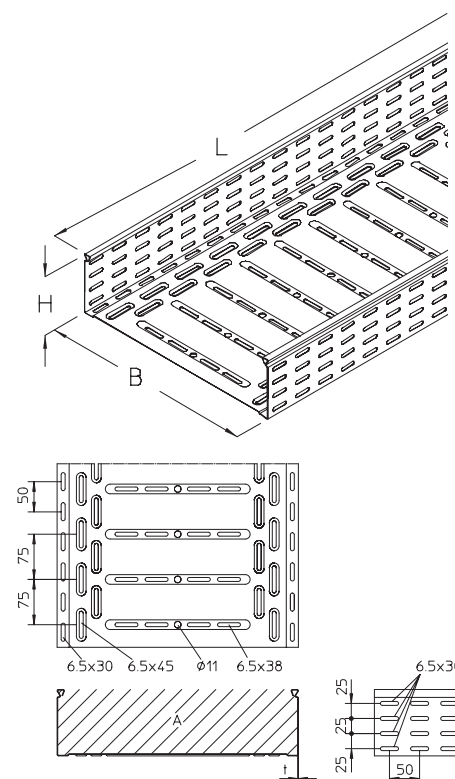
For an application example, see the chapter assembly.

For assembly instructions, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	A cm ²	Q _{SK} kN/m	G kg
S							
RGS 110-10S	110	100	3000	1,5	106	0,16	10,90
RGS 110-20S	110	200	3000	1,5	213	0,32	14,50
RGS 110-30S	110	300	3000	1,5	321	0,48	17,80
RGS 110-40S	110	400	3000	1,5	428	0,64	21,10
RGS 110-50S	110	500	3000	1,5	536	0,81	24,40
RGS 110-60S	110	600	3000	1,5	643	0,97	27,70
F							
RGS 110-10F	110	100	3000	1,5	106	0,16	11,70
RGS 110-20F	110	200	3000	1,5	213	0,32	15,50
RGS 110-30F	110	300	3000	1,5	321	0,48	19,00
RGS 110-40F	110	400	3000	1,5	428	0,64	22,60
RGS 110-50F	110	500	3000	1,5	536	0,81	26,10
RGS 110-60F	110	600	3000	1,5	643	0,97	29,60

accessories optional:

RB 110	cable tray bend, height=110 mm	(page B20)
RB45 110	cable tray bend, height=110 mm	(page B25)
RAE 110	cable tray attachment corner, height=110 mm	(page B26)
RAA 110	cable tray attachment branch-piece, height=110 mm	(page B28)
RA 110	cable tray branch-piece, height=110 mm	(page B31)
RK 110	cable tray crossover, height=110 mm	(page B35)
RVB 110	cable tray vertical bend, height=110 mm	(page B37)
RR 110	cable tray reducer, height=110 mm	(page B39)
RAB 110	cable tray closing panel, height=110 mm	(page B43)
REB	cable tray end-plate	(page B44)
RGV 110	cable tray coupler, height=110 mm	(page B46)
VB	connection plate	(page B47)
RTR 110	cable tray barrier strip, height=110 mm	(page B49)
KLR	fixing set	(page H33)



Cable trays

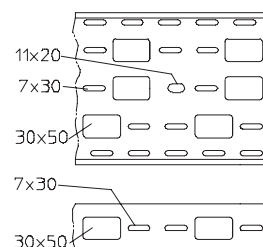
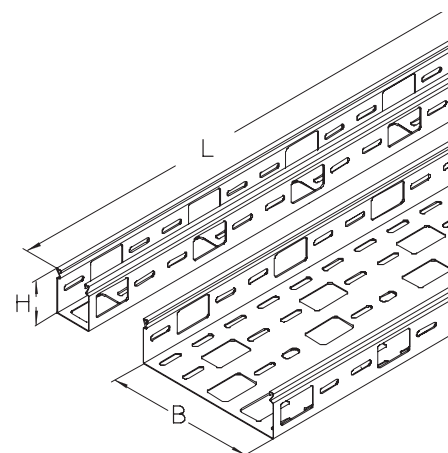
RI 60 cable installation tray, height=60 mm

For a load diagram, see the chapter planning.
For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	G kg
S					
RI 60-05S	60	50	3000	1,0	3,50
RI 60-10S	60	100	3000	1,0	4,50
RI 60-15S	60	150	3000	1,0	5,70
RI 60-20S	60	200	3000	1,0	6,30
RI 60-30S	60	300	3000	1,0	8,00
F					
RI 60-05F	60	50	3000	1,0	3,80
RI 60-10F	60	100	3000	1,0	4,80
RI 60-15F	60	150	3000	1,0	6,10
RI 60-20F	60	200	3000	1,0	6,70
RI 60-30F	60	300	3000	1,0	8,60
E					
RI 60-05E	60	50	3000	1,0	3,49
RI 60-10E	60	100	3000	1,0	4,51
RI 60-15E	60	150	3000	1,0	5,78
RI 60-20E	60	200	3000	1,0	6,20
RI 60-30E	60	300	3000	1,0	8,70

accessories optional:

RIV 60	cable tray coupler, height=60 mm	(page B51)
VB	connection plate	(page B47)
REB	cable tray end-plate	(page B44)
KSR	cable protection ring	(page B52)
AHB	suspension-bow	(page B52)
KLR	fixing set	(page H33)
RID	cable installation tray cover	(page B51)
RIDR	cable installation tray cover with bar lock	(page B52)



Cable trays

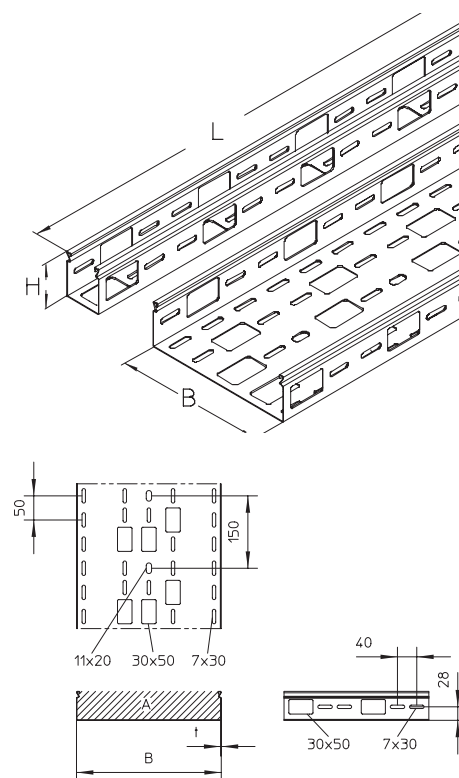
RIS 60 cable installation tray heavy, height=60 mm

Cable installation tray with big side and bottom perforation for leading cables out, head shape suitable for positive locking covers, certified including electrical conductivity according to din en 61537.

article number	H mm	B mm	L mm	t mm	A cm ²	Q ₅₀ kN/m	G kg
S							
RIS 60-05S	60	50	3000	1.50	27	0.04	5.00
RIS 60-10S	60	100	3000	1.50	56	0.09	6.80
RIS 60-15S	60	150	3000	1.50	85	0.13	8.40
RIS 60-20S	60	200	3000	1.50	113	0.17	9.10
RIS 60-30S	60	300	3000	1.50	171	0.26	13.00
F							
RIS 60-05F	60	50	3000	1.50	27	0.04	5.64
RIS 60-10F	60	100	3000	1.50	56	0.09	7.23
RIS 60-15F	60	150	3000	1.50	85	0.13	9.12
RIS 60-20F	60	200	3000	1.50	113	0.17	10.06
RIS 60-30F	60	300	3000	1.50	171	0.26	13.84

accessories optional:

RDS	cable tray, heavy	(page B56)
RDSR	cable tray cover with bar lock, heavy	(page B56)
RIB 60	cable installation tray bend, height=60 mm	(page B32)
RIBDS	cable installation tray bend cover, heavy	(page B33)
RIA 60	cable installation tray branch, height=60 mm	(page B32)
RIADS	cable installation tray branch cover, heavy	(page B32)
RIV 60	cable installation tray connector, height=45 mm	(page B51)
VB	connection plate	(page B47)
REB	cable tray end-plate	(page B44)
SRI 60	protection end cap	(page B53)
KSR	cable protection ring	(page B52)
AHB	suspension-bow	(page B52)
KLR	fixing set	(page H33)



Cable trays

Fittings

RB 35 cable tray bend, height=35 mm

For an application example, see the chapter assembly.

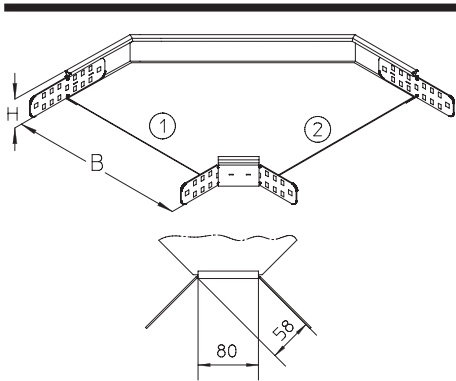
article number	H mm	B mm	G kg
S			
RB 35-10S	35	100	0,40
RB 35-20S	35	200	0,70
RB 35-30S	35	300	1,20

accessories included:
2 x **KLR** fixing set (page H33)

article number	H mm	B mm	G kg
F			
RB 35-10F	35	100	0,40
RB 35-20F	35	200	0,70
RB 35-30F	35	300	1,30

accessories included:
2 x **KLR E** fixing set (page H33)

accessories optional:
VB connection plate (page B47)



B

Cable trays

Fittings

RB 60 cable tray bend, height=60 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.

article number	H mm	B mm	G kg
S			
RB 60-05S	60	50	0,70
RB 60-10S	60	100	0,80
RB 60-20S	60	200	1,10
RB 60-30S	60	300	1,60
RB 60-40S	60	400	2,20
RB 60-50S	60	500	3,10
RB 60-60S	60	600	4,00

accessories included:
2 x **KLR** fixing set (page H33)

article number	H mm	B mm	G kg
F			
RB 60-05F	60	50	0,80
RB 60-10F	60	100	0,90
RB 60-20F	60	200	1,20
RB 60-30F	60	300	1,70
RB 60-40F	60	400	2,40
RB 60-50F	60	500	3,30
RB 60-60F	60	600	4,30

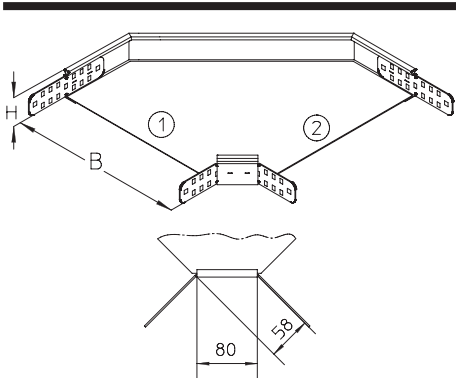
accessories included:
2 x **KLR E** fixing set (page H33)

accessories optional:
VB connection plate (page B47)

article number	H mm	B mm	G kg
E			
RB 60-05E	60	50	0,60
RB 60-10E	60	100	0,70
RB 60-20E	60	200	1,00
RB 60-30E	60	300	1,50
RB 60-40E	60	400	2,10
RB 60-50E	60	500	2,90
RB 60-60E	60	600	3,90

accessories included:
2 x **KLR E** fixing set (page H33)

accessories optional:
VB connection plate (page B47)



Cable trays

Fittings

RB 85 cable tray bend, height=85 mm

For an application example, see the chapter assembly.

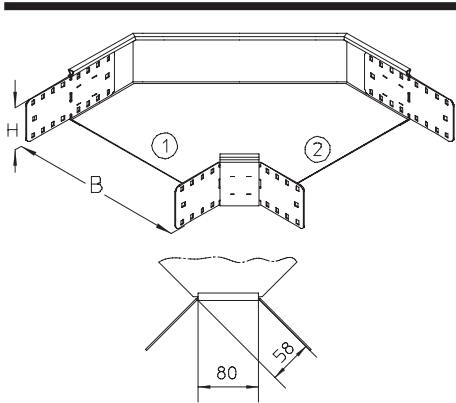
article number	H mm	B mm	G kg
S			
RB 85-10S	85	100	1,20
RB 85-20S	85	200	1,50
RB 85-30S	85	300	2,00
RB 85-40S	85	400	2,60
RB 85-50S	85	500	3,40
RB 85-60S	85	600	4,40

accessories included:
 4 x **KLR** fixing set (page H33)

article number	H mm	B mm	G kg
F			
RB 85-10F	85	100	1,20
RB 85-20F	85	200	1,60
RB 85-30F	85	300	2,10
RB 85-40F	85	400	2,80
RB 85-50F	85	500	3,60
RB 85-60F	85	600	4,70

accessories included:
 4 x **KLR E** fixing set (page H33)

accessories optional:
VB connection plate (page B47)



B

Cable trays

Fittings

RB 110 cable tray bend, height=110 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.

article number	H mm	B mm	G kg
S			
RB 110-10S	110	100	1,60
RB 110-20S	110	200	1,90
RB 110-30S	110	300	2,40
RB 110-40S	110	400	3,00
RB 110-50S	110	500	3,80
RB 110-60S	110	600	4,80

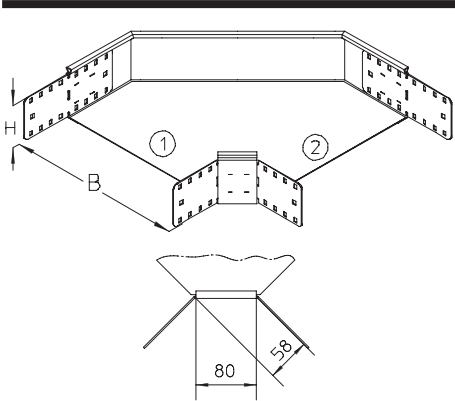
accessories included:
4 x **KLR** fixing set (page H33)

article number	H mm	B mm	G kg
F			
RB 110-10F	110	100	1,70
RB 110-20F	110	200	2,00
RB 110-30F	110	300	2,50
RB 110-40F	110	400	3,20
RB 110-50F	110	500	4,10
RB 110-60F	110	600	5,10

E			
RB 110-10E	110	100	1,20
RB 110-20E	110	200	1,50
RB 110-30E	110	300	2,00
RB 110-40E	110	400	2,70
RB 110-50E	110	500	3,50
RB 110-60E	110	600	4,40

accessories included:
4 x **KLR E** fixing set (page H33)

accessories optional:
VB connection plate (page B47)



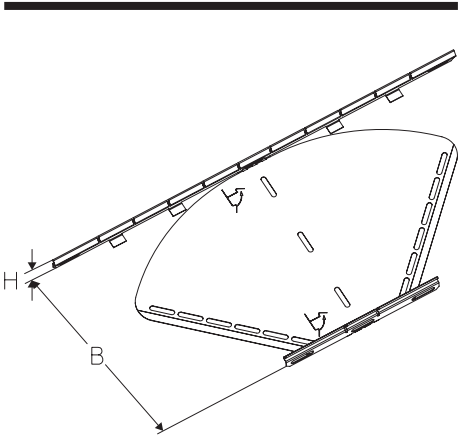
Cable trays

Fittings

RBV 35 cable tray bend, variable, height=35 mm

Variable cable tray bend 0 - 90° for horizontal change of direction with integrated connectors. With elongated holes for fastening separating strips or brackets. To obtain more stability at larger angles, the outer side can be connected to the bottom from a width of 200 mm. For cable protection, the edges at the head of the variable cable tray bend are folded over. The variable cable tray bend is in a flat condition on delivery. For assembly, the inner and outer sides must be bent up. Attention must be paid to the correct alignment of the head shape.

article number	H mm	B mm	G kg
S			
RBV 35-05S	35	50	0.15
accessories included: 2x KLR fixing set (page H33)			
S			
RBV 35-10S	35	100	0.24
accessories optional: 2x KLR fixing set (page H33)			
S			
RBV 35-20S	35	200	0.48
accessories included: 2x KLR fixing set (page H33)			
S			
RBV 35-30S	35	300	1.08
accessories included: 3x KLR fixing set (page H33)			



Cable trays

Fittings

RBV 60 cable tray bend, variable, height=60 mm

Variable cable tray bend 0 - 90° for horizontal change of direction with integrated connectors. With elongated holes for fastening separating strips or brackets. To obtain more stability at larger angles, the outer side can be connected to the bottom from a width of 200 mm. For cable protection, the edges at the head of the variable cable tray bend are folded over. This article is available made in material No. 1.4571/1.4404 (V4A) stainless steel finish.

The variable cable tray bend is in a flat condition on delivery. For assembly, the inner and outer sides must be bent up. Attention must be paid to the correct alignment of the head shape.

article number	H mm	B mm	G kg
S			
RBV 60-05S	60	50	0.25
RBV 60-10S	60	100	0.34
RBV 60-20S	60	200	0.61

accessories included:
4x **KLR** fixing set (page H33)

S			
RBV 60-30S	60	300	1.27
RBV 60-40S	60	400	1.87

accessories included:
5x **KLR** fixing set (page H33)

S			
RBV 60-50S	60	500	3.22
RBV 60-60S	60	600	4.31

accessories included:
6x **KLR** fixing set (page H33)

article number	H mm	B mm	G kg
E			
RBV 60-05E	60	50	0.27
RBV 60-10E	60	100	0.37
RBV 60-20E	60	200	0.67

accessories included:
4x **KLR E** fixing set (page H33)

E			
RBV 60-30E	60	300	1.30
RBV 60-40E	60	400	1.92

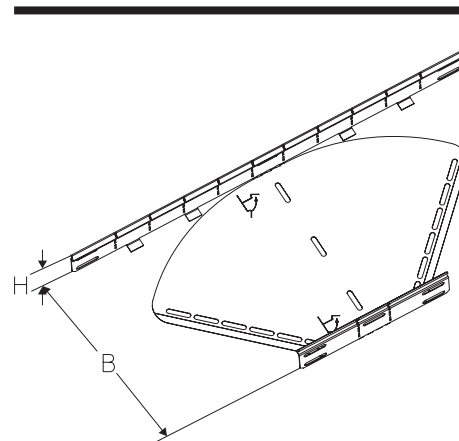
accessories included:
5x **KLR E** fixing set (page H33)

E			
RBV 60-50E	60	500	3.29
RBV 60-60E	60	600	4.41

accessories included:
6x **KLR E** fixing set (page H33)

article number	H mm	B mm	G kg
E4			
RBV 60-05E4	60	50	0.27
RBV 60-10E4	60	100	0.37
RBV 60-20E4	60	200	0.67

accessories included:
4x **KLR E4** fixing set (page H33)



Cable trays

Fittings

RBV 60 cable tray bend, variable, height=60 mm

Variable cable tray bend 0 - 90° for horizontal change of direction with integrated connectors. With elongated holes for fastening separating strips or brackets. To obtain more stability at larger angles, the outer side can be connected to the bottom from a width of 200 mm. For cable protection, the edges at the head of the variable cable tray bend are folded over. This article is available made in material No. 1.4571/1.4404 (V4A) stainless steel finish.

The variable cable tray bend is in a flat condition on delivery. For assembly, the inner and outer sides must be bent up. Attention must be paid to the correct alignment of the head shape.

article number	H mm	B mm	G kg
E4			
RBV 60-30E4	60	300	1.30
RBV 60-40E4	60	400	1.92

accessories included:
5x **KLR E4** fixing set (page H33)

E4			
RBV 60-50E4	60	500	3.29
RBV 60-60E4	60	600	4.41

accessories included:
6x **KLR E4** fixing set (page H33)

RBV 85 cable tray bend, variable, height=85 mm

Variable cable tray bend 0 - 90° for horizontal change of direction with integrated connectors. With elongated holes for fastening separating strips or brackets. To obtain more stability at larger angles, the outer side can be connected to the bottom from a width of 200 mm. For cable protection, the edges at the head of the variable cable tray bend are folded over.

The variable cable tray bend is in a flat condition on delivery. For assembly, the inner and outer sides must be bent up. Attention must be paid to the correct alignment of the head shape.

article number	H mm	B mm	G kg
S			
RBV 85-10S	85	100	0.44
RBV 85-20S	85	200	0.74

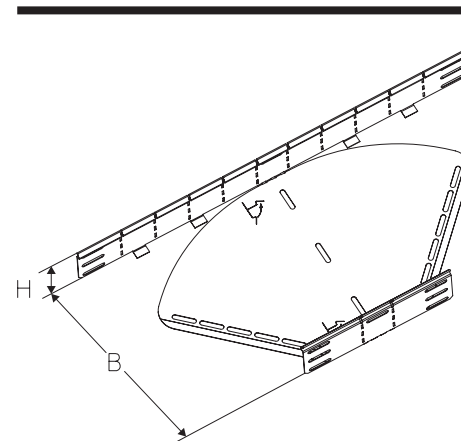
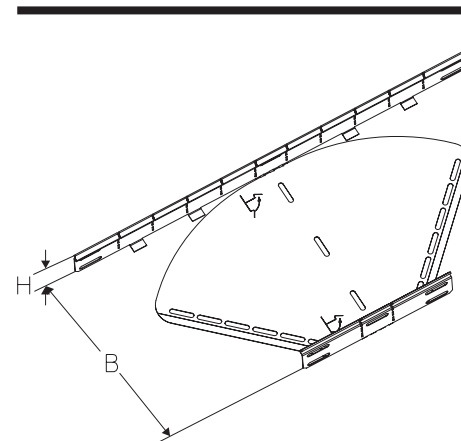
accessories included:
6x **KLR** fixing set (page H33)

S			
RBV 85-30S	85	300	1.46
RBV 85-40S	85	400	2.09

accessories included:
7x **KLR** fixing set (page H33)

S			
RBV 85-50S	85	500	3.53
RBV 85-60S	85	600	4.69

accessories included:
8x **KLR** fixing set (page H33)



Cable trays

Fittings

RB45 60 cable tray bend, height=60 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.

article number	H mm	B mm	G kg
S			
RB45 60-10S	60	100	0,50
RB45 60-20S	60	200	0,80
RB45 60-30S	60	300	1,20
RB45 60-40S	60	400	1,60
RB45 60-50S	60	500	2,50
RB45 60-60S	60	600	3,20

accessories included:
2 x **KLR** fixing set (page H33)

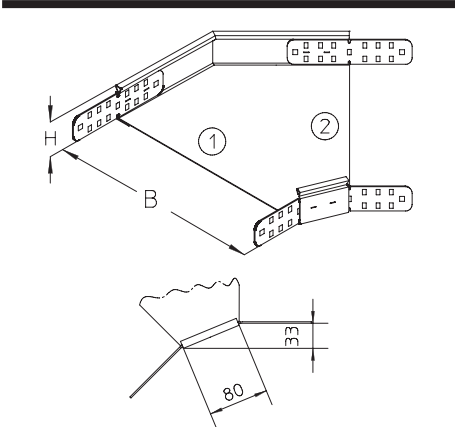
accessories optional:
VB connection plate (page B47)

article number	H mm	B mm	G kg
F			
RB45 60-10F	60	100	0,60
RB45 60-20F	60	200	0,80
RB45 60-30F	60	300	1,30
RB45 60-40F	60	400	1,80
RB45 60-50F	60	500	2,70
RB45 60-60F	60	600	3,50

E			
RB45 60-10E	60	100	0,40
RB45 60-20E	60	200	0,70
RB45 60-30E	60	300	1,10
RB45 60-40E	60	400	1,50
RB45 60-50E	60	500	2,40
RB45 60-60E	60	600	3,10

accessories included:
2 x **KLR E** fixing set (page H33)

accessories optional:
VB connection plate (page B47)



Cable trays

Fittings

RB45 85 cable tray bend, height=85 mm

For an application example, see the chapter assembly.

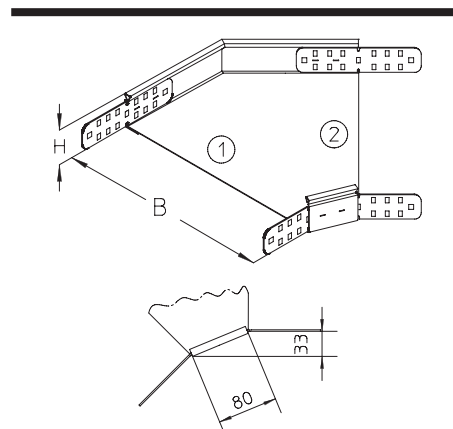
article number	H mm	B mm	G kg
S			
RB45 85-10S	85	100	0,70
RB45 85-20S	85	200	1,00
RB45 85-30S	85	300	1,40
RB45 85-40S	85	400	1,90
RB45 85-50S	85	500	2,70
RB45 85-60S	85	600	3,50

accessories included:
4 x **KLR** fixing set (page H33)

article number	H mm	B mm	G kg
F			
RB45 85-10F	85	100	0,80
RB45 85-20F	85	200	1,10
RB45 85-30F	85	300	1,50
RB45 85-40F	85	400	2,10
RB45 85-50F	85	500	3,00
RB45 85-60F	85	600	3,80

accessories included:
4 x **KLR E** fixing set (page H33)

accessories optional:
VB connection plate (page B47)



RB45 110 cable tray bend, height=110 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.

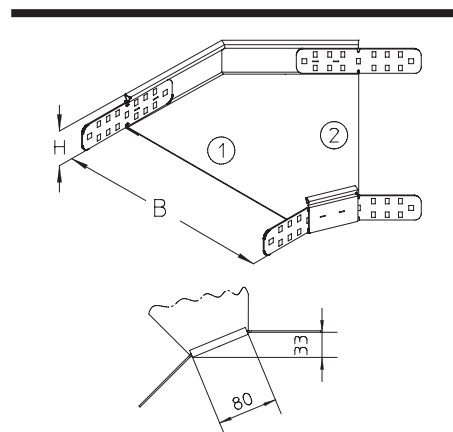
article number	H mm	B mm	G kg
S			
RB45 110-10S	110	100	0,90
RB45 110-20S	110	200	1,10
RB45 110-30S	110	300	1,60
RB45 110-40S	110	400	2,10
RB45 110-50S	110	500	2,90
RB45 110-60S	110	600	3,70

accessories included:
4 x **KLR** fixing set (page H33)

article number	H mm	B mm	G kg
F			
RB45 110-10F	110	100	1,00
RB45 110-20F	110	200	1,30
RB45 110-30F	110	300	1,80
RB45 110-40F	110	400	2,30
RB45 110-50F	110	500	3,20
RB45 110-60F	110	600	4,10

accessories included:
4 x **KLR E** fixing set (page H33)

accessories optional:
VB connection plate (page B47)



Cable trays

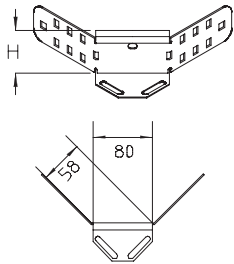
Fittings

RAE 35 cable tray attachment corner, height=35 mm

For an application example, see the chapter assembly.

article number	H mm	G kg
S		
RAE 35S	35	0,15
F		
RAE 35F	35	0,17

accessories optional:
VB connection plate (page B47)



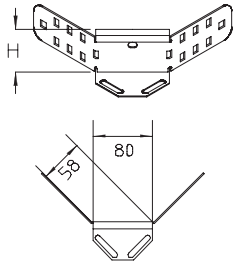
RAE 60 cable tray attachment corner, height=60 mm

For an application example, see the chapter assembly.

article number	H mm	G kg
S		
RAE 60S	60	0,30
F		
RAE 60F	60	0,30
E		
RAE 60E	60	0,30

accessories included:
3 x **KLR** fixing set (page H33)

accessories optional:
VB connection plate (page B47)



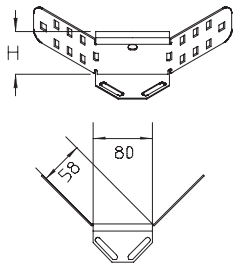
RAE 110 cable tray attachment corner, height=110 mm

For an application example, see the chapter assembly.

article number	H mm	G kg
S		
RAE 110S	110	0,60
F		
RAE 110F	110	0,60
E		
RAE 110E	110	0,60

accessories included:
3 x **KLR** fixing set (page H33)

accessories optional:
VB connection plate (page B47)



Cable trays

Fittings

RAA 35 cable tray attachment branch-piece, height=35 mm

For an application example, see the chapter assembly.

article number	H mm	B mm	G kg
S			
RAA 35-10S	35	100	0,50
RAA 35-20S	35	200	0,60
RAA 35-30S	35	300	0,80

accessories included:
2 x **KLR** fixing set (page H33)

article number	H mm	B mm	G kg
F			
RAA 35-10F	35	100	0,50
RAA 35-20F	35	200	0,70
RAA 35-30F	35	300	0,80

accessories included:
2 x **KLR E** fixing set (page H33)

accessories optional:
VB connection plate (page B47)

RAA 60 cable tray attachment branch-piece, height=60 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.

article number	H mm	B mm	G kg
S			
RAA 60-10S	60	100	0,80
RAA 60-20S	60	200	0,90
RAA 60-30S	60	300	1,00
RAA 60-40S	60	400	1,20
RAA 60-50S	60	500	1,30
RAA 60-60S	60	600	1,40

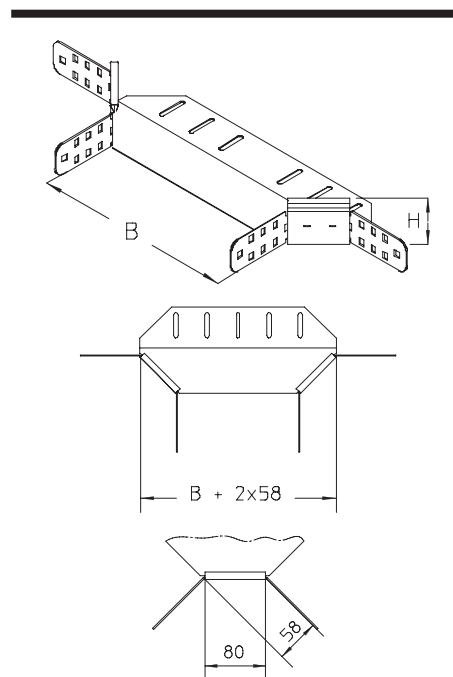
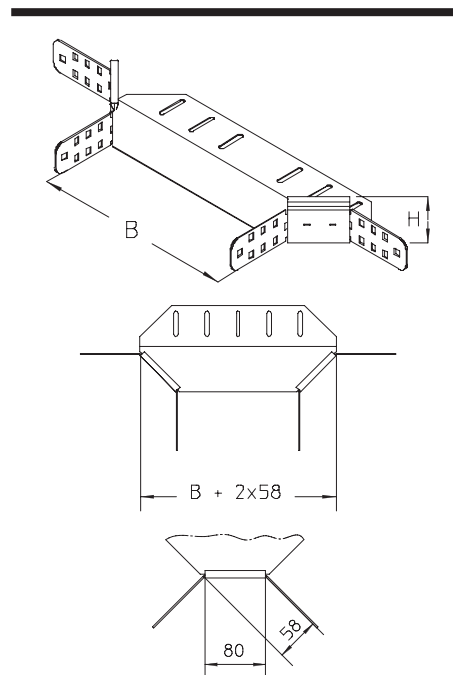
accessories included:
2 x **KLR** fixing set (page H33)

article number	H mm	B mm	G kg
F			
RAA 60-10F	60	100	0,80
RAA 60-20F	60	200	1,00
RAA 60-30F	60	300	1,10
RAA 60-40F	60	400	1,30
RAA 60-50F	60	500	1,40
RAA 60-60F	60	600	1,50

E			
RAA 60-10E	60	100	0,70
RAA 60-20E	60	200	0,80
RAA 60-30E	60	300	1,00
RAA 60-40E	60	400	1,10
RAA 60-50E	60	500	1,20
RAA 60-60E	60	600	1,40

accessories included:
2 x **KLR E** fixing set (page H33)

accessories optional:
VB connection plate (page B47)



Cable trays

Fittings

RAA 85 cable tray attachment branch-piece, height=85 mm

For an application example, see the chapter assembly.

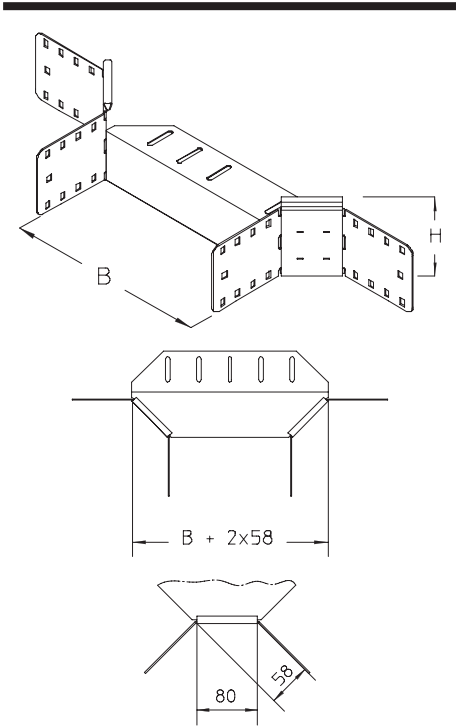
article number	H mm	B mm	G kg
S			
RAA 85-10S	85	100	1,00
RAA 85-20S	85	200	1,20
RAA 85-30S	85	300	1,30
RAA 85-40S	85	400	1,40
RAA 85-50S	85	500	1,60
RAA 85-60S	85	600	1,70

accessories included:
4 x **KLR** fixing set (page H33)

article number	H mm	B mm	G kg
F			
RAA 85-10F	85	100	1,10
RAA 85-20F	85	200	1,20
RAA 85-30F	85	300	1,40
RAA 85-40F	85	400	1,50
RAA 85-50F	85	500	1,70
RAA 85-60F	85	600	1,80

accessories included:
4 x **KLR E** fixing set (page H33)

accessories optional:
VB connection plate (page B47)



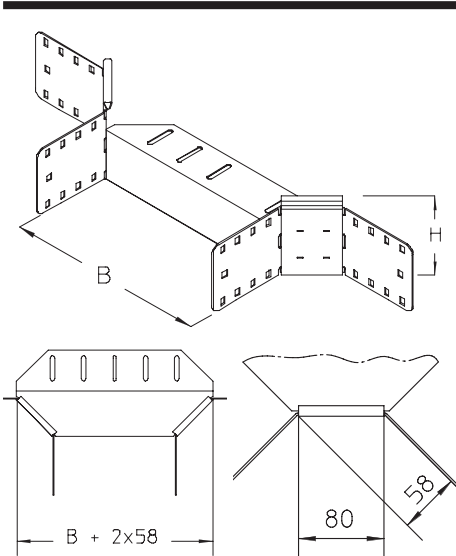
RAA 110 cable tray attachment branch-piece, height=110 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.

article number	H mm	B mm	G kg
S			
RAA 110-10S	110	100	1,20
RAA 110-20S	110	200	1,40
RAA 110-30S	110	300	1,50
RAA 110-40S	110	400	1,70
RAA 110-50S	110	500	1,80
RAA 110-60S	110	600	1,90

accessories included:
4 x **KLR** fixing set (page H33)

accessories optional:
VB connection plate (page B47)



Cable trays

Fittings

RA 35 cable tray branch-piece, height=35 mm

For an application example, see the chapter assembly.

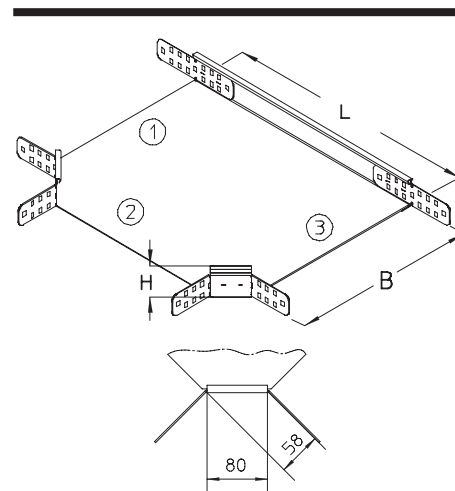
article number	H mm	B mm	L mm	G kg
S				
RA 35-10S	35	100	214	0,80
RA 35-20S	35	200	314	1,30
RA 35-30S	35	300	414	2,00

accessories included:
3 x **KLR** fixing set (page H33)

article number	H mm	B mm	L mm	G kg
F				
RA 35-10F	35	100	214	0,80
RA 35-20F	35	200	314	1,40
RA 35-30F	35	300	414	2,20

accessories included:
3 x **KLR E** fixing set (page H33)

accessories optional:
VB connection plate (page B47)



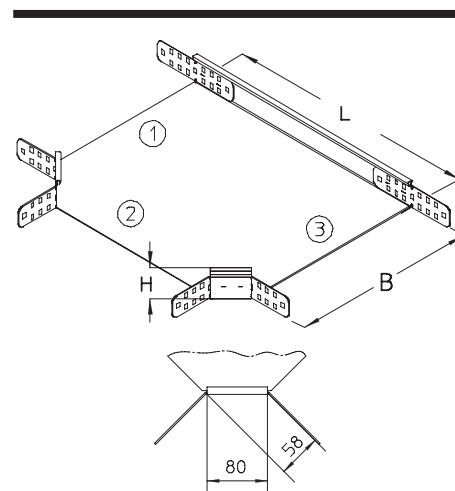
RA 60 cable tray branch-piece, height=60 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	G kg
S				
RA 60-10S	60	100	214	1,30
RA 60-20S	60	200	314	1,80
RA 60-30S	60	300	414	2,60
RA 60-40S	60	400	514	3,50
RA 60-50S	60	500	614	5,30
RA 60-60S	60	600	714	6,90

accessories included:
3 x **KLR** fixing set (page H33)

article number	H mm	B mm	L mm	G kg
F				
RA 60-10F	60	100	214	1,40
RA 60-20F	60	200	314	1,90
RA 60-30F	60	300	414	2,80
RA 60-40F	60	400	514	3,70
RA 60-50F	60	500	614	5,70
RA 60-60F	60	600	714	7,40



Cable trays

Fittings

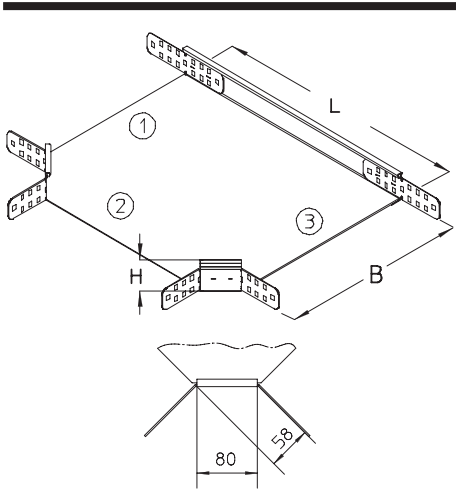
RA 60 cable tray branch-piece, height=60 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	G kg
E				
RA 60-10E	60	100	214	1,10
RA 60-20E	60	200	314	1,60
RA 60-30E	60	300	414	2,50
RA 60-40E	60	400	514	3,40
RA 60-50E	60	500	614	5,20
RA 60-60E	60	600	714	6,80

accessories included:
3 x **KLR E** fixing set (page H33)

accessories optional:
VB connection plate (page B47)



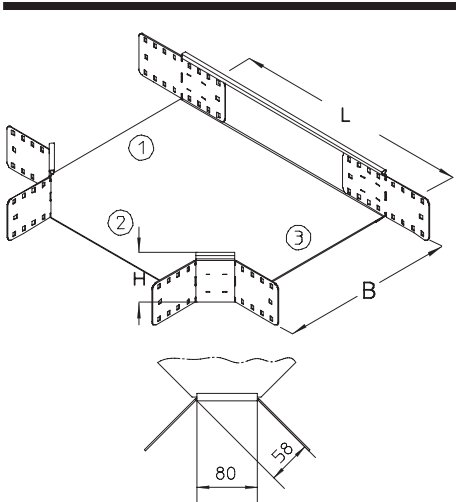
RA 85 cable tray branch-piece, height=85 mm

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	G kg
S				
RA 85-10S	85	100	214	1,70
RA 85-20S	85	200	314	2,30
RA 85-30S	85	300	414	3,10
RA 85-40S	85	400	514	4,10
RA 85-50S	85	500	614	5,80
RA 85-60S	85	600	714	7,40

accessories included:
6 x **KLR** fixing set (page H33)

accessories optional:
VB connection plate (page B47)



article number	H mm	B mm	L mm	G kg
F				
RA 85-10F	85	100	214	1,90
RA 85-20F	85	200	314	2,50
RA 85-30F	85	300	414	3,30
RA 85-40F	85	400	514	4,40
RA 85-50F	85	500	614	6,20
RA 85-60F	85	600	714	7,90

accessories included:
6 x **KLR E** fixing set (page H33)

accessories optional:
VB connection plate (page B47)

Cable trays

Fittings

RA 110 cable tray branch-piece, height=110 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	G kg
S				
RA 110-10S	110	100	214	2,20
RA 110-20S	110	200	314	2,90
RA 110-30S	110	300	414	3,60
RA 110-40S	110	400	514	4,60
RA 110-50S	110	500	614	6,30
RA 110-60S	110	600	714	7,90

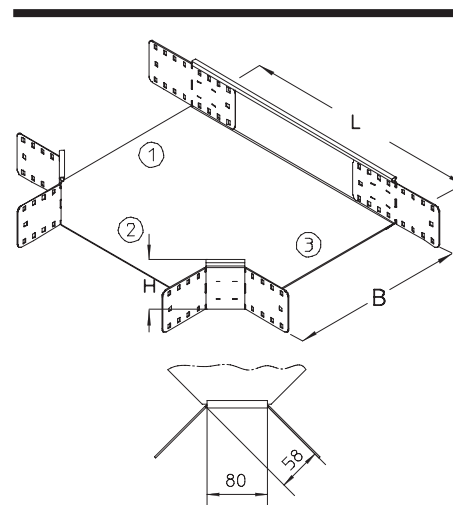
accessories included:
6 x **KLR** fixing set (page H33)

article number	H mm	B mm	L mm	G kg
F				
RA 110-10F	110	100	214	2,40
RA 110-20F	110	200	314	3,10
RA 110-30F	110	300	414	3,90
RA 110-40F	110	400	514	4,90
RA 110-50F	110	500	614	6,70
RA 110-60F	110	600	714	8,50

E				
RA 110-10E	110	100	214	2,00
RA 110-20E	110	200	314	2,70
RA 110-30E	110	300	414	3,30
RA 110-40E	110	400	514	4,20
RA 110-50E	110	500	614	6,10
RA 110-60E	110	600	714	7,60

accessories included:
6 x **KLR E** fixing set (page H33)

accessories optional:
VB connection plate (page B47)



Cable trays

Fittings

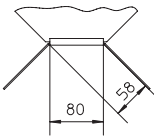
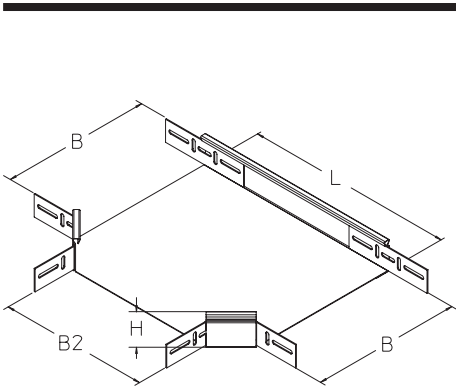
RIA 60 cable installation tray branch, height=60 mm

Cable tray branch in t-shape, integrated connectors.

article number	H mm	B mm	B2 mm	L mm	G kg
S					
RIA 60-05S	60	50	50	164	0.94
RIA 60-10S	60	100	100	214	1.21
RIA 60-20S	60	200	200	314	1.76
RIA 60-30S	60	300	300	414	2.50
RIA 60-10-05S	60	100	50	164	1.02
RIA 60-20-10S	60	200	100	214	1.42
RIA 60-30-20S	60	300	200	314	2.06

accessories included:
3x **KLR** fixing set (page H33)

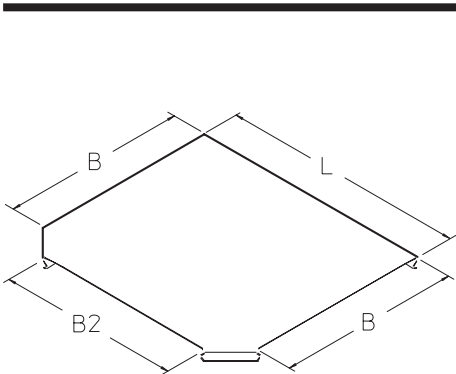
accessories optional:
RAD cable tray branch cover (page B61)
RIADS cable installation tray branch cover, heavy (page B32)



RIADS cable installation tray branch cover, heavy

Cable tray branch cover for cable tray branch, positive locking.

article number	B mm	B2 mm	t mm	G kg
S				
RIADS 05S	50	50	1.50	0.14
RIADS 10S	100	100	1.50	0.20
RIADS 20S	200	200	1.50	0.40
RIADS 30S	300	300	1.50	1.10
RIADS 10-05S	100	50	1.50	0.18
RIADS 20-10S	200	100	1.50	0.40
RIADS 30-20S	300	200	1.50	1.10



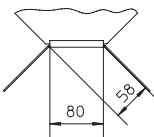
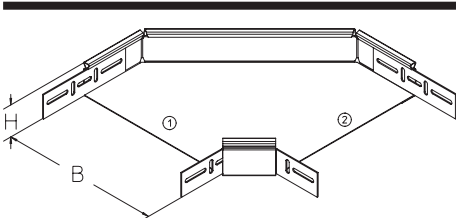
RIB 60 cable installation tray bend, height=60 mm

Cable tray bend 90 for horizontal change of direction with integrated connectors.

article number	H mm	B mm	G kg
S			
RIB 60-05S	60	50	0.56
RIB 60-10S	60	100	0.77
RIB 60-20S	60	200	1.29
RIB 60-30S	60	300	1.92

accessories included:
2x **KLR** fixing set (page H33)

accessories optional:
RBD cable tray bend cover (page B57)
RIBDS cable installation tray bend cover, heavy (page B33)



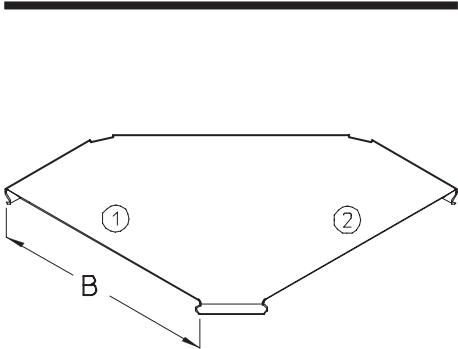
Cable trays

Fittings

RIBDS cable installation tray bend cover, heavy

Cable tray bend cover, positive locking.

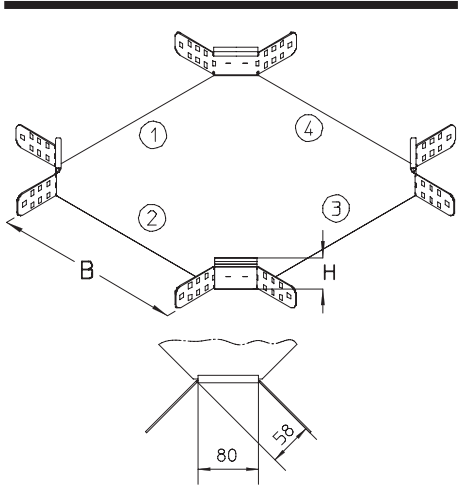
article number	B mm	t mm	G kg
S			
RIBDS 05S	50	1.50	0.07
RIBDS 10S	100	1.50	0.20
RIBDS 20S	200	1.50	0.40
RIBDS 30S	300	1.50	1.00



RK 35 cable tray crossover, height=35 mm

article number	H mm	B mm	G kg
S			
RK 35-10S	35	100	0,60
RK 35-20S	35	200	0,90
RK 35-30S	35	300	1,70

accessories included:
4 x **KLR** fixing set (page H33)



article number	H mm	B mm	G kg
F			
RK 35-10F	35	100	0,70
RK 35-20F	35	200	1,00
RK 35-30F	35	300	1,80

accessories included:
4 x **KLR E** fixing set (page H33)

accessories optional:
VB connection plate (page B47)

Cable trays

Fittings

RK 60 cable tray crossover, height=60 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

article number	H mm	B mm	G kg
S			
RK 60-10S	60	100	1,00
RK 60-20S	60	200	1,30
RK 60-30S	60	300	2,00
RK 60-40S	60	400	2,80
RK 60-50S	60	500	4,40
RK 60-60S	60	600	5,70

accessories included:
4 x **KLR** fixing set (page H33)

article number	H mm	B mm	G kg
F			
RK 60-10F	60	100	1,10
RK 60-20F	60	200	1,40
RK 60-30F	60	300	2,10
RK 60-40F	60	400	3,00
RK 60-50F	60	500	4,70
RK 60-60F	60	600	6,10

E			
RK 60-10E	60	100	0,90
RK 60-20E	60	200	1,20
RK 60-30E	60	300	1,90
RK 60-40E	60	400	2,70
RK 60-50E	60	500	4,30
RK 60-60E	60	600	5,60

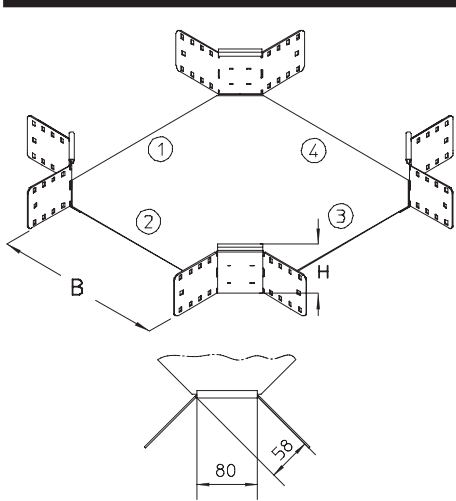
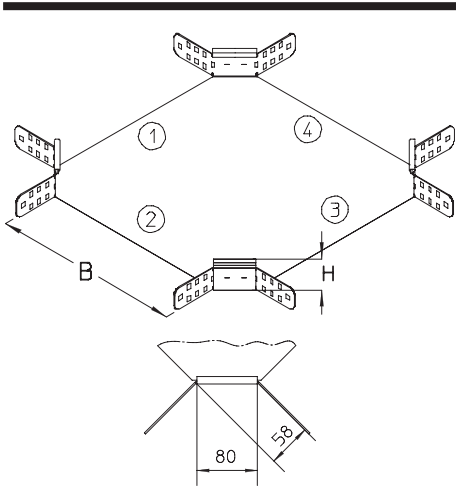
accessories included:
4 x **KLR E** fixing set (page H33)

accessories optional:
VB connection plate (page B47)

RK 85 cable tray crossover, height=85 mm

article number	H mm	B mm	G kg
S			
RK 85-10S	85	100	1,50
RK 85-20S	85	200	2,00
RK 85-30S	85	300	2,50
RK 85-40S	85	400	3,80
RK 85-50S	85	500	4,90
RK 85-60S	85	600	6,20

accessories included:
8 x **KLR** fixing set (page H33)



Cable trays

Fittings

RK 85 cable tray crossover, height=85 mm

article number	H mm	B mm	G kg
F			
RK 85-10F	85	100	1,60
RK 85-20F	85	200	2,10
RK 85-30F	85	300	2,70
RK 85-40F	85	400	4,10
RK 85-50F	85	500	5,20
RK 85-60F	85	600	6,60

accessories included:
8 x **KLR E** fixing set (page H33)

accessories optional:
VB connection plate (page B47)

RK 110 cable tray crossover, height=110 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

article number	H mm	B mm	G kg
S			
RK 110-10S	110	100	1,70
RK 110-20S	110	200	2,40
RK 110-30S	110	300	3,00
RK 110-40S	110	400	4,20
RK 110-50S	110	500	5,30
RK 110-60S	110	600	6,60

accessories included:
8 x **KLR** fixing set (page H33)

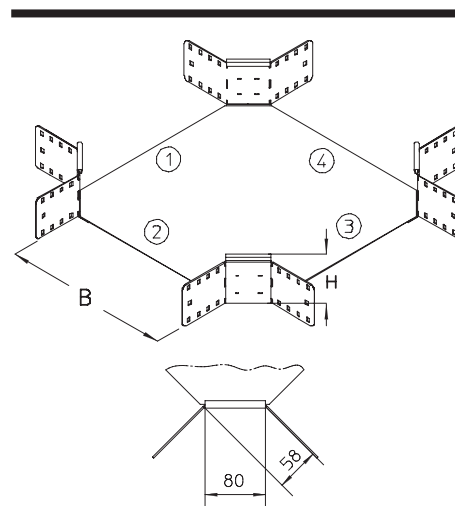
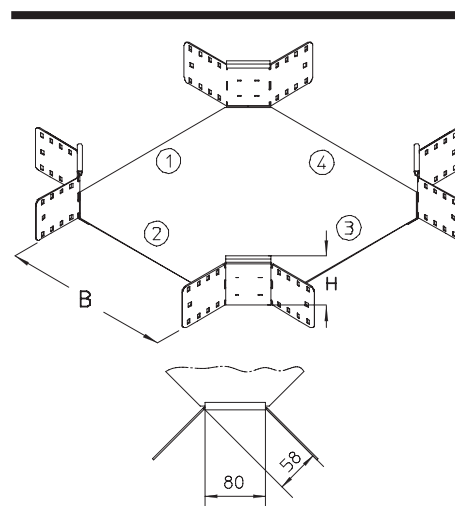
article number	H mm	B mm	G kg
F			
RK 110-10F	110	100	1,80
RK 110-20F	110	200	2,60
RK 110-30F	110	300	3,20
RK 110-40F	110	400	4,50
RK 110-50F	110	500	5,70
RK 110-60F	110	600	7,10

accessories included:
8 x **KLR E** fixing set (page H33)

article number	H mm	B mm	G kg
E			
RK 110-10E	110	100	1,50
RK 110-20E	110	200	2,20
RK 110-30E	110	300	2,80
RK 110-40E	110	400	4,00
RK 110-50E	110	500	5,10
RK 110-60E	110	600	6,40

accessories included:
8 x **KLR E** fixing set (page H33)

accessories optional:
VB connection plate (page B47)



Cable trays
Fittings

RVB 35 cable tray vertical bend, height=35 mm

For an application example, see the chapter assembly.

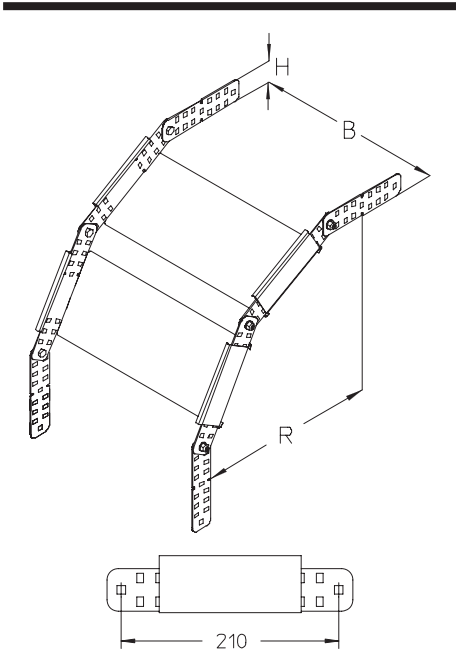
article number	H mm	B mm	R mm	G kg
S				
RVB 35-10S	35	100	280	1,40
RVB 35-20S	35	200	280	1,90
RVB 35-30S	35	300	280	2,40

accessories included:
2 x **KLR** fixing set (page H33)

article number	H mm	B mm	R mm	G kg
F				
RVB 35-10F	35	100	280	1,50
RVB 35-20F	35	200	280	2,00
RVB 35-30F	35	300	280	2,60

accessories included:
2 x **KLR E** fixing set (page H33)

accessories optional:
REB cable tray end-plate (page B47)



RVB 60 cable tray vertical bend, height=60 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.

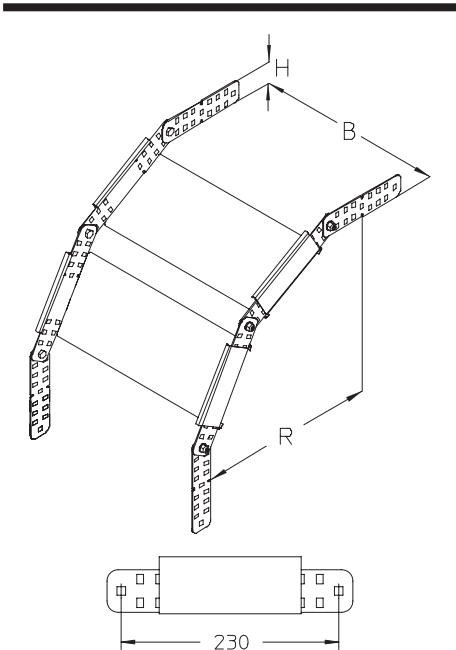
article number	H mm	B mm	R mm	G kg
S				
RVB 60-10S	60	100	300	2,00
RVB 60-20S	60	200	300	2,50
RVB 60-30S	60	300	300	3,00
RVB 60-40S	60	400	300	3,50
RVB 60-50S	60	500	300	4,00
RVB 60-60S	60	600	300	4,50

accessories included:
2 x **KLR** fixing set (page H33)

article number	H mm	B mm	R mm	G kg
F				
RVB 60-10F	60	100	300	2,10
RVB 60-20F	60	200	300	2,70
RVB 60-30F	60	300	300	3,20
RVB 60-40F	60	400	300	3,80
RVB 60-50F	60	500	300	4,30
RVB 60-60F	60	600	300	4,80

accessories included:
2 x **KLR E** fixing set (page H33)

accessories optional:
REB cable tray end-plate (page B47)



Cable trays

Fittings

RVB 85 cable tray vertical bend, height=85 mm

For an application example, see the chapter assembly.

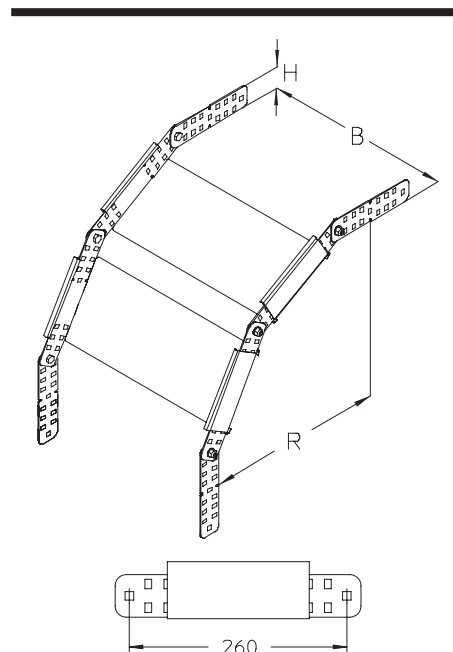
article number	H mm	B mm	R mm	G kg
S				
RVB 85-10S	85	100	330	2,80
RVB 85-20S	85	200	330	3,30
RVB 85-30S	85	300	330	3,80
RVB 85-40S	85	400	330	4,30
RVB 85-50S	85	500	330	4,80
RVB 85-60S	85	600	330	5,30

accessories included:
4 x **KLR** fixing set (page H33)

article number	H mm	B mm	R mm	G kg
F				
RVB 85-10F	85	100	330	3,00
RVB 85-20F	85	200	330	3,50
RVB 85-30F	85	300	330	4,10
RVB 85-40F	85	400	330	4,60
RVB 85-50F	85	500	330	5,10
RVB 85-60F	85	600	330	5,70

accessories included:
4 x **KLR E** fixing set (page H33)

accessories optional:
REB cable tray end-plate (page B47)



RVB 110 cable tray vertical bend, height=110 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.

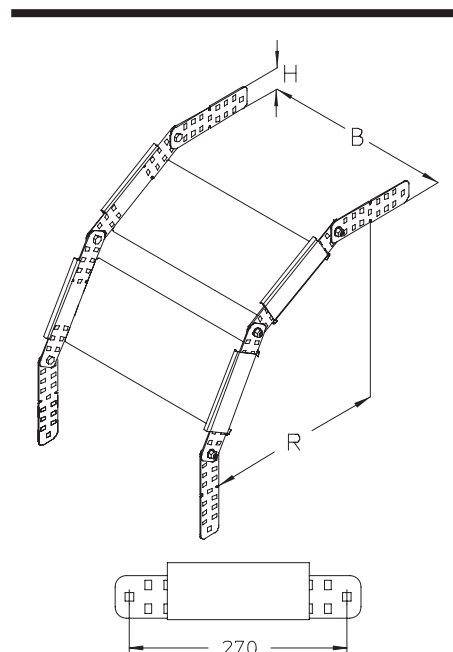
article number	H mm	B mm	R mm	G kg
S				
RVB 110-10S	110	100	375	3,70
RVB 110-20S	110	200	375	4,20
RVB 110-30S	110	300	375	4,70
RVB 110-40S	110	400	375	5,20
RVB 110-50S	110	500	375	5,70
RVB 110-60S	110	600	375	6,20

accessories included:
4 x **KLR** fixing set (page H33)

article number	H mm	B mm	R mm	G kg
F				
RVB 110-10F	110	100	375	4,00
RVB 110-20F	110	200	375	4,50
RVB 110-30F	110	300	375	5,00
RVB 110-40F	110	400	375	5,60
RVB 110-50F	110	500	375	6,10
RVB 110-60F	110	600	375	6,60

accessories included:
4 x **KLR E** fixing set (page H33)

accessories optional:
REB cable tray end-plate (page B47)



Cable trays

Fittings

RR 35 cable tray reducer, height=35 mm

Please quote the design (left, centred, right) and the side width with your order.
For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	G kg
S				
RR 35-20S	35	200	500	1,20
RR 35-30S	35	300	500	1,60

accessories included:
2 x **KLR** fixing set (page H33)

article number	H mm	B mm	L mm	G kg
F				
RR 35-20F	35	200	500	1,30
RR 35-30F	35	300	500	1,80

accessories included:
2 x **KLR E** fixing set (page H33)

accessories optional:
VB connection plate (page B47)

RR 60 cable tray reducer, height=60 mm

Please quote the design (left, centred, right) and the side width with your order. This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	G kg
S				
RR 60-20S	60	200	500	1,40
RR 60-30S	60	300	500	1,80
RR 60-40S	60	400	500	2,20
RR 60-50S	60	500	500	2,60
RR 60-60S	60	600	500	2,90

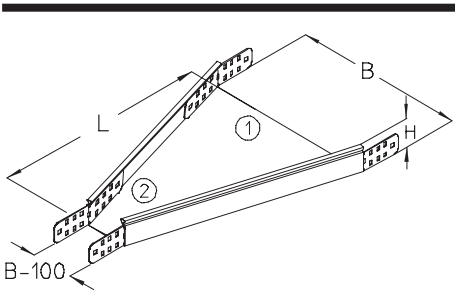
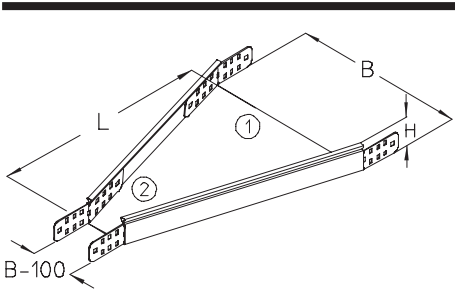
accessories included:
2 x **KLR** fixing set (page H33)

article number	H mm	B mm	L mm	G kg
F				
RR 60-20F	60	200	500	1,60
RR 60-30F	60	300	500	2,00
RR 60-40F	60	400	500	2,40
RR 60-50F	60	500	500	2,90
RR 60-60F	60	600	500	3,30

E				
RR 60-20E	60	200	500	1,40
RR 60-30E	60	300	500	1,80
RR 60-40E	60	400	500	2,20
RR 60-50E	60	500	500	2,60
RR 60-60E	60	600	500	3,00

accessories included:
2 x **KLR E** fixing set (page H33)

accessories optional:
VB connection plate (page B47)



Cable trays

Fittings

RR 85 cable tray reducer, height=85 mm

Please quote the design (left, centred, right) and the side width with your order.
For an application example, see the chapter assembly.

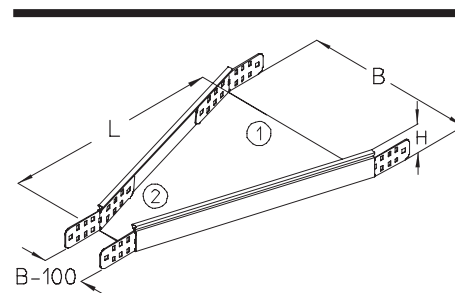
article number	H mm	B mm	L mm	G kg
S				
RR 85-20S	85	200	500	1,70
RR 85-30S	85	300	500	2,20
RR 85-40S	85	400	500	2,70
RR 85-50S	85	500	500	3,20
RR 85-60S	85	600	500	3,70

accessories included:
4 x **KLR** fixing set (page H33)

article number	H mm	B mm	L mm	G kg
F				
RR 85-20F	85	200	500	1,90
RR 85-30F	85	300	500	2,50
RR 85-40F	85	400	500	3,00
RR 85-50F	85	500	500	3,60
RR 85-60F	85	600	500	4,10

accessories included:
4 x **KLR E** fixing set (page H33)

accessories optional:
VB connection plate (page B47)



RR 110 cable tray reducer, height=110 mm

Please quote the design (left, centred, right) and the side width with your order. This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.

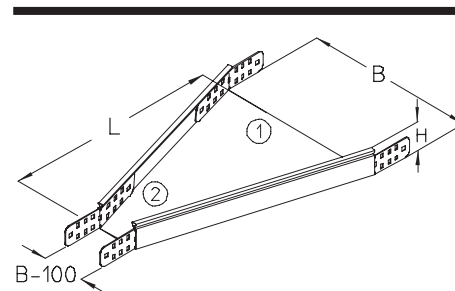
article number	H mm	B mm	L mm	G kg
S				
RR 110-20S	110	200	500	1,90
RR 110-30S	110	300	500	2,40
RR 110-40S	110	400	500	2,90
RR 110-50S	110	500	500	3,40
RR 110-60S	110	600	500	3,90

accessories included:
4 x **KLR** fixing set (page H33)

article number	H mm	B mm	L mm	G kg
F				
RR 110-20F	110	200	500	2,20
RR 110-30F	110	300	500	2,70
RR 110-40F	110	400	500	3,20
RR 110-50F	110	500	500	3,80
RR 110-60F	110	600	500	4,30

accessories included:
4 x **KLR E** fixing set (page H33)

accessories optional:
VB connection plate (page B47)



Cable trays

Fittings

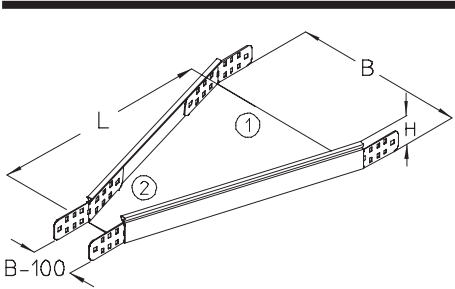
RR 110 cable tray reducer, height=110 mm

Please quote the design (left, centred, right) and the side width with your order. This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	G kg
E				
RR 110-20E	110	200	500	2,00
RR 110-30E	110	300	500	2,50
RR 110-40E	110	400	500	2,80
RR 110-50E	110	500	500	3,40
RR 110-60E	110	600	500	3,80

accessories included:
4 x **KLR E** fixing set (page H33)

accessories optional:
VB connection plate (page B47)



Cable trays

Accessoires of cable trays

RAB 35 cable tray closing panel, height=35 mm

For an application example, see the chapter assembly.

article number	H mm	B mm	G kg
S			
RAB 35-10S	35	100	0,06
RAB 35-20S	35	200	0,09
RAB 35-30S	35	300	0,11

accessories included:

1 x **KLR** fixing set (page H33)

article number	H mm	B mm	G kg
F			
RAB 35-10F	35	100	0,02
RAB 35-20F	35	200	0,11
RAB 35-30F	35	300	0,14

accessories included:

1 x **KLR E** fixing set (page H33)

RAB 60 cable tray closing panel, height=60 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

For an application example, see the chapter assembly.

article number	H mm	B mm	G kg
S			
RAB 60-10S	60	100	0,15
RAB 60-20S	60	200	0,20
RAB 60-30S	60	300	0,25
RAB 60-40S	60	400	0,31
RAB 60-50S	60	500	0,36
RAB 60-60S	60	600	0,41

accessories included:

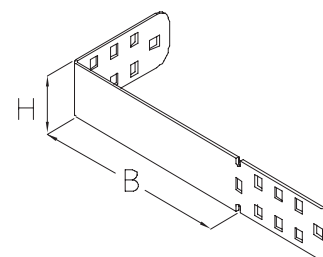
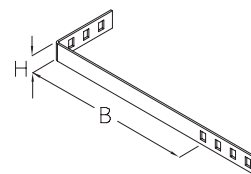
1 x **KLR** fixing set (page H33)

article number	H mm	B mm	G kg
F			
RAB 60-10F	60	100	0,21
RAB 60-20F	60	200	0,29
RAB 60-30F	60	300	0,34
RAB 60-40F	60	400	0,45
RAB 60-50F	60	500	0,53
RAB 60-60F	60	600	0,60

E			
RAB 60-10E	60	100	0,15
RAB 60-20E	60	200	0,20
RAB 60-30E	60	300	0,25
RAB 60-40E	60	400	0,31
RAB 60-50E	60	500	0,36
RAB 60-60E	60	600	0,41

accessories included:

1 x **KLR E** fixing set (page H33)



Cable trays

Accessoires of cable trays

RAB 85 cable tray closing panel, height=85 mm

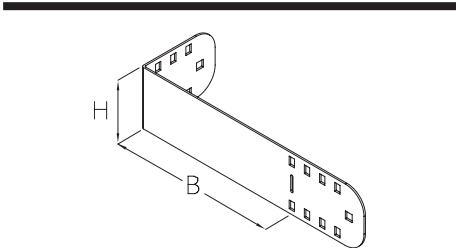
For an application example, see the chapter assembly.

article number	H mm	B mm	G kg
S			
RAB 85-10S	85	100	0,24
RAB 85-20S	85	200	0,32
RAB 85-30S	85	300	0,41
RAB 85-40S	85	400	0,49
RAB 85-50S	85	500	0,57
RAB 85-60S	85	600	0,65

accessories included:
2 x **KLR** fixing set (page H33)

article number	H mm	B mm	G kg
F			
RAB 85-10F	85	100	0,34
RAB 85-20F	85	200	0,46
RAB 85-30F	85	300	0,58
RAB 85-40F	85	400	0,70
RAB 85-50F	85	500	0,82
RAB 85-60F	85	600	0,94

accessories included:
2 x **KLR E** fixing set (page H33)



Cable trays

Accessoires of cable trays

RAB 110 cable tray closing panel, height=110 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.

article number	H mm	B mm	G kg
S			
RAB 110-10S	110	100	0,33
RAB 110-20S	110	200	0,44
RAB 110-30S	110	300	0,56
RAB 110-40S	110	400	0,67
RAB 110-50S	110	500	0,78
RAB 110-60S	110	600	0,89

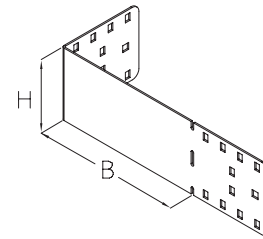
accessories included:
2 x **KLR** fixing set (page H33)

article number	H mm	B mm	G kg
F			
RAB 110-10F	110	100	0,48
RAB 110-20F	110	200	0,65
RAB 110-30F	110	300	0,81
RAB 110-40F	110	400	0,98
RAB 110-50F	110	500	1,14
RAB 110-60F	110	600	1,31

accessories included:
2 x **KLR E** fixing set (page H33)

article number	H mm	B mm	G kg
E			
RAB 110-10E	110	100	0,33
RAB 110-20E	110	200	0,44
RAB 110-30E	110	300	0,55
RAB 110-40E	110	400	0,66
RAB 110-50E	110	500	0,77
RAB 110-60E	110	600	0,88

accessories included:
2 x **KLR E** fixing set (page H33)



Cable trays

Accessoires of cable trays

REB cable tray end-plate

For an application example, see the chapter assembly.

article number	B mm	L mm	G kg
S			
REB 05S	40	50	0,02

accessories included:
1 x **KLR** fixing set (page H33)

article number	B mm	L mm	G kg
S			
REB 10S	90	50	0,03
REB 20S	190	50	0,06
REB 30S	290	50	0,10
REB 40S	390	50	0,13
REB 50S	490	50	0,17
REB 60S	590	50	0,20

accessories included:
2 x **KLR** fixing set (page H33)

article number	B mm	L mm	G kg
F			
REB 05F	40	50	0,03

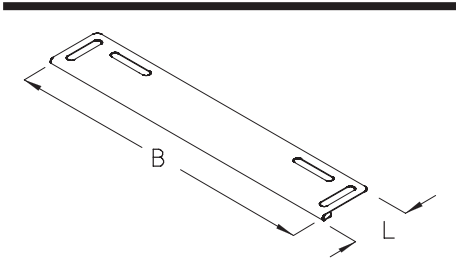
accessories included:
1 x **KLR E** fixing set (page H33)

article number	B mm	L mm	G kg
F			
REB 10F	90	50	0,03
REB 20F	190	50	0,06
REB 30F	290	50	0,10
REB 40F	390	50	0,13
REB 50F	490	50	0,17
REB 60F	590	50	0,20

accessories included:
2 x **KLR E** fixing set (page H33)

article number	B mm	L mm	G kg
E			
REB 10E	90	50	0,02
REB 20E	190	50	0,05
REB 30E	290	50	0,08
REB 40E	390	50	0,10
REB 50E	490	50	0,13
REB 60E	590	50	0,16

accessories included:
2 x **KLR E** fixing set (page H33)



Cable trays
Accessoires of cable trays

RGV 35 cable tray coupler, height=35 mm

For an application example, see the chapter assembly.

article number	H mm	L mm	G kg
S			
RGV 35S	20	150	0,04

accessories included:
1 x **KLR** fixing set (page H33)

article number	H mm	L mm	G kg
F			
RGV 35F	20	150	0,04

accessories included:
1 x **KLR E** fixing set (page H33)

RGV 60 cable tray coupler, height=60 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.

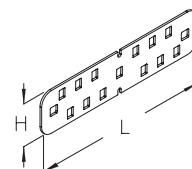
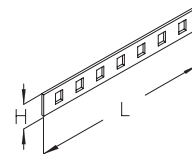
article number	H mm	L mm	G kg
S			
RGV 60S	45	190	0,08

accessories included:
1 x **KLR** fixing set (page H33)

article number	H mm	L mm	G kg
F			
RGV 60F	45	190	0,09

E			
RGV 60E	45	190	0,08

accessories included:
1 x **KLR E** fixing set (page H33)



Cable trays

Accessoires of cable trays

RGV 85 cable tray coupler, height=85 mm

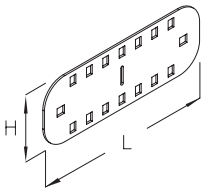
For an application example, see the chapter assembly.

article number	H mm	L mm	G kg
S			
RGV 85S	70	190	0,16

accessories included:
2 x **KLR** fixing set (page H33)

article number	H mm	L mm	G kg
F			
RGV 85F	70	190	0,17

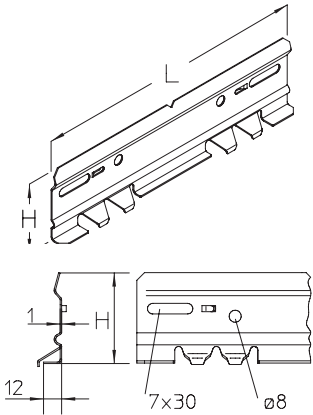
accessories included:
2 x **KLR E** fixing set (page H33)



RGVS cable tray snap coupler

The side connector is only suitable for the cable trays type RG 60 and R 60.

article number	H mm	L mm	G kg
S			
RGVS 60S	60	230	0,12



RGV 110 cable tray coupler, height=110 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.

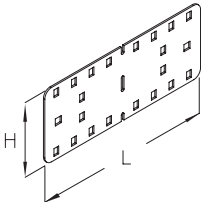
article number	H mm	L mm	G kg
S			
RGV 110S	95	230	0,34

accessories included:
2 x **KLR** fixing set (page H33)

article number	H mm	L mm	G kg
F			
RGV 110F	95	230	0,36

E			
RGV 110E	95	230	0,27

accessories included:
2 x **KLR E** fixing set (page H33)



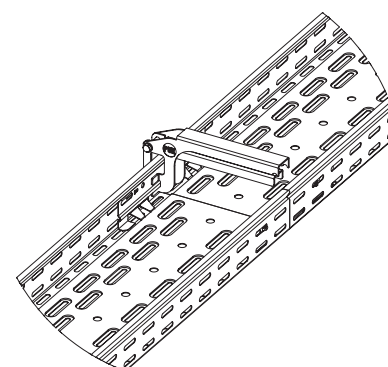
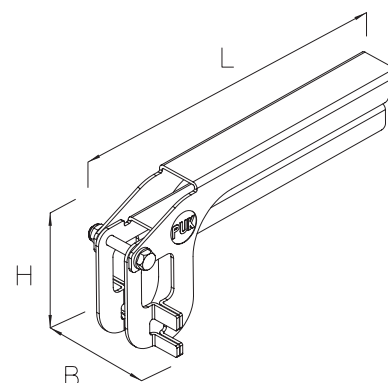
Cable trays

Accessoires of cable trays

RGVST RGVS assembly tool

Snap connector tool for fast assembly/disassembly of the snap connector RGVS on cable trays. The snap connector tool is made of sendzimir hot-dip galvanized steel according to DIN EN 10346, which is plastic coated.

article number	H mm	B mm	L mm	t mm	Colour	G kg
RGVST SB	92	60	208	2	light grey (similar RAL 7035)	0.40



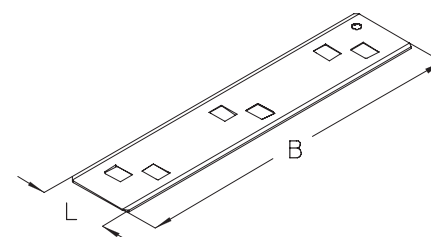
VB connection plate

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.

article number	B mm	L mm	G kg
S			
VB 10S	54	70	0,04
VB 20S	155	70	0,11
VB 30S	255	70	0,18
VB 40S	355	70	0,27
VB 50S	455	70	0,32
VB 60S	555	70	0,38

F			
VB 10F	54	70	0,04
VB 20F	155	70	0,11
VB 30F	255	70	0,19
VB 40F	355	70	0,28
VB 50F	455	70	0,34
VB 60F	555	70	0,40

E			
VB 10E	54	70	0,04
VB 20E	155	70	0,11
VB 30E	255	70	0,18
VB 40E	355	70	0,27
VB 50E	455	70	0,32
VB 60E	555	70	0,38



Cable trays

Accessoires of cable trays

RTR 35 cable tray barrier strip, height=35 mm

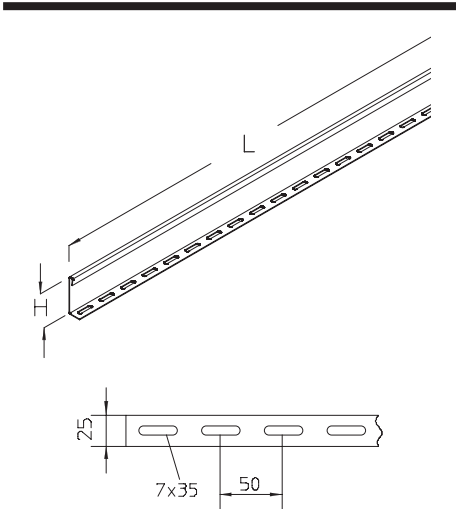
For an application example, see the chapter assembly.

article number	H mm	L mm	G kg
S			
RTR 35S	33	3000	1,50

accessories included:
3 x **KLR** fixing set (page H33)

article number	H mm	L mm	G kg
F			
RTR 35F	33	3000	1,60

accessories included:
3 x **KLR E** fixing set (page H33)



RTR 60 cable tray barrier strip, height=60 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.

article number	H mm	L mm	G kg
S			
RTR 60S	50	3000	2,10

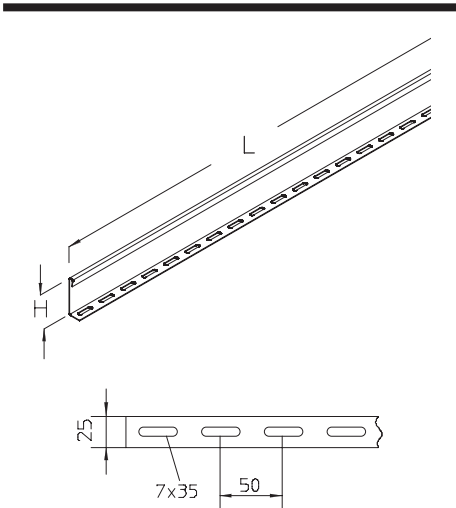
accessories included:
3 x **KLR** fixing set (page H33)

article number	H mm	L mm	G kg
F			
RTR 60F	50	3000	2,20

E			
RTR 60E	50	3000	2,10

E4			
RTR 60E4	50	3000	2,10

accessories included:
3 x **KLR E** fixing set (page H33)



Cable trays

Accessoires of cable trays

RTR 85 cable tray barrier strip, height=85 mm

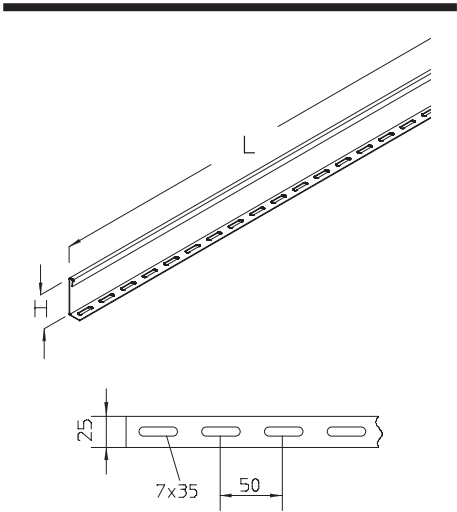
For an application example, see the chapter assembly.

article number	H mm	L mm	G kg
S			
RTR 85S	80	3000	2,70

accessories included:
3 x **KLR** fixing set (page H33)

article number	H mm	L mm	G kg
F			
RTR 85F	80	3000	2,90

accessories included:
3 x **KLR E** fixing set (page H33)



RTR 110 cable tray barrier strip, height=110 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.

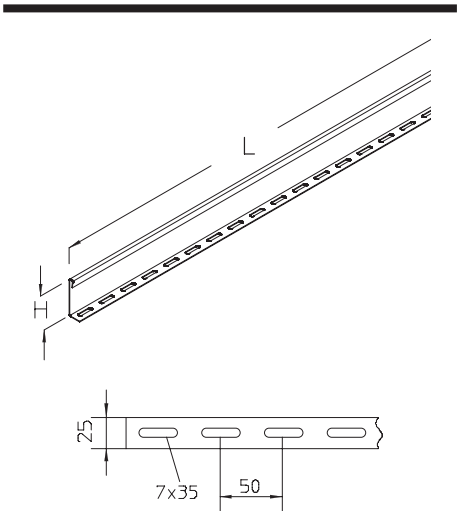
article number	H mm	L mm	G kg
S			
RTR 110S	100	3000	3,30

accessories included:
3 x **KLR** fixing set (page H33)

article number	H mm	L mm	G kg
F			
RTR 110F	100	3000	3,50

E			
RTR 110E	100	3000	3,30

accessories included:
3 x **KLR E** fixing set (page H33)

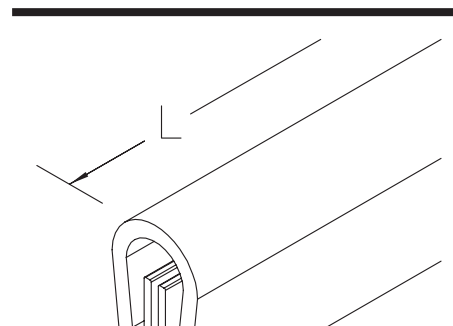


Cable trays

Accessoires of cable trays

KSB edge protection strip

article number	H mm	B mm	k mm	colour	G kg/m
PVC					
KSB	6,5	9,5	1 - 2	silver	0,06



MP-RG assembly plate

For an application example, see the chapter assembly.

article number	H mm	B mm	G kg
S			
MP-RG 60S	185	120	0,16

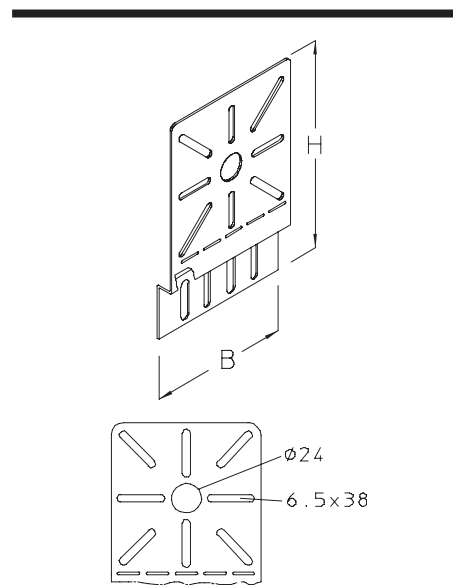
accessories included:
1 x **KLR** fixing set (page H33)

article number	H mm	B mm	G kg
F			
MP-RG 60F	185	120	0,17

accessories included:
1 x **KLR E** fixing set (page H33)

article number	H mm	B mm	G kg
E4			
MP-RG 60E4	185	120	0,16

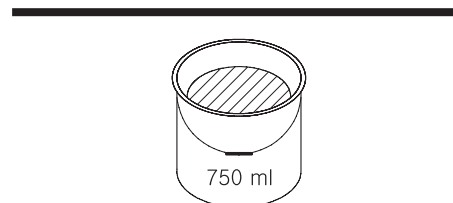
accessories included:
2 x **SEM 6E4** hexagon-nut, DIN 934 (page H41)
2 x **US 6x12E4** square washer, DIN 125 (page H39)
2 x **FKS 6x16E4** slotted cylinder head screw, DIN 84 (page D43)



KZF cold zinc paint

For assembly instructions, see the chapter assembly.

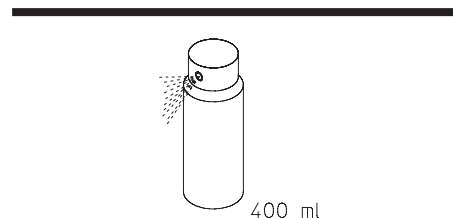
article number	I ml	G kg
KZF	750	1,93



KZS cold zinc spray

For assembly instructions, see the chapter assembly.

article number	I ml	G kg
KZS	400	0,40



Cable trays

Accessories of cable installation trays

RIV 60 cable tray coupler, height=60 mm

For an application example, see the chapter assembly.

article number	H mm	L mm	G kg
S			
RIV 60S	45	176	0,12

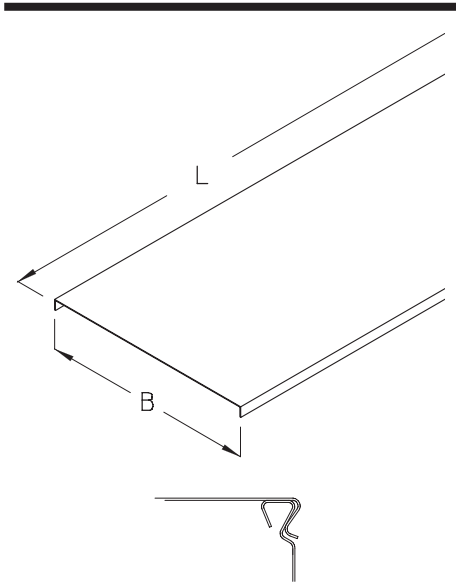
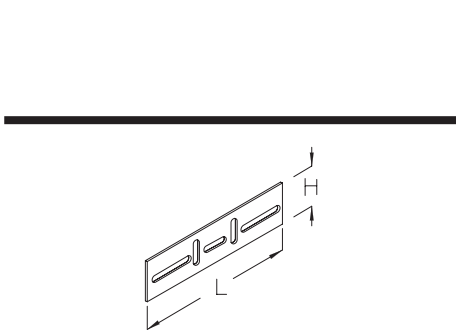
accessories included:
1 x **KLR** fixing set (page H33)

article number	H mm	L mm	G kg
F			
RIV 60F	45	176	0,12

accessories included:
1 x **KLR E** fixing set (page H33)

RID cable installation tray cover

article number	B mm	L mm	G kg
S			
RID 05S	50	3000	1,40
RID 10S	100	3000	2,31
RID 15S	150	3000	3,19
RID 20S	200	3000	4,08
RID 30S	300	3000	7,78
F			
RID 05F	50	3000	1,60
RID 10F	100	3000	2,60
RID 15F	150	3000	3,60
RID 20F	200	3000	4,60
RID 30F	300	3000	8,70

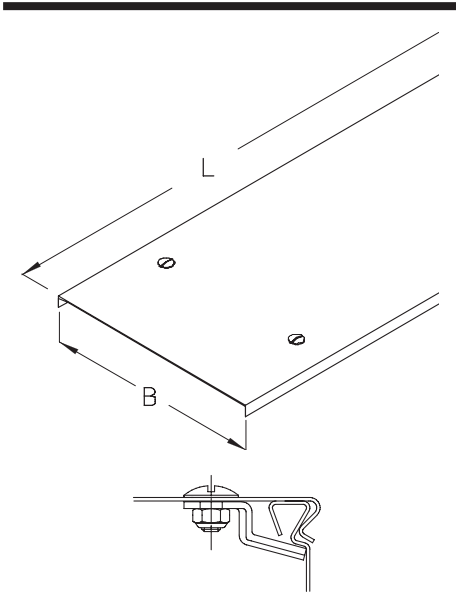


Cable trays

Accessories of cable installation trays

RIDR cable installation tray cover with bar lock

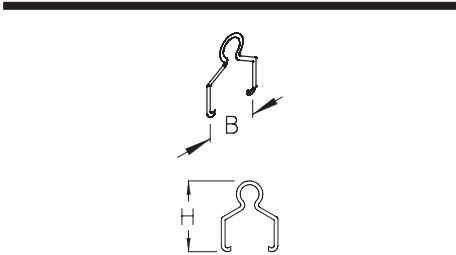
article number	B mm	L mm	G kg
S			
RIDR 05S	50	3000	1,43
RIDR 10S	100	3000	2,40
RIDR 15S	150	3000	3,28
RIDR 20S	200	3000	4,17
RIDR 30S	300	3000	7,89
F			
RIDR 05F	50	3000	1,64
RIDR 10F	100	3000	2,77
RIDR 15F	150	3000	3,70
RIDR 20F	200	3000	4,72
RIDR 30F	300	3000	8,81



AHB suspension-bow

Central support for installation grooves.
For an application example, see the chapter assembly.

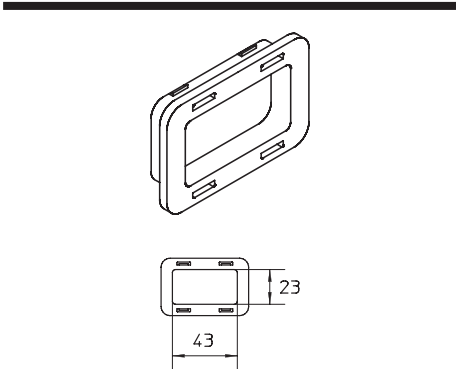
article number	H mm	B mm	P _{max} kN	G kg/100
S				
AHB 05S	75	50	0,7	2,1
AHB 10S	75	100	0,7	2,4



KSR cable protection ring

For an application example, see the chapter assembly.

article number	G kg/100
PE	
KSR 50	0,6



Cable trays

Accessories of cable installation trays

SRI 60 protection end cap

The protective cap is provided with predetermined breaking points for easier separation. For mounting on a filled RI the base is interrupted.

To mount an SRI 60-05, the protective cap must be opened and the middle parts of the protective cap removed. To mount an SRI 60-15, the protective cap must be opened and the SRI-EO 50 must be mounted on the lid and the SRI-EU 50 on the base in between. To mount an SRI 60-20, the protective cap must be opened and two SRI-EO 50 must be mounted on the lid and two SRI-EU 50 on the base in between. To mount an SRI 60-30, the protective cap must be opened and four SRI-EU 50 must be mounted on the lid and four SRI-EU 50 on the base in between.

article number	H mm	B mm	G kg
PE			
SRI 60-05	60	50	0.01
SRI 60-10	60	100	0.01

PE			
SRI 60-15	60	150	0.02

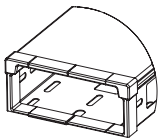
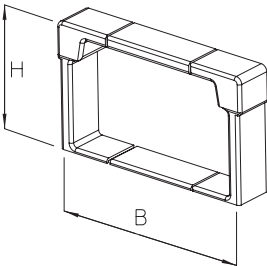
accessories included:
1x SRI-EO 50 protection end cap
1x SRI-EU 50 protection end cap

PE			
SRI 60-20	60	200	0.02

accessories included:
2x SRI-EO 50 protection end cap
2x SRI-EU 50 protection end cap

PE			
SRI 60-30	60	300	0.03

accessories included:
4x SRI-EO 50 protection end cap
4x SRI-EU 50 protection end cap



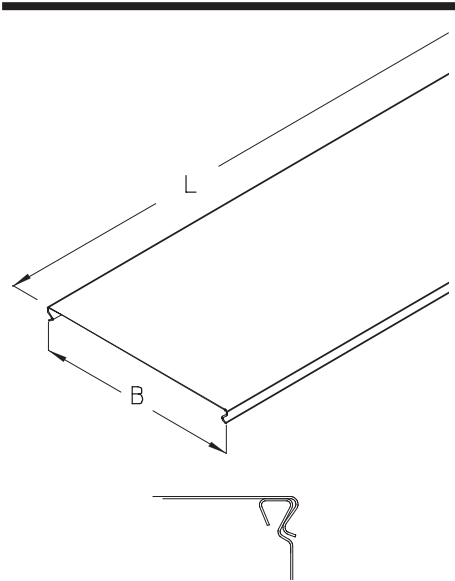
Cable trays

Cover

RD cable tray cover

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

article number	B mm	L mm	G kg
S			
RD 05S	50	3000	1,52
RD 10S	100	3000	2,40
RD 20S	200	3000	4,20
RD 30S	300	3000	7,90
RD 40S	400	3000	10,20
RD 50S	500	3000	15,70
RD 60S	600	3000	18,60
F			
RD 05F	50	3000	1,63
RD 10F	100	3000	2,60
RD 20F	200	3000	4,60
RD 30F	300	3000	8,70
RD 40F	400	3000	11,30
RD 50F	500	3000	17,30
RD 60F	600	3000	20,50
E			
RD 05E	50	3000	1,63
RD 10E	100	3000	2,50
RD 20E	200	3000	4,40
RD 30E	300	3000	7,80
RD 40E	400	3000	10,20
RD 50E	500	3000	15,00
RD 60E	600	3000	17,90



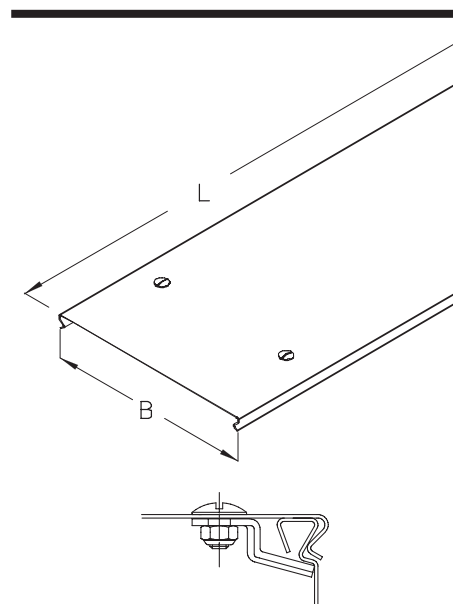
Cable trays

Cover

RDR cable tray cover with bar lock

Installation of covers in outdoor areas requires additional provisions against storm forces. Turning bolts are in no case sufficient as security provision. This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

article number	B mm	L mm	G kg
S			
RDR 10S	100	3000	2,30
RDR 20S	200	3000	4,10
RDR 30S	300	3000	7,80
RDR 40S	400	3000	10,10
RDR 50S	500	3000	15,60
RDR 60S	600	3000	18,50
F			
RDR 10F	100	3000	2,80
RDR 20F	200	3000	4,70
RDR 30F	300	3000	7,90
RDR 40F	400	3000	11,40
RDR 50F	500	3000	17,40
RDR 60F	600	3000	20,60
E			
RDR 10E	100	3000	2,60
RDR 20E	200	3000	4,50
RDR 30E	300	3000	7,90
RDR 40E	400	3000	10,30
RDR 50E	500	3000	15,20
RDR 60E	600	3000	18,00



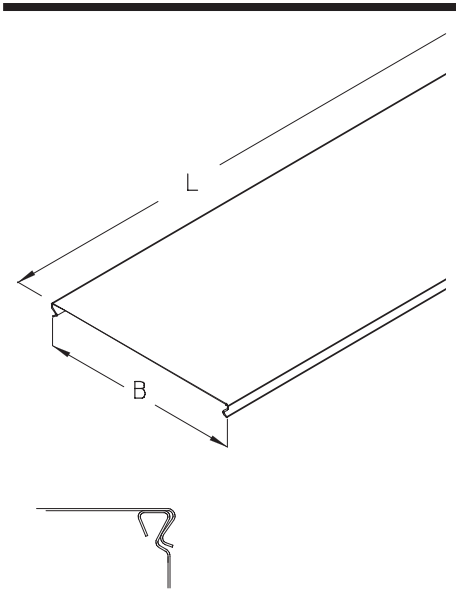
Cable trays

Cover

RDS cable tray cover, heavy

Cable tray cover, positive locking.

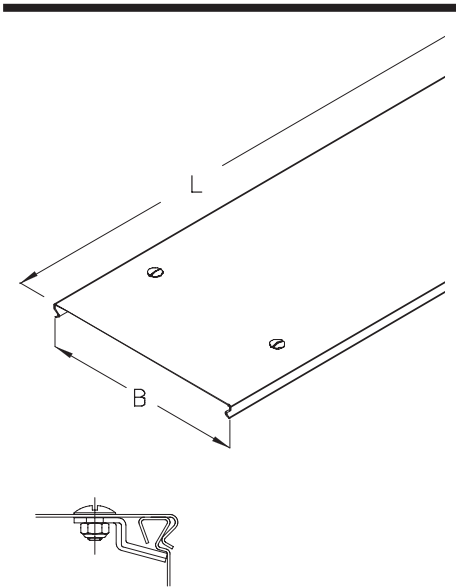
article number	B mm	L mm	t mm	G kg
S				
RDS 05S	50	3000	1.50	3.03
RDS 10S	100	3000	1.50	4.80
RDS 20S	200	3000	1.50	8.33
RDS 30S	300	3000	1.50	11.87
RDS 40S	400	3000	1.50	15.40
RDS 50S	500	3000	1.50	18.93
RDS 60S	600	3000	1.50	22.46
F				
RDS 05F	50	3000	1.50	3.10
RDS 10F	100	3000	1.50	5.14
RDS 20F	200	3000	1.50	8.92
RDS 30F	300	3000	1.50	12.70
RDS 40F	400	3000	1.50	16.47
RDS 50F	500	3000	1.50	20.25
RDS 60F	600	3000	1.50	24.03



RDSR cable tray cover with bar lock, heavy

Cable tray cover, positive locking.

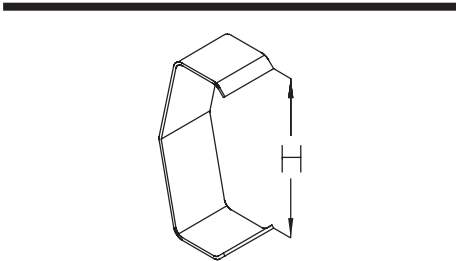
article number	B mm	L mm	t mm	G kg
S				
RDSR 10S	100	3000	1.50	4.97
RDSR 20S	200	3000	1.50	8.50
RDSR 30S	300	3000	1.50	12.03
RDSR 40S	400	3000	1.50	15.40
RDSR 50S	500	3000	1.50	19.10
RDSR 60S	600	3000	1.50	22.63



RDKL 60 cable tray cover clamp

Installation of covers in outdoor areas requires additional provisions against storm forces. Cover clamps are in no case sufficient as security provision. Gutter cover brackets suitable for use in buildings. According to assembly instructions you should use at least 6 safety elements for each 3 meters cable path cover.

article number	H mm	G kg
E		
RDKL 60E	58	0,10



RDKL 110 cable tray cover clamp

Installation of covers in outdoor areas requires additional provisions against storm forces. Cover clamps are in no case sufficient as security provision. Gutter cover brackets suitable for use in buildings. According to assembly instructions you should use at least 6 safety elements for each 3 meters cable path cover.

article number	H mm	G kg
E		
RDKL 110E	108	0,10

RD-SW cable tray storm protection angle

Storm protection angles, suitable for outdoor use. According to assembly instructions you should use at least 6 safety elements for each 3 meters cable path cover. This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	G kg
F				
RD-SW F	40	30	40	0,06
E				
RD-SW E	40	30	40	0,06

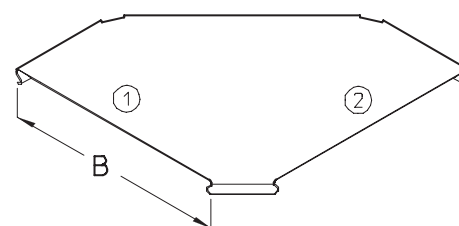
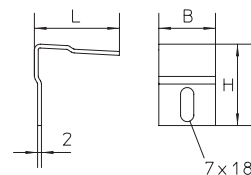
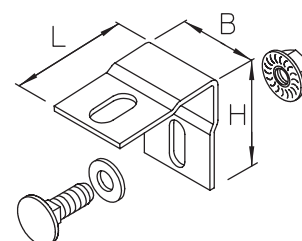
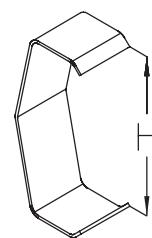
accessories included:

1 x FRSV 6x12E	round-head screw with short square	(page H34)
1 x SEMS 6E	hexagon nut, self-locking, DIN 6923	(page H41)
1 x UVS M6	captive washer	(page D48)

RBD cable tray bend cover

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

article number	B mm	G kg
S		
RBD 10S	100	0,20
RBD 20S	200	0,40
RBD 30S	300	1,00
RBD 40S	400	1,60
RBD 50S	500	2,90
RBD 60S	600	4,00
F		
RBD 10F	100	0,20
RBD 20F	200	0,40
RBD 30F	300	1,00
RBD 40F	400	1,70
RBD 50F	500	3,10
RBD 60F	600	4,20
E		
RBD 10E	100	0,20
RBD 20E	200	0,40
RBD 30E	300	1,00
RBD 40E	400	1,60
RBD 50E	500	2,90
RBD 60E	600	4,00



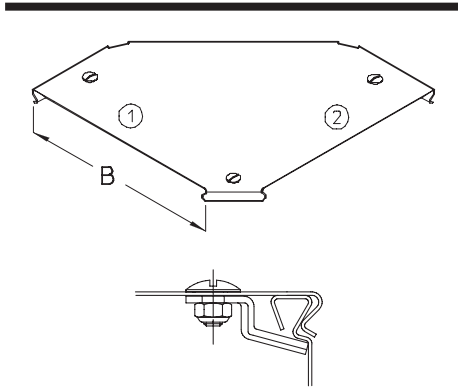
Cable trays

Cover

RBDR cable tray bend cover with bar lock

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

article number	B mm	G kg
S		
RBDR 10S	100	0,20
RBDR 20S	200	0,40
RBDR 30S	300	1,00
RBDR 40S	400	1,60
RBDR 50S	500	2,80
RBDR 60S	600	3,90
F		
RBDR 10F	100	0,20
RBDR 20F	200	0,50
RBDR 30F	300	1,10
RBDR 40F	400	1,70
RBDR 50F	500	3,10
RBDR 60F	600	4,20
E		
RBDR 10E	100	0,20
RBDR 20E	200	0,50
RBDR 30E	300	1,00
RBDR 40E	400	1,60
RBDR 50E	500	2,70
RBDR 60E	600	3,70

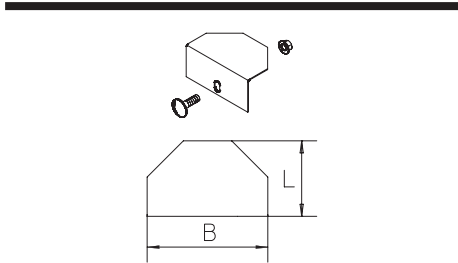


RAED cable tray attachment corner cover

article number	B mm	L mm	G kg
S			
RAED S	80	50	0,10
accessories included:			
1 x UVS M6	captive washer	(page D48)	
1 x FRSV 6x12	round-head screw with short square	(page H34)	
1 x SEMS 6	hexagon nut, self-locking, DIN 6923	(page H41)	
article number	B mm	L mm	G kg
F			
RAED F	80	50	0,10
E			
RAED E	80	50	0,10

accessories included:

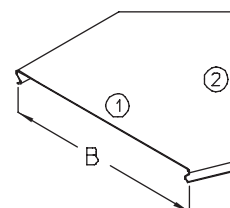
1 x FRSV 6x12E	round-head screw with short square	(page H34)
1 x SEMS 6E	hexagon nut, self-locking, DIN 6923	(page H41)
1 x UVS M6	captive washer	(page D48)



RBD45 cable tray bend cover

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

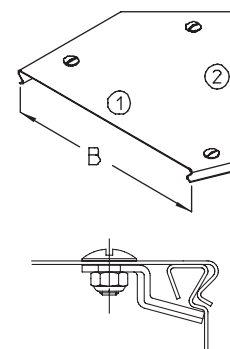
article number	B mm	G kg
S		
RBD45 10S	100	0,10
RBD45 20S	200	0,20
RBD45 30S	300	0,60
RBD45 40S	400	0,90
RBD45 50S	500	1,60
RBD45 60S	600	2,10
F		
RBD45 10F	100	0,10
RBD45 20F	200	0,30
RBD45 30F	300	0,60
RBD45 40F	400	1,00
RBD45 50F	500	1,80
RBD45 60F	600	2,40



RBDR45 cable tray bend cover with bar lock

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

article number	B mm	G kg
S		
RBDR45 10S	100	0,20
RBDR45 20S	200	0,30
RBDR45 30S	300	0,60
RBDR45 40S	400	1,00
RBDR45 50S	500	1,70
RBDR45 60S	600	2,20
F		
RBDR45 10F	100	0,20
RBDR45 20F	200	0,40
RBDR45 30F	300	0,70
RBDR45 40F	400	1,10
RBDR45 50F	500	1,80
RBDR45 60F	600	2,50



Cable trays

Cover

RAAD cable tray attachment branch-piece cover

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

article number	B mm	G kg
S		
RAAD 10S	100	0,07
RAAD 20S	200	0,11
RAAD 30S	300	0,19
RAAD 40S	400	0,23
RAAD 50S	500	0,35
RAAD 60S	600	0,41

F		
RAAD 10F	100	0,08
RAAD 20F	200	0,12
RAAD 30F	300	0,20
RAAD 40F	400	0,25
RAAD 50F	500	0,37
RAAD 60F	600	0,43

E		
RAAD 10E	100	0,07
RAAD 20E	200	0,11
RAAD 30E	300	0,19
RAAD 40E	400	0,24
RAAD 50E	500	0,35
RAAD 60E	600	0,41

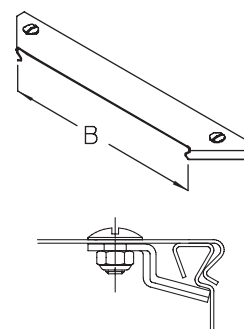
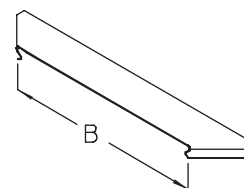
RAADR cable tray attachment branch-piece cover with bar lock

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

article number	B mm	G kg
S		
RAADR 10S	100	0,11
RAADR 20S	200	0,15
RAADR 30S	300	0,23
RAADR 40S	400	0,27
RAADR 50S	500	0,39
RAADR 60S	600	0,45

F		
RAADR 10F	100	0,12
RAADR 20F	200	0,16
RAADR 30F	300	0,24
RAADR 40F	400	0,29
RAADR 50F	500	0,41
RAADR 60F	600	0,47

E		
RAADR 10E	100	0,11
RAADR 20E	200	0,15
RAADR 30E	300	0,23
RAADR 40E	400	0,28
RAADR 50E	500	0,39
RAADR 60E	600	0,45



Cable trays

Cover

RAD cable tray branch-piece cover

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

article number	B mm	G kg
S		
RAD 10S	100	0,20
RAD 20S	200	0,40
RAD 30S	300	1,10
RAD 40S	400	1,80
RAD 50S	500	3,30
RAD 60S	600	4,60

F		
RAD 10F	100	0,20
RAD 20F	200	0,40
RAD 30F	300	1,10
RAD 40F	400	1,90
RAD 50F	500	3,50
RAD 60F	600	4,90

E		
RAD 10E	100	0,20
RAD 20E	200	0,40
RAD 30E	300	1,10
RAD 40E	400	1,80
RAD 50E	500	3,30
RAD 60E	600	4,60

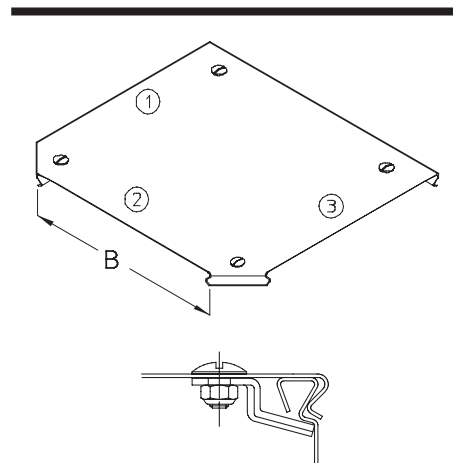
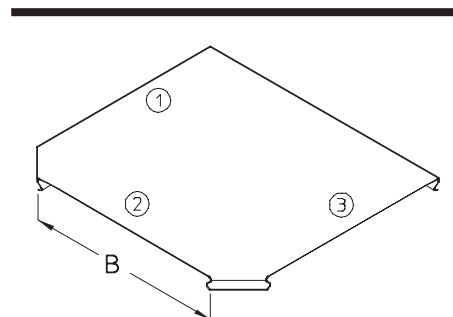
RADR cable tray branch-piece cover with bar lock

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

article number	B mm	G kg
S		
RADR 10S	100	0,30
RADR 20S	200	0,60
RADR 30S	300	1,30
RADR 40S	400	2,00
RADR 50S	500	3,60
RADR 60S	600	4,90

F		
RADR 10F	100	0,20
RADR 20F	200	0,60
RADR 30F	300	1,40
RADR 40F	400	2,20
RADR 50F	500	3,90
RADR 60F	600	5,40

E		
RADR 10E	100	0,30
RADR 20E	200	0,60
RADR 30E	300	1,30
RADR 40E	400	2,00
RADR 50E	500	3,50
RADR 60E	600	4,70



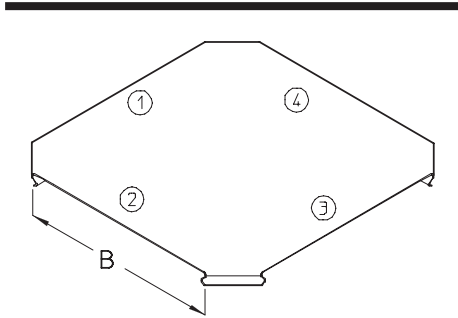
Cable trays

Cover

RKD cable tray cross-piece cover

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

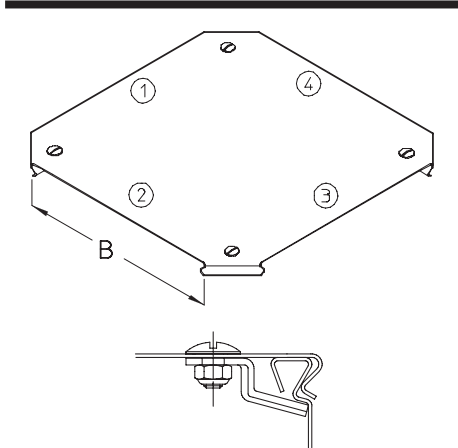
article number	B mm	G kg
S		
RKD 10S	100	0,20
RKD 20S	200	0,50
RKD 30S	300	1,20
RKD 40S	400	2,00
RKD 50S	500	3,60
RKD 60S	600	4,90
F		
RKD 10F	100	0,20
RKD 20F	200	0,50
RKD 30F	300	1,20
RKD 40F	400	2,10
RKD 50F	500	3,80
RKD 60F	600	5,20
E		
RKD 10E	100	0,20
RKD 20E	200	0,50
RKD 30E	300	1,20
RKD 40E	400	2,00
RKD 50E	500	3,60
RKD 60E	600	4,90



RKDR cable tray cross-piece cover with bar lock

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

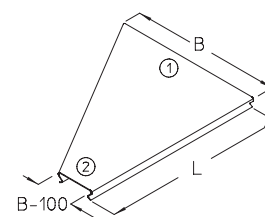
article number	B mm	G kg
S		
RKDR 10S	100	0,30
RKDR 20S	200	0,70
RKDR 30S	300	1,40
RKDR 40S	400	2,20
RKDR 50S	500	3,80
RKDR 60S	600	5,10
F		
RKDR 10F	100	0,40
RKDR 20F	200	0,70
RKDR 30F	300	1,60
RKDR 40F	400	2,40
RKDR 50F	500	4,20
RKDR 60F	600	5,50
E		
RKDR 10E	100	0,40
RKDR 20E	200	0,70
RKDR 30E	300	1,40
RKDR 40E	400	2,20
RKDR 50E	500	3,70
RKDR 60E	600	5,00



RRD cable tray reducer cover

Please quote the design (left, centred, right) and the side width with your order. This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

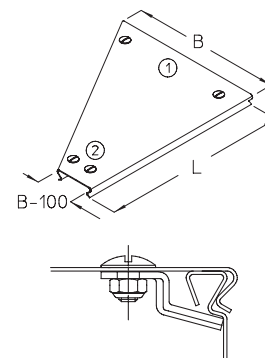
article number	B mm	L mm	G kg
S			
RRD 20S	200	500	0,50
RRD 30S	300	500	1,20
RRD 40S	400	500	1,50
RRD 50S	500	500	2,40
RRD 60S	600	500	2,90
F			
RRD 20F	200	500	0,50
RRD 30F	300	500	1,20
RRD 40F	400	500	1,60
RRD 50F	500	500	2,50
RRD 60F	600	500	3,10
E			
RRD 20E	200	500	0,50
RRD 30E	300	500	1,20
RRD 40E	400	500	1,50
RRD 50E	500	500	2,40
RRD 60E	600	500	2,90



RRDR cable tray reducer cover with bar lock

Please quote the design (left, centred, right) and the side width with your order. This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

article number	B mm	L mm	G kg
S			
RRDR 20S	200	500	0,60
RRDR 30S	300	500	1,20
RRDR 40S	400	500	1,60
RRDR 50S	500	500	2,50
RRDR 60S	600	500	2,90
F			
RRDR 20F	200	500	0,70
RRDR 30F	300	500	1,30
RRDR 40F	400	500	1,70
RRDR 50F	500	500	2,70
RRDR 60F	600	500	3,20
E			
RRDR 20E	200	500	0,60
RRDR 30E	300	500	1,20
RRDR 40E	400	500	1,60
RRDR 50E	500	500	2,50
RRDR 60E	600	500	3,20



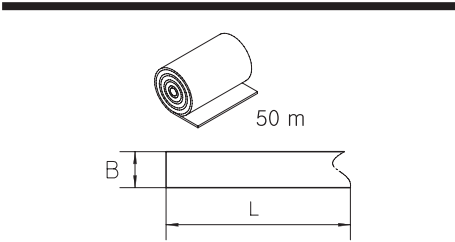
Cable trays

Cover

MKB adhesive metal strip

For an application example, see the chapter assembly.

article number	B mm	L mm	G kg/m
MKB	50	50000	0,12







Cable ladders

Cable ladders	C03-C06
Fittings	C07-C12
Cover	C13-C17
Accessories	C18-C24



Cable ladders

E

EL Fiber cement plate [C23](#)

K

KZF cold zinc paint [C24](#)

KZS cold zinc spray [C24](#)

L

LAD cable ladder branch-piece cover [C14](#)

LADR cable ladder branch cover with turning bolts [C14](#)

LD cable ladder cover [C13](#)

LDR cable ladder cover with turning bolt [C13](#)

LD-SW storm protection angle [C17](#)

LGA 100 cable ladder branch-piece, height=100 mm

[C10](#)

LGA 60 cable ladder branch-piece, height=60 mm [C10](#)

LGAB 100 cable ladder outside bend, height=100 mm

[C08](#)

LGAB 60 cable ladder outside bend, height=60 mm

[C08](#)

LGG 100 cable ladder [C05](#)

LGG 60 cable ladder [C03](#)

LGGS 100 cable ladder [C04](#)

LGGS 60 cable ladder [C06](#)

LGHS-P flange mounting clamp [C21](#)

LGIB 100 cable ladder inside bend, height=100 mm

[C07](#)

LGIB 60 cable ladder inside bend, height=60 mm [C07](#)

LGK 100 cable ladder cross-piece, height=100 mm

[C12](#)

LGK 60 cable ladder cross-piece, height=60 mm [C11](#)

LGKAB end plate, cable ladder [C22](#)

LGTR 100 cable ladder barrier strip, height=80 mm [C21](#)

LGTR 60 cable ladder barrier strip, height=33 mm [C20](#)

LGV 100 cable ladder coupler, height=100 mm [C18](#)

LGV 60 cable ladder coupler, height=60 mm [C18](#)

LGVB 100 cable ladder vertical bend, height=100 mm

[C09](#)

LGVB 60 cable ladder vertical bend, height=60 mm [C09](#)

LGVH 100 cable ladder coupler, height=100 mm [C19](#)

LGVH 60 cable ladder coupler, height=60 mm [C18](#)

LGVV 100 cable ladder coupler, height=100 mm [C20](#)

LGVV 60 cable ladder coupler, height=60 mm [C19](#)

LIBD cable ladder inside bend cover [C15](#)

LIBDR cable ladder inside bend cover with turning bolts

[C15](#)

LKD cable ladder crossing cover [C16](#)

LKDR cable ladder crossing cover with turning bolts

[C16](#)

M

MP-L assembly plate [C23](#)

S

SL 100 protection end cap [C23](#)

SL 60 protection end cap [C23](#)

Cable ladders

LGG 60 cable ladder, height=60 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

For a load diagram, see the chapter planning.

For an application example, see the chapter assembly.

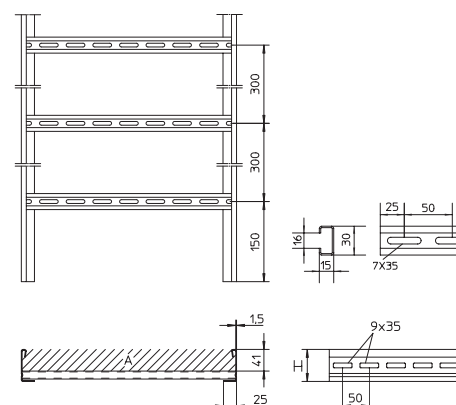
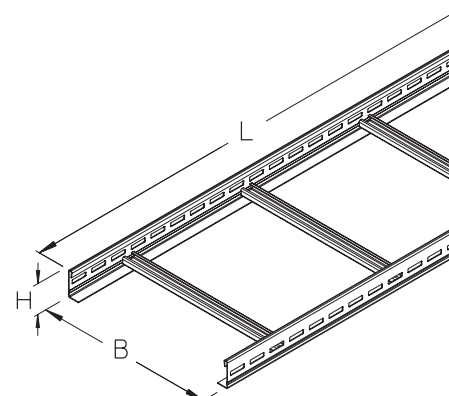
article number	H mm	B mm	L mm	A cm ²	Q _{LK} kN/m	G kg
S						
LGG 60-20-3S	60	200	3000	81	0,23	7,92
LGG 60-30-3S	60	300	3000	122	0,34	8,61
LGG 60-40-3S	60	400	3000	162	0,45	9,30
LGG 60-50-3S	60	500	3000	203	0,57	9,98
LGG 60-60-3S	60	600	3000	243	0,68	10,67
LGG 60-20S	60	200	6000	81	0,23	15,84
LGG 60-30S	60	300	6000	122	0,34	17,22
LGG 60-40S	60	400	6000	162	0,45	18,59
LGG 60-50S	60	500	6000	203	0,57	19,96
LGG 60-60S	60	600	6000	243	0,68	21,34

F						
LGG 60-20-3F	60	200	3000	81	0,23	8,48
LGG 60-30-3F	60	300	3000	122	0,34	9,21
LGG 60-40-3F	60	400	3000	162	0,45	9,95
LGG 60-50-3F	60	500	3000	203	0,57	10,68
LGG 60-60-3F	60	600	3000	243	0,68	11,42
LGG 60-20F	60	200	6000	81	0,23	16,95
LGG 60-30F	60	300	6000	122	0,34	18,42
LGG 60-40F	60	400	6000	162	0,45	19,89
LGG 60-50F	60	500	6000	203	0,57	21,36
LGG 60-60F	60	600	6000	243	0,68	22,83

E						
LGG 60-20-3E	60	200	3000	81	0,23	7,97
LGG 60-30-3E	60	300	3000	122	0,34	8,66
LGG 60-40-3E	60	400	3000	162	0,45	9,35
LGG 60-50-3E	60	500	3000	203	0,57	10,05
LGG 60-60-3E	60	600	3000	243	0,68	10,74
LGG 60-20E	60	200	6000	81	0,23	15,95
LGG 60-30E	60	300	6000	122	0,34	17,33
LGG 60-40E	60	400	6000	162	0,45	18,71
LGG 60-50E	60	500	6000	203	0,57	20,09
LGG 60-60E	60	600	6000	243	0,68	21,47

accessories optional:

LGV 60	cable ladder coupler, height=60 mm	(page C18)
LGHS-P	flange mounting clamp	(page C21)
LGVH 60	cable ladder coupler, height=60 mm	(page C18)
LGVV 60	cable ladder coupler, height=60 mm	(page C19)
LGTR 60	cable ladder barrier strip, height=33 mm	(page C20)
SL 60	protection end cap	(page C23)
KLU	fixing set	(page H07)
H	cable clamp for fastening to C-profiles	(catalogue cable clamps)
LGIB 60	cable ladder inside bend, height=60 mm	(page C07)
LGAB 60	cable ladder outside bend, height=60 mm	(page C08)
LGVB 60	cable ladder vertical bend, height=60 mm	(page C09)
LGA 60	cable ladder branch-piece, height=60 mm	(page C10)
LGKAB	end plate, cable ladder	(page C22)
LGK 60	cable ladder cross-piece, height=60 mm	(page C11)



Cable ladders

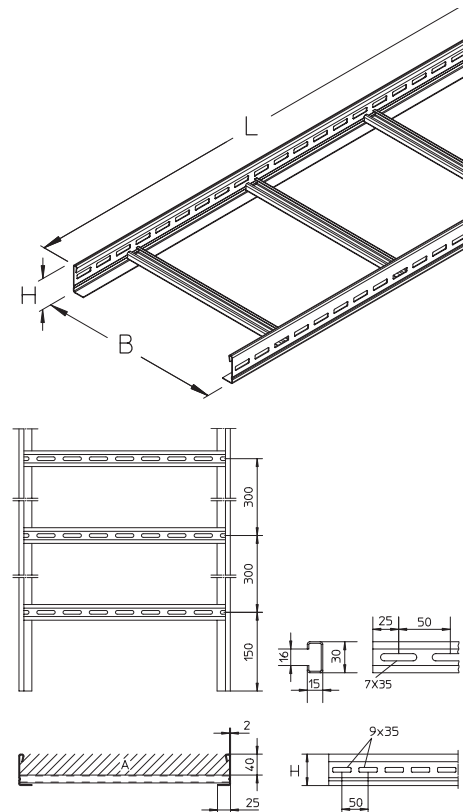
LGGS 60 cable ladder, heavy, height=60 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For a load diagram, see the chapter planning.
For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	A cm ²	Q _{LK} kN/m	G kg
S						
LGGS 60-20-3S	60	200	3000	81	0,23	10,41
LGGS 60-30-3S	60	300	3000	122	0,34	11,29
LGGS 60-40-3S	60	400	3000	162	0,45	12,17
LGGS 60-50-3S	60	500	3000	203	0,57	13,06
LGGS 60-60-3S	60	600	3000	243	0,68	13,94
LGGS 60-20S	60	200	6000	81	0,23	20,81
LGGS 60-30S	60	300	6000	122	0,34	22,58
LGGS 60-40S	60	400	6000	162	0,45	24,35
LGGS 60-50S	60	500	6000	203	0,57	26,12
LGGS 60-60S	60	600	6000	243	0,68	27,89
F						
LGGS 60-20-3F	60	200	3000	81	0,23	11,13
LGGS 60-30-3F	60	300	3000	122	0,34	12,08
LGGS 60-40-3F	60	400	3000	162	0,45	13,03
LGGS 60-50-3F	60	500	3000	203	0,57	13,97
LGGS 60-60-3F	60	600	3000	243	0,68	14,92
LGGS 60-20F	60	200	6000	81	0,23	22,27
LGGS 60-30F	60	300	6000	122	0,34	24,16
LGGS 60-40F	60	400	6000	162	0,45	26,05
LGGS 60-50F	60	500	6000	203	0,57	27,95
LGGS 60-60F	60	600	6000	243	0,68	29,84

accessories optional:

LGIB 60	cable ladder inside bend, height=60 mm	(page C07)
LGAB 60	cable ladder outside bend, height=60 mm	(page C08)
LGVB 60	cable ladder vertical bend, height=60 mm	(page C09)
LGA 60	cable ladder branch-piece, height=60 mm	(page C10)
LGK 60	cable ladder cross-piece, height=60 mm	(page C11)
LGV 60	cable ladder coupler, height=60 mm	(page C18)
LGVH 60	cable ladder coupler, height=60 mm	(page C18)
LGVV 60	cable ladder coupler, height=60 mm	(page C19)
LGTR 60	cable ladder barrier strip, height=33 mm	(page C20)
SL 60	protection end cap	(page C23)
LGKAB	end plate, cable ladder	(page C22)
KLU	fixing set	(page H07)
H	cable clamp for fastening to C-profiles	(catalogue cable clamps)



Cable ladders

LGG 100 cable ladder, height=100 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

For a load diagram, see the chapter planning.

For an application example, see the chapter assembly.

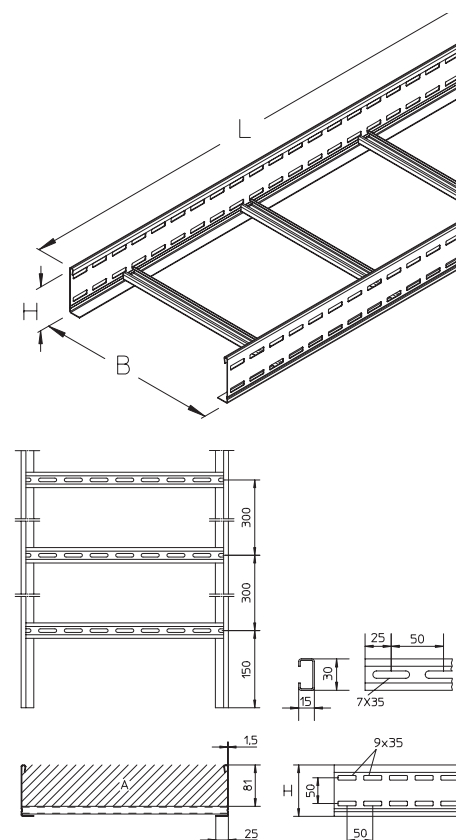
article number	H mm	B mm	L mm	A cm ²	Q _{LK} kN/m	G kg
S						
LGG 100-20-3S	100	200	3000	161	0,45	10,37
LGG 100-30-3S	100	300	3000	242	0,68	11,06
LGG 100-40-3S	100	400	3000	322	0,90	11,75
LGG 100-50-3S	100	500	3000	403	1,13	12,43
LGG 100-60-3S	100	600	3000	483	1,35	13,12
LGG 100-20S	100	200	6000	161	0,45	20,75
LGG 100-30S	100	300	6000	242	0,68	22,12
LGG 100-40S	100	400	6000	322	0,90	23,49
LGG 100-50S	100	500	6000	403	1,13	24,87
LGG 100-60S	100	600	6000	483	1,35	26,24

F						
LGG 100-20-3F	100	200	3000	161	0,45	11,10
LGG 100-30-3F	100	300	3000	242	0,68	11,83
LGG 100-40-3F	100	400	3000	322	0,90	12,57
LGG 100-50-3F	100	500	3000	403	1,13	13,30
LGG 100-60-3F	100	600	3000	483	1,35	14,04
LGG 100-20F	100	200	6000	161	0,45	22,20
LGG 100-30F	100	300	6000	242	0,68	23,67
LGG 100-40F	100	400	6000	322	0,90	25,14
LGG 100-50F	100	500	6000	403	1,13	26,61
LGG 100-60F	100	600	6000	483	1,35	28,08

E						
LGG 100-20-3E	100	200	3000	161	0,45	10,44
LGG 100-30-3E	100	300	3000	242	0,68	11,13
LGG 100-40-3E	100	400	3000	322	0,90	11,82
LGG 100-50-3E	100	500	3000	403	1,13	12,51
LGG 100-60-3E	100	600	3000	483	1,35	13,20
LGG 100-20E	100	200	6000	161	0,45	20,88
LGG 100-30E	100	300	6000	242	0,68	22,26
LGG 100-40E	100	400	6000	322	0,90	23,64
LGG 100-50E	100	500	6000	403	1,13	25,03
LGG 100-60E	100	600	6000	483	1,35	26,41

accessories optional:

LGHS-P	flange mounting clamp	(page C21)
LGIB 100	cable ladder inside bend, height=100 mm	(page C07)
LGAB 100	cable ladder outside bend, height=100 mm	(page C08)
LGVB 100	cable ladder vertical bend, height=110 mm	(page C09)
LGA 100	cable ladder branch-piece, height=100 mm	(page C10)
LGK 100	cable ladder cross-piece, height=100 mm	(page C12)
LGK 100	cable ladder coupler, height=100 mm	(page C18)
LGK 100	cable ladder coupler, height=100 mm	(page C19)
LGK 100	cable ladder coupler, height=100 mm	(page C20)
LGTR 100	cable ladder barrier strip, height=80 mm	(page C21)
SL 100	protection end cap	(page C23)
LGKAB	end plate, cable ladder	(page C22)
KLU	fixing set	(page H07)
H	cable clamp for fastening to C-profiles	(catalogue cable clamps)



Cable ladders

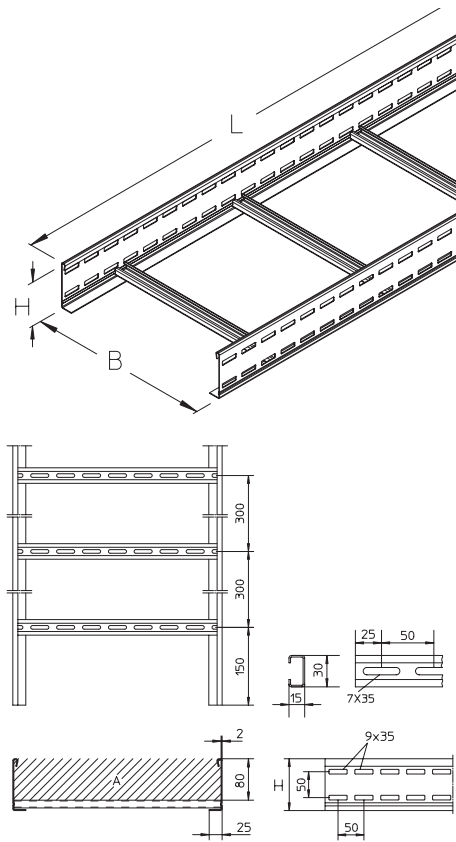
LGGS 100 cable ladder, heavy, height=100 mm

For a load diagram, see the chapter planning.
For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	A cm ²	Q _{LK} kN/m	G kg
S						
LGGS 100-20-3S	100	200	3000	161	0,45	13,58
LGGS 100-30-3S	100	300	3000	242	0,68	14,46
LGGS 100-40-3S	100	400	3000	322	0,90	15,35
LGGS 100-50-3S	100	500	3000	403	1,13	16,23
LGGS 100-60-3S	100	600	3000	483	1,35	17,12
LGGS 100-20S	100	200	6000	161	0,45	27,16
LGGS 100-30S	100	300	6000	242	0,68	28,93
LGGS 100-40S	100	400	6000	322	0,90	30,70
LGGS 100-50S	100	500	6000	403	1,13	32,47
LGGS 100-60S	100	600	6000	483	1,35	34,23
F						
LGGS 100-20-3F	100	200	3000	161	0,45	14,53
LGGS 100-30-3F	100	300	3000	242	0,68	15,48
LGGS 100-40-3F	100	400	3000	322	0,90	16,42
LGGS 100-50-3F	100	500	3000	403	1,13	17,37
LGGS 100-60-3F	100	600	3000	483	1,35	18,32
LGGS 100-20F	100	200	6000	161	0,45	29,06
LGGS 100-30F	100	300	6000	242	0,68	30,95
LGGS 100-40F	100	400	6000	322	0,90	32,85
LGGS 100-50F	100	500	6000	403	1,13	34,74
LGGS 100-60F	100	600	6000	483	1,35	36,63

accessories optional:

LGIB 100	cable ladder inside bend, height=100 mm	(page C07)
LGAB 100	cable ladder outside bend, height=100 mm	(page C08)
LGVB 100	cable ladder vertical bend, height=110 mm	(page C09)
LGA 100	cable ladder branch-piece, height=100 mm	(page C10)
LGK 100	cable ladder cross-piece, height=100 mm	(page C12)
LGV 100	cable ladder coupler, height=100 mm	(page C18)
LGVB 100	cable ladder coupler, height=100 mm	(page C19)
LGVB 100	cable ladder coupler, height=100 mm	(page C20)
LGTR 100	cable ladder barrier strip, height=80 mm	(page C21)
SL 100	protection end cap	(page C23)
LGKAB	end plate, cable ladder	(page C22)
KLU	fixing set	(page H07)
H	cable clamp for fastening to C-profiles	(catalogue cable clamps)



Cable ladders

Fittings

LGIB 60 cable ladder inside bend, height=60 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.

article number	H mm	B mm	R mm	G kg
F				
LGIB 60-20F	60	200	400	3,00
LGIB 60-30F	60	300	400	3,47
LGIB 60-40F	60	400	400	3,95
LGIB 60-50F	60	500	400	5,16
LGIB 60-60F	60	600	400	5,78
E				
LGIB 60-20E	60	200	400	2,82
LGIB 60-30E	60	300	400	3,27
LGIB 60-40E	60	400	400	3,72
LGIB 60-50E	60	500	400	4,85
LGIB 60-60E	60	600	400	5,44

accessories optional:

LGV 60	cable ladder coupler, height=60 mm	(page C18)
LGVB 60	cable ladder coupler, height=60 mm	(page C18)
LGVB 60	cable ladder coupler, height=60 mm	(page C19)
KLU	fixing set	(page H07)

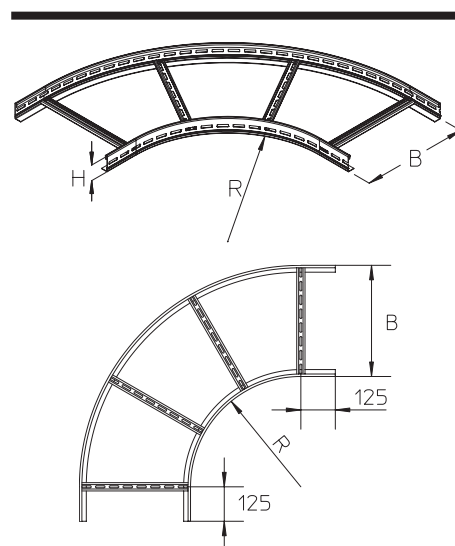
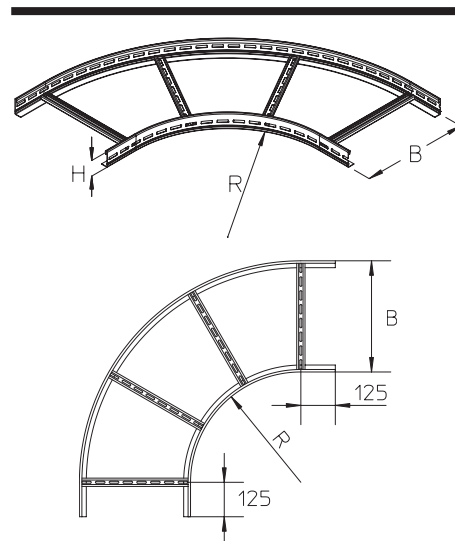
LGIB 100 cable ladder inside bend, height=100 mm

For an application example, see the chapter assembly.

article number	H mm	B mm	R mm	G kg
F				
LGIB 100-20F	100	200	400	3,90
LGIB 100-30F	100	300	400	4,45
LGIB 100-40F	100	400	400	4,99
LGIB 100-50F	100	500	400	6,27
LGIB 100-60F	100	600	400	6,96
E				
LGIB 100-20E	100	200	400	3,67
LGIB 100-30E	100	300	400	4,18
LGIB 100-40E	100	400	400	4,70
LGIB 100-50E	100	500	400	5,90
LGIB 100-60E	100	600	400	6,55

accessories optional:

LGV 100	cable ladder coupler, height=100 mm	(page C18)
LGVB 100	cable ladder coupler, height=100 mm	(page C19)
LGVB 100	cable ladder coupler, height=100 mm	(page C20)
KLU	fixing set	(page H07)



Cable ladders

Fittings

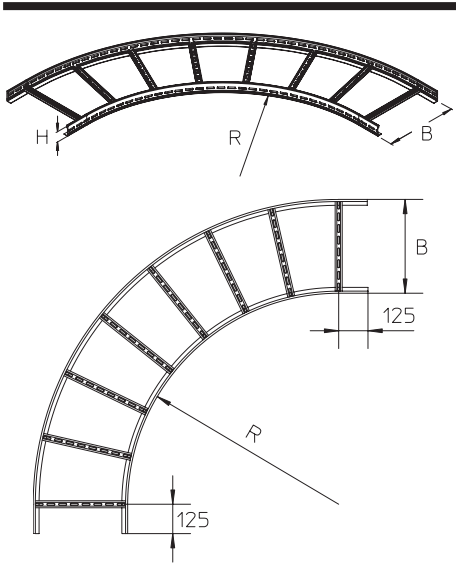
LGAB 60 cable ladder outside bend, height=60 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.

article number	H mm	B mm	R mm	G kg
F				
LGAB 60-20F	60	200	700	4,39
LGAB 60-30F	60	300	800	5,38
LGAB 60-40F	60	400	900	6,95
LGAB 60-50F	60	500	1000	8,09
LGAB 60-60F	60	600	1100	9,23
E				
LGAB 60-20E	60	200	700	4,13
LGAB 60-30E	60	300	800	5,06
LGAB 60-40E	60	400	900	6,54
LGAB 60-50E	60	500	1000	7,61
LGAB 60-60E	60	600	1100	8,68

accessories optional:

LGV 60	cable ladder coupler, height=60 mm	(page C18)
LGVB 60	cable ladder coupler, height=60 mm	(page C18)
LGVB 60	cable ladder coupler, height=60 mm	(page C19)
KLU	fixing set	(page H07)



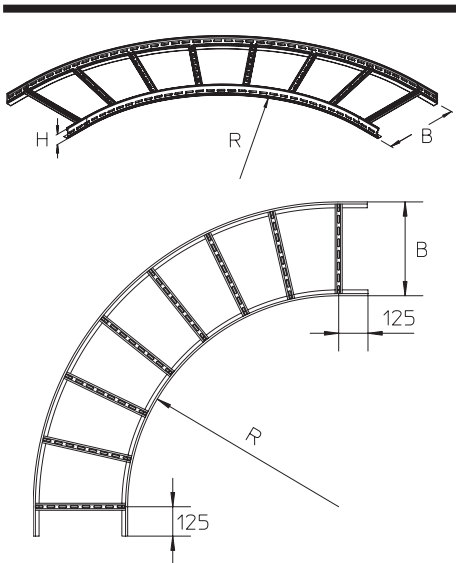
LGAB 100 cable ladder outside bend, height=100 mm

For an application example, see the chapter assembly.

article number	H mm	B mm	R mm	G kg
F				
LGAB 100-20F	100	200	700	5,71
LGAB 100-30F	100	300	800	6,90
LGAB 100-40F	100	400	900	8,68
LGAB 100-50F	100	500	1000	10,03
LGAB 100-60F	100	600	1100	11,37
E				
LGAB 100-20E	100	200	700	5,37
LGAB 100-30E	100	300	800	6,49
LGAB 100-40E	100	400	900	8,17
LGAB 100-50E	100	500	1000	9,43
LGAB 100-60E	100	600	1100	10,69

accessories optional:

LGV 100	cable ladder coupler, height=100 mm	(page C18)
LGVB 100	cable ladder coupler, height=100 mm	(page C19)
LGVB 100	cable ladder coupler, height=100 mm	(page C20)
KLU	fixing set	(page H07)



Cable ladders

Fittings

LGVB 60 cable ladder vertical bend, height=60 mm

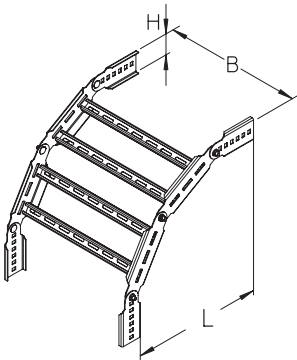
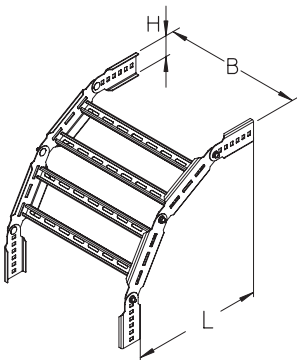
This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	G kg
F				
LGVB 60-20F	60	200	350	2,26
LGVB 60-30F	60	300	350	2,55
LGVB 60-40F	60	400	350	2,85
LGVB 60-50F	60	500	350	3,14
LGVB 60-60F	60	600	350	3,44
E				
LGVB 60-20E	60	200	350	2,13
LGVB 60-30E	60	300	350	2,40
LGVB 60-40E	60	400	350	2,68
LGVB 60-50E	60	500	350	2,95
LGVB 60-60E	60	600	350	3,23

LGVB 100 cable ladder vertical bend, height=110 mm

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	G kg
F				
LGVB 100-20F	100	200	350	2,96
LGVB 100-30F	100	300	350	3,26
LGVB 100-40F	100	400	350	3,55
LGVB 100-50F	100	500	350	3,85
LGVB 100-60F	100	600	350	4,14
E				
LGVB 100-20E	100	200	350	2,79
LGVB 100-30E	100	300	350	3,06
LGVB 100-40E	100	400	350	3,34
LGVB 100-50E	100	500	350	3,62
LGVB 100-60E	100	600	350	3,89



Cable ladders

Fittings

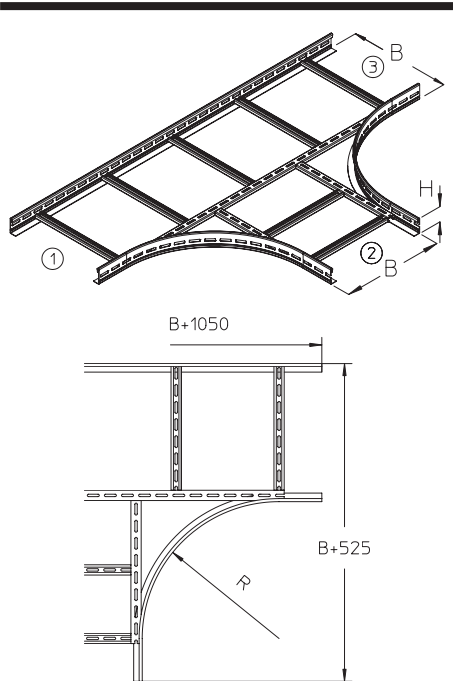
LGA 60 cable ladder branch-piece, height=60 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.

article number	H mm	B mm	R mm	G kg
F				
LGA 60-20F	60	200	400	4,69
LGA 60-30F	60	300	400	5,39
LGA 60-40F	60	400	400	6,10
LGA 60-50F	60	500	400	6,80
LGA 60-60F	60	600	400	7,51
E				
LGA 60-20E	60	200	400	4,41
LGA 60-30E	60	300	400	5,07
LGA 60-40E	60	400	400	5,74
LGA 60-50E	60	500	400	6,40
LGA 60-60E	60	600	400	7,06

accessories optional:

LGV 60	cable ladder coupler, height=60 mm	(page C18)
LGVH 60	cable ladder coupler, height=60 mm	(page C18)
LGVV 60	cable ladder coupler, height=60 mm	(page C19)
KLU	fixing set	(page H07)



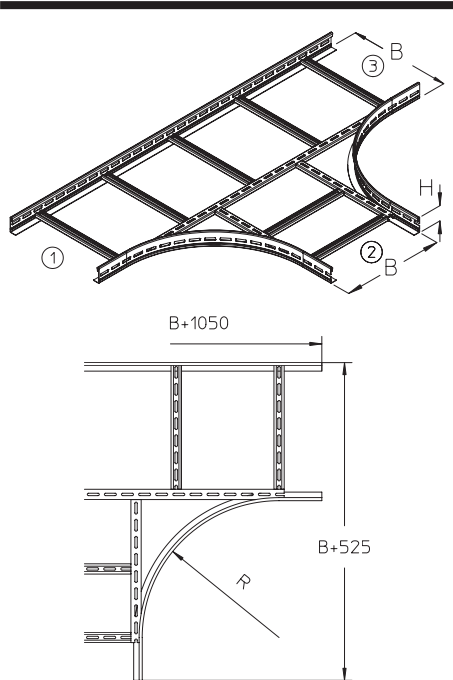
LGA 100 cable ladder branch-piece, height=100 mm

For an application example, see the chapter assembly.

article number	H mm	B mm	R mm	G kg
F				
LGA 100-20F	100	200	400	5,62
LGA 100-30F	100	300	400	6,37
LGA 100-40F	100	400	400	7,12
LGA 100-50F	100	500	400	7,86
LGA 100-60F	100	600	400	8,61
E				
LGA 100-20E	100	200	400	5,28
LGA 100-30E	100	300	400	5,99
LGA 100-40E	100	400	400	6,69
LGA 100-50E	100	500	400	7,40
LGA 100-60E	100	600	400	8,10

accessories optional:

LGV 100	cable ladder coupler, height=100 mm	(page C18)
LGVH 100	cable ladder coupler, height=100 mm	(page C19)
LGVV 100	cable ladder coupler, height=100 mm	(page C20)
KLU	fixing set	(page H07)



Cable ladders

Fittings

LGK 60 cable ladder cross-piece, height=60 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

article number	H mm	B mm	R mm	G kg
F				
LGK 60-20F	60	200	400	7,78
LGK 60-30F	60	300	400	8,59
LGK 60-40F	60	400	400	9,40
LGK 60-50F	60	500	400	10,21
LGK 60-60F	60	600	400	11,02
E				
LGK 60-20E	60	200	400	7,32
LGK 60-30E	60	300	400	8,08
LGK 60-40E	60	400	400	8,84
LGK 60-50E	60	500	400	9,60
LGK 60-60E	60	600	400	10,36

- accessories optional:

LGV 60

cable ladder coupler, height=60 mm

(page C18)

LGVH 60

cable ladder coupler, height=60 mm

(page C18)

LGVV 60

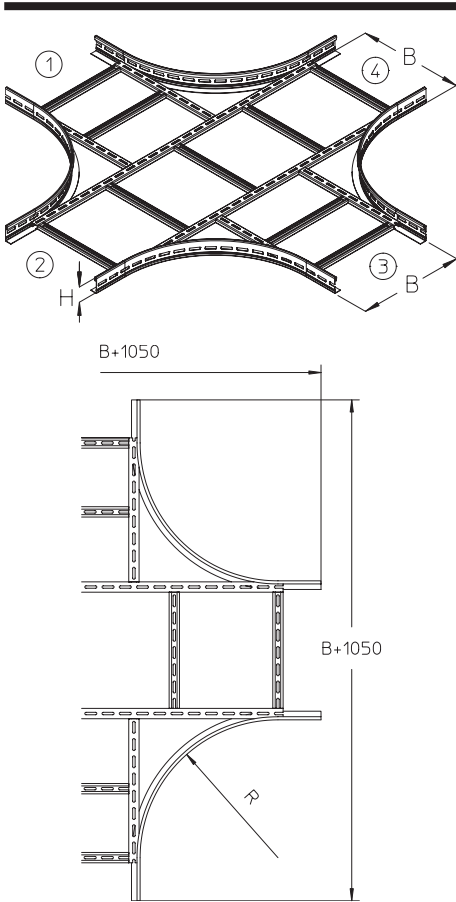
cable ladder coupler, height=60 mm

(page C19)

KLU

fixing set

(page H07)



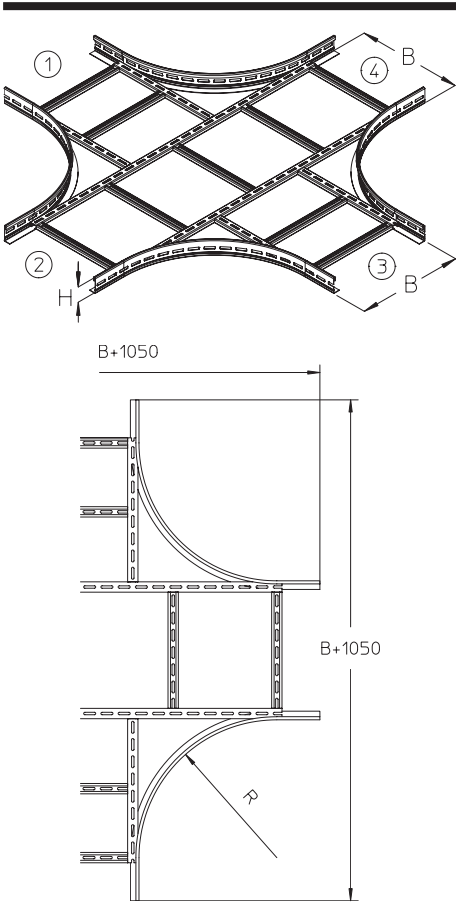
Cable ladders

Fittings

LGK 100 cable ladder cross-piece, height=100 mm

article number	H mm	B mm	R mm	G kg
F				
LGK 100-20F	100	200	400	9,32
LGK 100-30F	100	300	400	10,13
LGK 100-40F	100	400	400	10,94
LGK 100-50F	100	500	400	11,74
LGK 100-60F	100	600	400	12,55
E				
LGK 100-20E	100	200	400	8,77
LGK 100-30E	100	300	400	9,53
LGK 100-40E	100	400	400	10,29
LGK 100-50E	100	500	400	11,05
LGK 100-60E	100	600	400	11,81

- accessories optional:
- LGV 100**
cable ladder coupler, height=100 mm
 (page C18)
 - LGVH 100**
cable ladder coupler, height=100 mm
 (page C19)
 - LGVV 100**
cable ladder coupler, height=100 mm
 (page C20)
 - KLU**
fixing set
 (page H07)



Cable ladders

Cover

LD cable ladder cover

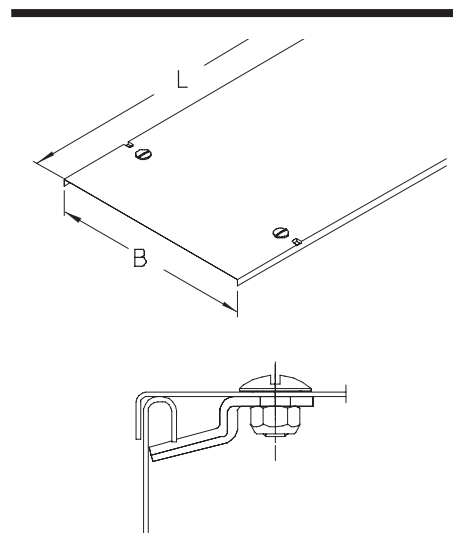
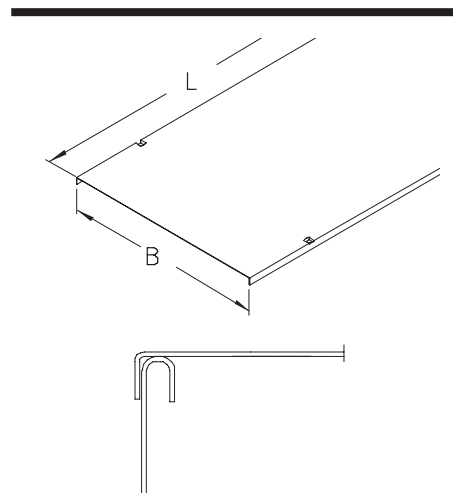
This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

article number	B mm	L mm	G kg
S			
LD 20S	206	3000	4,10
LD 30S	306	3000	7,80
LD 40S	406	3000	10,10
LD 50S	506	3000	15,60
LD 60S	606	3000	18,50
F			
LD 20F	206	3000	4,70
LD 30F	306	3000	8,60
LD 40F	406	3000	11,20
LD 50F	506	3000	17,00
LD 60F	606	3000	20,30
E			
LD 20E	206	3000	4,40
LD 30E	306	3000	7,80
LD 40E	406	3000	10,20
LD 50E	506	3000	15,10
LD 60E	606	3000	17,60

LDR cable ladder cover with turning bolt

Installation of covers in outdoor areas requires additional provisions against storm forces. Turning bolts are in no case sufficient as security provision. This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

article number	B mm	L mm	G kg
S			
LDR 20S	206	3000	4,10
LDR 30S	306	3000	7,80
LDR 40S	406	3000	10,10
LDR 50S	506	3000	15,60
LDR 60S	606	3000	18,50
F			
LDR 20F	206	3000	4,70
LDR 30F	306	3000	8,60
LDR 40F	406	3000	11,20
LDR 50F	506	3000	17,00
LDR 60F	606	3000	20,30
E			
LDR 20E	206	3000	4,40
LDR 30E	306	3000	7,80
LDR 40E	406	3000	10,20
LDR 50E	506	3000	15,10
LDR 60E	606	3000	17,60



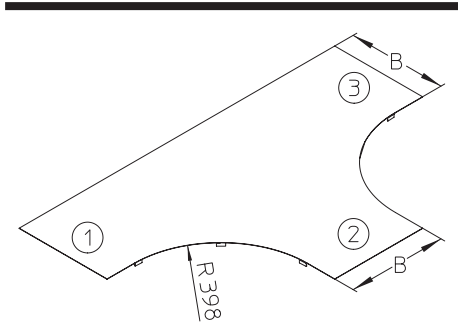
Cable ladders

Cover

LAD cable ladder branch-piece cover

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.

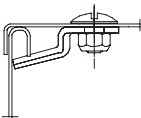
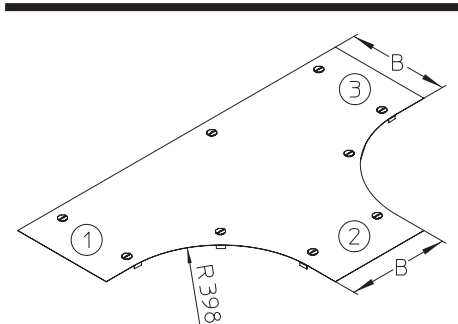
article number	B mm	R mm	t mm	G kg
S				
LAD 20S	204	398	0,75	2,67
LAD 30S	304	398	1,00	5,14
LAD 40S	404	398	1,00	6,93
LAD 50S	504	398	1,25	11,06
LAD 60S	604	398	1,25	13,68
F				
LAD 20F	204	398	0,75	2,86
LAD 30F	304	398	1,00	5,50
LAD 40F	404	398	1,00	7,42
LAD 50F	504	398	1,25	11,83
LAD 60F	604	398	1,25	14,64



LADR cable ladder branch cover with turning bolts

Cover for branch.

article number	B mm	L mm	t mm	G kg
S				
LADR 20S	204	398	0.75	2.73
LADR 30S	304	398	1.00	5.20
LADR 40S	404	398	1.00	6.99
LADR 50S	504	398	1.25	11.11
LADR 60S	604	398	1.25	13.74
F				
LADR 20F	204	398	0.75	2.91
LADR 30F	304	398	1.00	5.56
LADR 40F	404	398	1.00	7.47
LADR 50F	504	398	1.25	11.89
LADR 60F	604	398	1.25	14.70
E				
LADR 20E	204	398	0.80	2.91
LADR 30E	304	398	1.00	5.23
LADR 40E	404	398	1.00	7.03
LADR 50E	504	398	1.25	11.18
LADR 60E	604	398	1.25	13.83



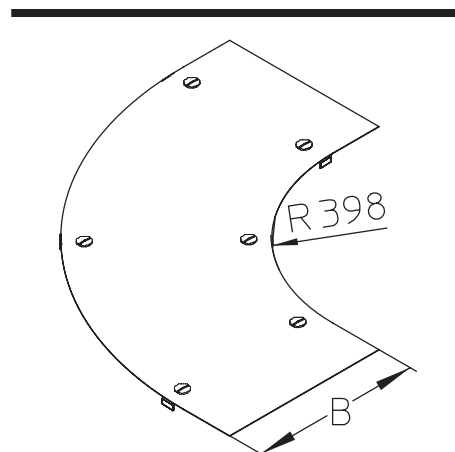
Cable ladders

Cover

LIBD cable ladder inside bend cover

Cover for cable ladder inside bends.

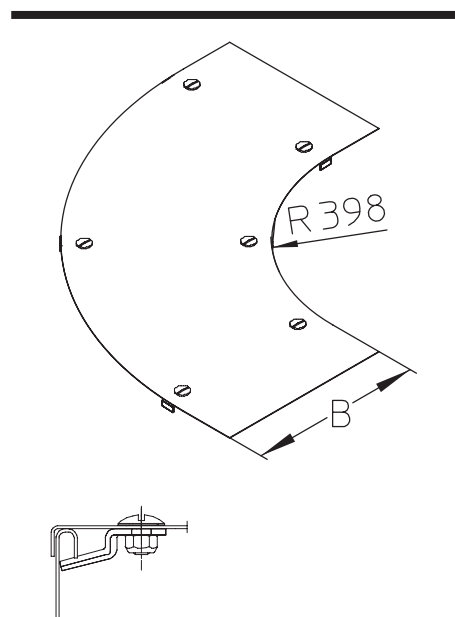
article number	B mm	R mm	t mm	G kg
S				
LIBD 20S	204	398	0.75	1.33
LIBD 30S	304	398	1.00	2.75
LIBD 40S	404	398	1.00	3.87
LIBD 50S	504	398	1.25	6.38
LIBD 60S	604	398	1.25	8.09
F				
LIBD 20F	204	398	0.75	1.42
LIBD 30F	304	398	1.00	2.94
LIBD 40F	404	398	1.00	4.14
LIBD 50F	504	398	1.25	6.83
LIBD 60F	604	398	1.25	8.66
E				
LIBD 20E	204	398	0.80	1.43
LIBD 30E	304	398	1.00	2.77
LIBD 40E	404	398	1.00	3.90
LIBD 50E	504	398	1.25	6.42
LIBD 60E	604	398	1.25	8.14



LIBDR cable ladder inside bend cover with turning bolts

Cover for cable ladder inside bends.

article number	B mm	R mm	t mm	G kg
S				
LIBDR 20S	204	398	0.75	1.42
LIBDR 30S	304	398	1.00	2.84
LIBDR 40S	404	398	1.00	3.96
LIBDR 50S	504	398	1.25	6.46
LIBDR 60S	604	398	1.25	8.18
F				
LIBDR 20F	204	398	0.75	1.53
LIBDR 30F	304	398	1.00	3.04
LIBDR 40F	404	398	1.00	4.24
LIBDR 50F	504	398	1.25	6.92
LIBDR 60F	604	398	1.25	8.75
E				
LIBDR 20E	204	398	0.80	1.44
LIBDR 30E	304	398	1.00	2.87
LIBDR 40E	404	398	1.00	4.00
LIBDR 50E	504	398	1.25	6.52
LIBDR 60E	604	398	1.25	8.24



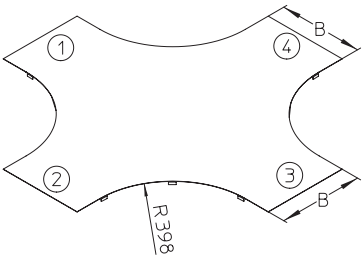
Cable ladders

Cover

LKD cable ladder crossing cover

Cover for cable ladder crossing.

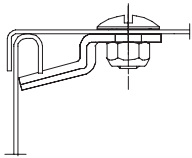
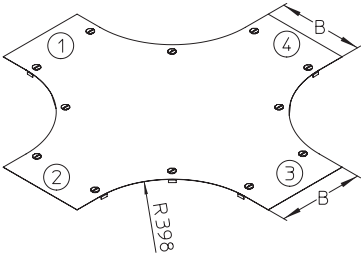
article number	B mm	R mm	t mm	G kg
S				
LKD 20S	204	398	0.75	3.74
LKD 30S	304	398	1.00	6.97
LKD 40S	404	398	1.00	9.16
LKD 50S	504	398	1.25	14.35
LKD 60S	604	398	1.25	18.07
F				
LKD 20F	204	398	0.75	4.00
LKD 30F	304	398	1.00	7.46
LKD 40F	404	398	1.00	9.80
LKD 50F	504	398	1.25	15.35
LKD 60F	604	398	1.25	19.33
E				
LKD 20E	204	398	0.80	4.00
LKD 30E	304	398	1.00	7.01
LKD 40E	404	398	1.00	9.22
LKD 50E	504	398	1.25	14.45
LKD 60E	604	398	1.25	18.22



LKDR cable ladder crossing cover with turning bolts

Cover for cable ladder crossing.

article number	B mm	R mm	t mm	G kg
S				
LKDR 20S	204	398	0.75	4.20
LKDR 30S	304	398	1.00	7.58
LKDR 40S	404	398	1.00	9.81
LKDR 50S	504	398	1.25	15.13
LKDR 60S	604	398	1.25	18.30
F				
LKDR 20F	204	398	0.75	4.47
LKDR 30F	304	398	1.00	8.09
LKDR 40F	404	398	1.00	10.48
LKDR 50F	504	398	1.25	15.23
LKDR 60F	604	398	1.25	19.56
E				
LKDR 20E	204	398	0.80	4.52
LKDR 30E	304	398	1.00	7.63
LKDR 40E	404	398	1.00	9.87
LKDR 50E	504	398	1.25	15.22
LKDR 60E	604	398	1.25	18.41



Cable ladders

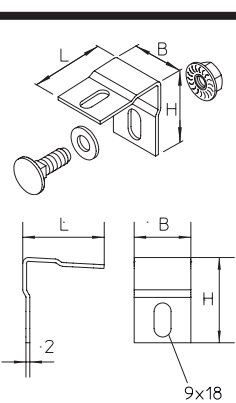
Cover

LD-SW storm protection angle

Storm protection angles, suitable for outdoor use. According to assembly instructions you should use at least 6 safety elements for each 3 meters cable path cover.
For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	G kg
F					
LD-SW F	46	30	30	2	0,15
E					
LD-SW E	46	30	30	2	0,15

accessories included:
1 x **KLS 8x16E** fixing set (page H34)
1 x **UVS M8** captive washer (page H40)



Cable ladders

Accessoires

LGV 60 cable ladder coupler, height=60 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.

article number	H mm	L mm	G kg
S			
LGV 60S	60	150	0,22

accessories included:
2 x **KLS 8x16** fixing set (page H33)

article number	H mm	L mm	G kg
F			
LGV 60F	60	150	0,23

E			
LGV 60E	60	150	0,22

accessories included:
2 x **KLS 8x16E** fixing set (page H34)

LGV 100 cable ladder coupler, height=100 mm

For an application example, see the chapter assembly.

article number	H mm	L mm	G kg
S			
LGV 100S	100	220	0,41

accessories included:
4 x **KLS 8x16** fixing set (page H33)

article number	H mm	L mm	G kg
F			
LGV 100F	100	220	0,42

E			
LGV 100E	100	220	0,41

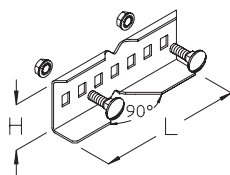
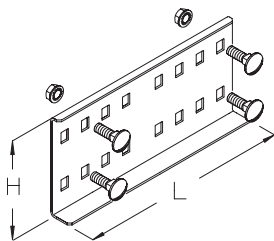
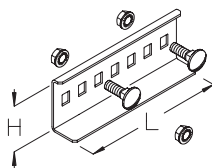
accessories included:
4 x **KLS 8x16E** fixing set (page H34)

LGVH 60 cable ladder coupler, height=60 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.

article number	H mm	L mm	G kg
S			
LGVH 60S	60	150	0,20

accessories included:
2 x **KLS 8x16** fixing set (page H33)



Cable ladders

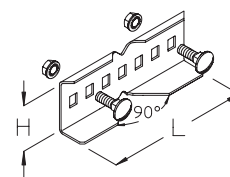
Accessoires

LGVB 60 cable ladder coupler, height=60 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.

article number	H mm	L mm	G kg
F			
LGVB 60F	60	150	0,22
E			
LGVB 60E	60	150	0,20

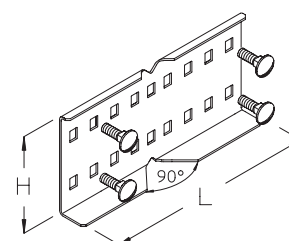
accessories included:
2 x **KLS 8x16E** fixing set (page H34)



LGVB 100 cable ladder coupler, height=100 mm

article number	H mm	L mm	G kg
S			
LGVB 100S	100	220	0,41

accessories included:
4 x **KLS 8x16** fixing set (page H34)



article number	H mm	L mm	G kg
F			
LGVB 100F	100	220	0,42
E			
LGVB 100E	100	220	0,41

accessories included:
4 x **KLS 8x16E** fixing set (page H34)

LGVB 60 cable ladder coupler, height=60 mm

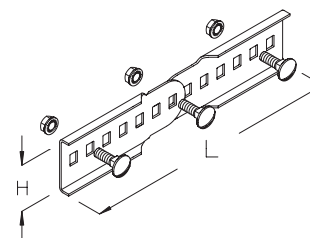
This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.

article number	H mm	L mm	G kg
S			
LGVB 60S	60	270	0,39

accessories included:
3 x **KLS 8x16** fixing set (page H34)

article number	H mm	L mm	G kg
F			
LGVB 60F	60	270	0,42
E			
LGVB 60E	60	270	0,39

accessories included:
3 x **KLS 8x16E** fixing set (page H34)



Cable ladders

Accessoires

LGVV 100 cable ladder coupler, height=100 mm

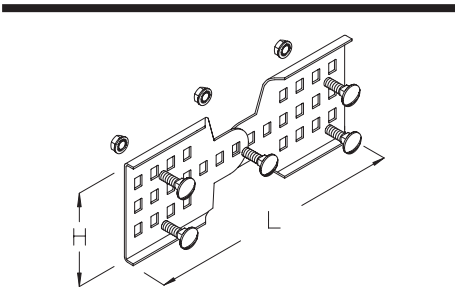
article number	H mm	L mm	G kg
S			
LGVV 100S	100	270	0,61

accessories included:
5 x **KLS 8x16** fixing set (page H33)

article number	H mm	L mm	G kg
F			
LGVV 100F	100	270	0,64

E			
LGVV 100E	100	270	0,61

accessories included:
5 x **KLS 8x16E** fixing set (page H34)



LGTR 60 cable ladder barrier strip, height=33 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.

article number	H mm	L mm	G kg
S			
LGTR 60S	33	3000	1,50

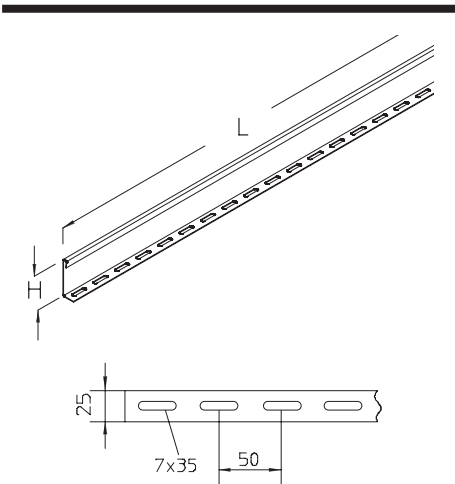
accessories included:
3 x **FKS 6x10** slotted cylinder head screw, DIN 84 (page H35)
3 x **AM16 M6F** channel nut, B7 (page H45)

article number	H mm	L mm	G kg
F			
LGTR 60F	33	3000	1,60

accessories included:
3 x **FKS 6x10E** slotted cylinder head screw, DIN 84 (page H35)
3 x **AM16 M6F** channel nut, B7 (page H45)

article number	H mm	L mm	G kg
E			
LGTR 60E	33	3000	1,50

accessories included:
3 x **FKS 6x10E** slotted cylinder head screw, DIN 84 (page H35)
3 x **AM16 M6E4** channel nut, B7 (page H45)



Cable ladders

Accessoires

LGTR 100 cable ladder barrier strip, height=80 mm

For an application example, see the chapter assembly.

article number	H mm	L mm	G kg
S			
LGTR 100S	80	3000	2,70

accessories included:

3 x **FKS 6x10** slotted cylinder head screw, DIN 84 (page H35)
 3 x **AM16 M6F** channel nut, B7 (page H45)

article number	H mm	L mm	G kg
F			
LGTR 100F	80	3000	2,90

accessories included:

3 x **FKS 6x10E** slotted cylinder head screw, DIN 84 (page H35)
 3 x **AM16 M6F** channel nut, B7 (page H45)

article number	H mm	L mm	G kg
E			
LGTR 100E	80	3000	2,70

accessories included:

3 x **FKS 6x10E** slotted cylinder head screw, DIN 84 (page H35)
 3 x **AM16 M6E4** channel nut, B7 (page H45)

LGHS-P flange mounting clamp

article number	G kg
F	
LGHS-P S	0,68

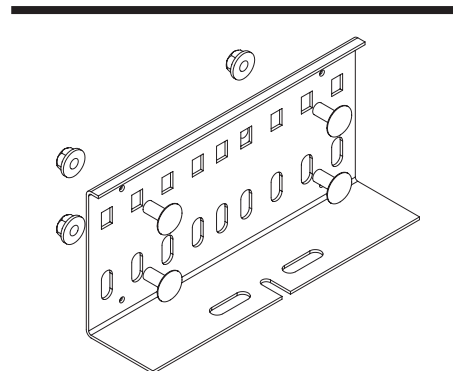
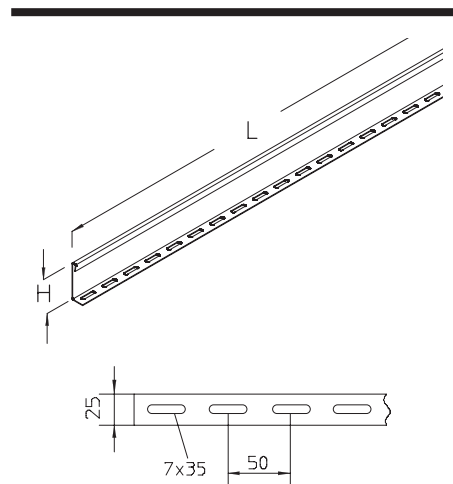
accessories included:

4 x **FRSV 8x16** round-head screw with short square (page H34)
 4 x **SEMS 8** hexagon nut, self-locking, DIN 6923 (page H41)
 1 x **FRS 8x50** round-head screw with square, DIN 603 (page H35)
 1 x **US 8x17** square washer, DIN 125 (page H39)
 1 x **SKLL F** clamping claw (page D49)
 1 x **SEM 8** hexagon-nut, DIN 934 (page H41)

article number	G kg
F	
LGHS-P F	0,71

accessories included:

4 x **FRSV 8x16E** round-head screw with short square (page H35)
 4 x **SEMS 8E** hexagon nut, self-locking, DIN 6923 (page H41)
 1 x **FRS 8x50E** round-head screw with square, DIN 603 (page H35)
 1 x **US 8x17E** square washer, DIN 125 (page H40)
 1 x **SKLL F** clamping claw (page D49)
 1 x **SEM 8E** hexagon-nut, DIN 934 (page H41)



Cable ladders

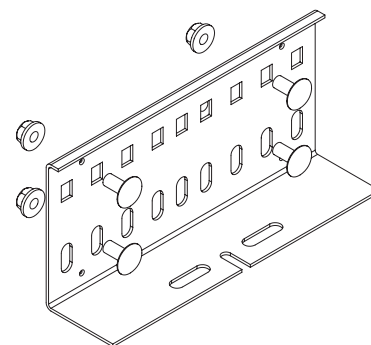
Accessoires

LGHS-P flange mounting clamp

article number	G
	kg
F	
LGHS-P E	0,68

accessories included:

4 x FRSV 8x16E	round-head screw with short square	(page H35)
4 x SEMS 8E	hexagon nut, self-locking, DIN 6923	(page H41)
1 x FRS 8x50E	round-head screw with square, DIN 603	(page H35)
1 x US 8x17E	square washer, DIN 125	(page H40)
1 x SKLL E	clamping claw	(page D49)
1 x SEM 8E	hexagon-nut, DIN 934	(page H41)



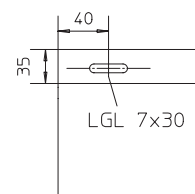
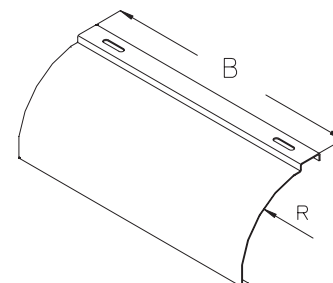
LGKAB end plate, cable ladder

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.

article number	B mm	R mm	G kg
S			
LGKAB 20S	140	100	0,41
LGKAB 30S	240	100	0,68
LGKAB 40S	340	100	0,95
LGKAB 50S	440	100	1,22
LGKAB 60S	540	100	1,49

accessories included:

2 x AM16 M6F	channel nut, B7	(page H45)
2 x FKS 6x10	slotted cylinder head screw, DIN 84	(page H35)



article number	B mm	R mm	G kg
F			
LGKAB 20F	140	100	0,44
LGKAB 30F	240	100	0,73
LGKAB 40F	340	100	1,02
LGKAB 50F	440	100	1,31
LGKAB 60F	540	100	1,60

accessories included:

2 x FKS 6x10E	slotted cylinder head screw, DIN 84	(page H35)
2 x AM16 M6F	channel nut, B7	(page H45)

article number	B mm	R mm	G kg
E			
LGKAB 20E	140	100	0,41
LGKAB 30E	240	100	0,68
LGKAB 40E	340	100	0,95
LGKAB 50E	440	100	1,22
LGKAB 60E	540	100	1,49

accessories included:

2 x FKS 6x10E	slotted cylinder head screw, DIN 84	(page H35)
2 x AM16 M6E4	channel nut, B7	(page H45)

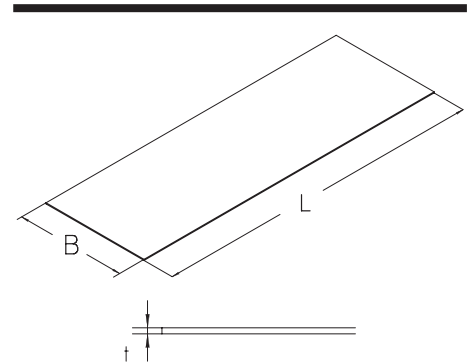
Cable ladders

Accessoires

EL Fiber cement plate

For an application example, see the chapter assembly.

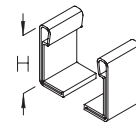
article number	B mm	L mm	t mm	G kg
EL 20	190	1250	4	1,30
EL 30	290	1250	4	2,00
EL 40	390	1250	4	2,60
EL 50	490	1250	4	3,30
EL 60	590	1250	4	4,00



SL 60 protection end cap

For an application example, see the chapter assembly.

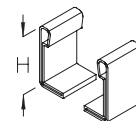
article number	H mm	G kg/set
PE		
SL 60	60	0,03



SL 100 protection end cap

For an application example, see the chapter assembly.

article number	H mm	G kg/set
PE		
SL 100	100	0,04



MP-L assembly plate

article number	H mm	B mm	G kg
S			
MP-L 60S	185	120	0,16

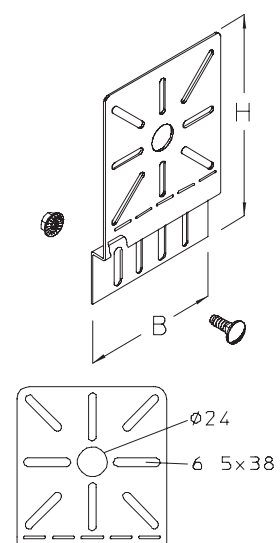
accessories included:
1 x **KLS 8x16** fixing set (page H33)

article number	H mm	B mm	G kg
F			
MP-L 60F	185	120	0,17

accessories included:
1 x **KLS 8x16E** fixing set (page H33)

article number	H mm	B mm	G kg
E4			
MP-L 60E4	185	120	0,16

accessories included:
1 x **SES 8x20E4** hexagon head bolt, DIN 933 (page H38)
1 x **SEM 8E4** hexagon-nut, DIN 934 (page H41)
1 x **US 8x17E4** square washer, DIN 125 (page H41)



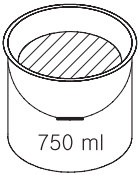
Cable ladders

Accessoires

KZF cold zinc paint

For assembly instructions, see the chapter assembly.

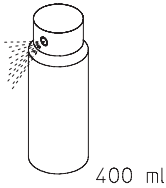
article number	l ml	G kg
KZF	750	1,93



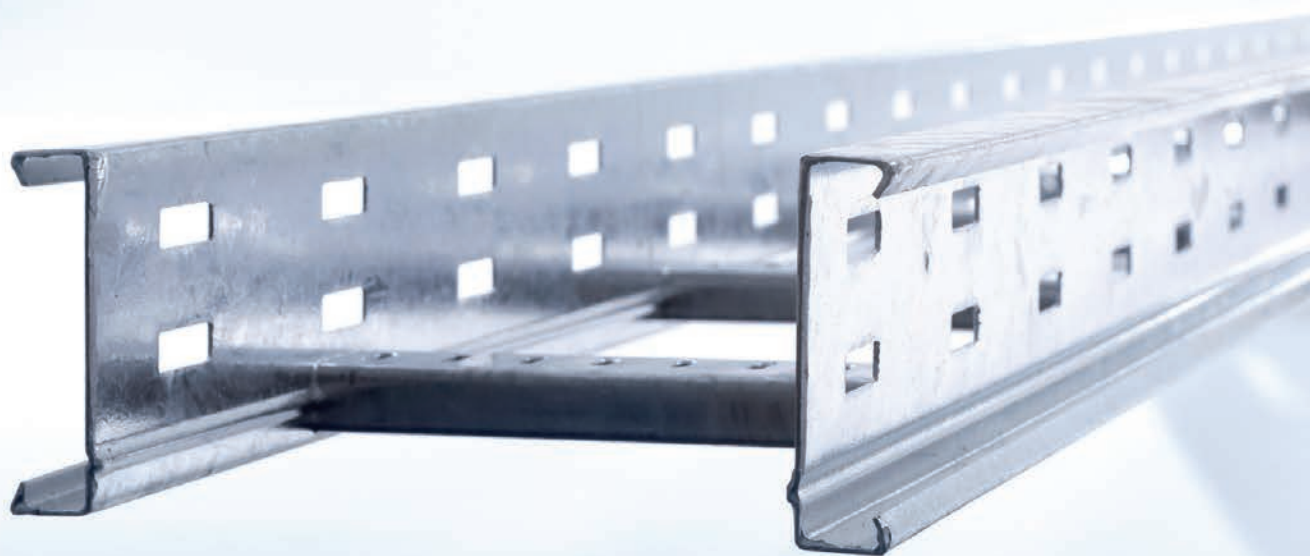
KZS cold zinc spray

For assembly instructions, see the chapter assembly.

article number	l ml	G kg
KZS	400	0,40







Wide-span systems

Wide-span systems	D03-D05
Fittings	D06-D21
Cover	D22-D29
Accessories	D30-D50



Numeric index

Wide-span systems

A

AM18 channel nut, A7/ A8 [D48](#)
AM22 channel nut, A41/ KHA 41/ KHAL 41 [D49](#)

F

FKS slotted cylinder head screw, DIN 84 [D43](#)
FRS round-head screw with square, DIN 603 [D43](#)
FRSV round-head screw with short square [D43](#)
FS serrated lock washer [D47](#)

K

KLR fixing set [D42](#)
KLS fixing set [D42](#)
KPAB end plate [D40](#)
KZF cold zinc paint [D49](#)
KZS cold zinc spray [D49](#)

P

PKPEC protection end cap [D41](#)

R

RU cable clamp for fastening to round sections [D41](#)

S

SEM hexagon-nut, DIN 934 [D46](#)
SEMB hexagon-nut, DIN 934 [D46](#)
SEMS hexagon nut, self-locking, DIN 6923 [D46](#)
SEMSS hexagon-nut, self-locking, DIN 985 [D47](#)
SES hexagon head bolt, DIN 933 [D45](#)
SKLL clamping claw [D49](#)

T

TS isolation strip [D41](#)

U

US 125 square washer, DIN 125 [D47](#)
US 9021 square washer, DIN 9021 [D48](#)
UVS captive washer [D48](#)

W

WP 100 wide-span cable ladder, height=100 mm [D04](#)
WP 150 wide-span cable ladder, height=150 mm [D05](#)
WP 60 wide-span cable ladder, height=60 mm [D03](#)
WPBP 100 wide-span attachment branch-piece, height=150 mm [D18](#)
WPBP 150 wide-span attachment branch-piece, height=150 mm [D19](#)
WPC 100 wide-span coupler, height=100 mm [D30](#)
WPC 150 wide-span coupler, height=150 mm [D30](#)
WPC 60 wide-span connector, height=60 mm [D31](#)
WPCH 100 wide-span coupler, horizontally adjustable, height=100 mm [D31](#)
WPCH 150 wide-span coupler, horizontally adjustable, height=100 mm [D32](#)
WPCH 60 wide-span connector, horizontally adjustable, height=60 mm [D32](#)
WPCHV 100 wide-span connector, horizontal-vertical, height=100 mm [D37](#)
WPCHV 150 wide-span connector, horizontal-vertical, height=150 mm [D38](#)

WPCHV 60 wide-span connector, horizontal-vertical, height=60 mm [D38](#)
WPCO wide-span cover [D22](#)
WPCP 100 wide-span cross-piece, height=100 mm [D20](#)
WPCP 150 wide-span cross-piece, height=150 mm [D21](#)
WPCPCO wide-span cross-piece cover A16, [D28](#)
WPCV 100 wide-span coupler, vertically adjustable, height=100 mm [D33](#)
WPCV 150 wide-span coupler, vertically adjustable, height=100 mm [D33](#)
WPCV 60 wide-span connector, vertically adjustable, height=60 mm [D32](#)
WPD-E elevation [D23](#)
WPDUK cover clamp [D23](#)
WPF-B flange mounting clamp (brackets) [D34](#)
WPF-B 60 flange mounting clamp (brackets) [D34](#)
WPF-C flange mounting clamp (C-profiles) [D35](#)
WPF-C 60 flange mounting clamp (C-profiles) [D35](#)
WPFCOH fitting cover hook clip [D25](#)
WPFCOHE fitting cover hook clip [D25](#)
WPF-IS isolation strip [D36](#)
WPF-P flange mounting clamp (profiles) [D36](#)
WPF-P 60 flange mounting clamp (profiles) [D37](#)
WPHB 100 wide-span bend, height=100 mm [D07](#)
WPHB 150 wide-span bend, height=150 mm [D08](#)
WPHB 60 wide-span bend, height=60 mm [D06](#)
WPHBCO wide-span bend cover [D24](#)
WPIR 100 wide-span inside riser, height=100 mm [D10](#)
WPIR 150 wide-span inside riser, height=150 mm [D11](#)
WPIR 60 wide-span inside riser, height=60 mm [D09](#)
WPIRCO wide-span inside riser cover [D26](#)
WPLEAB 150 wide-span ladder bend [D09](#)
WPOR 100 wide-span outside riser, height=100 mm [D13](#)
WPOR 150 wide-span outside riser, height=150 mm [D14](#)
WPOR 60 wide-span outside riser, height=60 mm [D12](#)
WPORCO wide-span outside riser cover [D27](#)
WPR reducer [D40](#)
WPS 100 wide-span barrier strip, height=50 mm [D39](#)
WPS 150 wide-span barrier strip, height=100 mm [D39](#)
WPS 60 wide-span separating strip, height=33 mm [D39](#)
WPTP 100 wide-span branch-piece, height=100 mm [D16](#)
WPTP 150 wide-span branch-piece, height=150 mm [D17](#)
WPTP 60 wide-span branch, height=60 mm [D15](#)
WPTPCO wide-span branch-piece cover [D29](#)

Wide-span systems

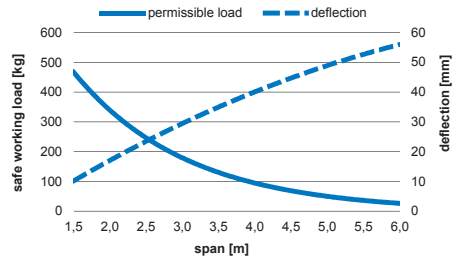
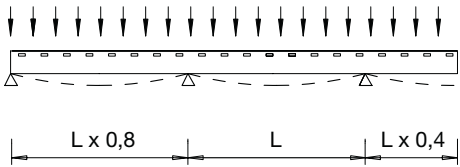
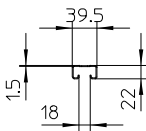
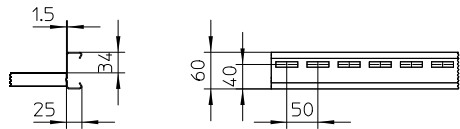
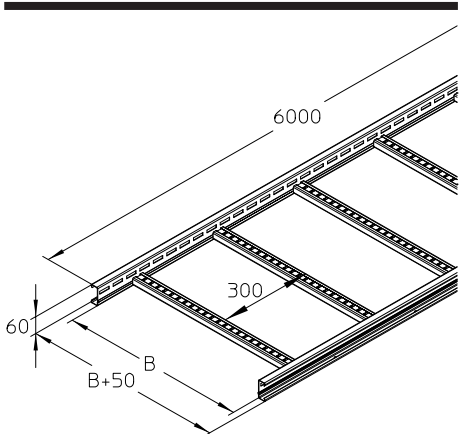
WP 60 wide-span cable ladder, height=60 mm

Wide-span cable ladder, additional transverse rigidity due to welded rungs, rungs made of profile rail perforated. Electrical conductivity tested according to DIN EN 61537. Welded construction.

article number	H mm	B mm	L mm	G kg
F				
WP06-20-HDG	60	200	6000	23.09
WP06-30-HDG	60	300	6000	25.95
WP06-40-HDG	60	400	6000	28.82
WP06-60-HDG	60	600	6000	34.57

accessories optional:

WPHB 60	wide-span bend, height=60 mm	(page D06)
WPF-B 60	flange mounting clamp (brackets)	(page D34)
WPF-C 60	flange mounting clamp (C-profiles)	(page D35)
WPF-P 60	flange mounting clamp (profiles)	(page D37)
WPIR 60	wide-span inside riser, height=60 mm	(page D09)
WPOR 60	wide-span outside riser, height=60 mm	(page D12)
WPTP 60	wide-span branch, height=60 mm	(page D15)
WPC 60	wide-span connector, height=60 mm	(page D31)
WPCB 60	wide-span connector, horizontally adjustable, height=60 mm	(page D32)
WPCV 60	wide-span connector, vertically adjustable, height=60 mm	(page D32)
WPCHV 60	wide-span connector, horizontal-vertical, height=60 mm	(page D38)
WPS 60	wide-span separating strip, height=33 mm	(page D39)
WPF-IS	isolation strip	(page D36)



Wide-span systems

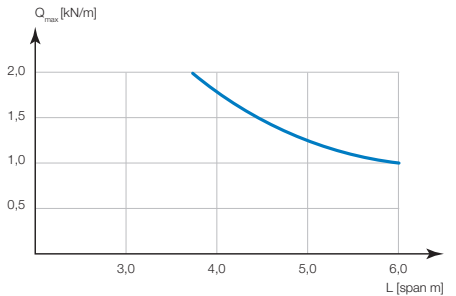
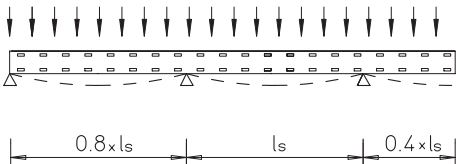
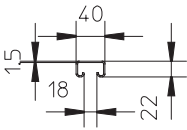
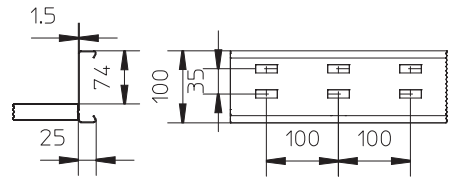
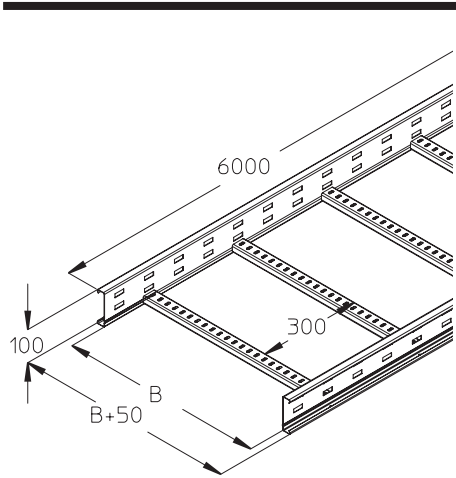
WP 100 wide-span cable ladder, height=100 mm

Wide-span cable ladder, additional transverse rigidity due to welded rungs, rungs made of profile rail perforated. Electrical conductivity tested according to DIN EN 61537. Welded construction.

article number	H mm	B mm	L mm	G kg
F				
WP10-20-HDG	100	200	6000	27.56
WP10-30-HDG	100	300	6000	29.88
WP10-40-HDG	100	400	6000	32.20
WP10-45-HDG	100	450	6000	33.36
WP10-50-HDG	100	500	6000	34.52
WP10-60-HDG	100	600	6000	36.84
WP10-70-HDG	100	700	6000	39.16
WP10-75-HDG	100	750	6000	40.32
WP10-80-HDG	100	800	6000	41.48
WP10-90-HDG	100	900	6000	43.80
WP10-100-HDG	100	1000	6000	46.12
E				
WP10-20-304	100	200	6000	27.56
WP10-30-304	100	300	6000	29.88
WP10-40-304	100	400	6000	32.20
WP10-45-304	100	450	6000	33.36
WP10-50-304	100	500	6000	34.52
WP10-60-304	100	600	6000	36.84
WP10-70-304	100	700	6000	39.16
WP10-75-304	100	750	6000	40.32
WP10-80-304	100	800	6000	41.48
WP10-90-304	100	900	6000	43.80
WP10-100-304	100	1000	6000	46.12
E4				
WP10-20-316	100	200	6000	27.56
WP10-30-316	100	300	6000	29.88
WP10-40-316	100	400	6000	32.20
WP10-45-316	100	450	6000	33.36
WP10-50-316	100	500	6000	34.52
WP10-60-316	100	600	6000	36.84
WP10-70-316	100	700	6000	39.16
WP10-75-316	100	750	6000	40.32
WP10-80-316	100	800	6000	41.48
WP10-90-316	100	900	6000	43.80
WP10-100-316	100	1000	6000	46.12

accessories optional:

WPHB 100	wide-span bend, height=100	(page D07)
WPIR 100	wide-span inside riser, height=100	(page D10)
WPOR 100	wide-span outside riser, height=100	(page D13)
WPTP 100	wide-span branch-piece, height=100	(page D16)
WPBP 100	wide-span attachment branch-piece, height=100	(page D18)
WPCP 100	wide-span cross-piece, height=100	(page D20)
WPS 100	wide-span barrier strip, height=50	(page D39)
KPAB	end plate	(page D40)
WPC 100	wide-span coupler, height=100	(page D30)
WPCB 100	wide-span coupler, height=100	(page D31)
WPCV 100	wide-span coupler, height=100	(page D33)
WPF-B	flange mounting clamp (brackets)	(page D34)
WPF-C	flange mounting clamp (C-profiles)	(page D35)
WPF-P	flange mounting clamp (profiles)	(page D36)
WPF-IS	isolation strip	(page D36)



Wide-span systems

WP 150 wide-span cable ladder, height=150 mm

Wide-span cable ladder, additional transverse rigidity due to welded rungs, rungs made of profile rail perforated. Electrical conductivity tested according to DIN EN 61537. Welded construction.

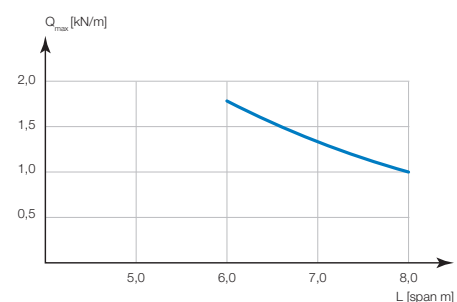
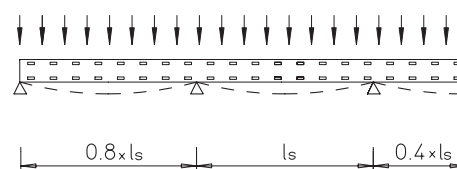
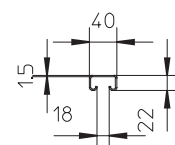
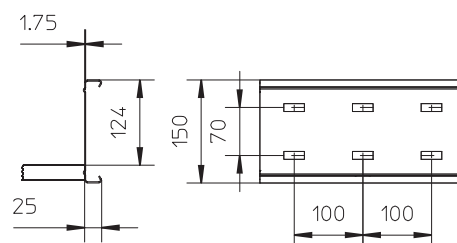
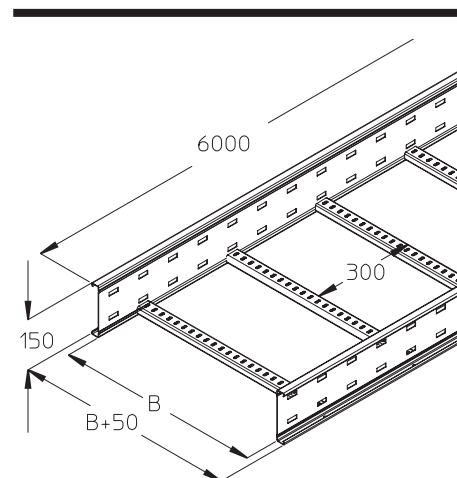
article number	H mm	B mm	L mm	G kg
F				
WP15-20-HDG	150	200	6000	42.42
WP15-30-HDG	150	300	6000	42.84
WP15-40-HDG	150	400	6000	45.21
WP15-45-HDG	150	450	6000	46.40
WP15-50-HDG	150	500	6000	47.60
WP15-60-HDG	150	600	6000	49.99
WP15-70-HDG	150	700	6000	52.38
WP15-75-HDG	150	750	6000	53.58
WP15-80-HDG	150	800	6000	54.78
WP15-90-HDG	150	900	6000	57.17
WP15-100-HDG	150	1000	6000	59.56

E				
WP15-20-304	150	200	6000	42.42
WP15-30-304	150	300	6000	42.84
WP15-40-304	150	400	6000	45.21
WP15-45-304	150	450	6000	46.40
WP15-50-304	150	500	6000	47.60
WP15-60-304	150	600	6000	49.99
WP15-70-304	150	700	6000	52.38
WP15-75-304	150	750	6000	53.58
WP15-80-304	150	800	6000	54.78
WP15-90-304	150	900	6000	57.17
WP15-100-304	150	1000	6000	59.56

E4				
WP15-20-316	150	200	6000	42.42
WP15-30-316	150	300	6000	42.84
WP15-40-316	150	400	6000	45.21
WP15-45-316	150	450	6000	46.40
WP15-50-316	150	500	6000	47.60
WP15-60-316	150	600	6000	49.99
WP15-70-316	150	700	6000	52.38
WP15-75-316	150	750	6000	53.58
WP15-80-316	150	800	6000	54.78
WP15-90-316	150	900	6000	57.17
WP15-100-316	150	1000	6000	59.56

accessories optional:

WPHB 150	wide-span bend, height=150	(page D08)
WPIR 150	wide-span inside riser, height=150	(page D11)
WPOR 150	wide-span outside riser, height=150	(page D14)
WPTP 150	wide-span branch-piece, height=150	(page D17)
WPBP 150	wide-span attachment branch-piece, height=150	(page D19)
WPCP 150	wide-span cross-piece, height=150	(page D21)
WPS 150	wide-span barrier strip, height=100	(page D39)
KPAB	end plate	(page D40)
WPC 150	wide-span coupler, height=150	(page D30)
WPCB 150	wide-span coupler, height=150	(page D32)
WPCV 150	wide-span coupler, height=150	(page D33)
WPF-B	flange mounting clamp (brackets)	(page D34)
WPF-C	flange mounting clamp (C-profiles)	(page D35)
WPF-P	flange mounting clamp (profiles)	(page D36)
WPF-IS	isolation strip	(page D36)



Wide-span systems

Fittings

WPHB 60 wide-span bend, height=60 mm

Wide-span cable ladder bend 90 for horizontal change of direction with integrated connectors.
Welded construction. Formeel components must be supported at all sides.

article number	H mm	B mm	angle	R mm	G kg
F					
WPHB06-15-90-30-HDG	60	150	90	300	4.21
WPHB06-20-90-30-HDG	60	200	90	300	4.45
WPHB06-30-90-30-HDG	60	300	90	300	5.27
WPHB06-40-90-30-HDG	60	400	90	300	6.57
WPHB06-60-90-30-HDG	60	600	90	300	9.16

accessories included:

4x **SEM 8-304**

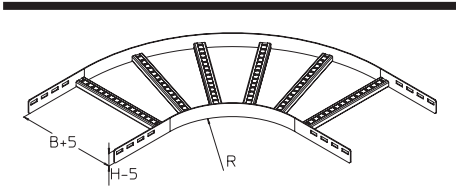
hexagon-nut, DIN 934

(page D46)

4x **FRSV 8X16-304**

round-head screw with short square. DIN 603

(page D43)



Wide-span systems

Fittings

WPHB 100 wide-span bend, height=100 mm

Wide-span cable ladder bend 90 for horizontal change of direction with integrated connectors.
Welded construction. Formed components must be supported at all sides. The following angles are available on request: 30 °, 45 °, 60 °, The following radii are available on request: 300 mm, 600 mm, 900 mm.

article number	H mm	B mm	angle	R mm	G kg
F					
WPHB10-20-90-45-HDG	100	200	90	450	8.60
WPHB10-30-90-45-HDG	100	300	90	450	9.77
WPHB10-40-90-45-HDG	100	400	90	450	11.59
WPHB10-45-90-45-HDG	100	450	90	450	12.25
WPHB10-50-90-45-HDG	100	500	90	450	13.72
WPHB10-60-90-45-HDG	100	600	90	450	15.21
WPHB10-70-90-45-HDG	100	700	90	450	17.82
WPHB10-75-90-45-HDG	100	750	90	450	18.64
WPHB10-80-90-45-HDG	100	800	90	450	19.47
WPHB10-90-90-45-HDG	100	900	90	450	22.56
WPHB10-100-90-45-HDG	100	1000	90	450	24.53

accessories included:

8 x **KLS 10X20-HDG** fixing set (page D42)

E					
WPHB10-20-90-45-304	100	200	90	450	8.60
WPHB10-30-90-45-304	100	300	90	450	9.77
WPHB10-40-90-45-304	100	400	90	450	11.59
WPHB10-45-90-45-304	100	450	90	450	12.25
WPHB10-50-90-45-304	100	500	90	450	13.72
WPHB10-60-90-45-304	100	600	90	450	15.21
WPHB10-70-90-45-304	100	700	90	450	17.82
WPHB10-75-90-45-304	100	750	90	450	18.64
WPHB10-80-90-45-304	100	800	90	450	19.47
WPHB10-90-90-45-304	100	900	90	450	22.56
WPHB10-100-90-45-304	100	1000	90	450	24.53

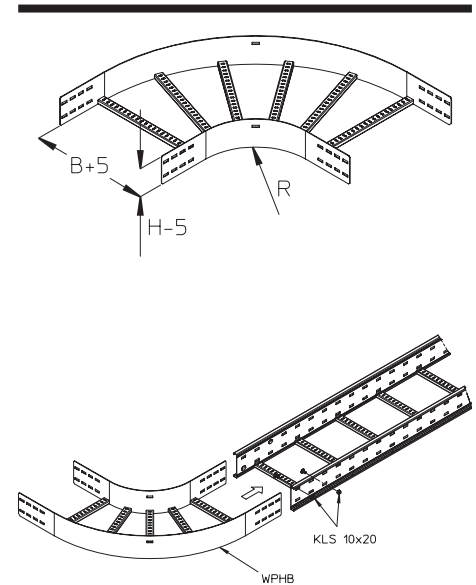
accessories included:

8 x **KLS 10X20-304** fixing set (page D42)

E4					
WPHB10-20-90-45-316	100	200	90	450	8.60
WPHB10-30-90-45-316	100	300	90	450	9.77
WPHB10-40-90-45-316	100	400	90	450	11.59
WPHB10-45-90-45-316	100	450	90	450	12.25
WPHB10-50-90-45-316	100	500	90	450	13.72
WPHB10-60-90-45-316	100	600	90	450	15.21
WPHB10-70-90-45-316	100	700	90	450	17.82
WPHB10-75-90-45-316	100	750	90	450	18.64
WPHB10-80-90-45-316	100	800	90	450	19.47
WPHB10-90-90-45-316	100	900	90	450	22.56
WPHB10-100-90-45-316	100	1000	90	450	24.53

accessories included:

8 x **KLS 10X20-316** fixing set (page D42)



Wide-span systems

Fittings

WPHB 150 wide-span bend, height=150 mm

Wide-span cable ladder bend 90° for horizontal change of direction with integrated connectors.
Welded construction. Formed components must be supported at all sides. The following angles are available on request: 30°, 45°, 60°. The following radii are available on request: 300 mm, 600 mm, 900 mm.

article number	H mm	B mm	angle	R mm	G kg
F					
WPHB15-20-90-45-HDG	150	200	90	450	12.12
WPHB15-30-90-45-HDG	150	300	90	450	13.49
WPHB15-40-90-45-HDG	150	400	90	450	15.51
WPHB15-45-90-45-HDG	150	450	90	450	16.27
WPHB15-50-90-45-HDG	150	500	90	450	17.84
WPHB15-60-90-45-HDG	150	600	90	450	19.52
WPHB15-70-90-45-HDG	150	700	90	450	22.33
WPHB15-75-90-45-HDG	150	750	90	450	23.26
WPHB15-80-90-45-HDG	150	800	90	450	24.18
WPHB15-90-90-45-HDG	150	900	90	450	27.46
WPHB15-100-90-45-HDG	150	1000	90	450	29.73

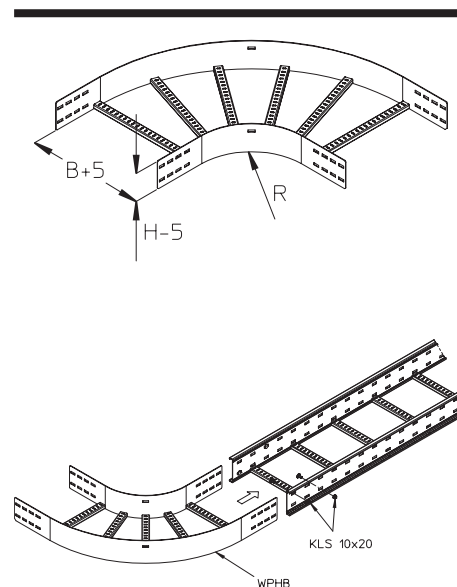
accessories included:
8 x **KLS 10X20-HDG** fixing set (page D42)

E					
WPHB15-20-90-45-304	150	200	90	450	12.12
WPHB15-40-90-45-304	150	400	90	450	15.51
WPHB15-45-90-45-304	150	450	90	450	16.27
WPHB15-50-90-45-304	150	500	90	450	17.84
WPHB15-60-90-45-304	150	600	90	450	19.52
WPHB15-70-90-45-304	150	700	90	450	22.33
WPHB15-75-90-45-304	150	750	90	450	23.26
WPHB15-80-90-45-304	150	800	90	450	24.18
WPHB15-90-90-45-304	150	900	90	450	27.46
WPHB15-100-90-45-304	150	1000	90	450	29.73

accessories included:
8 x **KLS 10x20-304** fixing set (page D42)

E4					
WPHB15-20-90-45-316	150	200	90	450	12.12
WPHB15-30-90-45-316	150	300	90	450	13.49
WPHB15-40-90-45-316	150	400	90	450	15.51
WPHB15-45-90-45-316	150	450	90	450	16.27
WPHB15-50-90-45-316	150	500	90	450	17.84
WPHB15-60-90-45-316	150	600	90	450	19.52
WPHB15-70-90-45-316	150	700	90	450	22.33
WPHB15-75-90-45-316	150	750	90	450	23.26
WPHB15-80-90-45-316	150	800	90	450	24.18
WPHB15-90-90-45-316	150	900	90	450	27.46
WPHB15-100-90-45-316	150	1000	90	450	29.73

accessories included:
8 x **KLS 10x20-316** fixing set (page D42)



Wide-span systems

Fittings

WPLEAB 150 wide-span ladder bend

article number	H mm	G kg
F		
WPLEAB 150F	150	9.45

accessories included:

16x FRSV 10X20F	round-head screw with short square, DIN 603	(page D43)
16x SEM 10F	hexagon-nut, DIN 934	(page D46)
16x US 10X21F	square washer, DIN 125	(page D47)
8x FRS 6X25E	round-head screw with square, DIN 603	(page D43)
8x SEM 6E	hexagon-nut, DIN 934	(page D46)
1x KHA 8-08F	profile rail 40x22 mm, perforated	(page F60)
3x FKS 6X20E	slotted cylinder head screw, DIN EN ISO 1580	(page D43)
2x AMA18 M6F	channel nut, A 7/A 8/A 9	(page H44)
1x AMF18 M6F	channel spring nut, A7/A8	(page H45)
10x US 8X17E	square washer, DIN 125	(page D47)

E		
WPLEAB 150E	150	8.55

accessories included:

16x FRSV 10X20E	round-head screw with short square, DIN 603	(page D43)
16x SEMS 10E	hexagon nut with flange, DIN EN 1661	(page D46)
8x FRS 6X25E	round-head screw with square, DIN 603	(page D43)
8x SEM 6E	hexagon-nut, DIN 934	(page D46)
1x KHA 7-08E	profile rail 39.5x22 mm, perforated	(page F60)
3x FKS 6X20E	slotted cylinder head screw, DIN EN ISO 1580	(page D43)
3x AMA18 M6E	channel nut, A 7/A 8/A 9	(page H44)
10x US 8X17E	square washer, DIN 125	(page D47)

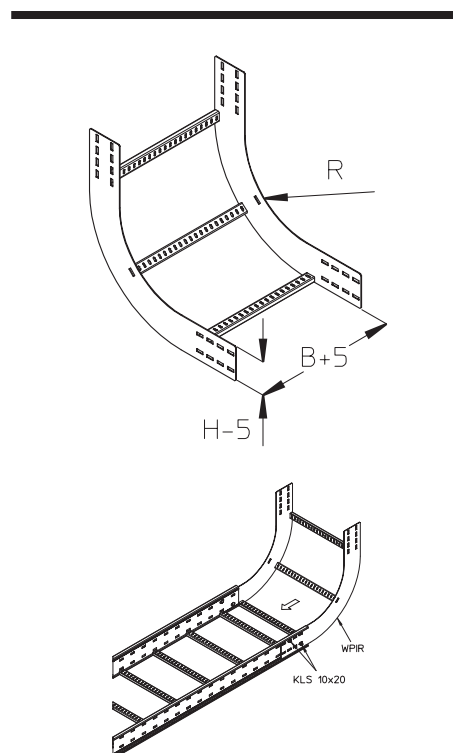
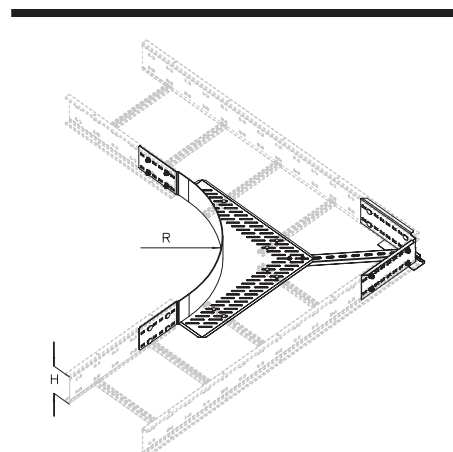
WPIR 60 wide-span inside riser, height=60 mm

Wide-span cable ladder bend 90 for vertical change of direction with integrated connectors welded construction. Formed components must be supported at all sides.

article number	H mm	B mm	angle	R mm	G kg
F					
WPIR06-15-90-30-HDG	60	150	90	300	3.26
WPIR06-20-90-30-HDG	60	200	90	300	3.51
WPIR06-30-90-30-HDG	60	300	90	300	3.87
WPIR06-40-90-30-HDG	60	400	90	300	4.23
WPIR06-60-90-30-HDG	60	600	90	300	4.95

accessories included:

8x KLS 10X20-HDG	fixing set	(page D42)
-------------------------	------------	------------



Wide-span systems

Fittings

WPIR 100 wide-span inside riser, height=100 mm

Wide-span cable ladder bend 90° for vertical change of direction with integrated connectors.
Welded construction. Formed components must be supported at all sides. The following angles are available on request: 30°, 45°, 60°. The following radii are available on request: 300 mm, 600 mm, 900 mm.

article number	H mm	B mm	angle	R mm	G kg
F					
WPIR10-20-90-45-HDG	100	200	90	450	7.45
WPIR10-30-90-45-HDG	100	300	90	450	8.09
WPIR10-40-90-45-HDG	100	400	90	450	8.72
WPIR10-45-90-45-HDG	100	450	90	450	9.04
WPIR10-50-90-45-HDG	100	500	90	450	9.36
WPIR10-60-90-45-HDG	100	600	90	450	10.00
WPIR10-70-90-45-HDG	100	700	90	450	10.63
WPIR10-75-90-45-HDG	100	750	90	450	10.95
WPIR10-80-90-45-HDG	100	800	90	450	11.27
WPIR10-90-90-45-HDG	100	900	90	450	11.90
WPIR10-100-90-45-HDG	100	1000	90	450	12.54

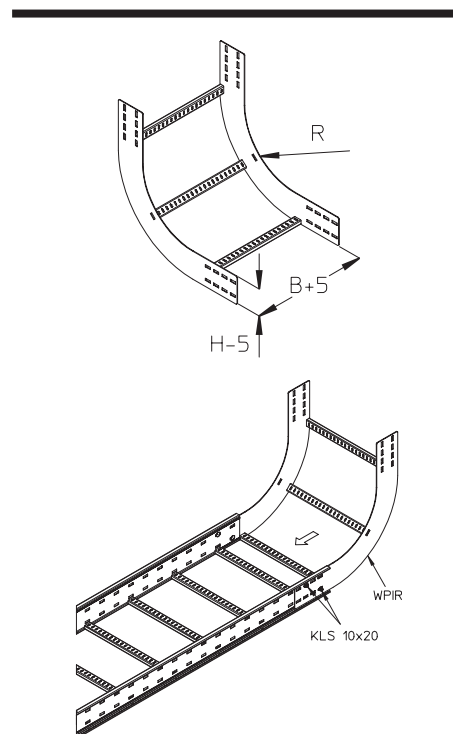
accessories included:
8 x **KLS 10X20-HDG** fixing set (page D42)

E					
WPIR10-20-90-45-304	100	200	90	450	7.45
WPIR10-30-90-45-304	100	300	90	450	8.09
WPIR10-40-90-45-304	100	400	90	450	8.72
WPIR10-45-90-45-304	100	450	90	450	9.04
WPIR10-50-90-45-304	100	500	90	450	9.36
WPIR10-60-90-45-304	100	600	90	450	10.00
WPIR10-70-90-45-304	100	700	90	450	10.63
WPIR10-75-90-45-304	100	750	90	450	10.95
WPIR10-80-90-45-304	100	800	90	450	11.27
WPIR10-90-90-45-304	100	900	90	450	11.90
WPIR10-100-90-45-304	100	1000	90	450	12.54

accessories included:
8 x **KLS 10X20-304** fixing set (page D42)

E4					
WPIR10-20-90-45-316	100	200	90	450	7.45
WPIR10-30-90-45-316	100	300	90	450	8.09
WPIR10-40-90-45-316	100	400	90	450	8.72
WPIR10-45-90-45-316	100	450	90	450	9.04
WPIR10-50-90-45-316	100	500	90	450	9.36
WPIR10-60-90-45-316	100	600	90	450	10.00
WPIR10-70-90-45-316	100	700	90	450	10.63
WPIR10-75-90-45-316	100	750	90	450	10.95
WPIR10-80-90-45-316	100	800	90	450	11.27
WPIR10-90-90-45-316	100	900	90	450	11.90
WPIR10-100-90-45-316	100	1000	90	450	12.54

accessories included:
8 x **KLS 10X20-316** fixing set (page D42)



Wide-span systems

Fittings

WPIR 150 wide-span inside riser, height=150 mm

Wide-span cable ladder bend 90 for vertical change of direction with integrated connectors.
Welded construction. Formed components must be supported at all sides. The following angles are available on request: 30 °, 45 °, 60 °, The following radii are available on request: 300 mm, 600 mm, 900 mm.

article number	H mm	B mm	angle	R mm	G kg
F					
WPIR15-20-90-45-HDG	150	200	90	450	10.69
WPIR15-30-90-45-HDG	150	300	90	450	11.27
WPIR15-40-90-45-HDG	150	400	90	450	12.72
WPIR15-45-90-45-HDG	150	450	90	450	13.12
WPIR15-50-90-45-HDG	150	500	90	450	13.52
WPIR15-60-90-45-HDG	150	600	90	450	14.31
WPIR15-70-90-45-HDG	150	700	90	450	15.11
WPIR15-75-90-45-HDG	150	750	90	450	15.51
WPIR15-80-90-45-HDG	150	800	90	450	15.90
WPIR15-90-90-45-HDG	150	900	90	450	16.70
WPIR15-100-90-45-HDG	150	1000	90	450	17.33

accessories included:

8 x **KLS 10X20-HDG** fixing set (page D42)

E					
WPIR15-20-90-45-304	150	200	90	450	11.13
WPIR15-30-90-45-304	150	300	90	450	11.93
WPIR15-40-90-45-304	150	400	90	450	12.72
WPIR15-45-90-45-304	150	450	90	450	13.12
WPIR15-50-90-45-304	150	500	90	450	13.52
WPIR15-60-90-45-304	150	600	90	450	14.31
WPIR15-70-90-45-304	150	700	90	450	15.51
WPIR15-75-90-45-304	150	750	90	450	15.51
WPIR15-80-90-45-304	150	800	90	450	15.90
WPIR15-90-90-45-304	150	900	90	450	16.70
WPIR15-100-90-45-304	150	1000	90	450	17.49

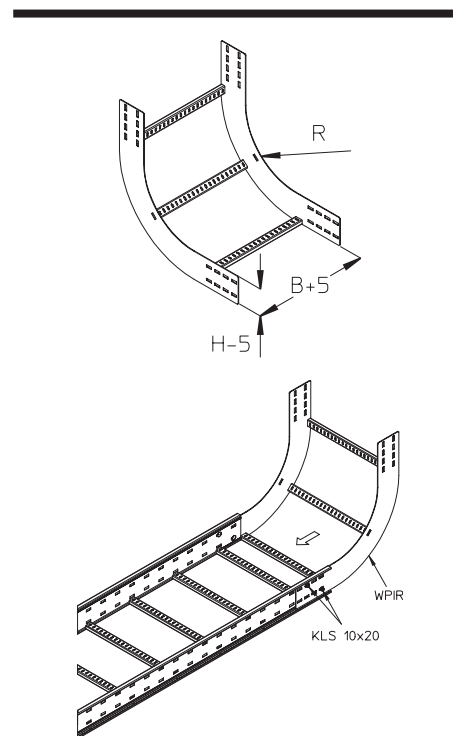
accessories included:

8 x **KLS 10X20-304** fixing set (page D42)

E4					
WPIR15-20-90-45-316	150	200	90	450	11.13
WPIR15-30-90-45-316	150	300	90	450	11.93
WPIR15-40-90-45-316	150	400	90	450	12.72
WPIR15-45-90-45-316	150	450	90	450	13.12
WPIR15-50-90-45-316	150	500	90	450	13.52
WPIR15-60-90-45-316	150	600	90	450	14.31
WPIR15-70-90-45-316	150	700	90	450	15.11
WPIR15-75-90-45-316	150	750	90	450	15.51
WPIR15-80-90-45-316	150	800	90	450	15.90
WPIR15-90-90-45-316	150	900	90	450	16.70
WPIR15-100-90-45-316	150	1000	90	450	17.49

accessories included:

8 x **KLS 10X20-316** fixing set (page D42)



Wide-span systems

Fittings

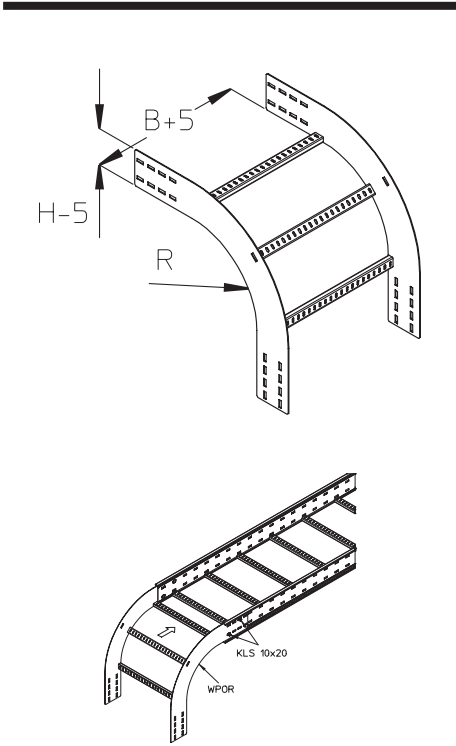
WPOR 60 wide-span outside riser, height=60 mm

Wide-span cable ladder outside raiser 90 for vertical change of direction with integrated connectors welded construction. Formed components must be supported at all sides.

article number	H mm	B mm	angle	R mm	G kg
F					
WPOR06-15-90-30-HDG	60	150	90	300	3.88
WPOR06-20-90-30-HDG	60	200	90	300	4.19
WPOR06-30-90-30-HDG	60	300	90	300	4.67
WPOR06-40-90-30-HDG	60	400	90	300	5.15
WPOR06-60-90-30-HDG	60	600	90	300	6.10

accessories included:
8x **KLS 10X20-HDG** fixing set

(page D42)



Wide-span systems

Fittings

WPOR 100 wide-span outside riser, height=100 mm

Wide-span cable ladder outside riser 90 for vertical change of direction with integrated connectors.
Welded construction. Formed components must be supported at all sides. The following angles are available on request: 30 °, 45 °, 60 °, The following radii are available on request: 300 mm, 600 mm, 900 mm.

article number	H mm	B mm	angle	R mm	G kg
F					
WPOR10-20-90-45-HDG	100	200	90	450	7.45
WPOR10-30-90-45-HDG	100	300	90	450	8.09
WPOR10-40-90-45-HDG	100	400	90	450	8.72
WPOR10-45-90-45-HDG	100	450	90	450	9.04
WPOR10-50-90-45-HDG	100	500	90	450	9.36
WPOR10-60-90-45-HDG	100	600	90	450	10.00
WPOR10-70-90-45-HDG	100	700	90	450	10.63
WPOR10-75-90-45-HDG	100	750	90	450	10.95
WPOR10-80-90-45-HDG	100	800	90	450	11.27
WPOR10-90-90-45-HDG	100	900	90	450	11.90
WPOR10-100-90-45-HDG	100	1000	90	450	12.54

accessories included:

8 x **KLS 10X20-HDG** fixing set (page D42)

E					
WPOR10-20-90-45-304	100	200	90	450	7.45
WPOR10-30-90-45-304	100	300	90	450	8.09
WPOR10-40-90-45-304	100	400	90	450	8.72
WPOR10-45-90-45-304	100	450	90	450	8.97
WPOR10-50-90-45-304	100	500	90	450	9.36
WPOR10-60-90-45-304	100	600	90	450	10.00
WPOR10-70-90-45-304	100	700	90	450	10.63
WPOR10-75-90-45-304	100	750	90	450	10.95
WPOR10-80-90-45-304	100	800	90	450	11.27
WPOR10-90-90-45-304	100	900	90	450	11.90
WPOR10-100-90-45-304	100	1000	90	450	12.54

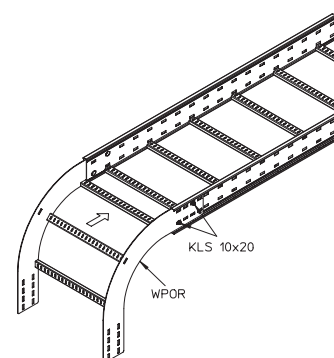
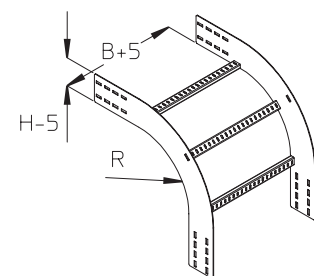
accessories included:

8 x **KLS 10X20-304** fixing set (page D42)

E4					
WPOR10-20-90-45-316	100	200	90	450	7.45
WPOR10-30-90-45-316	100	300	90	450	8.09
WPOR10-40-90-45-316	100	400	90	450	8.72
WPOR10-45-90-45-316	100	450	90	450	9.04
WPOR10-50-90-45-316	100	500	90	450	9.36
WPOR10-60-90-45-316	100	600	90	450	10.00
WPOR10-70-90-45-316	100	700	90	450	10.63
WPOR10-75-90-45-316	100	750	90	450	10.95
WPOR10-80-90-45-316	100	800	90	450	11.27
WPOR10-90-90-45-316	100	900	90	450	11.90
WPOR10-100-90-45-316	100	1000	90	450	12.54

accessories included:

8 x **KLS 10X20-316** fixing set (page D42)



Wide-span systems

Fittings

WPOR 150 wide-span outside riser, height=150 mm

Wide-span cable ladder outside riser 90 for vertical change of direction with integrated connectors.
Welded construction. Formed components must be supported at all sides. The following angles are available on request: 30 °, 45 °, 60 °, The following radii are available on request: 300 mm, 600 mm, 900 mm.

article number	H mm	B mm	angle	R mm	G kg
F					
WPOR15-20-90-45-HDG	150	200	90	450	10.81
WPOR15-30-90-45-HDG	150	300	90	450	11.44
WPOR15-40-90-45-HDG	150	400	90	450	12.08
WPOR15-45-90-45-HDG	150	450	90	450	12.40
WPOR15-50-90-45-HDG	150	500	90	450	12.72
WPOR15-60-90-45-HDG	150	600	90	450	13.35
WPOR15-70-90-45-HDG	150	700	90	450	13.99
WPOR15-75-90-45-HDG	150	750	90	450	14.31
WPOR15-80-90-45-HDG	150	800	90	450	14.62
WPOR15-90-90-45-HDG	150	900	90	450	15.26
WPOR15-100-90-45-HDG	150	1000	90	450	15.90

accessories included:

8 x **KLS 10X20-HDG** fixing set (page D42)

E					
WPOR15-20-90-45-304	150	200	90	450	10.81
WPOR15-30-90-45-304	150	300	90	450	11.44
WPOR15-40-90-45-304	150	400	90	450	12.08
WPOR15-45-90-45-304	150	450	90	450	12.40
WPOR15-50-90-45-304	150	500	90	450	12.72
WPOR15-60-90-45-304	150	600	90	450	13.35
WPOR15-70-90-45-304	150	700	90	450	13.99
WPOR15-75-90-45-304	150	750	90	450	14.31
WPOR15-80-90-45-304	150	800	90	450	14.62
WPOR15-90-90-45-304	150	900	90	450	15.26
WPOR15-100-90-45-304	150	1000	90	450	15.90

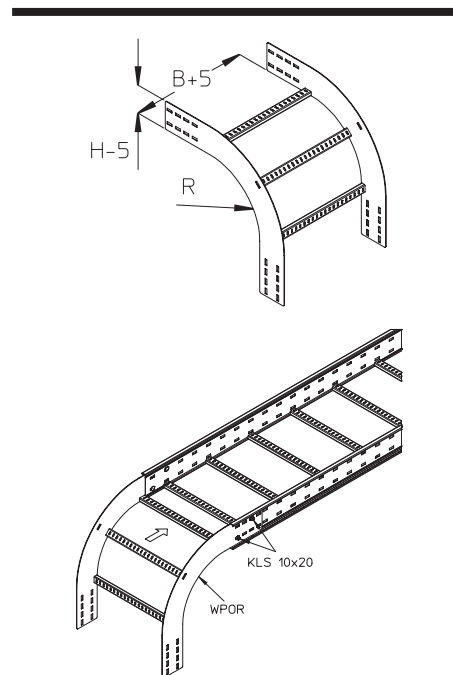
accessories included:

8 x **KLS 10X20-304** fixing set (page D42)

E4					
WPOR15-20-90-45-316	150	200	90	450	10.81
WPOR15-30-90-45-316	150	300	90	450	11.44
WPOR15-40-90-45-316	150	400	90	450	12.08
WPOR15-45-90-45-316	150	450	90	450	12.40
WPOR15-50-90-45-316	150	500	90	450	12.72
WPOR15-60-90-45-316	150	600	90	450	13.35
WPOR15-70-90-45-316	150	700	90	450	13.99
WPOR15-75-90-45-316	150	750	90	450	14.31
WPOR15-80-90-45-316	150	800	90	450	14.62
WPOR15-90-90-45-316	150	900	90	450	15.26
WPOR15-100-90-45-316	150	1000	90	450	15.90

accessories included:

8 x **KLS 10X20-316** fixing set (page D42)



Wide-span systems

Fittings

WPTP 60 wide-span branch, height=60 mm

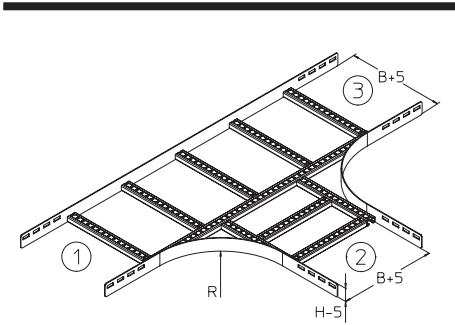
Wide-span cable ladder branch shaped form as T-piece with integrated connectors. Formed components must be supported at all sides. Dissymmetric branches on request. Branches with higher width/ radius are delivered as two pieces including coupling bolts.

article number	H mm	B mm	R mm	G kg
F				
WPTP06-15-30-HDG	60	150	300	7.12
WPTP06-20-30-HDG	60	200	300	7.71
WPTP06-30-30-HDG	60	300	300	8.57
WPTP06-40-30-HDG	60	400	300	9.99
WPTP06-60-30-HDG	60	600	300	12.85

accessories included:
6 x **SEM 8-304**
6x **FRSV 8X16-304**

hexagon-nut, DIN 934
round-head screw with short square, DIN 603

(page D46)
(page D43)



D

Wide-span systems

Fittings

WPTP 100 wide-span branch-piece. height=100 mm

Wide-span cable ladder branch shaped form as T-piece with integrated connectors.
Welded construction. Formed components must be supported at all sides. Dissymetric branches on request. Branches with higher width/radius are delivered as two pieces including coupling bolts. The following radii are available on request: 300 mm, 600 mm, 900 mm.

article number	H mm	B mm	R mm	G kg
F				
WPTP10-20-45-HDG	100	200	450	12.22
WPTP10-30-45-HDG	100	300	450	13.92
WPTP10-40-45-HDG	100	400	450	15.42
WPTP10-45-45-HDG	100	450	450	16.22
WPTP10-50-45-HDG	100	500	450	17.02
WPTP10-60-45-HDG	100	600	450	19.42
WPTP10-70-45-HDG	100	700	450	26.20
WPTP10-75-45-HDG	100	750	450	26.90
WPTP10-80-45-HDG	100	800	450	27.80
WPTP10-90-45-HDG	100	900	450	31.00
WPTP10-100-45-HDG	100	1000	450	33.10

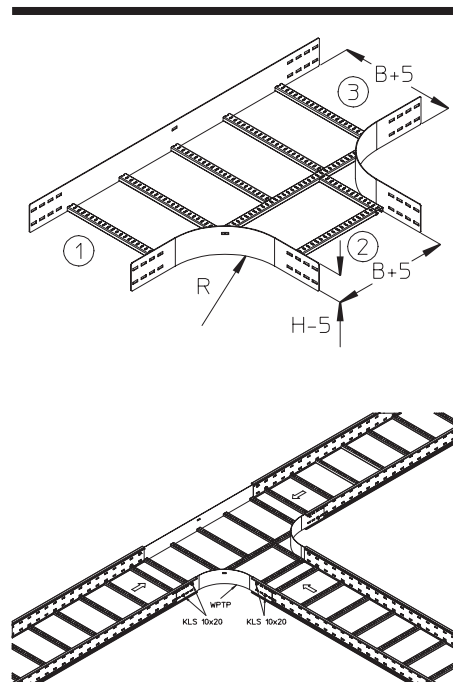
accessories included:
12 x **KLS 10X20-HDG** fixing set (page D42)

E				
WPTP10-20-45-304	100	200	450	12.22
WPTP10-30-45-304	100	300	450	13.92
WPTP10-40-45-304	100	400	450	15.42
WPTP10-45-45-304	100	450	450	16.54
WPTP10-50-45-304	100	500	450	17.02
WPTP10-60-45-304	100	600	450	19.42
WPTP10-70-45-304	100	700	450	22.46
WPTP10-75-45-304	100	750	450	26.90
WPTP10-80-45-304	100	800	450	27.80
WPTP10-90-45-304	100	900	450	31.00
WPTP10-100-45-304	100	1000	450	33.10

accessories included:
12 x **KLS 10X20-304** fixing set (page D42)

E4				
WPTP10-20-45-316	100	200	450	12.22
WPTP10-30-45-316	100	300	450	13.92
WPTP10-40-45-316	100	400	450	15.42
WPTP10-45-45-316	100	450	450	16.54
WPTP10-50-45-316	100	500	450	17.02
WPTP10-60-45-316	100	600	450	19.42
WPTP10-70-45-316	100	700	450	26.20
WPTP10-75-45-316	100	750	450	26.90
WPTP10-80-45-316	100	800	450	27.80
WPTP10-90-45-316	100	900	450	31.00
WPTP10-100-45-316	100	1000	450	33.10

accessories included:
12 x **KLS 10X20-316** fixing set (page D42)



Wide-span systems

Fittings

WPTP 150 wide-span branch-piece. height=150 mm

Wide-span cable ladder branch shaped form as T-piece with integrated connectors.

Welded construction. Formed components must be supported at all sides. Dissymetric branches on request. Branches with higher width/radius are delivered as two pieces including coupling bolts. The following radii are available on request: 300 mm, 600 mm, 900 mm.

article number	H mm	B mm	R mm	G kg
F				
WPTP15-20-45-HDG	150	200	450	15.78
WPTP15-30-45-HDG	150	300	450	17.68
WPTP15-40-45-HDG	150	400	450	19.32
WPTP15-45-45-HDG	150	450	450	20.10
WPTP15-50-45-HDG	150	500	450	20.96
WPTP15-60-45-HDG	150	600	450	23.49
WPTP15-70-45-HDG	150	700	450	31.80
WPTP15-75-45-HDG	150	750	450	32.70
WPTP15-80-45-HDG	150	800	450	33.60
WPTP15-90-45-HDG	150	900	450	37.00
WPTP15-100-45-HDG	150	1000	450	39.10

accessories included:

12 x **KLS 10X20-HDG** fixing set (page D42)

E				
WPTP15-20-45-304	150	200	450	15.78
WPTP15-30-45-304	150	300	450	17.68
WPTP15-40-45-304	150	400	450	19.32
WPTP15-45-45-304	150	450	450	20.10
WPTP15-50-45-304	150	500	450	20.96
WPTP15-60-45-304	150	600	450	23.49
WPTP15-70-45-304	150	700	450	28.27
WPTP15-75-45-304	150	750	450	29.05
WPTP15-80-45-304	150	800	450	29.82
WPTP15-90-45-304	150	900	450	32.36
WPTP15-100-45-304	150	1000	450	34.02

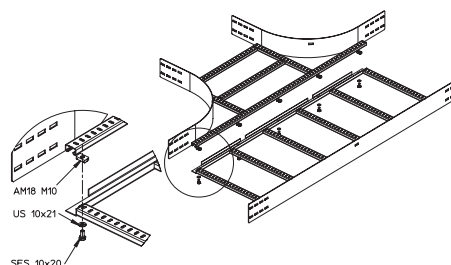
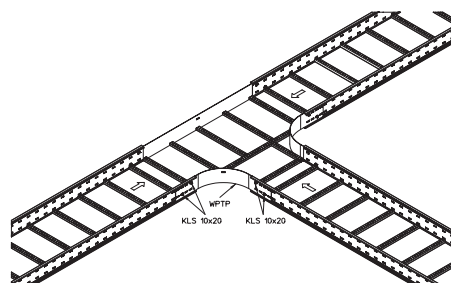
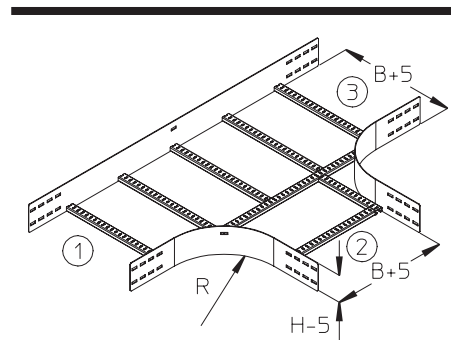
accessories included:

12 x **KLS 10X20-304** fixing set (page D42)

E4				
WPTP15-20-45-316	150	200	450	15.78
WPTP15-30-45-316	150	300	450	17.68
WPTP15-40-45-316	150	400	450	19.32
WPTP15-45-45-316	150	450	450	20.10
WPTP15-50-45-316	150	500	450	20.96
WPTP15-60-45-316	150	600	450	23.49
WPTP15-70-45-316	150	700	450	28.27
WPTP15-75-45-316	150	750	450	29.05
WPTP15-80-45-316	150	800	450	29.82
WPTP15-90-45-316	150	900	450	32.36
WPTP15-100-45-316	150	1000	450	34.02

accessories included:

12 x **KLS 10X20-316** fixing set (page D42)



Wide-span systems

Fittings

WPBP 100 wide-span attachment branch-piece. height=100 mm

Welded construction. Formed components must be supported at all sides. The following radii are available on request: 300 mm, 600 mm, 900 mm.

article number	H mm	B mm	R mm	G kg
F				
WPBP10-20-45-HDG	100	200	450	8.68
WPBP10-30-45-HDG	100	300	450	9.08
WPBP10-40-45-HDG	100	400	450	9.44
WPBP10-45-45-HDG	100	450	450	9.62
WPBP10-50-45-HDG	100	500	450	9.80
WPBP10-60-45-HDG	100	600	450	10.16
WPBP10-70-45-HDG	100	700	450	10.52
WPBP10-75-45-HDG	100	750	450	10.70
WPBP10-80-45-HDG	100	800	450	10.88
WPBP10-90-45-HDG	100	900	450	11.24
WPBP10-100-45-HDG	100	1000	450	11.60

accessories included:

8 x **KLS 10X20-HDG** fixing set (page D42)

E				
WPBP10-20-45-304	100	200	450	8.68
WPBP10-30-45-304	100	300	450	9.08
WPBP10-40-45-304	100	400	450	9.48
WPBP10-45-45-304	100	450	450	9.62
WPBP10-50-45-304	100	500	450	9.80
WPBP10-60-45-304	100	600	450	10.18
WPBP10-70-45-304	100	700	450	10.52
WPBP10-75-45-304	100	750	450	10.70
WPBP10-80-45-304	100	800	450	10.88
WPBP10-90-45-304	100	900	450	11.24
WPBP10-100-45-304	100	1000	450	11.60

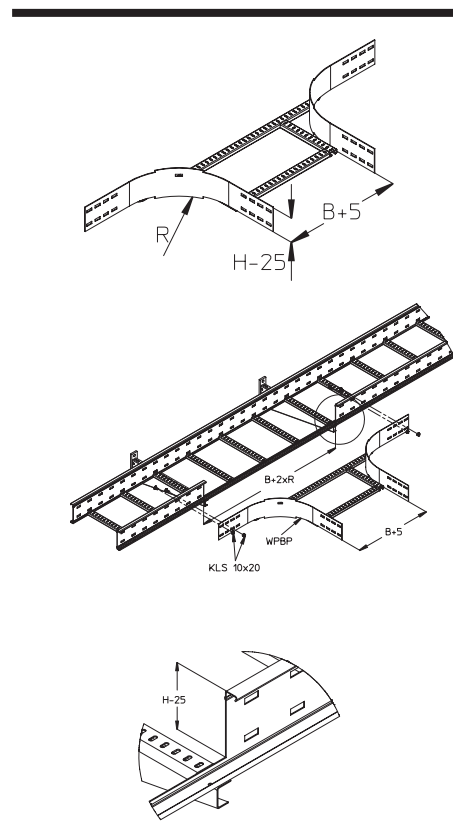
accessories included:

8 x **KLS 10X20-304** fixing set (page D42)

E4				
WPBP10-20-45-316	100	200	450	8.68
WPBP10-30-45-316	100	300	450	9.08
WPBP10-40-45-316	100	400	450	9.48
WPBP10-45-45-316	100	450	450	9.62
WPBP10-50-45-316	100	500	450	9.80
WPBP10-60-45-316	100	600	450	10.18
WPBP10-70-45-316	100	700	450	10.52
WPBP10-75-45-316	100	750	450	10.70
WPBP10-80-45-316	100	800	450	10.88
WPBP10-90-45-316	100	900	450	11.24
WPBP10-100-45-316	100	1000	450	11.60

accessories included:

8 x **KLS 10X20-316** fixing set (page D42)



Wide-span systems

Fittings

WPBP 150 wide-span attachment branch-piece. height=150 mm

Welded construction. Formed components must be supported at all sides. The following radii are available on request: 300 mm, 600 mm, 900 mm.

article number	H mm	B mm	R mm	G kg
F				
WPBP15-20-45-HDG	150	200	450	11.85
WPBP15-30-45-HDG	150	300	450	12.21
WPBP15-40-45-HDG	150	400	450	12.57
WPBP15-45-45-HDG	150	450	450	12.75
WPBP15-50-45-HDG	150	500	450	12.93
WPBP15-60-45-HDG	150	600	450	13.29
WPBP15-70-45-HDG	150	700	450	13.65
WPBP15-75-45-HDG	150	750	450	13.83
WPBP15-80-45-HDG	150	800	450	14.01
WPBP15-90-45-HDG	150	900	450	14.37
WPBP15-100-45-HDG	150	1000	450	14.73

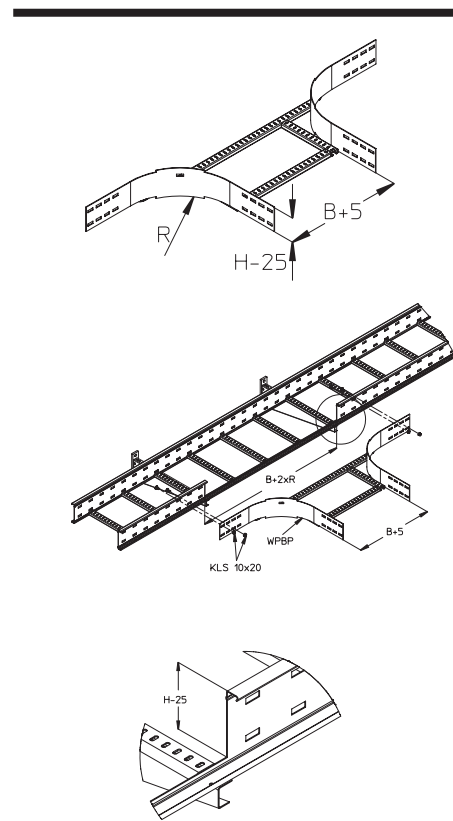
accessories included:
8 x **KLS 10X20-HDG** fixing set (page D42)

E				
WPBP15-20-45-304	150	200	450	11.85
WPBP15-30-45-304	150	300	450	12.21
WPBP15-40-45-304	150	400	450	12.57
WPBP15-45-45-304	150	450	450	12.75
WPBP15-50-45-304	150	500	450	12.93
WPBP15-60-45-304	150	600	450	13.29
WPBP15-70-45-304	150	700	450	13.65
WPBP15-75-45-304	150	750	450	13.83
WPBP15-80-45-304	150	800	450	14.01
WPBP15-90-45-304	150	900	450	14.37
WPBP15-100-45-304	150	1000	450	14.73

accessories included:
8 x **KLS 10X20-304** fixing set (page D42)

E4				
WPBP15-20-45-316	150	200	450	11.85
WPBP15-30-45-316	150	300	450	12.21
WPBP15-40-45-316	150	400	450	12.57
WPBP15-45-45-316	150	450	450	12.75
WPBP15-50-45-316	150	500	450	12.93
WPBP15-60-45-316	150	600	450	13.29
WPBP15-70-45-316	150	700	450	13.65
WPBP15-75-45-316	150	750	450	13.83
WPBP15-80-45-316	150	800	450	14.01
WPBP15-90-45-316	150	900	450	14.37
WPBP15-100-45-316	150	1000	450	14.73

accessories included:
8 x **KLS 10X20-316** fixing set (page D42)



Wide-span systems

Fittings

WPCP 100 wide-span cross-piece. height=100 mm

Wide-span cable ladder crossing for horizontal change of direction with integrated connectors.
Welded construction. Formed components must be supported at all sides. Dissymetric crossings on request. Crossings with higher width/radius are delivered as two resp. four pieces including coupling bolts. The following radii are available on request: 300 mm, 600 mm, 900 mm.

article number	H mm	B mm	R mm	G kg
F				
WPCP10-20-45-HDG	100	200	450	18.78
WPCP10-30-45-HDG	100	300	450	20.24
WPCP10-40-45-HDG	100	400	450	21.56
WPCP10-45-45-HDG	100	450	450	22.22
WPCP10-50-45-HDG	100	500	450	22.87
WPCP10-60-45-HDG	100	600	450	24.82
WPCP10-70-45-HDG	100	700	450	35.73
WPCP10-75-45-HDG	100	750	450	36.81
WPCP10-80-45-HDG	100	800	450	37.90
WPCP10-90-45-HDG	100	900	450	41.38
WPCP10-100-45-HDG	100	1000	450	43.71

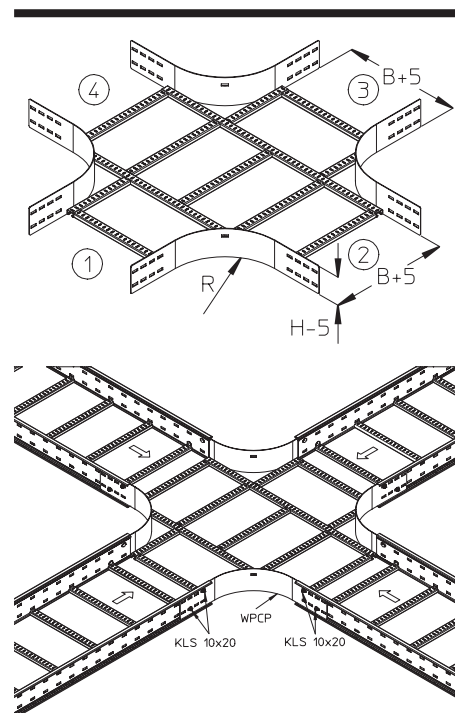
accessories included:
16 x **KLS 10X20-HDG** fixing set (page D42)

E				
WPCP10-20-45-304	100	200	450	17.69
WPCP10-30-45-304	100	300	450	19.07
WPCP10-40-45-304	100	400	450	20.31
WPCP10-45-45-304	100	450	450	20.93
WPCP10-50-45-304	100	500	450	22.00
WPCP10-60-45-304	100	600	450	23.88
WPCP10-70-45-304	100	700	450	29.74
WPCP10-75-45-304	100	750	450	30.57
WPCP10-80-45-304	100	800	450	31.40
WPCP10-90-45-304	100	900	450	34.01
WPCP10-100-45-304	100	1000	450	43.71

accessories included:
16 x **KLS 10X20-304** fixing set (page D42)

E				
WPCP10-20-45-316	100	200	450	17.91
WPCP10-30-45-316	100	300	450	19.31
WPCP10-40-45-316	100	400	450	20.56
WPCP10-45-45-316	100	450	450	21.19
WPCP10-50-45-316	100	500	450	22.00
WPCP10-60-45-316	100	600	450	23.88
WPCP10-70-45-316	100	700	450	29.74
WPCP10-75-45-316	100	750	450	30.57
WPCP10-80-45-316	100	800	450	31.40
WPCP10-90-45-316	100	900	450	34.01
WPCP10-100-45-316	100	1000	450	43.70

accessories included:
16 x **KLS 10X20-316** fixing set (page D42)



Wide-span systems

Fittings

WPCP 150 wide-span cross-piece. height=150 mm

Wide-span cable ladder crossing for horizontal change of direction with integrated connectors.
Welded construction. Formed components must be supported at all sides. Dissymetric crossings on request. Crossings with higher width/radius are delivered as two resp. four pieces including coupling bolts. The following radii are available on request: 300 mm, 600 mm, 900 mm.

article number	H mm	B mm	R mm	G kg
F				
WPCP15-20-45-HDG	150	200	450	26.93
WPCP15-30-45-HDG	150	300	450	28.88
WPCP15-40-45-HDG	150	400	450	30.63
WPCP15-45-45-HDG	150	450	450	31.33
WPCP15-50-45-HDG	150	500	450	32.38
WPCP15-60-45-HDG	150	600	450	34.96
WPCP15-70-45-HDG	150	700	450	41.73
WPCP15-75-45-HDG	150	750	450	43.01
WPCP15-80-45-HDG	150	800	450	43.90
WPCP15-90-45-HDG	150	900	450	47.78
WPCP15-100-45-HDG	150	1000	450	49.71

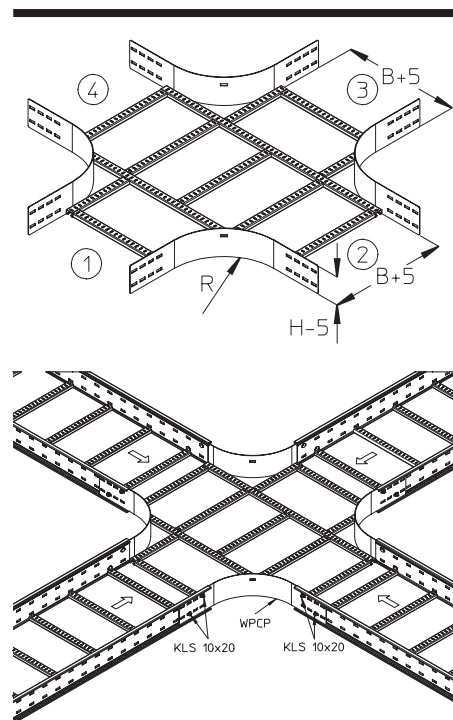
accessories included:
16 x **KLS 10X20-HDG** fixing set (page D42)

E				
WPCP15-20-45-304	150	200	450	24.18
WPCP15-30-45-304	150	300	450	25.60
WPCP15-40-45-304	150	400	450	26.88
WPCP15-45-45-304	150	450	450	27.39
WPCP15-50-45-304	150	500	450	28.16
WPCP15-60-45-304	150	600	450	30.04
WPCP15-70-45-304	150	700	450	35.89
WPCP15-75-45-304	150	750	450	36.72
WPCP15-80-45-304	150	800	450	37.55
WPCP15-90-45-304	150	900	450	40.16
WPCP15-100-45-304	150	1000	450	41.94

accessories included:
16 x **KLS 10X20-304** fixing set (page D42)

E4				
WPCP15-20-45-316	150	200	450	24.18
WPCP15-30-45-316	150	300	450	25.60
WPCP15-40-45-316	150	400	450	26.88
WPCP15-45-45-316	150	450	450	27.39
WPCP15-50-45-316	150	500	450	28.16
WPCP15-60-45-316	150	600	450	30.04
WPCP15-70-45-316	150	700	450	35.89
WPCP15-75-45-316	150	750	450	36.72
WPCP15-80-45-316	150	800	450	37.55
WPCP15-90-45-316	150	900	450	40.16
WPCP15-100-45-316	150	1000	450	41.94

accessories included:
16 x **KLS 10X20-316** fixing set (page D42)



Wide-span systems

Cover

WPCO wide-span cover

In our additional information is explained which amount of fitting cover hook clips you need.

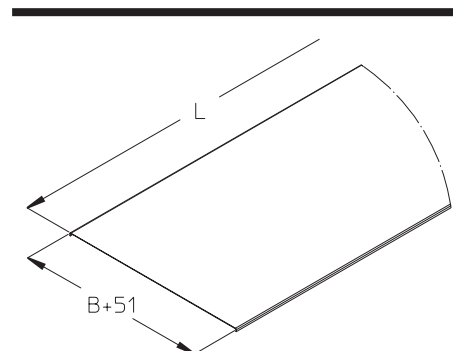
article number	B mm	L mm	G kg
F			
WPCO20-HDG	200	3000	5.08
WPCO30-HDG	300	3000	9.30
WPCO40-HDG	400	3000	11.82
WPCO45-HDG	450	3000	16.35
WPCO50-HDG	500	1500	8.96
WPCO60-HDG	600	1500	10.54
WPCO70-HDG	700	1500	14.53
WPCO75-HDG	750	1500	15.48
WPCO80-HDG	800	1500	16.42
WPCO90-HDG	900	1500	18.31
WPCO100-HDG	1000	1500	20.22
E			
WPCO20-304	200	3000	5.10
WPCO30-304	300	3000	8.75
WPCO40-304	400	3000	11.12
WPCO45-304	450	3000	15.38
WPCO50-304	500	1500	8.43
WPCO60-304	600	1500	9.91
WPCO70-304	700	1500	13.67
WPCO75-304	750	1500	15.48
WPCO80-304	800	1500	15.45
WPCO90-304	900	1500	17.22
WPCO100-304	1000	1500	19.00
E4			
WPCO20-316	200	3000	5.16
WPCO30-316	300	3000	8.86
WPCO40-316	400	3000	11.26
WPCO45-316	450	3000	15.57
WPCO50-316	500	1500	8.54
WPCO60-316	600	1500	10.04
WPCO70-316	700	1500	13.84
WPCO75-316	750	1500	14.74
WPCO80-316	800	1500	15.64
WPCO90-316	900	1500	17.44
WPCO100-316	1000	1500	19.24

accessories optional:

WPDUK

cover clamp

(page D23)



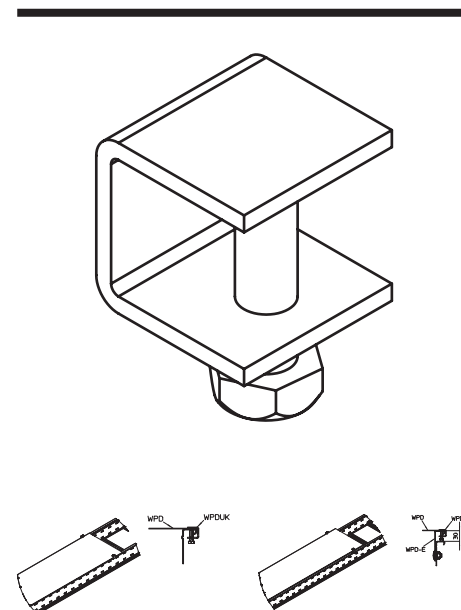
Wide-span systems

Cover

WPDUK cover clamp

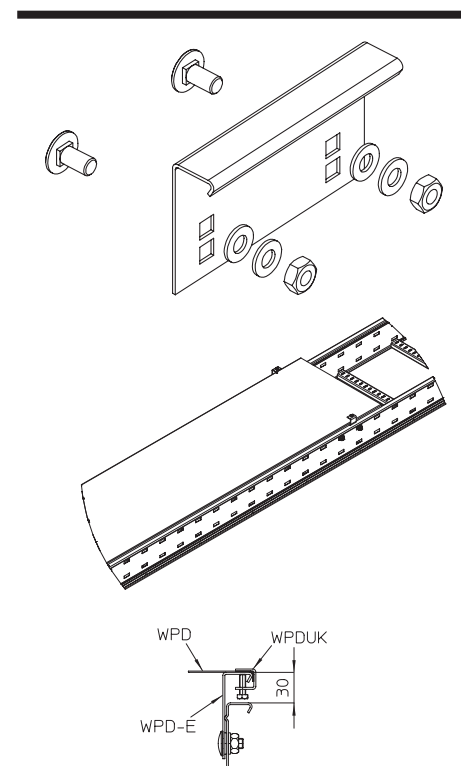
Cover clamp with screw head for mounting wide span covers on the underside for a flat appearance. Can also be used as storm protection angle. According to assembly instructions you should use at least 6 safety elements for each 3 meters cable path cover. For wind-exposed areas, the number of cover clamps must be increased to at least 10 pcs. For horizontal mounting, vertical mounting only in consultation with our engineer.

article number	H mm	B mm	L mm	t mm	M Nm	G kg
F						
WPDUK F	22	20	21	3.00	2 Nm	0.02
accessories included:						
1x SES 6X20E	hexagon head bolt, DIN 933		(page D45)			
E						
WPDUK E	22	20	21	3.00	2	0.02
accessories included:						
1x SES 6X20E	hexagon head bolt, DIN 933		(page D45)			
E4						
WPDUK E4	22	20	21	3.00	2	0.02
accessories included:						
1x SES 6X20E	hexagon head bolt, DIN 933		(page D45)			



WPD-E elevation

article number		G kg
F		
WPD-E-HDG		0.34
accessories included:		
2 x KLS 10x20-HDG	fixing set	(page D42)
2 x UVS M10-PE	captive washer	(page D48)
E		
WPD-E-304		0.36
accessories included:		
2 x KLS 10x20-304	fixing set	(page D42)
2 x UVS M10-PE	captive washer	(page D48)
E4		
WPD-E-316		0.37
accessories included:		
2 x KLS 10x20-316	fixing set	(page D42)
2 x UVS M10-PE	captive washer	(page D48)



WPHBCO wide-span bend cover

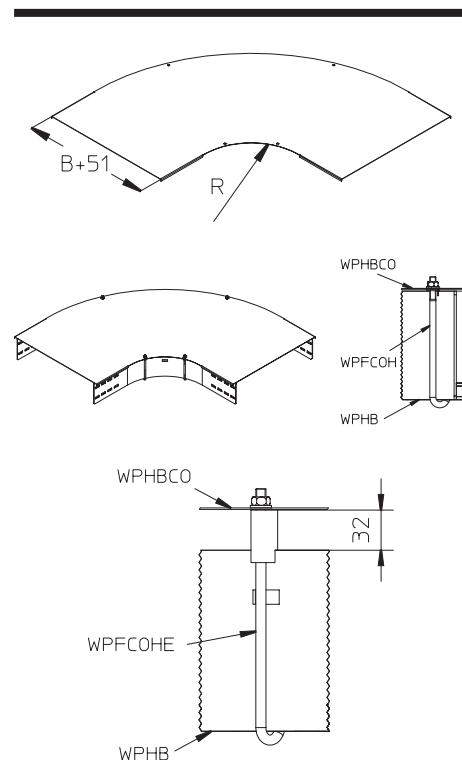
In our additional information is explained which amount of fitting cover hook clips you need. The following angles are available on request: 30 °, 45 °, 60 °. The following radii are available on request: 300 mm, 600 mm, 900 mm.

article number	H mm	angle	R mm	G kg
F				
WPHBCO20-90-45-HDG	200	90	450	2.24
WPHBCO30-90-45-HDG	300	90	450	4.36
WPHBCO40-90-45-HDG	400	90	450	5.88
WPHBCO45-90-45-HDG	450	90	450	6.28
WPHBCO50-90-45-HDG	500	90	450	9.40
WPHBCO60-90-45-HDG	600	90	450	11.62
WPHBCO70-90-45-HDG	700	90	450	16.80
WPHBCO75-90-45-HDG	750	90	450	18.31
WPHBCO80-90-45-HDG	800	90	450	19.86
WPHBCO90-90-45-HDG	900	90	450	23.12
WPHBCO100-90-45-HDG	1000	90	450	26.58
E				
WPHBCO20-90-45-304	200	90	450	2.09
WPHBCO30-90-45-304	300	90	450	4.07
WPHBCO40-90-45-304	400	90	450	5.50
WPHBCO45-90-45-304	450	90	450	6.28
WPHBCO50-90-45-304	500	90	450	8.79
WPHBCO60-90-45-304	600	90	450	10.86
WPHBCO70-90-45-304	700	90	450	16.80
WPHBCO75-90-45-304	750	90	450	18.31
WPHBCO80-90-45-304	800	90	450	19.86
WPHBCO90-90-45-304	900	90	450	23.12
WPHBCO100-90-45-304	1000	90	450	26.58
E4				
WPHBCO20-90-45-316	200	90	450	2.09
WPHBCO30-90-45-316	300	90	450	4.07
WPHBCO40-90-45-316	400	90	450	5.50
WPHBCO45-90-45-316	450	90	450	6.28
WPHBCO50-90-45-316	500	90	450	8.79
WPHBCO60-90-45-316	600	90	450	10.86
WPHBCO70-90-45-316	700	90	450	16.80
WPHBCO75-90-45-316	750	90	450	18.31
WPHBCO80-90-45-316	800	90	450	19.86
WPHBCO90-90-45-316	900	90	450	23.12
WPHBCO100-90-45-316	1000	90	450	26.58

accessories optional:

WPFCOH fitting cover hook clip

(page D25)



WPFCOH fitting cover hook clip

article number	L mm	G kg
E		
WPFCOH06-304	60	0.04
WPFCOH10-304	100	0.07
WPFCOH15-304	150	0.09

accessories included:

2 x **US 8X17-304** square washer (page D47)
1 x **SEM 8-304** hexagon-nut, DIN 934 (page D46)

E4		
WPFCOH10-316	100	0.07
WPFCOH15-316	150	0.09

accessories included:

2 x **US 8X17-316** square washer (page D47)
1 x **SEM 8-316** hexagon-nut, DIN 934 (page D46)

WPFCOHE fitting cover hook clip

article number	L mm	G kg
E		
WPFCOHE10-304	100	0.11
WPFCOHE15-304	150	0.13

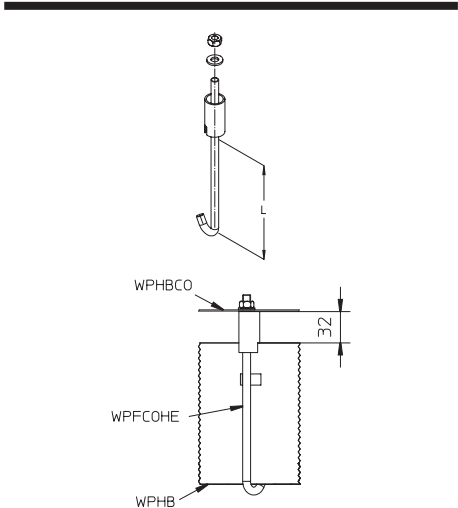
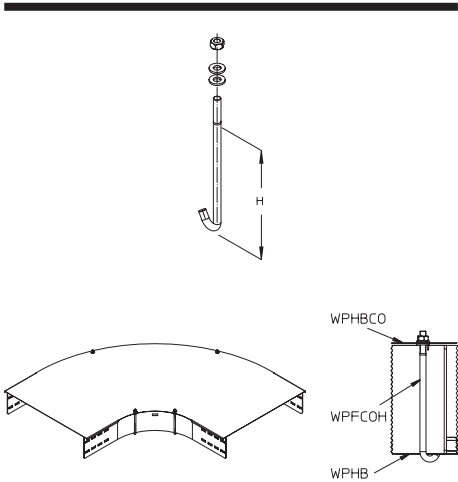
accessories included:

1 x **US 8X17-304** square washer (page D47)
1 x **SEM 8-304** hexagon-nut, DIN 934 (page D46)

E4		
WPFCOHE10-316	100	0.11
WPFCOHE15-316	150	0.13

accessories included:

1 x **US 8X17-316** square washer (page D47)
1 x **SEM 8-316** hexagon-nut, DIN 934 (page D46)



Wide-span systems

Cover

WPIRCO wide-span inside riser cover

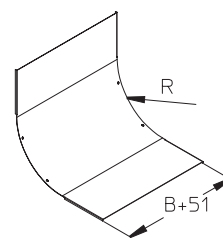
If the cover is to be mounted elevated. This must be mentioned separately in your order. e.g. WPIRCOE. In our additional information is explained which amount of fitting cover hook clips you need. The following angles are available on request: 30 °, 45 °, 60 °. The following radii are available on request: 300 mm, 600 mm, 900 mm.

article number	B mm	angle	R mm	G kg
F				
WPIRCO20-90-45-HDG	200	90	450	2.04
WPIRCO30-90-45-HDG	300	90	450	3.75
WPIRCO40-90-45-HDG	400	90	450	4.79
WPIRCO45-90-45-HDG	450	90	450	6.64
WPIRCO50-90-45-HDG	500	90	450	7.29
WPIRCO60-90-45-HDG	600	90	450	8.59
WPIRCO70-90-45-HDG	700	90	450	11.87
WPIRCO75-90-45-HDG	750	90	450	12.64
WPIRCO80-90-45-HDG	800	90	450	13.42
WPIRCO90-90-45-HDG	900	90	450	14.98
WPIRCO100-90-45-HDG	1000	90	450	15.30
E				
WPIRCO20-90-45-304	200	90	450	1.91
WPIRCO30-90-45-304	300	90	450	3.50
WPIRCO40-90-45-304	400	90	450	4.48
WPIRCO45-90-45-304	450	90	450	6.64
WPIRCO50-90-45-304	500	90	450	6.81
WPIRCO60-90-45-304	600	90	450	8.03
WPIRCO70-90-45-304	700	90	450	11.87
WPIRCO75-90-45-304	750	90	450	12.64
WPIRCO80-90-45-304	800	90	450	13.42
WPIRCO90-90-45-304	900	90	450	14.98
WPIRCO100-90-45-304	1000	90	450	15.30
E4				
WPIRCO20-90-45-316	200	90	450	2.03
WPIRCO30-90-45-316	300	90	450	3.50
WPIRCO40-90-45-316	400	90	450	4.52
WPIRCO45-90-45-316	450	90	450	6.64
WPIRCO50-90-45-316	500	90	450	6.81
WPIRCO60-90-45-316	600	90	450	8.03
WPIRCO70-90-45-316	700	90	450	11.87
WPIRCO75-90-45-316	750	90	450	12.64
WPIRCO80-90-45-316	800	90	450	13.42
WPIRCO90-90-45-316	900	90	450	14.98
WPIRCO100-90-45-316	1000	90	450	15.30

accessories optional:

WPFCOH

(page D25)



Wide-span systems

Cover

WPORCO Wide-span outside riser cover

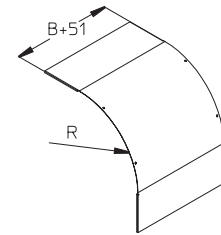
If the cover is to be mounted elevated, this must be mentioned separately in your order, e.g. WPORCOE In our additional information is explained which amount of fitting cover hook clips you need. The following angles are available on request: 30 °, 45 °, 60 °. The following radii are available on request: 300 mm, 600 mm, 900 mm.

article number	B mm	angle	R mm	G kg
F				
WPORCO20-90-45-HDG	200	90	450	2.40
WPORCO30-90-45-HDG	300	90	450	4.43
WPORCO40-90-45-HDG	400	90	450	5.66
WPORCO45-90-45-HDG	450	90	450	7.85
WPORCO50-90-45-HDG	500	90	450	8.62
WPORCO60-90-45-HDG	600	90	450	10.16
WPORCO70-90-45-HDG	700	90	450	14.03
WPORCO75-90-45-HDG	750	90	450	14.95
WPORCO80-90-45-HDG	800	90	450	15.88
WPORCO90-90-45-HDG	900	90	450	17.72
WPORCO100-90-45-HDG	1000	90	450	19.57
E				
WPORCO20-90-45-304	200	90	450	2.41
WPORCO30-90-45-304	300	90	450	4.17
WPORCO40-90-45-304	400	90	450	5.33
WPORCO45-90-45-304	450	90	450	7.85
WPORCO50-90-45-304	500	90	450	8.11
WPORCO60-90-45-304	600	90	450	9.55
WPORCO70-90-45-304	700	90	450	14.03
WPORCO75-90-45-304	750	90	450	14.95
WPORCO80-90-45-304	800	90	450	15.88
WPORCO90-90-45-304	900	90	450	17.72
WPORCO100-90-45-304	1000	90	450	19.57
E4				
WPORCO20-90-45-316	200	90	450	2.41
WPORCO30-90-45-316	300	90	450	4.17
WPORCO40-90-45-316	400	90	450	5.33
WPORCO45-90-45-316	450	90	450	7.85
WPORCO50-90-45-316	500	90	450	8.11
WPORCO60-90-45-316	600	90	450	9.55
WPORCO70-90-45-316	700	90	450	14.03
WPORCO75-90-45-316	750	90	450	14.95
WPORCO80-90-45-316	800	90	450	15.88
WPORCO90-90-45-316	900	90	450	17.72
WPORCO100-90-45-316	1000	90	450	19.57

accessories optional:

WPFCOH

(page D25)



WPCPCO wide-span crossing cover

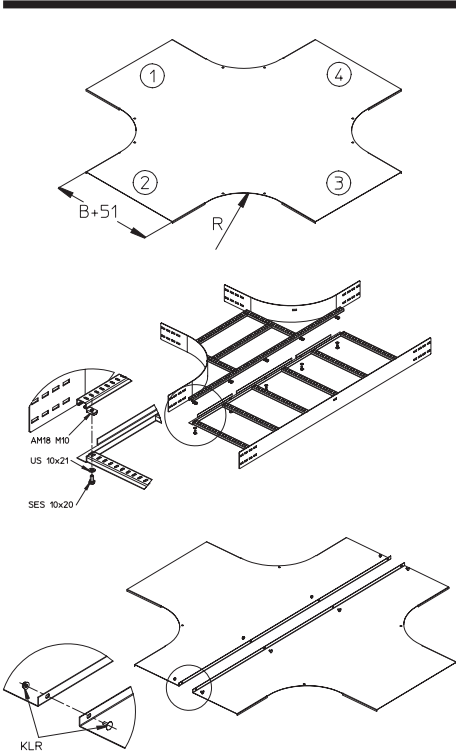
Dissymmetric covers on request. Covers with higher width/radius are delivered as two resp. four pieces including coupling bolts. In our additional information is explained which amount of fitting cover hook clips you need. The following radii are available on request: 300 mm, 600 mm, 900 mm.

article number	B mm	R mm	G kg
F			
WPCPCO20-45-HDG	200	450	5.82
WPCPCO30-45-HDG	300	450	10.59
WPCPCO40-45-HDG	400	450	14.71
WPCPCO45-45-HDG	450	450	18.94
WPCPCO50-45-HDG	500	450	20.94
WPCPCO60-45-HDG	600	450	25.11
WPCPCO70-45-HDG	700	450	35.39
WPCPCO75-45-HDG	750	450	38.11
WPCPCO80-45-HDG	800	450	40.90
WPCPCO90-45-HDG	900	450	46.65
WPCPCO100-45-HDG	1000	450	52.66
E			
WPCPCO20-45-304	200	450	5.82
WPCPCO30-45-304	300	450	10.59
WPCPCO40-45-304	400	450	14.71
WPCPCO45-45-304	450	450	18.94
WPCPCO50-45-304	500	450	20.94
WPCPCO60-45-304	600	450	25.11
WPCPCO70-45-304	700	450	35.39
WPCPCO75-45-304	750	450	38.11
WPCPCO80-45-304	800	450	40.90
WPCPCO90-45-304	900	450	46.65
WPCPCO100-45-304	1000	450	52.66
E4			
WPCPCO20-45-316	200	450	5.82
WPCPCO30-45-316	300	450	10.59
WPCPCO40-45-316	400	450	14.71
WPCPCO45-45-316	450	450	18.94
WPCPCO50-45-316	500	450	20.94
WPCPCO60-45-316	600	450	25.11
WPCPCO70-45-316	700	450	35.39
WPCPCO75-45-316	750	450	38.11
WPCPCO80-45-316	800	450	40.90
WPCPCO90-45-316	900	450	46.65
WPCPCO100-45-316	1000	450	52.66

accessories optional:

WPFCHO

(page D25)



WPTPCO wide-span branch cover

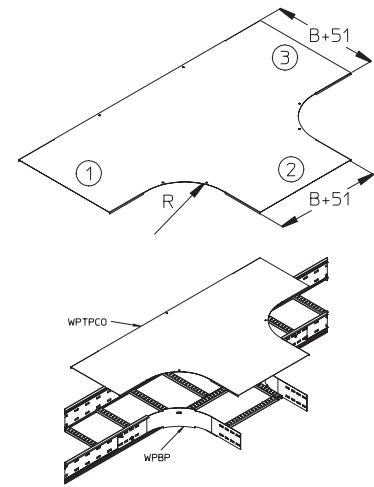
Dissymmetric covers on request. Covers with higher width/radius are delivered as two pieces including coupling bolts. In our additional information is explained which amount of fitting cover hook clips you need. The following radii are available on request: 600 mm, 900 mm.

article number	B mm	R mm	G kg
F			
WPTPCO20-45-HDG	200	450	4.22
WPTPCO30-45-HDG	300	450	7.88
WPTPCO40-45-HDG	400	450	10.30
WPTPCO45-45-HDG	450	450	14.47
WPTPCO50-45-HDG	500	450	16.11
WPTPCO60-45-HDG	600	450	19.55
WPTPCO70-45-HDG	700	450	27.85
WPTPCO75-45-HDG	750	450	30.14
WPTPCO80-45-HDG	800	450	32.49
WPTPCO90-45-HDG	900	450	37.37
WPTPCO100-45-HDG	1000	450	42.51
E			
WPTPCO20-45-304	200	450	3.94
WPTPCO30-45-304	300	450	7.36
WPTPCO40-45-304	400	450	9.63
WPTPCO45-45-304	450	450	14.47
WPTPCO50-45-304	500	450	15.06
WPTPCO60-45-304	600	450	18.72
WPTPCO70-45-304	700	450	27.85
WPTPCO75-45-304	750	450	30.14
WPTPCO80-45-304	800	450	32.49
WPTPCO90-45-304	900	450	37.37
WPTPCO100-45-304	1000	450	42.51
E4			
WPTPCO20-45-316	200	450	3.94
WPTPCO30-45-316	300	450	7.36
WPTPCO40-45-316	400	450	9.63
WPTPCO45-45-316	450	450	14.47
WPTPCO50-45-316	500	450	15.06
WPTPCO60-45-316	600	450	18.72
WPTPCO70-45-316	700	450	27.85
WPTPCO75-45-316	750	450	30.14
WPTPCO80-45-316	800	450	32.49
WPTPCO90-45-316	900	450	37.37
WPTPCO100-45-316	1000	450	42.51

accessories optional:

WPFCOH

(page D25)



WPC 100 wide-span connector, height=100 mm

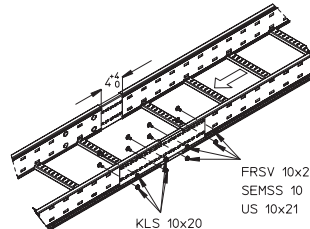
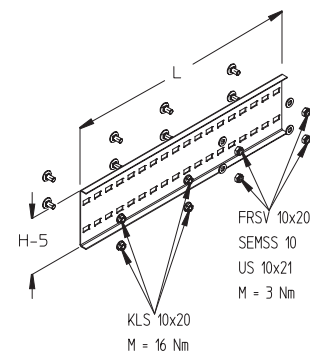
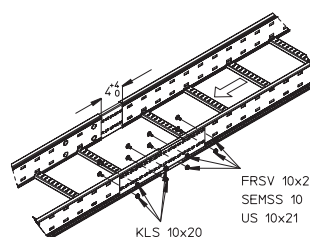
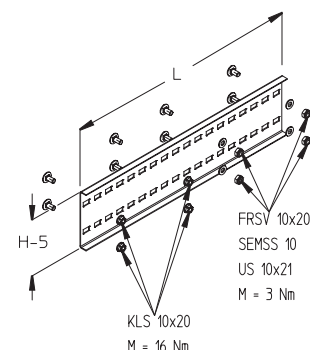
In order to compensate for the heat expansion one side of the connector is mounted as a loose bearing. The given torques must be observed. The other side of the connector is to be mounted as a fixed bearing. A minimum distance of 4 mm must be kept between the cable ladders. Electrical conductivity tested according to DIN EN 61537.

article number	H mm	L mm	G kg
F			
WPC10-HDG	100	400	1.03
accessories optional:			
4x KLS 10X20-HDG	fixing set	(page D42)	
4x FRSV 10X20-HDG	round-head screw with short square, DIN 603	(page D43)	
4x US 10X21-HDG	square washer, DIN 125	(page D47)	
4x SEMB 10-HDG	hexagon-nut, DIN 934	(page D46)	
E			
WPC10-304	100	400	0.98
accessories optional:			
4x KLS 10X20-304	fixing set	(page D42)	
4x FRSV 10X20-304	round-head screw with short square, DIN 603	(page D43)	
4x US 10X21-304	square washer, DIN 125	(page D47)	
4x SEMB 10-304	hexagon-nut, DIN 934	(page D46)	
E4			
WPC10-316	100	400	0.99
accessories optional:			
4x KLS 10X20-316	fixing set	(page D42)	
4x FRSV 10X20-316	round-head screw with short square, DIN 603	(page D43)	
4x US 10X21-316	square washer, DIN 125	(page D47)	
4x SEMB 10-316	hexagon-nut, DIN 934	(page D46)	

WPC 150 wide-span connector, height=150 mm

In order to compensate for the heat expansion one side of the connector is mounted as a loose bearing. The given torques must be observed. The other side of the connector is to be mounted as a fixed bearing. A minimum distance of 4 mm must be kept between the cable ladders. Electrical conductivity tested according to DIN EN 61537.

article number	H mm	L mm	G kg
F			
WPC15-HDG	150	600	1.91
accessories optional:			
4x KLS 10X20-HDG	fixing set	(page D42)	
4x FRSV 10X20-HDG	round-head screw with short square, DIN 603	(page D43)	
4x US 10X21-HDG	square washer, DIN 125	(page D47)	
4x SEMB 10-HDG	hexagon-nut, DIN 934	(page D46)	
E			
WPC15-304	150	600	1.81
accessories optional:			
4x KLS 10X20-304	fixing set	(page D42)	
4x FRSV 10X20-304	round-head screw with short square, DIN 603	(page D43)	
4x US 10X21-304	square washer, DIN 125	(page D47)	
4x SEMB 10-304	hexagon-nut, DIN 934	(page D46)	
E4			
WPC15-316	150	600	1.83
accessories optional:			
4x KLS 10X20-316	fixing set	(page D42)	
4x FRSV 10X20-316	round-head screw with short square, DIN 603	(page D43)	
4x US 10X21-316	square washer, DIN 125	(page D47)	
4x SEMB 10-316	hexagon-nut, DIN 934	(page D46)	



Wide-span systems

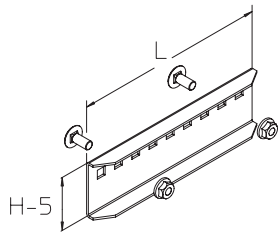
Accessories

WPC 60 wide-span connector, height=60 mm

In order to compensate for the heat expansion one side of the connector is mounted as a loose bearing. The given torques must be observed. The other side of the connector is to be mounted as a fixed bearing. A minimum distance of 4 mm must be kept between the cable ladders. Electrical conductivity tested according to DIN EN 61537.



article number	H mm	L mm	G kg
F			
WPC06-HDG	55	190	0.28



WPCH 100 wide-span connector, horizontally adjustable, height=100 mm

article number	H mm	L mm	G kg
F			
WPCH10-HDG	100	400	1.12

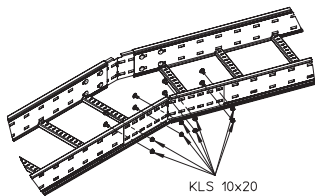
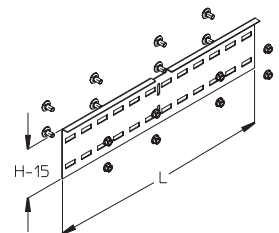
accessories included:
8x **KLS 10X20-HDG** fixing set (page D42)

E			
WPCH10-304	100	400	0.92

accessories included:
8x **KLS 10X20-304** fixing set (page D42)

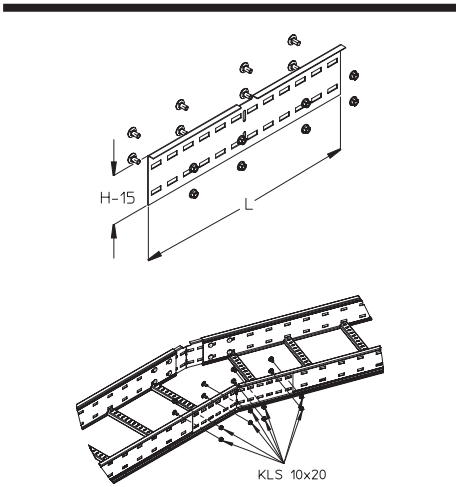
E4			
WPCH10-316	100	400	0.92

accessories included:
8x **KLS 10X20-316** fixing set (page D42)



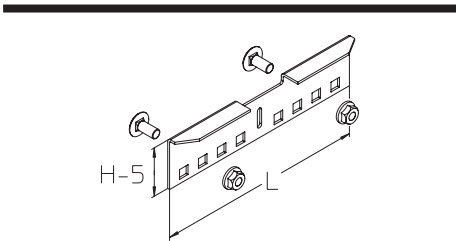
WPCH 150 wide-span connector, horizontally adjustable, height=150 mm

article number	H mm	L mm	G kg
F			
WPCH15-HDG	150	600	1.91
accessories included: 8x KLS 10X20-HDG fixing set (page D42)			
E			
WPCH15-304	150	600	1.70
accessories included: 8x KLS 10X20-304 fixing set (page D42)			
E4			
WPCH15-316	150	600	1.72
accessories included: 8x KLS 10X20-316 fixing set (page D42)			



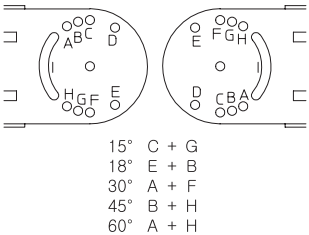
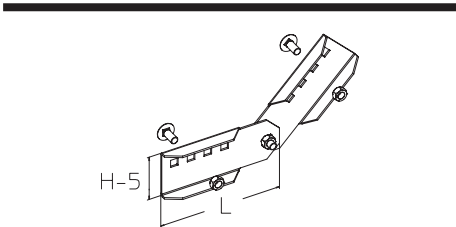
WPCH 60 wide-span connector, horizontally adjustable, height=60 mm

article number	H mm	L mm	G kg
F			
WPCH06-HDG	55	190	0.19
accessories included: 2x KLS 8x16-304 fixing set (page D42)			



WPCV 60 wide-span connector, vertically adjustable, height=60 mm

article number	H mm	L mm	G kg
F			
WPCV06-HDG	55	140	0.37
accessories included: 2x KLS 10X20-304 fixing set (page D42)			

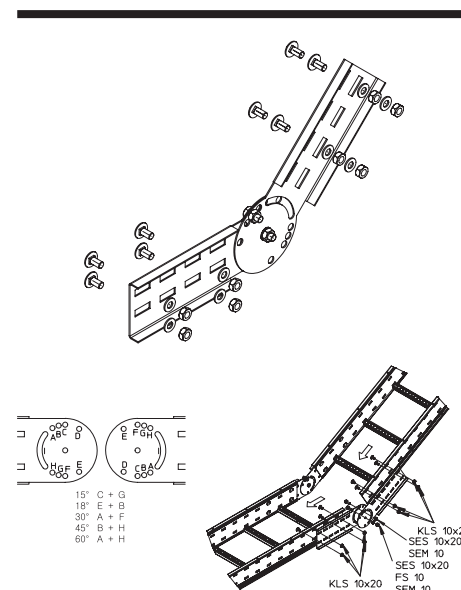


Wide-span systems

Accessories

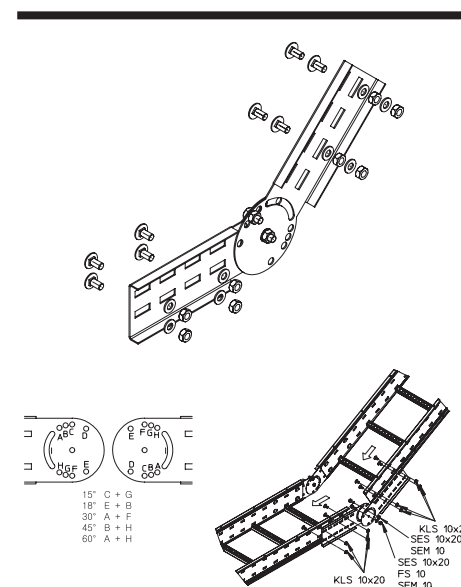
WPCV 100 wide-span connector, vertically adjustable, height=100 mm

article number		H mm	L mm	G kg
F				
WPCV10-HDG		100	253	1.49
accessories included:				
8x KLS 10X20-HDG	fixing set		(page D42)	
2x SEM 10-HDG	hexagon-nut, DIN 934		(page D46)	
2x SES 10X20-HDG	hexagon head bolt, DIN 933		(page D45)	
1x FS 10-304	serrated lock washer		(page D47)	
E				
WPCV10-304		100	253	1.56
accessories included:				
8x KLS 10X20-304	fixing set		(page D42)	
2x SEM 10-304	hexagon-nut, DIN 934		(page D46)	
2x SES 10X20-304	hexagon head bolt, DIN 933		(page D45)	
1x FS 10-304	serrated lock washer		(page D47)	
E4				
WPCV10-316		100	253	1.53
accessories included:				
8x KLS 10X20-316	fixing set		(page D42)	
2x SEM 10-316	hexagon-nut, DIN 934		(page D46)	
2x SES 10X20-316	hexagon head bolt, DIN 933		(page D45)	
1x FS 10-316	serrated lock washer		(page D47)	



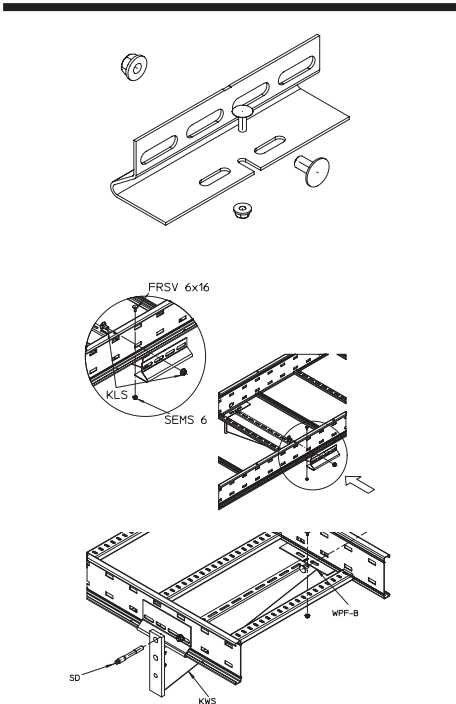
WPCV 150 wide-span connector, vertically adjustable, height=150 mm

article number		H mm	L mm	G kg
F				
WPCV15-HDG		150	377	2.82
accessories included:				
8x KLS 10X20-HDG	fixing set		(page D42)	
2x SEM 10-HDG	hexagon-nut, DIN 934		(page D46)	
2x SES 10X20-HDG	hexagon head bolt, DIN 933		(page D45)	
1x FS 10-304	serrated lock washer		(page D47)	
E				
WPCV15-304		150	377	2.78
accessories included:				
8x KLS 10X20-304	fixing set		(page D42)	
2x SEM 10-304	hexagon-nut, DIN 934		(page D46)	
2x SES 10X20-304	hexagon head bolt, DIN 933		(page D45)	
1x FS 10-304	serrated lock washer		(page D47)	
E4				
WPCV15-316		150	377	2.85
accessories included:				
8x KLS 10X20-316	fixing set		(page D42)	
2x SEM 10-316	hexagon-nut, DIN 934		(page D46)	
2x SES 10X20-316	hexagon head bolt, DIN 933		(page D45)	
1x FS 10-316	serrated lock washer		(page D47)	



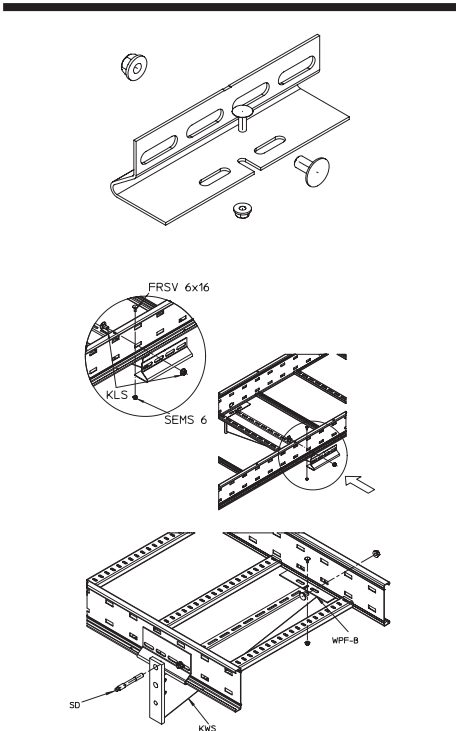
WPF-B flange mounting clamp (brackets)

article number			G
			kg
F			
WPF-B-HDG			0.51
accessories included:			
1x KLS 10X20-HDG	fixing set	(page D42)	
1x FRSV 6X16-304	round-head screw with short square, DIN 603	(page D43)	
1x SEMS 6-304	hexagon nut with flange, DIN EN 1661	(page D46)	
E			
WPF-B-304			0.50
accessories included:			
1x KLS 10X20-304	fixing set	(page D42)	
1x FRSV 6X16-304	round-head screw with short square, DIN 603	(page D43)	
1x SEMS 6-304	hexagon nut with flange, DIN EN 1661	(page D46)	
E4			
WPF-B-316			0.50
accessories included:			
1x KLS 10X20-316	fixing set	(page D42)	
1x FKS 6X16-316	slotted cylinder head screw, DIN EN ISO 1580	(page D43)	
1x SEM 6-316	hexagon-nut, DIN 934	(page D46)	
1x US 6X12-316	square washer, DIN 125	(page D47)	



WPF-B 60 flange mounting clamp (brackets)

article number			G
			kg
F			
WPF06-B-HDG			0.46
accessories included:			
1x KLS 8x16-304	fixing set	(page D42)	
1x FRSV 6X16-304	round-head screw with short square, DIN 603	(page D43)	
1x SEMS 6-304	hexagon nut with flange, DIN EN 1661	(page D46)	

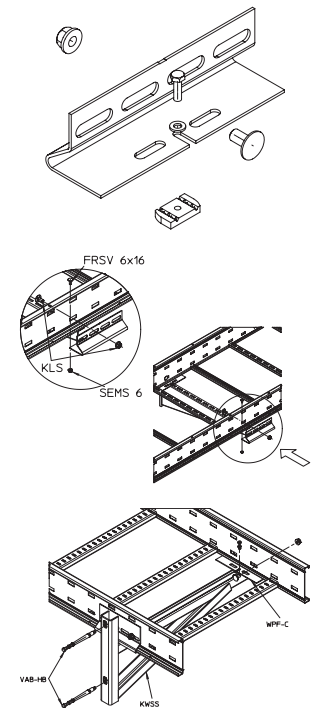


Wide-span systems

Accessories

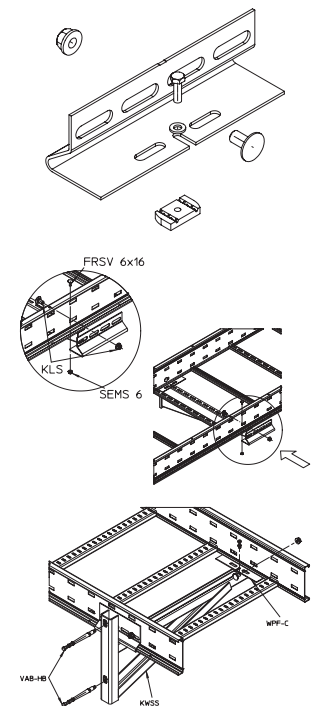
WPF-C flange mounting clamp (C-profiles)

article number		G	kg
F			
WPF-C-HDG		0.53	
accessories included:			
1x KLS 10X20-HDG	fixing set	(page D42)	
1x SES 6X20-304	hexagon head bolt, DIN 933	(page D45)	
1x US 6X12-304	square washer, DIN 125	(page D47)	
1x AM22 M6-HDG	channel nut, A 41, KHA 41, KHAL 41	(page D49)	
E			
WPF-C-304		0.52	
accessories included:			
1x KLS 10X20-304	fixing set	(page D42)	
1x SES 6X20-304	hexagon head bolt, DIN 933	(page D45)	
1x US 6X12-304	square washer, DIN 125	(page D47)	
1x AM22 M6-HDG	channel nut, A 41, KHA 41, KHAL 41	(page D49)	
E4			
WPF-C-316		0.52	
accessories included:			
1x KLS 10X20-316	fixing set	(page D42)	
1x US 6X12-316	square washer, DIN 125	(page D47)	
1x AM22 M6-316	channel nut, A 41, KHA 41, KHAL 41	(page D49)	



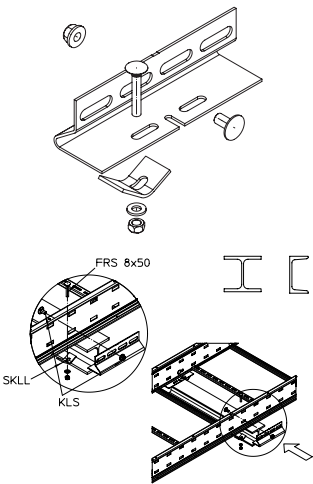
WPF-C 60 flange mounting clamp (C-profiles)

article number		G	kg
F			
WPF06-C-HDG		0.50	
accessories included:			
1x KLS 8x16-304	fixing set	(page D42)	
1x SES 6X20-304	hexagon head bolt, DIN 933	(page D45)	
1x US 6X12-304	square washer, DIN 125	(page D47)	
1x AM22 M6-HDG	channel nut, A 41, KHA 41, KHAL 41	(page D49)	



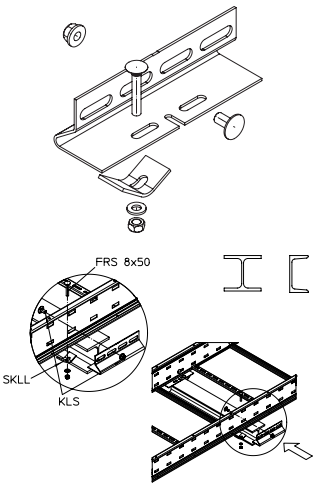
WPF-P 60 flange mounting clamp (profiles)

article number		G
		kg
F		
WPF06-P-HDG		0.59
accessories included:		
1x SKLL-HDG	clamping claw	(page D49)
1x KLS 8X16-304	fixing set	(page D42)
1x SEM 8-304	hexagon-nut, DIN 934	(page D46)
1x US 8X17-304	square washer, DIN 125	(page D47)



WPF-P flange mounting clamp (profiles)

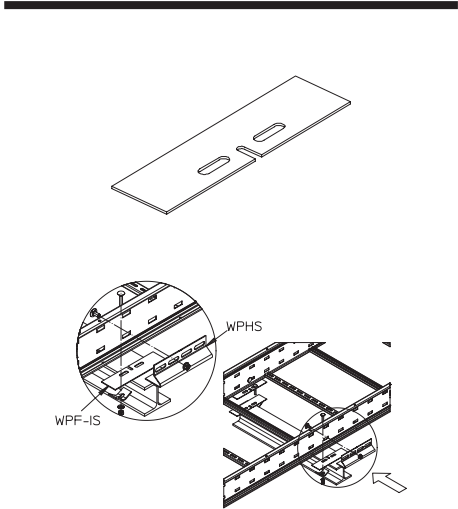
article number		G
		kg
F		
WPF-P-HDG		0.59
accessories included:		
1x SEM 8-304	hexagon-nut, DIN 934	(page D46)
1x SKLL-HDG	clamping claw	(page D49)
1x US 8X17-304	square washer, DIN 125	(page D47)
1x KLS 10X20-HDG	fixing set	(page D42)
E		
WPF-P-304		0.58
accessories included:		
1x SEM 8-304	hexagon-nut, DIN 934	(page D46)
1x SKLL-304	clamping claw	(page D49)
1x US 8X17-304	square washer, DIN 125	(page D47)
1x SEMS 10-304	hexagon nut with flange, DIN EN 1661	(page D46)
1x FRSV 10X20-304	round-head screw with short square, DIN 603	(page D43)
E4		
WPF-P-316		0.68
accessories included:		
1x SKLL-316	clamping claw	(page D49)
1x KLS 10X20-316	fixing set	(page D42)
1x FRS 8X50-316	round-head screw with square, DIN 603	(page D43)
1x US 8X17-316	square washer, DIN 125	(page D47)
1x SEM 8-316	hexagon-nut, DIN 934	(page D46)



WPF-IS isolation strip

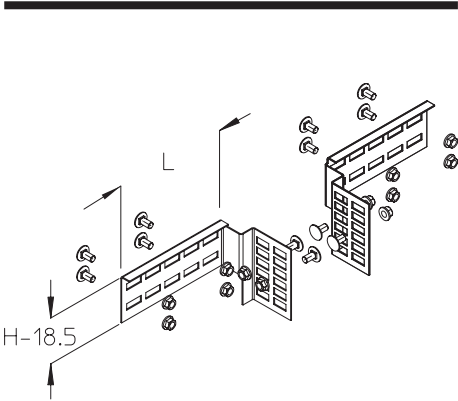
Isolation strip for galvanic isolation between cable ladders and support systems.

article number	G kg
EPDM	
WPF-IS	0.03



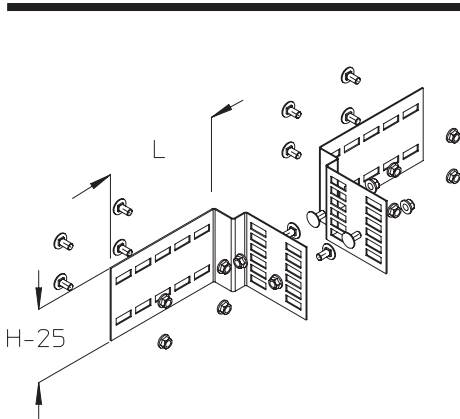
WPCHV 100 wide-span connector, horizontal-vertical, height=100 mm

article number	H mm	L mm	G kg
F			
WPCHV10-HDG	100	232	1.43
accessories included: 12x KLS 10X20-HDG fixing set (page D42)			
E			
WPCHV10-304	100	232	1.37
accessories included: 12x KLS 10X20-304 fixing set (page D42)			
E4			
WPCHV10-316	100	232	1.38
accessories included: 12x KLS 10X20-316 fixing set (page D42)			



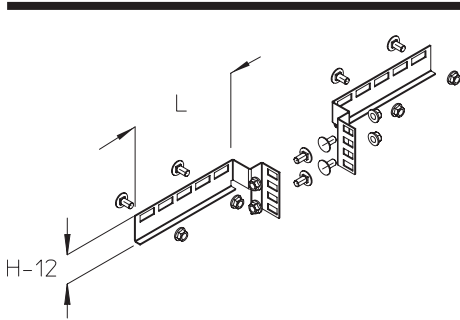
WPCHV 150 wide-span connector, horizontal-vertical, height=150 mm

article number		H mm	L mm	G kg
F				
WPCHV15-HDG		100	232	1.85
accessories included:				
12x KLS 10X20-HDG	fixing set		(page D42)	
E				
WPCHV15-304		100	232	1.76
accessories included:				
12x KLS 10X20-304	fixing set		(page D42)	
E4				
WPCHV15-316		100	232	1.78
accessories included:				
12x KLS 10X20-316	fixing set		(page D42)	



WPCHV 60 wide-span connector, horizontal-vertical, height=60 mm

article number		H mm	L mm	G kg
F				
WPCHV06-HDG		55	232	0.65
accessories included:				
3x SEM 8-304	hexagon-nut, DIN 934		(page D46)	
3x FRSV 8X16-304	round-head screw with short square, DIN 603		(page D43)	
1x FS 8-304	serrated lock washer		(page D47)	

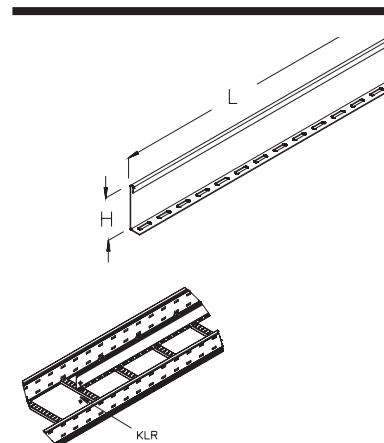


Wide-span systems

Accessories

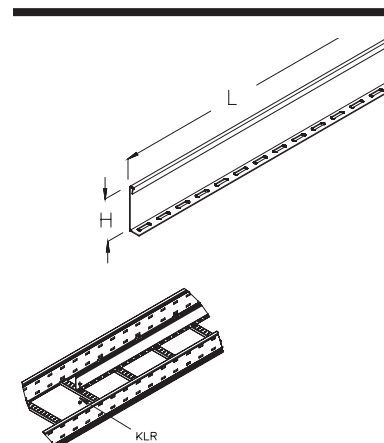
WPS 100 wide-span separating strip, height=50 mm

article number	H mm	L mm	G kg
F			
WPS10-HDG	50	3000	2,12
accessories included:			
3x FRSV 6X12-304	round-head screw with short square, DIN 603	(page D43)	
3x SEMS 6-304	hexagon nut with flange, DIN EN 1661	(page D46)	
E			
WPS10-304	50	3000	1,96
accessories included:			
3x FRSV 6X12-304	round-head screw with short square, DIN 603	(page D43)	
3x SEMS 6-304	hexagon nut with flange, DIN EN 1661	(page D46)	
E4			
WPS10-316	50	3000	1,96
accessories included:			
3x FRSV 6X12-316	round-head screw with short square, DIN 603	(page D43)	
3x SEM 6-316	hexagon-nut, DIN 934	(page D46)	
3x US 6X12-316	square washer, DIN 125	(page D47)	



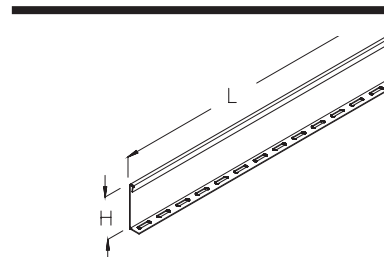
WPS 150 wide-span separating strip, height=100 mm

article number	H mm	L mm	G kg
F			
WPS15-HDG	100	3000	3,52
accessories included:			
3x FRSV 6X12-304	round-head screw with short square, DIN 603	(page D43)	
3x SEMS 6-304	hexagon nut with flange, DIN EN 1661	(page D46)	
E			
WPS15-304	100	3000	3,58
accessories included:			
3x FRSV 6X12-304	round-head screw with short square, DIN 603	(page D43)	
3x SEMS 6-304	hexagon nut with flange, DIN EN 1661	(page D46)	
E4			
WPS15-316	100	3000	3,60
accessories included:			
3x FRSV 6X12-316	round-head screw with short square, DIN 603	(page D43)	
3x SEM 6-316	hexagon-nut, DIN 934	(page D46)	
3x US 6X12-316	square washer, DIN 125	(page D47)	



WPS 60 wide-span separating strip, height=33 mm

article number	H mm	L mm	G kg
F			
WPS06-HDG	33	3000	1.70
accessories included:			
3x FRSV 6X12-304	round-head screw with short square, DIN 603	(page D43)	
3x SEMS 6-304	hexagon nut with flange, DIN EN 1661	(page D46)	



Wide-span systems

Accessories

WPR reducer, height=150 mm

article number	H mm	L mm	G kg
F			
WPR15-10-HDG	150	100	1.71
WPR15-20-HDG	150	200	2.08
WPR15-30-HDG	150	300	2.44

accessories included:

4x **KLS 10X20-HDG** (page D42)

E			
WPR15-10-304	150	100	1.62
WPR15-20-304	150	200	1.96
WPR15-30-304	150	300	2.30

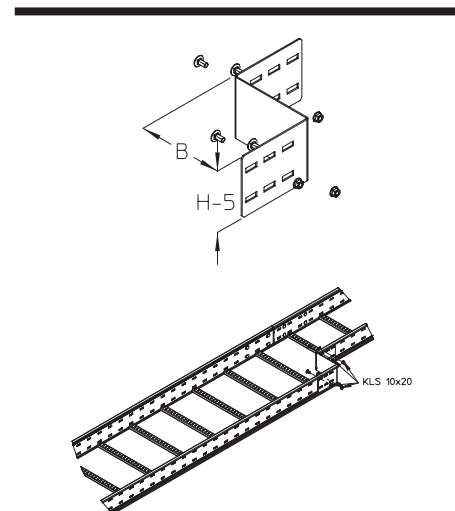
accessories included:

4x **KLS 10X20-304** (page D42)

E4			
WPR15-10-316	150	100	1.64
WPR15-20-316	150	200	1.99
WPR15-30-316	150	300	2.33

accessories included:

4x **KLS 10X20-316** (page D42)



KPAB end plate

End plate for wide-span cable ladders. Also available in stainless steel 304 / 316.

article number	B mm	G kg
F		
KPAB 20-HDG	200	0.60
KPAB 30-HDG	300	0.88
KPAB 40-HDG	400	1.15

accessories included:

2x **FKS 6X10-304** slotted cylinder head screw, DIN EN ISO 1580 (page D43)
2x **AM18 M6-316** channel nut, A7/A8 (page D48)

F		
KPAB 50-HDG	500	1.43
KPAB 60-HDG	600	1.71
KPAB 70-HDG	700	1.98
KPAB 80-HDG	800	2.26

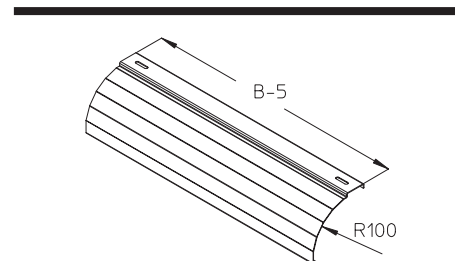
accessories included:

2x **FKS 6X10-304** slotted cylinder head screw, DIN EN ISO 1580 (page D43)
3x **AM18 M6-316** channel nut, A7/A8 (page D48)

F		
KPAB 90-HDG	900	2.54
KPAB 100-HDG	1000	2.81

accessories included:

2x **FKS 6X10-304** slotted cylinder head screw, DIN EN ISO 1580 (page D43)
4x **AM18 M6-316** channel nut, A7/A8 (page D48)

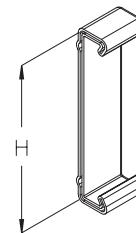


Wide-span systems

Accessories

PKPEC protection end cap

article number	H mm	G kg
PE		
PKPEC 06-PE	60	0.01
PKPEC 10-PE	100	0.02
PKPEC 15-PE	150	0.03



TS isolationstrip

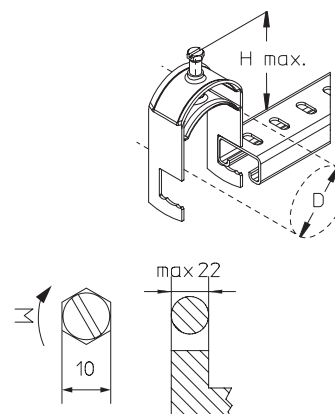
article number	B mm	L mm	t mm
TEFLON			
TS	45	1000	1



RU cable clamp for fastening to profile rails

cable clamp, hot-dip galvanized, with all-over vat made of steel, for fastening to round profiles and flat sections up to 22 mm

article number	D	H _{max}	M Nm	H mm	G kg/100
F					
14 RU-HDG	8-14	48	2	1	4.30
20 RU-HDG	14-20	54	2	1	4.90
26 RU-HDG	20-26	60	2	1	5.90
32 RU-HDG	26-32	67	2	1	9.20
38 RU-HDG	32-38	74	2	1	10.50
44 RU-HDG	38-44	82	4	1	12.00
52 RU-HDG	44-52	91	4	1	14.30
60 RU-HDG	52-60	99	4	1	16.40
70 RU-HDG	60-70	109	4	1	18.40
14/2 RU-HDG	8-14	63	2	2	5.60
20/2 RU-HDG	14-20	75	2	2	6.80
26/2 RU-HDG	20-26	88	2	2	6.80
32/2 RU-HDG	26-32	101	2	2	12.50



Wide-span systems

Accessories

KLR fixing set

For an application example, see the chapter assembly.

article number	G
	kg/100

GV	
KLR	0,9

accessories included:

2 x FRSV 6x12	round-head screw with short square	(page D43)
2 x SEMS 6	hexagon nut, self-locking, DIN 6923	(page D46)

article number	G
	kg/100

E	
KLR E	0,9

accessories included:

2 x FRSV 6x12E	round-head screw with short square	(page D43)
2 x SEMS 6E	hexagon nut, self-locking, DIN 6923	(page D46)

article number	G
	kg/100

GV	
KLR 6x25	1,4

accessories included:

2 x FRS 6x25	round-head screw with square, DIN 603	(page D43)
2 x SEMS 6	hexagon nut, self-locking, DIN 6923	(page D46)

article number	G
	kg/100

E	
KLR 6x25E	1,4

accessories included:

2 x FRS 6x25E	round-head screw with square, DIN 603	(page D43)
2 x SEMS 6E	hexagon nut, self-locking, DIN 6923	(page D46)

accessories optional:

FRSV	round-head screw with short square	(page D43)
FRS	round-head screw with square, DIN 603	(page D43)
SEMS	hexagon nut, self-locking, DIN 6923	(page D46)

KLS fixing set

For an application example, see the chapter assembly.

article number	Ø	L	G
	mm	mm	kg/100

GV			
KLS 8x16	8	16	1,8

accessories included:

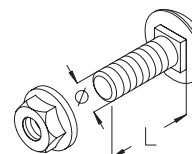
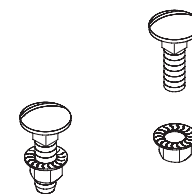
1 x FRSV 8x16	round-head screw with short square	(page D43)
1 x SEMS 8	hexagon nut, self-locking, DIN 6923	(page D46)

article number	Ø	L	G
	mm	mm	kg/100

GV			
KLS 8x25	8	25	2,2

accessories included:

1 x FRS 8x25	round-head screw with square, DIN 603	(page D43)
1 x SEMS 8	hexagon nut, self-locking, DIN 6923	(page D46)



Wide-span systems

Accessories

KLS fixing set

For an application example, see the chapter assembly.

article number	Ø mm	L mm	G kg/100
GV			
KLS 10x20	10	20	3,9

accessories included:

1 x FRSV 10x20	round-head screw with short square	(page D43)
1 x SEMS 10	hexagon nut, self-locking, DIN 6923	(page D46)

article number	Ø mm	L mm	G kg/100
F			
KLS 10x20F	10	20	4

accessories included:

1 x FRSV 10x20F	round-head screw with short square	(page D43)
1 x SEM 10F	hexagon-nut, DIN 934	(page D46)
1 x US 10x21F	square washer, DIN 125	(page D47)

article number	Ø mm	L mm	G kg/100
E			
KLS 8x16E	8	16	1,8

accessories included:

1 x FRSV 8x16E	round-head screw with short square	(page D43)
1 x SEMS 8E	hexagon nut, self-locking, DIN 6923	(page D46)

article number	Ø mm	L mm	G kg/100
E			
KLS 8x25E	8	25	2,2

accessories included:

1 x FRS 8x25E	round-head screw with square, DIN 603	(page D43)
1 x SEMS 8E	hexagon nut, self-locking, DIN 6923	(page D46)

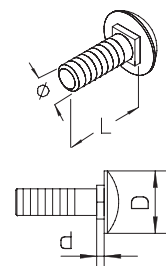
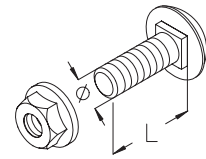
article number	Ø mm	L mm	G kg/100
E			
KLS 10x20E	10	20	3,9

accessories included:

1 x FRSV 10x20E	round-head screw with short square	(page D43)
1 x SEM 10E	hexagon-nut, DIN 934	(page D46)
1 x US 10x21E	square washer, DIN 125	(page D47)

FRSV round-head screw with short square

article number	Ø mm	D mm	d mm	L mm	G kg/100
GV					
FRSV 6x12	6	16	1,5	12	0,5
FRSV 6x16	6	16	1,5	16	0,7
FRSV 8x16	8	20	2,0	16	1,3
FRSV 10x20	10	24	2,5	20	2,3
F					
FRSV 10x20F	10	24	2,5	20	2,3



Wide-span systems

Accessories

FRSV round-head screw with short square

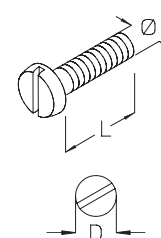
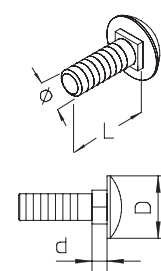
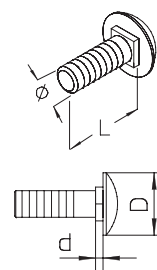
article number	Ø mm	D mm	d mm	L mm	G kg/100
E					
FRSV 6x12E	6	16	1,5	12	0,5
FRSV 6x16E	6	16	1,5	16	0,7
FRSV 8x16E	8	20	2,0	16	1,3
FRSV 10x20E	10	24	2,5	20	2,3
E4					
FRSV 6x12E4	6	16	1,5	12	0,5
FRSV 10x20E4	10	24	2,5	20	2,4

FRS round-head screw with square, DIN 603

article number	Ø mm	D mm	d mm	L mm	G kg/100
GV					
FRS 6x25	6	16	4	25	0,9
FRS 8x20	8	20	5	20	1,4
FRS 8x25	8	20	5	25	1,5
FRS 8x35	8	20	5	35	1,9
FRS 8x50	8	20	5	50	2,5
FRS 10x30	10	24	6	30	2,8
FRS 12x30	12	30	8	30	4,6
F					
FRS 10x30F	10	24	6	30	2,8
FRS 12x30F	12	30	8	30	4,6
E					
FRS 6x16E	6	16	4	16	0,7
FRS 6x20E	6	16	4	20	0,8
FRS 6x25E	6	16	4	25	0,9
FRS 8x20E	8	20	5	20	1,4
FRS 8x25E	8	20	5	25	1,5
FRS 8x35E	8	20	5	35	1,9
FRS 8x50E	8	20	5	50	2,5
FRS 10x30E	10	24	6	30	2,8
FRS 12x30E	12	30	8	30	4,6

FKS slotted cylinder head screw, DIN 84

article number	Ø mm	D mm	L mm	t mm	G kg/100
GV					
FKS 6x10	6	12	10	4	0,4
FKS 6x20	6	12	20	4	0,6
FKS 6x25	6	12	25	4	0,7
FKS 8x20	8	16	20	5	1,3
E					
FKS 6x10E	6	12	10	4	0,4
FKS 6x16E	6	12	16	4	0,4
FKS 6x20E	6	12	20	4	0,6
FKS 6x25E	6	12	25	4	0,7
E4					
FKS 6x16E4	6	12	16	4	0,4

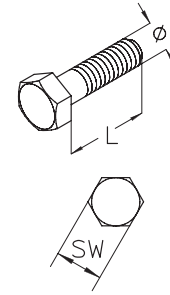


Wide-span systems

Accessories

SES hexagon head bolt, DIN 933

article number	Ø mm	L mm	SW mm	G kg/100
GV				
SES 6x16	6	16	10	0,5
SES 6x20	6	20	10	0,6
SES 6x25	6	25	10	0,7
SES 6x30	6	30	10	0,8
SES 8x16	8	16	13	1,1
SES 8x20	8	20	13	1,2
SES 8x25	8	25	13	1,4
SES 8x30	8	30	13	1,4
SES 8x40	8	40	13	1,9
SES 8x110	8	110	13	4,1
SES 10x20	10	20	17(16)	2,1
SES 10x25	10	25	17(16)	2,4
SES 10x30	10	30	17(16)	2,6
SES 10x40	10	40	17(16)	3,1
SES 10x75	10	75	17(16)	4,7
SES 10x90	10	90	17(16)	5,6
SES 10x100	10	100	17(16)	6,1
SES 12x20	12	20	19(18)	3,1
SES 12x25	12	25	19(18)	3,4
SES 12x30	12	30	19(18)	3,8
SES 12x40	12	40	19(18)	4,5
SES 12x50	12	50	19(18)	5,2
F				
SES 10x20F	10	20	17(16)	2,1
SES 10x25F	10	25	17(16)	2,4
SES 10x30F	10	30	17(16)	2,6
SES 10x55F	10	55	17(16)	3,9
SES 10x75F	10	75	17(16)	4,9
SES 10x90F	10	90	17(16)	5,6
SES 10x100F	10	100	17(16)	6,1
SES 12x20F	12	20	19(18)	3,1
SES 12x30F	12	30	19(18)	3,8
SES 12x40F	12	40	19(18)	4,5
SES 12x50F	12	50	19(18)	5,2
SES 12x70F	12	70	19(18)	6,6
E				
SES 6x16E	6	16	10	0,5
SES 8x16E	8	16	13	1,1
SES 6x20E	6	20	10	0,6
SES 8x20E	8	20	13	1,2
SES 8x25E	8	25	13	1,4
SES 8x30E	8	30	13	1,5
SES 10x20E	10	20	17	2,1
SES 10x30E	10	30	17	2,6
SES 10x75E	10	75	17(16)	4,9
SES 10x100E	10	100	17(16)	6,1
E4				
SES 8x20E4	8	20	13	1,2
SES 8x30E4	8	30	13	1,5
SES 10x20E4	10	20	17	2,1
SES 10x75E4	10	75	17(16)	4,9
SES 10x100E4	10	100	17(16)	6,1



D

SEM hexagon-nut, DIN 934

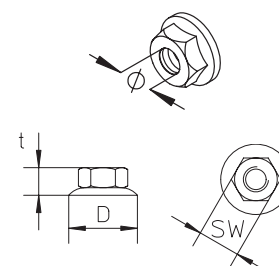
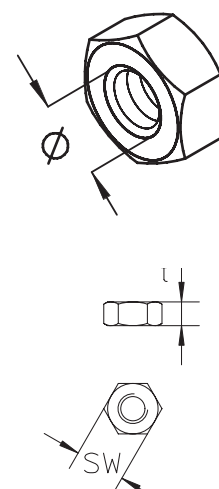
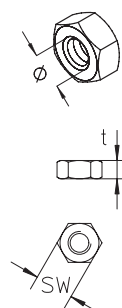
article number	Ø mm	t mm	SW mm	G kg/100
GV				
SEM 6	6	5,0	10	0,3
SEM 8	8	6,5	13	0,5
SEM 10	10	8,0	17(15)	1,2
SEM 12	12	10,0	19(18)	1,7
F				
SEM 10F	10	8,0	17(15)	1,2
SEM 12F	12	10,0	19(18)	1,7
E				
SEM 6E	6	5,0	10	0,3
SEM 8E	8	6,5	13	0,5
SEM 10E	10	8,0	17(15)	1,2
SEM 12E	12	10,0	19(18)	1,7
E4				
SEM 6E4	6	5,0	10	0,3
SEM 8E4	8	6,5	13	0,5
SEM 10E4	10	8,0	17(15)	1,2

SEMB hexagon-nut, DIN 934

article number	D	Ø	T	SW	G kg/100
F					
SEMB 10-HDG	21	10	9.50	15	1.10

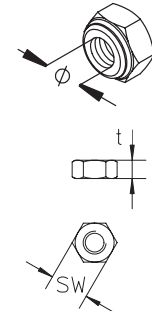
SEMS hexagon nut, self-locking, DIN 6923

article number	Ø mm	D mm	t mm	SW mm	G kg/100
GV					
SEMS 6	6	14	5,5	10	0,3
SEMS 8	8	17	7,5	13	0,7
SEMS 10	10	21	9,5	15	1,6
E					
SEMS 6E	6	14	5,5	10	0,3
SEMS 8E	8	17	7,5	13	0,7
SEMS 10E	10	21	9,5	15	1,6



SEMSS hexagon-nut, self-locking, DIN 985

article number	Ø mm	t mm	SW mm	G kg/100
GV				
SEMSS 6	6	6	10	0,2
SEMSS 10	10	10	17	1,1
E				
SEMSS 6E	6	6	10	0,2
SEMSS 10E	10	10	17	1,1



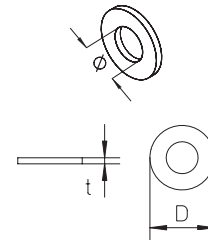
FS serrated lock washer

article number	Ø mm	D mm	G kg/100
GV			
FS 6	6,4	11,0	0,04
FS 8	8,2	14,0	0,08
FS 10	10,5	18,0	0,13
FS 12	12,5	20,5	0,17
E			
FS 6E	6,4	11,0	0,04
FS 8E	8,2	14,0	0,08
FS 10E	10,5	18,0	0,13
FS 12E	12,5	20,5	0,17



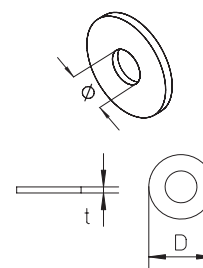
US 125 square washer, DIN 125

article number	Ø mm	D mm	t mm	G kg/100
GV				
US 6x12	6,4	12,5	1,6	0,1
US 8x17	8,4	17,0	2,0	0,2
US 10x21	10,5	21,0	2,0	0,4
US 13x24	13,0	24,0	2,5	0,6
US 17x30	17,0	30,0	3,0	1,1
F				
US 10x21F	10,5	21,0	2,0	0,4
US 13x24F	13,0	24,0	2,5	0,6
US 17x30F	17,0	30,0	3,0	1,1
E				
US 6x12E	6,4	12,5	1,5	0,1
US 8x17E	8,4	17,0	1,5	0,2
US 10x21E	10,5	21,0	0,0	0,4
US 13x24E	13,0	24,0	2,5	1,2
E4				
US 6x12E4	6,4	12,5	1,5	0,1
US 10x21E4	10,5	21,0	0,0	0,2
US 8x17E4	8,4	17,0	1,5	0,2



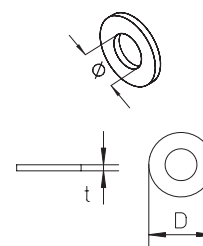
US 9021 square washer, DIN 9021

article number	Ø mm	D mm	t mm	G kg/100
GV				
US 6x18	6,4	18	1,6	0,3
US 8x25	8,4	25	2,0	0,7
US 10x30	10,5	30	2,5	1,2
US 13x40	13,0	40	3,0	2,7
F				
US 10x30F	10,5	30	2,5	1,2
US 13x40F	13,0	40	3,0	2,7
E				
US 6x18E	6,4	18	1,6	0,3
US 8x25E	8,4	25	2,0	0,7
US 10x30E	10,5	30	2,5	1,2
E4				
US 10x30E4	10,5	30	2,5	1,2



UVS captive washer

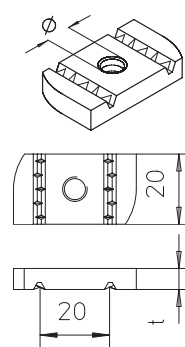
article number	Ø mm	D mm	t mm	G kg/100
PE				
UVS M6	6,0	12,5	1,30	< 0,01
UVS M8	8,0	16,2	1,65	< 0,01
UVS M10	10,5	30,0	2,10	< 0,01
UVS M10x24	10,0	24,0	2,10	< 0,01



AM18 channel nut, A7/ A8

For an application example, see the chapter assembly.

article number	Ø mm	t mm	G kg/100
GV			
AM18 M6	6	6,0	2,6
AM18 M8	8	6,0	2,4
AM18 M10	10	8,0	3,3
AM18 M12	12	9,5	4,2
F			
AM18 M6F	6	6,0	2,8
AM18 M8F	8	6,0	2,6
AM18 M10F	10	8,0	3,5
AM18 M12F	12	9,5	4,5
E4			
AM18 M6E4	6	6,0	3,0
AM18 M8E4	8	6,0	2,9
AM18 M10E4	10	8,0	3,6
AM18 M12E4	12	9,5	3,4



Wide-span systems

Accessories

AM22 channel nut, A41/ KHA 41/ KHAL 41

For an application example, see the chapter assembly.

article number	Ø mm	t mm	G kg/100
GV			
AM22 M6	6	6,0	2,6
AM22 M8	8	6,0	2,4
AM22 M10	10	8,0	3,3
AM22 M12	12	9,5	4,2

F			
AM22 M6F	6	6,0	2,8
AM22 M8F	8	6,0	2,6
AM22 M10F	10	8,0	3,5
AM22 M12F	12	9,0	4,2

E4			
AM22 M6E4	6	6,0	2,6
AM22 M8E4	8	6,0	2,4
AM22 M10E4	10	8,0	3,3
AM22 M12E4	12	9,5	4,2

SKLL clamping claw

article number	G kg
F	
SKLL F	0,07
E	
SKLL E	0,16

KZF cold zinc paint

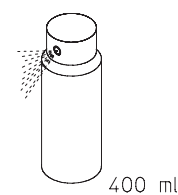
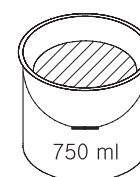
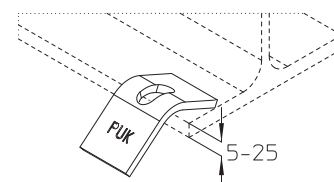
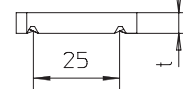
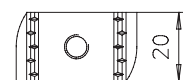
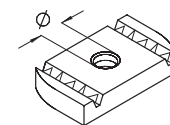
For assembly instructions, see the chapter assembly.

article number	I ml	G kg
KZF		
	750	1,93

KZS cold zinc spray

For assembly instructions, see the chapter assembly.

article number	I ml	G kg
KZS		
	400	0,40



Wide-span cable ladder

Additional information

WPCO

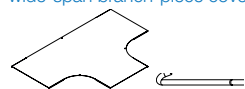
wide-span cover



B mm	per piece
200	6
300	6
400	6
450	6
500	6
600	4
700	4
750	4
800	4
900	4
1000	4

WTPCO

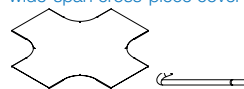
wide-span branch-piece cover



B mm	R [mm]			
	300	450	600	900
200	6	6	6	7
300	6	6	7	7
400	6	6	7	7
450	6	6	7	7
500	6	6	7	7
600	6	7	7	7
700	6	7	7	7
750	6	7	7	7
800	6	7	7	7
900	7	7	7	7
1000	7	7	7	7

WPCPCO

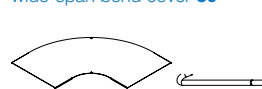
wide-span cross-piece cover



B mm	R [mm]			
	300	450	600	900
200	8	8	8	8
300	8	8	8	8
400	8	8	8	8
450	8	8	8	8
500	8	8	8	8
600	8	8	8	8
700	8	8	8	8
750	8	8	8	8
800	8	8	8	8
900	8	8	8	8
1000	8	8	8	8

WPHBCO

wide-span bend cover 30°



B mm	R [mm]			
	300	450	600	900
200	3	3	3	3
300	3	3	3	3
400	3	3	3	3
450	3	3	3	3
500	3	3	3	3
600	3	3	3	3
700	3	3	3	3
750	3	3	3	3
800	3	3	3	3
900	3	3	3	3
1000	3	3	3	3

WPHBCO

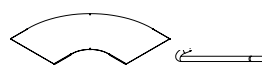
wide-span bend cover 45°



B mm	R [mm]			
	300	450	600	900
200	3	3	3	3
300	3	3	3	3
400	3	3	3	3
450	3	3	3	3
500	3	3	3	3
600	3	3	3	3
700	3	3	3	3
750	3	3	3	3
800	3	3	3	3
900	3	3	3	3
1000	3	3	3	4

WPHBCO

wide-span bend cover 60°



B mm	R [mm]			
	300	450	600	900
200	4	4	4	4
300	4	4	4	4
400	4	4	4	4
450	4	4	4	4
500	4	4	4	4
600	4	4	4	5
700	4	4	4	5
750	4	4	4	5
800	4	4	4	5
900	4	4	5	5
1000	4	5	5	5

WPHBCO

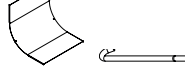
wide-span bend cover 90°



B mm	R [mm]			
	300	450	600	900
200	4	4	4	5
300	4	4	4	5
400	4	4	4	5
450	4	4	5	5
500	4	5	5	5
600	4	5	5	5
700	5	5	5	5
750	5	5	5	5
800	5	5	5	5
900	5	5	5	5
1000	5	5	5	5

WPIRCO

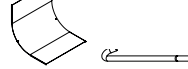
wide-span inside riser cover 30°



B mm	R [mm]			
	300	450	600	900
200	4	4	4	4
300	4	4	4	4
400	4	4	4	4
450	4	4	4	4
500	4	4	4	4
600	4	4	4	4
700	4	4	4	4
750	4	4	4	4
800	4	4	4	4
900	4	4	4	4
1000	4	4	4	4

WPIRCO

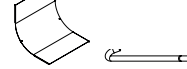
wide-span inside riser cover 45°



B mm	R [mm]			
	300	450	600	900
200	4	4	4	4
300	4	4	4	4
400	4	4	4	4
450	4	4	4	4
500	4	4	4	4
600	4	4	4	4
700	4	4	4	4
750	4	4	4	4
800	4	4	4	4
900	4	4	4	4
1000	4	4	4	4

WPIRCO

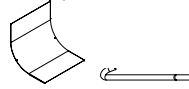
wide-span inside riser cover 60°



B mm	R [mm]			
	300	450	600	900
200	4	4	4	4
300	4	4	4	4
400	4	4	4	4
450	4	4	4	4
500	4	4	4	4
600	4	4	4	4
700	4	4	4	4
750	4	4	4	4
800	4	4	4	4
900	4	4	4	4
1000	4	4	4	4

WPIRCO

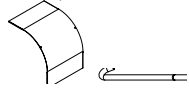
wide-span inside riser cover 90°



B mm	R [mm]			
	300	450	600	900
200	4	4	4	4
300	4	4	4	4
400	4	4	4	4
450	4	4	4	4
500	4	4	4	4
600	4	4	4	4
700	4	4	4	4
750	4	4	4	4
800	4	4	4	4
900	4	4	4	4
1000	4	4	4	4

WPORCO

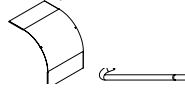
wide-span outside riser cover 30°



B mm	R [mm]			
	300	450	600	900
200	4	4	4	4
300	4	4	4	4
400	4	4	4	4
450	4	4	4	4
500	4	4	4	4
600	4	4	4	4
700	4	4	4	4
750	4	4	4	4
800	4	4	4	4
900	4	4	4	4
1000	4	4	4	4

WPORCO

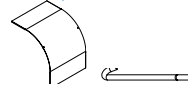
wide-span outside riser cover 45°



B mm	R [mm]			
	300	450	600	900
200	4	4	4	4
300	4	4	4	4
400	4	4	4	4
450	4	4	4	4
500	4	4	4	4
600	4	4	4	4
700	4	4	4	4
750	4	4	4	4
800	4	4	4	4
900	4	4	4	4
1000	4	4	4	4

WPORCO

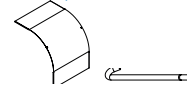
wide-span outside riser cover 60°



B mm	R [mm]			
	300	450	600	900
200	4	4	4	4
300	4	4	4	4
400	4	4	4	4
450	4	4	4	4
500	4	4	4	4
600	4	4	4	4
700	4	4	4	4
750	4	4	4	4
800	4	4	4	4
900	4	4	4	4
1000	4	4	4	4

WPORCO

wide-span outside riser cover 90°



B mm	R [mm]			
	300	450	600	900
200	4	4	4	4
300	4	4	4	4
400	4	4	4	4
450	4	4	4	4
500	4	4	4	4
600	4	4	4	4
700	4	4	4	4
750	4	4	4	4
800	4	4	4	4
900	4	4	4	4
1000	4	4	4	4



D





Vertical ladders

Vertical ladders	E03-E16
Accessories of STU 50	E17-E20
Accessories of ST 81/82	E21-E24



Numeric index

Vertical ladders

B

BGI head plate, profile I80 [E22](#)

BGIQ head plate, profile I80 [E23](#)

BL 4 corner angle, profile U50/ U60/ U100 [E20](#)

BL 7 corner angle [E23](#)

H

HKI support connector [E22](#)

K

KZF cold zinc paint [E23](#)

KZS cold zinc spray [E24](#)

L

LGG 60 vertical ladder [E03](#)

LGV 50 cable ladder coupler, height=50 mm [E17](#)

LGVH 50 cable ladder coupler, height=50 mm [E17](#)

LGVV 50 cable ladder coupler, height=50 mm [E18](#)

LH ladder support [E18](#)

S

ST 81 vertical ladder [E13](#)

ST 82 vertical ladder [E15](#)

STIS rung [E21](#)

STISD rung [E21](#)

STLS rung [E19](#)

STR 50 barrier strip [E17](#)

STU 50 vertical ladder [E04](#)

STU 50-3E vertical ladder [E05](#)

STU 60 vertical ladder [E07](#)

STU 62 vertical ladder [E10](#)

STUS rung [E19](#)

SU 50/36 protection end cap, profile U50 [E17](#)

Vertical ladders

LGG 60 vertical ladder, light duty

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.



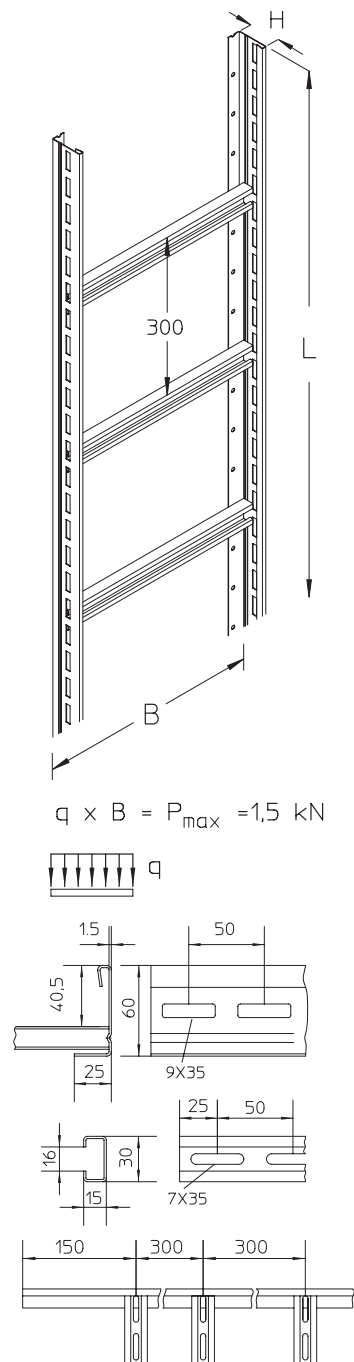
article number	H mm	B mm	L mm	A cm ²	Q _{LK} kN/m	P _{max} kN	G kg
S							
LGG 60-20-3S	60	200	3000	81	0,23	1,5	7,92
LGG 60-30-3S	60	300	3000	122	0,34	1,5	8,61
LGG 60-40-3S	60	400	3000	162	0,45	1,5	9,30
LGG 60-50-3S	60	500	3000	203	0,57	1,5	9,98
LGG 60-60-3S	60	600	3000	243	0,68	1,5	10,67
LGG 60-20S	60	200	6000	81	0,23	1,5	15,84
LGG 60-30S	60	300	6000	122	0,34	1,5	17,22
LGG 60-40S	60	400	6000	162	0,45	1,5	18,59
LGG 60-50S	60	500	6000	203	0,57	1,5	19,96
LGG 60-60S	60	600	6000	243	0,68	1,5	21,34

F							
LGG 60-20-3F	60	200	3000	81	0,23	1,5	8,48
LGG 60-30-3F	60	300	3000	122	0,34	1,5	9,21
LGG 60-40-3F	60	400	3000	162	0,45	1,5	9,95
LGG 60-50-3F	60	500	3000	203	0,57	1,5	10,68
LGG 60-60-3F	60	600	3000	243	0,68	1,5	11,42
LGG 60-20F	60	200	6000	81	0,23	1,5	16,95
LGG 60-30F	60	300	6000	122	0,34	1,5	18,42
LGG 60-40F	60	400	6000	162	0,45	1,5	19,89
LGG 60-50F	60	500	6000	203	0,57	1,5	21,36
LGG 60-60F	60	600	6000	243	0,68	1,5	22,83

E							
LGG 60-20-3E	60	200	3000	81	0,23	1,5	7,97
LGG 60-30-3E	60	300	3000	122	0,34	1,5	8,66
LGG 60-40-3E	60	400	3000	162	0,45	1,5	9,35
LGG 60-50-3E	60	500	3000	203	0,57	1,5	10,05
LGG 60-60-3E	60	600	3000	243	0,68	1,5	10,74
LGG 60-20E	60	200	6000	81	0,23	1,5	15,95
LGG 60-30E	60	300	6000	122	0,34	1,5	17,33
LGG 60-40E	60	400	6000	162	0,45	1,5	18,71
LGG 60-50E	60	500	6000	203	0,57	1,5	20,09
LGG 60-60E	60	600	6000	243	0,68	1,5	21,47

accessories optional:

H	cable clamp for fastening to C-profiles	(catalogue cable clamps)
LGV 60	cable ladder coupler, height=60 mm	(page C18)
LGVV 60	cable ladder coupler, height=60 mm	(page C19)
LGVH 60	cable ladder coupler, height=60 mm	(page C18)
SL 60	protection end cap	(page C23)
LH	ladder support	(page E18)
BL 4	corner angle, profile U50/ U60/ U100	(page E20, F35)



$$q \times B = P_{\max} = 1,5 \text{ kN}$$

Vertical ladders

STU 50 vertical ladder, medium building class / medium-duty

For an application example, see the chapter assembly.

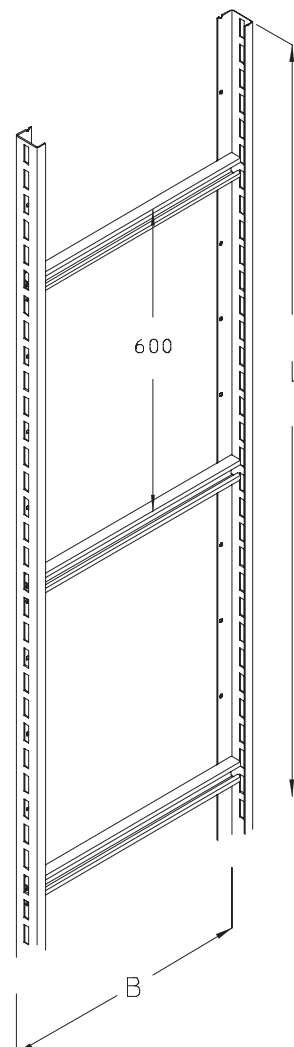


article number	B mm	L mm	P _{max} kN	G kg
S				
STU 50-02-3S	210	3000	2,0	9,75
STU 50-03-3S	300	3000	2,0	10,35
STU 50-04-3S	400	3000	2,0	10,90
STU 50-05-3S	500	3000	2,0	11,50
STU 50-06-3S	600	3000	2,0	12,05
STU 50-07-3S	700	3000	2,0	12,65
STU 50-08-3S	800	3000	2,0	13,25
STU 50-02S	210	6000	2,0	19,50
STU 50-03S	300	6000	2,0	20,70
STU 50-04S	400	6000	2,0	21,80
STU 50-05S	500	6000	2,0	23,00
STU 50-06S	600	6000	2,0	24,10
STU 50-07S	700	6000	2,0	25,30
STU 50-08S	800	6000	2,0	26,50

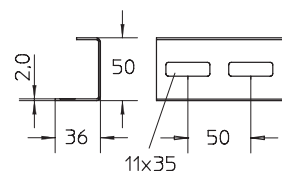
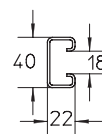
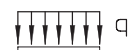
F				
STU 50-02-3F	210	3000	2,0	10,50
STU 50-03-3F	300	3000	2,0	11,05
STU 50-04-3F	400	3000	2,0	11,65
STU 50-05-3F	500	3000	2,0	12,30
STU 50-06-3F	600	3000	2,0	12,90
STU 50-07-3F	700	3000	2,0	13,55
STU 50-08-3F	800	3000	2,0	14,15
STU 50-02F	210	6000	2,0	21,00
STU 50-03F	300	6000	2,0	22,10
STU 50-04F	400	6000	2,0	23,30
STU 50-05F	500	6000	2,0	24,60
STU 50-06F	600	6000	2,0	25,80
STU 50-07F	700	6000	2,0	27,10
STU 50-08F	800	6000	2,0	28,30

accessories optional:

STR 50	barrier strip	(page E17)
AC	cable clamp for fastening to C-profiles	(catalogue cable clamps)
STLS	rung	(page E19)
LGV 50	cable ladder coupler, height=50 mm	(page E17)
LGVH 50	cable ladder coupler, height=50 mm	(page E17)
LGVV 50	cable ladder coupler, height=50 mm	(page E18)
SU 50/36	protection end cap, profile U50	(page E17)
LH	ladder support	(page E18)
BL 4	corner angle, profile U50/ U60/ U100	(page E20, F35)



$$q \times B = P_{\max} = 2,0 \text{ kN}$$



Vertical ladders

STU 50-3E vertical ladder, medium building class / medium-duty

Beams and rungs are delivered not mounted including screws and nuts. This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).



article number	B mm	L mm	G kg
E			
STU 50-02-3E	210	3000	10,40

accessories included:

5 x STUS 02E	rung	(page E19)
10 x FRSV 8x16E	round-head screw with short square	(page H35)
10 x US 8x17E	square washer, DIN 125	(page H40)
10 x SES 8x16E	hexagon head bolt, DIN 933	(page H38)
20 x SEM 8E	hexagon-nut, DIN 934	(page H41)

article number	B mm	L mm	G kg
E			
STU 50-03-3E	300	3000	10,90

accessories included:

5 x STUS 03E	rung	(page E19)
10 x FRSV 8x16E	round-head screw with short square	(page H35)
10 x US 8x17E	square washer, DIN 125	(page H40)
10 x SES 8x16E	hexagon head bolt, DIN 933	(page H38)
20 x SEM 8E	hexagon-nut, DIN 934	(page H41)

article number	B mm	L mm	G kg
E			
STU 50-04-3E	400	3000	11,40

accessories included:

5 x STUS 04E	rung	(page E19)
10 x FRSV 8x16E	round-head screw with short square	(page H35)
10 x US 8x17E	square washer, DIN 125	(page H40)
10 x SES 8x16E	hexagon head bolt, DIN 933	(page H38)
20 x SEM 8E	hexagon-nut, DIN 934	(page H41)

article number	B mm	L mm	G kg
E			
STU 50-05-3E	500	3000	11,90

accessories included:

5 x STUS 05E	rung	(page E19)
10 x FRSV 8x16E	round-head screw with short square	(page H35)
10 x US 8x17E	square washer, DIN 125	(page H40)
10 x SES 8x16E	hexagon head bolt, DIN 933	(page H38)
20 x SEM 8E	hexagon-nut, DIN 934	(page H41)

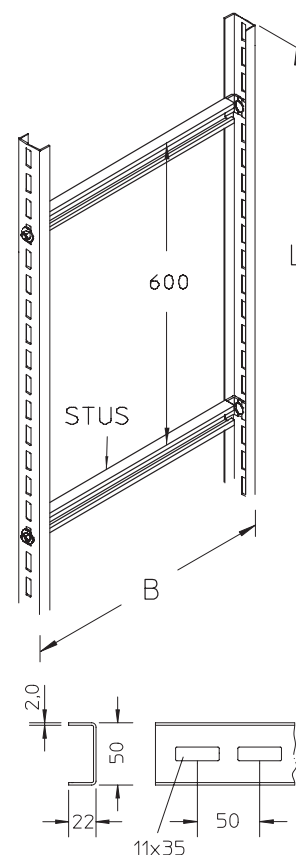
article number	B mm	L mm	G kg
E			
STU 50-06-3E	600	3000	12,40

accessories included:

5 x STUS 06E	rung	(page E19)
10 x FRSV 8x16E	round-head screw with short square	(page H35)
10 x US 8x17E	square washer, DIN 125	(page H40)
10 x SES 8x16E	hexagon head bolt, DIN 933	(page H38)
20 x SEM 8E	hexagon-nut, DIN 934	(page H41)

accessories optional:

AC	cable clamp for fastening to C-profiles	(catalogue cable clamps)
STUS	rung	(page E19)
LGV 50	cable ladder coupler, height=50 mm	(page E17)
LGVB 50	cable ladder coupler, height=50 mm	(page E17)
LGVB 50	cable ladder coupler, height=50 mm	(page E18)
LH	ladder support	(page E18)
BL 4	corner angle, profile U50/ U60/ U100	(page E20, F35)



Vertical ladders

STU 50-3E vertical ladder, medium building class / medium-duty

Beams and rungs are delivered not mounted including screws and nuts. This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).



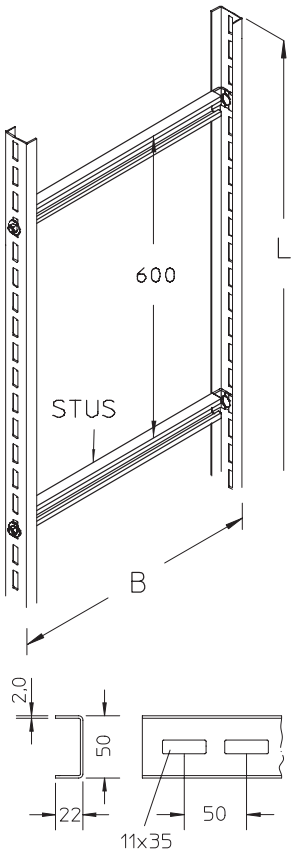
article number	B mm	L mm	G kg
E			
STU 50-07-3E	700	3000	12,90

accessories included:			
5 x STUS 07E	rung	(page E19)	
10 x FRSV 8x16E	round-head screw with short square	(page H35)	
10 x US 8x17E	square washer, DIN 125	(page H40)	
10 x SES 8x16E	hexagon head bolt, DIN 933	(page H38)	
20 x SEM 8E	hexagon-nut, DIN 934	(page H41)	

article number	B mm	L mm	G kg
E			
STU 50-08-3E	800	3000	13,50

accessories included:			
5 x STUS 08E	rung	(page E19)	
10 x FRSV 8x16E	round-head screw with short square	(page H35)	
10 x US 8x17E	square washer, DIN 125	(page H40)	
10 x SES 8x16E	hexagon head bolt, DIN 933	(page H38)	
20 x SEM 8E	hexagon-nut, DIN 934	(page H41)	

accessories optional:			
AC	cable clamp for fastening to C-profiles	(catalogue cable clamps)	
STUS	rung	(page E19)	
LGV 50	cable ladder coupler, height=50 mm	(page E17)	
LGVH 50	cable ladder coupler, height=50 mm	(page E17)	
LGVV 50	cable ladder coupler, height=50 mm	(page E18)	
LH	ladder support	(page E18)	
BL 4	corner angle, profile U50/ U60/ U100	(page E20, F35)	



Vertical ladders

STU 60 vertical ladder, heavy building class / heavy-duty

Beams and rungs are delivered not mounted including screws and nuts.
For an application example, see the chapter assembly.



article number	B mm	L mm	P _{max} kN	G kg
F				
STU 60-02-3F	200	3000	2,0	21,25
STU 60-02F	200	6000	2,0	49,00

accessories included:

2 x KHU 60-60F	bracket support, profile U60	(page F26)
10 x KHA 8-02F	C-rail, perforated, 40x22 mm	(page F60)
20 x IK 10x20E	hexagon socket head screw, DIN 912	(page H37)
40 x US 10x21E	square washer, DIN 125	(page H40)
20 x SEM 10E	hexagon-nut, DIN 934	(page H41)

article number	B mm	L mm	P _{max} kN	G kg
F				
STU 60-03-3F	300	3000	2,0	22,07
STU 60-03F	300	6000	2,0	52,20

accessories included:

2 x KHU 60-60F	bracket support, profile U60	(page F26)
10 x KHA 8-03F	C-rail, perforated, 40x22 mm	(page F60)
20 x IK 10x20E	hexagon socket head screw, DIN 912	(page H37)
40 x US 10x21E	square washer, DIN 125	(page H40)
20 x SEM 10E	hexagon-nut, DIN 934	(page H41)

article number	B mm	L mm	P _{max} kN	G kg
F				
STU 60-04-3F	400	3000	2,0	22,77
STU 60-04F	400	6000	2,0	55,20

accessories included:

2 x KHU 60-60F	bracket support, profile U60	(page F26)
10 x KHA 8-04F	C-rail, perforated, 40x22 mm	(page F60)
20 x IK 10x20E	hexagon socket head screw, DIN 912	(page H37)
40 x US 10x21E	square washer, DIN 125	(page H40)
20 x SEM 10E	hexagon-nut, DIN 934	(page H41)

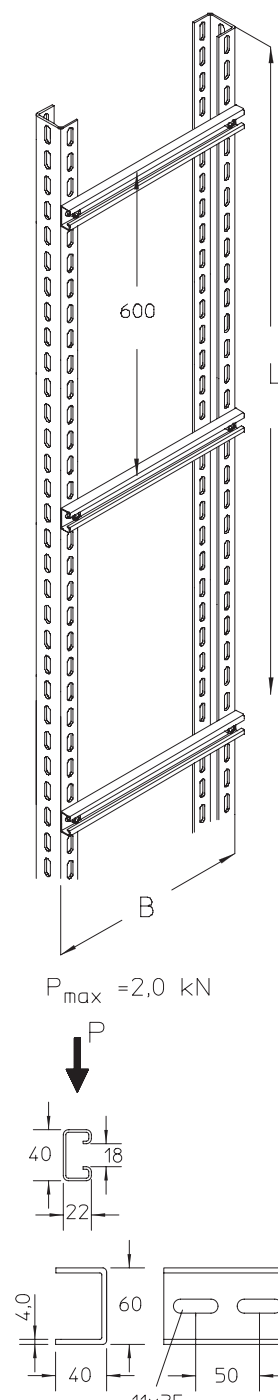
article number	B mm	L mm	P _{max} kN	G kg
F				
STU 60-05-3F	500	3000	2,0	23,57
STU 60-05F	500	6000	2,0	57,60

accessories included:

2 x KHU 60-60F	bracket support, profile U60	(page F26)
10 x KHA 8-05F	C-rail, perforated, 40x22 mm	(page F60)
20 x IK 10x20E	hexagon socket head screw, DIN 912	(page H37)
40 x US 10x21E	square washer, DIN 125	(page H40)
20 x SEM 10E	hexagon-nut, DIN 934	(page H41)

accessories optional:

SU 60	protection end cap, profile U60	(page F37)
KHUV 60	coupler, profile U60	(page F33)
BL 4	corner angle, profile U50/ U60/ U100	(page E20, F35)
KHA 8	C-rail, perforated, 40x22 mm	(page F60)
BGU 60	head plate, profile U60	(page F29)
AC	cable clamp for fastening to C-profiles	(catalogue cable clamps)



Vertical ladders

STU 60 vertical ladder, heavy building class / heavy-duty

Beams and rungs are delivered not mounted including screws and nuts.
For an application example, see the chapter assembly.



article number	B mm	L mm	P _{max} kN	G kg
F				
STU 60-06-3F	600	3000	2,0	24,27
STU 60-06F	600	6000	2,0	60,80

accessories included:

2 x KHU 60-60F	bracket support, profile U60	(page F26)
10 x KHA 8-06F	C-rail, perforated, 40x22 mm	(page F60)
20 x IK 10x20E	hexagon socket head screw, DIN 912	(page H37)
40 x US 10x21E	square washer, DIN 125	(page H40)
20 x SEM 10E	hexagon-nut, DIN 934	(page H41)

article number	B mm	L mm	P _{max} kN	G kg
F				
STU 60-07-3F	700	3000	2,0	25,07
STU 60-07F	700	6000	2,0	63,80

accessories included:

2 x KHU 60-60F	bracket support, profile U60	(page F26)
10 x KHA 8-07F	C-rail, perforated, 40x22 mm	(page F60)
20 x IK 10x20E	hexagon socket head screw, DIN 912	(page H37)
40 x US 10x21E	square washer, DIN 125	(page H40)
20 x SEM 10E	hexagon-nut, DIN 934	(page H41)

article number	B mm	L mm	P _{max} kN	G kg
F				
STU 60-08-3F	800	3000	2,0	25,77
STU 60-08F	800	6000	2,0	66,80

accessories included:

2 x KHU 60-60F	bracket support, profile U60	(page F26)
10 x KHA 8-08F	C-rail, perforated, 40x22 mm	(page F60)
20 x IK 10x20E	hexagon socket head screw, DIN 912	(page H37)
40 x US 10x21E	square washer, DIN 125	(page H40)
20 x SEM 10E	hexagon-nut, DIN 934	(page H41)

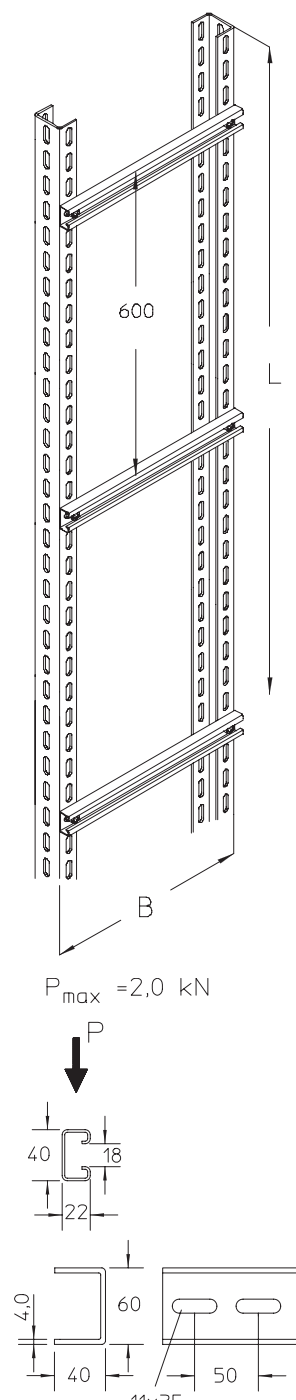
article number	B mm	L mm	P _{max} kN	G kg
F				
STU 60-09-3F	900	3000	2,0	26,32
STU 60-09F	900	6000	2,0	70,00

accessories included:

2 x KHU 60-60F	bracket support, profile U60	(page F26)
10 x KHA 8-09F	C-rail, perforated, 40x22 mm	(page F60)
20 x IK 10x20E	hexagon socket head screw, DIN 912	(page H37)
40 x US 10x21E	square washer, DIN 125	(page H40)
20 x SEM 10E	hexagon-nut, DIN 934	(page H41)

accessories optional:

SU 60	protection end cap, profile U60	(page F37)
KHUV 60	coupler, profile U60	(page F33)
BL 4	corner angle, profile U50/ U60/ U100	(page E20, F35)
KHA 8	C-rail, perforated, 40x22 mm	(page F60)
BGU 60	head plate, profile U60	(page F29)
AC	cable clamp for fastening to C-profiles	(catalogue cable clamps)



Vertical ladders

STU 60 vertical ladder, heavy building class / heavy-duty

Beams and rungs are delivered not mounted including screws and nuts.
For an application example, see the chapter assembly.



article number	B mm	L mm	P _{max} kN	G kg
F				
STU 60-10-3F	1000	3000	2,0	27,42
STU 60-10F	1000	6000	2,0	73,00

accessories included:

2 x KHU 60-60F	bracket support, profile U60	(page F26)
10 x KHA 8-10F	C-rail, perforated, 40x22 mm	(page F60)
20 x IK 10x20E	hexagon socket head screw, DIN 912	(page H37)
40 x US 10x21E	square washer, DIN 125	(page H40)
20 x SEM 10E	hexagon-nut, DIN 934	(page H41)

article number	B mm	L mm	P _{max} kN	G kg
F				
STU 60-11-3F	1100	3000	2,0	28,22
STU 60-11F	1100	6000	2,0	76,00

accessories included:

2 x KHU 60-60F	bracket support, profile U60	(page F26)
10 x KHA 8-11F	C-rail, perforated, 40x22 mm	(page F60)
20 x IK 10x20E	hexagon socket head screw, DIN 912	(page H37)
40 x US 10x21E	square washer, DIN 125	(page H40)
20 x SEM 10E	hexagon-nut, DIN 934	(page H41)

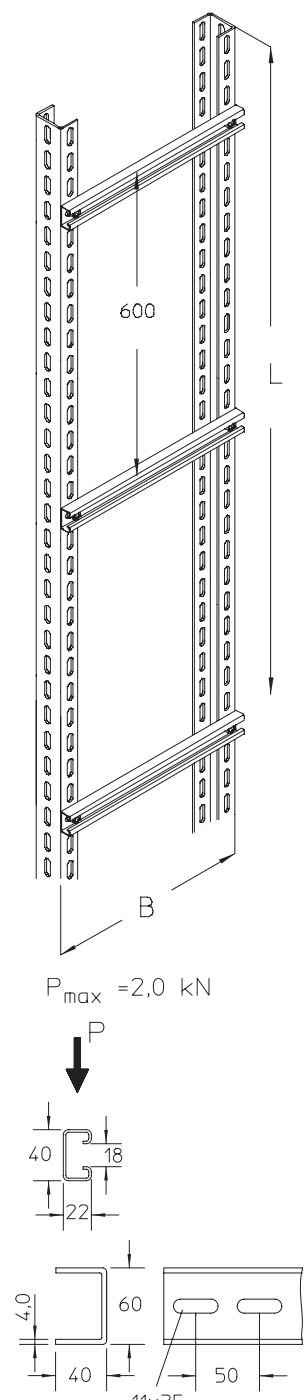
article number	B mm	L mm	P _{max} kN	G kg
F				
STU 60-12-3F	1200	3000	2,0	29,20
STU 60-12F	1200	6000	2,0	79,20

accessories included:

2 x KHU 60-60F	bracket support, profile U60	(page F26)
10 x KHA 8-12F	C-rail, perforated, 40x22 mm	(page F60)
20 x IK 10x20E	hexagon socket head screw, DIN 912	(page H37)
40 x US 10x21E	square washer, DIN 125	(page H40)
20 x SEM 10E	hexagon-nut, DIN 934	(page H41)

accessories optional:

SU 60	protection end cap, profile U60	(page F37)
KHUV 60	coupler, profile U60	(page F33)
BL 4	corner angle, profile U50/ U60/ U100	(page E20, F35)
KHA 8	C-rail, perforated, 40x22 mm	(page F60)
BGU 60	head plate, profile U60	(page F29)
AC	cable clamp for fastening to C-profiles	(catalogue cable clamps)



Vertical ladders

STU 62 vertical ladder, heavy building class / heavy-duty

Beams and rungs are delivered not mounted including screws and nuts.
For an application example, see the chapter assembly.



article number	B mm	L mm	G kg
F			
STU 62-02F	200	6000	49,00

accessories included:

2 x KHU 60-60F	bracket support, profile U60	(page F26)
20 x KHA 8-02F	C-rail, perforated, 40x22 mm	(page F60)
40 x IK 10x20E	hexagon socket head screw, DIN 912	(page H37)
80 x US 10x21E	square washer, DIN 125	(page H40)
40 x SEM 10E	hexagon-nut, DIN 934	(page H41)

article number	B mm	L mm	G kg
F			
STU 62-03F	300	6000	52,20

accessories included:

2 x KHU 60-60F	bracket support, profile U60	(page F26)
20 x KHA 8-03F	C-rail, perforated, 40x22 mm	(page F60)
40 x IK 10x20E	hexagon socket head screw, DIN 912	(page H37)
80 x US 10x21E	square washer, DIN 125	(page H40)
40 x SEM 10E	hexagon-nut, DIN 934	(page H41)

article number	B mm	L mm	G kg
F			
STU 62-04F	400	6000	55,20

accessories included:

2 x KHU 60-60F	bracket support, profile U60	(page F26)
20 x KHA 8-04F	C-rail, perforated, 40x22 mm	(page F60)
40 x IK 10x20E	hexagon socket head screw, DIN 912	(page H37)
80 x US 10x21E	square washer, DIN 125	(page H40)
40 x SEM 10E	hexagon-nut, DIN 934	(page H41)

article number	B mm	L mm	G kg
F			
STU 62-05F	500	6000	57,60

accessories included:

2 x KHU 60-60F	bracket support, profile U60	(page F26)
20 x KHA 8-05F	C-rail, perforated, 40x22 mm	(page F60)
40 x IK 10x20E	hexagon socket head screw, DIN 912	(page H37)
80 x US 10x21E	square washer, DIN 125	(page H40)
40 x SEM 10E	hexagon-nut, DIN 934	(page H41)

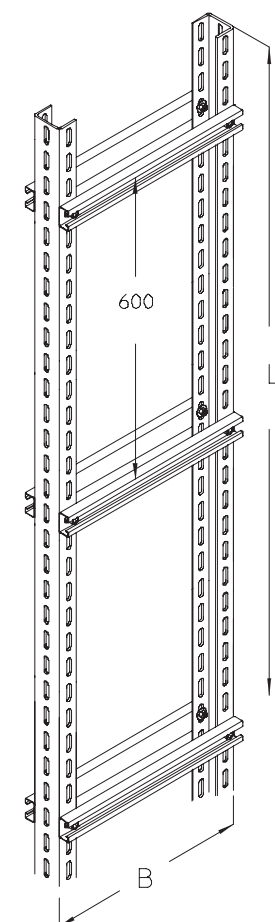
article number	B mm	L mm	G kg
F			
STU 62-06F	600	6000	60,80

accessories included:

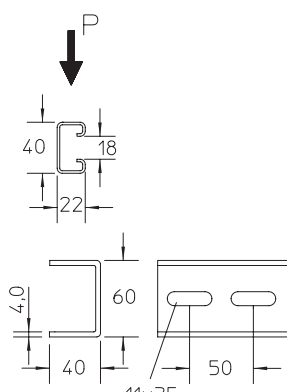
2 x KHU 60-60F	bracket support, profile U60	(page F26)
20 x KHA 8-06F	C-rail, perforated, 40x22 mm	(page F60)
40 x IK 10x20E	hexagon socket head screw, DIN 912	(page H37)
80 x US 10x21E	square washer, DIN 125	(page H40)
40 x SEM 10E	hexagon-nut, DIN 934	(page H41)

accessories optional:

KHUV 60	coupler, profile U60	(page F33)
BL 4	corner angle, profile U50/ U60/ U100	(page E20, F35)
KHA 8	C-rail, perforated, 40x22 mm	(page F60)
BGU 60	head plate, profile U60	(page F29)
AC	cable clamp for fastening to C-profiles	(catalogue cable clamps)



$P_{max} = 2,0 \text{ kN}$



Vertical ladders

STU 62 vertical ladder, heavy building class / heavy-duty

Beams and rungs are delivered not mounted including screws and nuts.
For an application example, see the chapter assembly.



article number	B mm	L mm	G kg
F			
STU 62-07F	700	6000	63,80

accessories included:

2 x KHU 60-60F	bracket support, profile U60	(page F26)
20 x KHA 8-07F	C-rail, perforated, 40x22 mm	(page F60)
40 x IK 10x20E	hexagon socket head screw, DIN 912	(page H37)
80 x US 10x21E	square washer, DIN 125	(page H40)
40 x SEM 10E	hexagon-nut, DIN 934	(page H41)

article number	B mm	L mm	G kg
F			
STU 62-08F	800	6000	66,80

accessories included:

2 x KHU 60-60F	bracket support, profile U60	(page F26)
20 x KHA 8-08F	C-rail, perforated, 40x22 mm	(page F60)
40 x IK 10x20E	hexagon socket head screw, DIN 912	(page H37)
80 x US 10x21E	square washer, DIN 125	(page H40)
40 x SEM 10E	hexagon-nut, DIN 934	(page H41)

article number	B mm	L mm	G kg
F			
STU 62-09F	900	6000	70,00

accessories included:

2 x KHU 60-60F	bracket support, profile U60	(page F26)
20 x KHA 8-09F	C-rail, perforated, 40x22 mm	(page F60)
40 x IK 10x20E	hexagon socket head screw, DIN 912	(page H37)
80 x US 10x21E	square washer, DIN 125	(page H40)
40 x SEM 10E	hexagon-nut, DIN 934	(page H41)

article number	B mm	L mm	G kg
F			
STU 62-10F	1000	6000	73,00

accessories included:

2 x KHU 60-60F	bracket support, profile U60	(page F26)
20 x KHA 8-10F	C-rail, perforated, 40x22 mm	(page F60)
40 x IK 10x20E	hexagon socket head screw, DIN 912	(page H37)
80 x US 10x21E	square washer, DIN 125	(page H40)
40 x SEM 10E	hexagon-nut, DIN 934	(page H41)

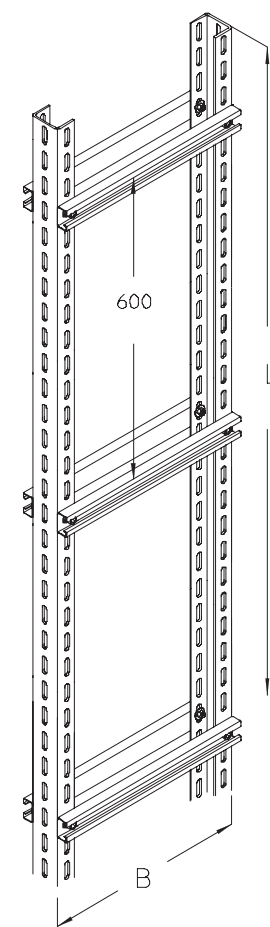
article number	B mm	L mm	G kg
F			
STU 62-11F	1100	6000	76,00

accessories included:

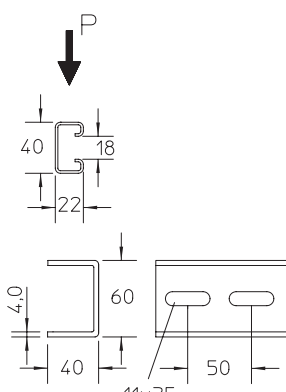
2 x KHU 60-60F	bracket support, profile U60	(page F26)
20 x KHA 8-11F	C-rail, perforated, 40x22 mm	(page F60)
40 x IK 10x20E	hexagon socket head screw, DIN 912	(page H37)
80 x US 10x21E	square washer, DIN 125	(page H40)
40 x SEM 10E	hexagon-nut, DIN 934	(page H41)

accessories optional:

KHUV 60	coupler, profile U60	(page F33)
BL 4	corner angle, profile U50/ U60/ U100	(page E20, F35)
KHA 8	C-rail, perforated, 40x22 mm	(page F60)
BGU 60	head plate, profile U60	(page F29)
AC	cable clamp for fastening to C-profiles	(catalogue cable clamps)



$P_{max} = 2.0 \text{ kN}$



Vertical ladders

STU 62 vertical ladder, heavy building class / heavy-duty

Beams and rungs are delivered not mounted including screws and nuts.
For an application example, see the chapter assembly.



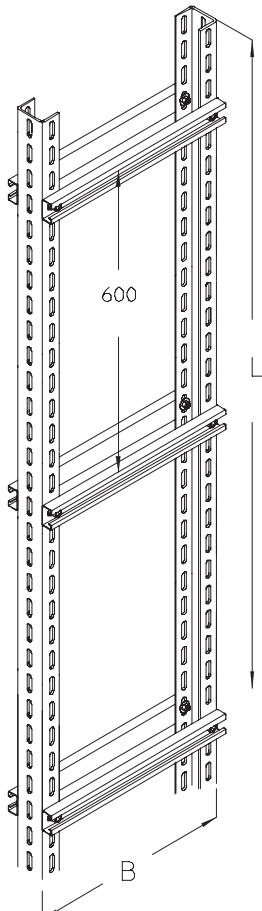
article number	B mm	L mm	G kg
F			
STU 62-12F	1200	6000	79,20

accessories included:

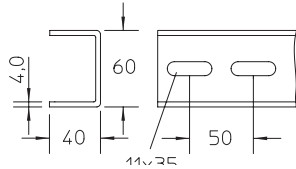
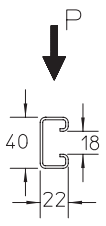
2 x KHU 60-60F	bracket support, profile U60	(page F26)
20 x KHA 8-12F	C-rail, perforated, 40x22 mm	(page F60)
40 x IK 10x20E	hexagon socket head screw, DIN 912	(page H37)
80 x US 10x21E	square washer, DIN 125	(page H40)
40 x SEM 10E	hexagon-nut, DIN 934	(page H41)

accessories optional:

KHUV 60	coupler, profile U60	(page F33)
BL 4	corner angle, profile U50/ U60/ U100	(page E20, F35)
KHA 8	C-rail, perforated, 40x22 mm	(page F60)
BGU 60	head plate, profile U60	(page F29)
AC	cable clamp for fastening to C-profiles	(catalogue cable clamps)



$P_{max} = 2,0 \text{ kN}$



Vertical ladders

ST 81 vertical ladder, heavy building class / heavy-duty

Beams and rungs are delivered not mounted including screws and nuts. External dimension = B + 42 mm
For an application example, see the chapter assembly.

article number	B mm	L mm	P _{max} kN	G kg
F				
ST 81-02F	200	6000	2,5	82,50

accessories included:
10 x **STIS 02F** rung (page E21)
2 x **KHI 60F** bracket support, type KT (page F39)

article number	B mm	L mm	P _{max} kN	G kg
F				
ST 81-03F	300	6000	2,5	84,00

accessories included:
10 x **STIS 03F** rung (page E21)
2 x **KHI 60F** bracket support, type KT (page F39)

article number	B mm	L mm	P _{max} kN	G kg
F				
ST 81-04F	400	6000	2,5	85,50

accessories included:
10 x **STIS 04F** rung (page E21)
2 x **KHI 60F** bracket support, type KT (page F39)

article number	B mm	L mm	P _{max} kN	G kg
F				
ST 81-05F	500	6000	2,5	87,00

accessories included:
10 x **STIS 05F** rung (page E21)
2 x **KHI 60F** bracket support, type KT (page F39)

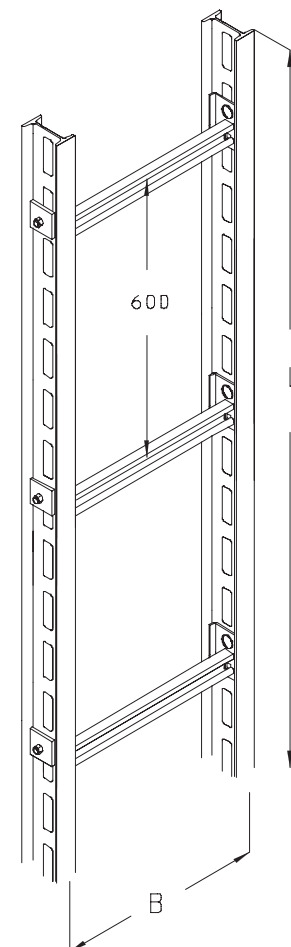
article number	B mm	L mm	P _{max} kN	G kg
F				
ST 81-06F	600	6000	2,5	88,50

accessories included:
10 x **STIS 06F** rung (page E21)
2 x **KHI 60F** bracket support, type KT (page F39)

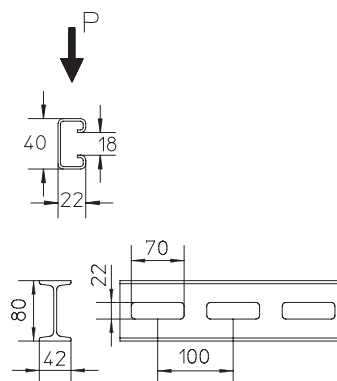
article number	B mm	L mm	P _{max} kN	G kg
F				
ST 81-07F	700	6000	2,5	90,00

accessories included:
10 x **STIS 07F** rung (page E21)
2 x **KHI 60F** bracket support, type KT (page F39)

accessories optional:
STIS rung (page E21)
SI protection end cap, yellow (page F46)
HKI support connector (page E22, F43)
BGI head plate, profile I80 (page E22, F41)
BGIQ head plate, profile I80 (page E23, F42)
BL 7 corner angle (page E23, F45)
AC cable clamp for fastening to C-profiles (catalogue cable clamps)



$$q \times B = P_{\max} = 2,5 \text{ kN}$$



Vertical ladders

ST 81 vertical ladder, heavy building class / heavy-duty

Beams and rungs are delivered not mounted including screws and nuts. External dimension = B + 42 mm
For an application example, see the chapter assembly.



article number	B mm	L mm	P _{max} kN	G kg
F				
ST 81-08F	800	6000	2,5	91,50

accessories included:
10 x **STIS 08F** rung (page E21)
2 x **KHI 60F** bracket support, type KT (page F39)

article number	B mm	L mm	P _{max} kN	G kg
F				
ST 81-09F	900	6000	2,5	93,00

accessories included:
10 x **STIS 09F** rung (page E21)
2 x **KHI 60F** bracket support, type KT (page F39)

article number	B mm	L mm	P _{max} kN	G kg
F				
ST 81-10F	1000	6000	2,5	94,50

accessories included:
10 x **STIS 10F** rung (page E21)
2 x **KHI 60F** bracket support, type KT (page F39)

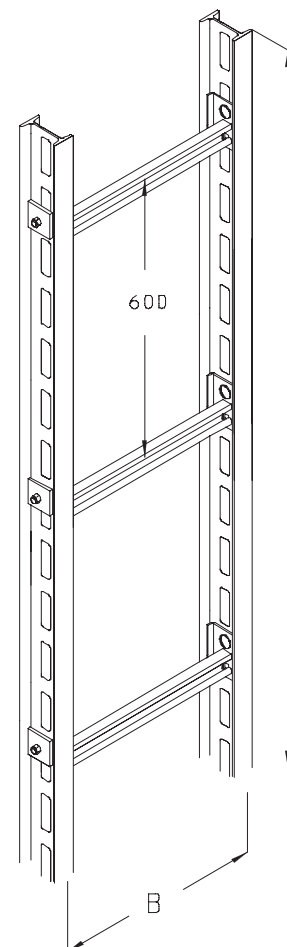
article number	B mm	L mm	P _{max} kN	G kg
F				
ST 81-11F	1100	6000	2,5	96,00

accessories included:
10 x **STIS 11F** rung (page E21)
2 x **KHI 60F** bracket support, type KT (page F39)

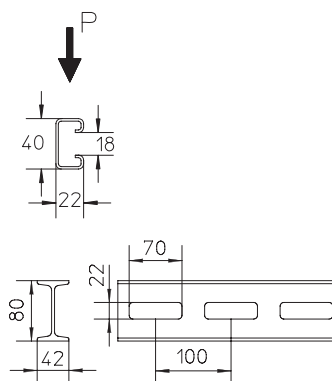
article number	B mm	L mm	P _{max} kN	G kg
F				
ST 81-12F	1200	6000	2,5	97,50

accessories included:
10 x **STIS 12F** rung (page E21)
2 x **KHI 60F** bracket support, type KT (page F39)

accessories optional:
STIS rung (page E21)
SI protection end cap, yellow (page F46)
HKI support connector (page E22, F43)
BGI head plate, profile I80 (page E22, F41)
BGIQ head plate, profile I80 (page E23, F42)
BL 7 corner angle (page E23, F45)
AC cable clamp for fastening to C-profiles (catalogue cable clamps)



$$q \times B = P_{\max} = 2,5 \text{ kN}$$



Vertical ladders

ST 82 vertical ladder, heavy building class / heavy-duty

Beams and rungs are delivered not mounted including screws and nuts. External dimension = B + 42 mm



article number	B mm	L mm	P _{max} kN	G kg
F				
ST 82-02F	200	6000	5,0	85,50

accessories included:
 10 x **STISD 02F** rung (page E21)
 2 x **KHI 60F** bracket support, type KT (page F39)

article number	B mm	L mm	P _{max} kN	G kg
F				
ST 82-03F	300	6000	5,0	88,00

accessories included:
 10 x **STISD 03F** rung (page E21)
 2 x **KHI 60F** bracket support, type KT (page F39)

article number	B mm	L mm	P _{max} kN	G kg
F				
ST 82-04F	400	6000	5,0	91,50

accessories included:
 10 x **STISD 04F** rung (page E21)
 2 x **KHI 60F** bracket support, type KT (page F39)

article number	B mm	L mm	P _{max} kN	G kg
F				
ST 82-05F	500	6000	5,0	94,50

accessories included:
 10 x **STISD 05F** rung (page E21)
 2 x **KHI 60F** bracket support, type KT (page F39)

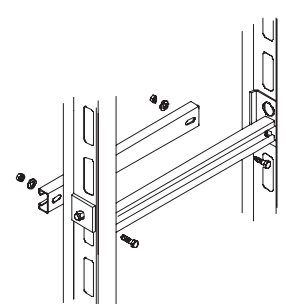
article number	B mm	L mm	P _{max} kN	G kg
F				
ST 82-06F	600	6000	5,0	97,50

accessories included:
 10 x **STISD 06F** rung (page E21)
 2 x **KHI 60F** bracket support, type KT (page F39)

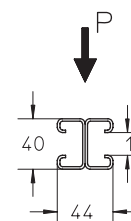
article number	B mm	L mm	P _{max} kN	G kg
F				
ST 82-07F	700	6000	5,0	100,50

accessories included:
 10 x **STISD 07F** rung (page E21)
 2 x **KHI 60F** bracket support, type KT (page F39)

accessories optional:
STIS rung (page E21)
STISD rung (page E21)
SI protection end cap, yellow (page F46)
HKI support connector (page E22, F43)
BGI head plate, profile I80 (page E22, F41)
BGIQ head plate, profile I80 (page E23, F42)
BL 7 corner angle (page E23, F45)
AC cable clamp for fastening to C-profiles (catalogue cable clamps)



P_{max} = 5,0 kN



Vertical ladders

ST 82 vertical ladder, heavy building class / heavy-duty

Beams and rungs are delivered not mounted including screws and nuts. External dimension = B + 42 mm



article number	B mm	L mm	P _{max} kN	G kg
F				
ST 82-08F	800	6000	5,0	103,50

accessories included:
 10 x **STISD 08F** rung (page E21)
 2 x **KHI 60F** bracket support, type KT (page F39)

article number	B mm	L mm	P _{max} kN	G kg
F				
ST 82-09F	900	6000	5,0	106,50

accessories included:
 10 x **STISD 09F** rung (page E21)
 2 x **KHI 60F** bracket support, type KT (page F39)

article number	B mm	L mm	P _{max} kN	G kg
F				
ST 82-10F	1000	6000	5,0	109,50

accessories included:
 10 x **STISD 10F** rung (page E21)
 2 x **KHI 60F** bracket support, type KT (page F39)

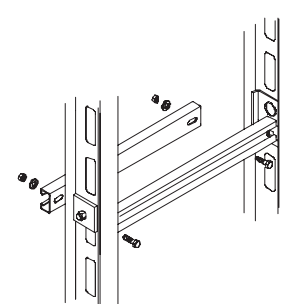
article number	B mm	L mm	P _{max} kN	G kg
F				
ST 82-11F	1100	6000	5,0	112,50

accessories included:
 10 x **STISD 11F** rung (page E21)
 2 x **KHI 60F** bracket support, type KT (page F39)

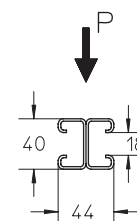
article number	B mm	L mm	P _{max} kN	G kg
F				
ST 82-12F	1200	6000	5,0	115,50

accessories included:
 10 x **STISD 12F** rung (page E21)
 2 x **KHI 60F** bracket support, type KT (page F39)

accessories optional:
STIS rung (page E21)
STISD rung (page E21)
SI protection end cap, yellow (page F46)
HKI support connector (page E22, F43)
BGI head plate, profile I80 (page E22, F41)
BGIQ head plate, profile I80 (page E23, F42)
BL 7 corner angle (page E23, F45)
AC cable clamp for fastening to C-profiles (catalogue cable clamps)



P_{max} = 5,0 kN

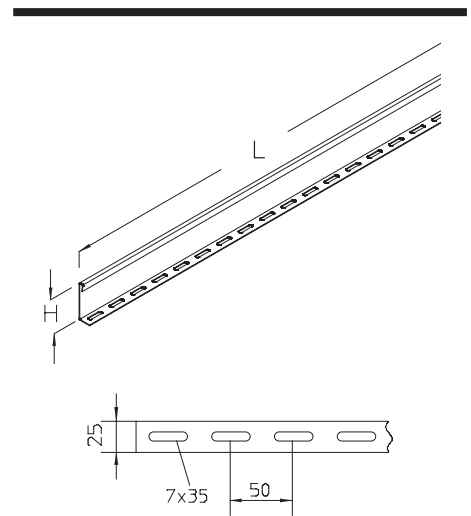


Vertical ladders

Accessories of STU 50

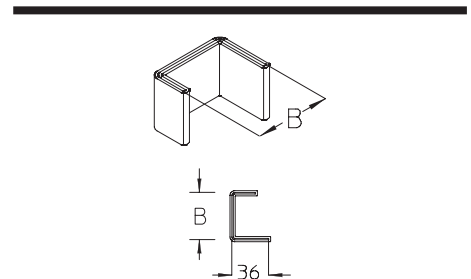
STR 50 barrier strip

article number	H mm	L mm	G kg
S			
STR 50S	33	3000	1,62
F			
STR 50F	33	3000	1,78
E			
STR 50E	33	3000	1,65



SU 50/36 protection end cap, profile U50

article number	B mm	G kg
PE		
SU 50/36	50	0,01



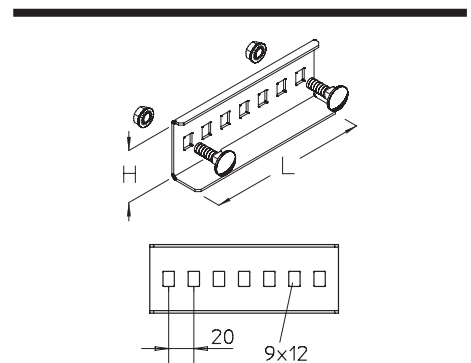
LGV 50 cable ladder coupler, height=50 mm

article number	H mm	L mm	G kg
S			
LGV 50S	50,5	150	0,18

accessories included:
2 x **KLS 8x16** fixing set (page H33)

article number	H mm	L mm	G kg
F			
LGV 50F	50,5	150	0,19
E			
LGV 50E	50,5	150	0,18

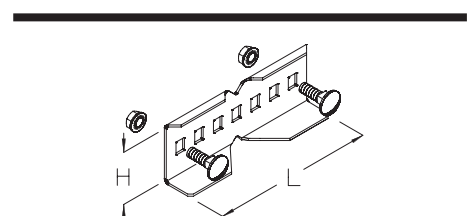
accessories included:
2 x **KLS 8x16E** fixing set (page H34)



LGVH 50 cable ladder coupler, height=50 mm

article number	H mm	L mm	G kg
S			
LGVH 50S	50,5	150	0,18

accessories included:
2 x **KLS 8x16** fixing set (page H33)

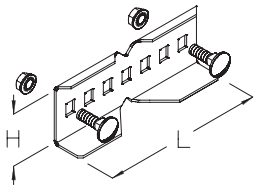


Vertical ladders
Accessories of STU 50

LGVH 50 cable ladder coupler, height=50 mm

article number	H mm	L mm	G kg
F			
LGVH 50F	50,5	150	0,19
E			
LGVH 50E	50,5	150	0,18

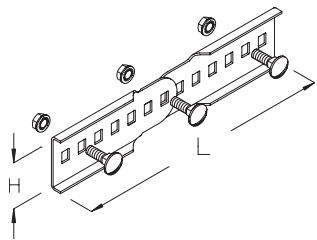
accessories included:
2 x **KLS 8x16E** fixing set (page H34)



LGVV 50 cable ladder coupler, height=50 mm

article number	H mm	L mm	G kg
S			
LGVV 50S	50,5	270	0,36

accessories included:
3 x **KLS 8x16** fixing set (page H33)



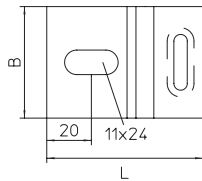
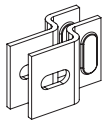
article number	H mm	L mm	G kg
F			
LGVV 50F	50,5	270	0,38
E			
LGVV 50E	50,5	270	0,36

accessories included:
3 x **KLS 8x16E** fixing set (page H34)

LH ladder support

For an application example, see the chapter assembly.

article number	B mm	L mm	t mm	G kg
F				
LH F	50	70	4	0,25



Vertical ladders

Accessories of STU 50

STLS rung

article number	H mm	B mm	G kg
S			
STLS 02S	40	203	0,24
STLS 03S	40	293	0,36
STLS 04S	40	393	0,47
STLS 05S	40	493	0,59
STLS 06S	40	593	0,70
STLS 07S	40	693	0,82
STLS 08S	40	793	0,94

accessories included:

2 x **SES 6x16** hexagon head bolt, DIN 933 (page H37)
 2 x **SEMS 6** hexagon nut, self-locking, DIN 6923 (page H41)

article number	H mm	B mm	G kg
F			
STLS 02F	40	203	0,27
STLS 03F	40	293	0,38
STLS 04F	40	393	0,50
STLS 05F	40	493	0,63
STLS 06F	40	593	0,75
STLS 07F	40	693	0,88
STLS 08F	40	793	1,00

accessories included:

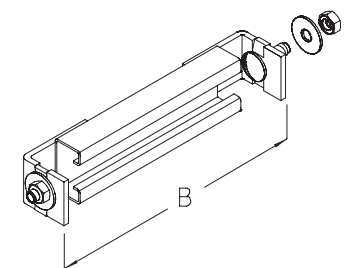
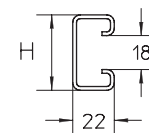
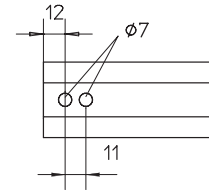
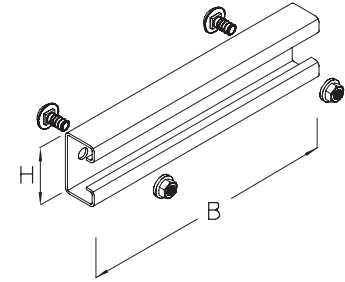
2 x **SES 6x16E** hexagon head bolt, DIN 933 (page H38)
 2 x **SEMS 6E** hexagon nut, self-locking, DIN 6923 (page H41)

STUS rung

article number	B mm	G kg
E		
STUS 02E	200	0,39
STUS 03E	300	0,51
STUS 04E	400	0,63
STUS 05E	500	0,75
STUS 06E	600	0,87
STUS 07E	700	0,99
STUS 08E	800	1,11
STUS 09E	900	1,23
STUS 10E	1000	1,80
STUS 11E	1100	2,00
STUS 12E	1200	2,20

accessories included:

2 x **FRSV 8x16E** round-head screw with short square (page H35)
 2 x **US 8x25E** square washer, DIN 9021 (page H40)
 2 x **SES 8x16E** hexagon head bolt, DIN 933 (page H38)
 2 x **US 8x17E** square washer, DIN 125 (page H40)
 4 x **SEM 8E** hexagon-nut, DIN 934 (page H41)



Vertical ladders

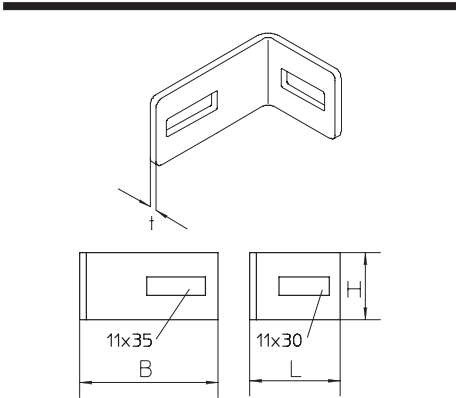
Accessories of STU 50

BL 4 corner angle, profile U50/ U60/ U100

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	G kg
F					
BL 4F	40	82,5	54	4	0,15
E					
BL 4E	40	82,5	54	4	0,15

accessories optional:
SD expansion anchor (page H12)
KLS fixing set (page H33)



Vertical ladders

Accessories of ST 81/82

STIS rung

For an application example, see the chapter assembly.

article number	B mm	P _{max} kN	G kg
F			
STIS 02F	200	2,5	0,90
STIS 03F	300	2,5	1,10
STIS 04F	400	2,5	1,20
STIS 05F	500	2,5	1,40
STIS 06F	600	2,5	1,60
STIS 07F	700	2,5	1,70
STIS 08F	800	2,5	1,90
STIS 09F	900	2,5	2,10
STIS 10F	1000	2,5	2,20
STIS 11F	1100	2,5	2,40
STIS 12F	1200	2,5	2,50

accessories included:

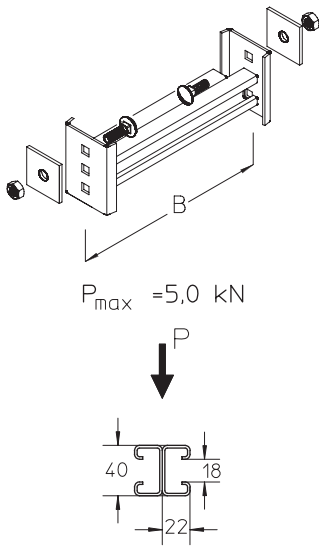
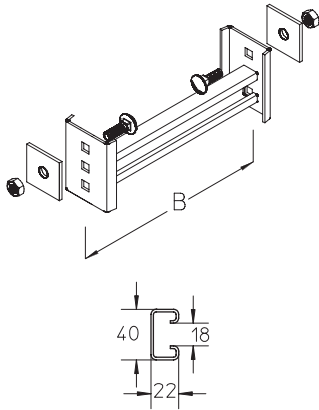
2 x FRS 10x30F	round-head screw with square, DIN 603	(page H35)
2 x RUS 50-L13F	square washer	(page H42)
2 x SEM 10F	hexagon-nut, DIN 934	(page H41)

STISD rung

article number	B mm	P _{max} kN	G kg
F			
STISD 02F	200	5,0	1,20
STISD 03F	300	5,0	1,50
STISD 04F	400	5,0	1,90
STISD 05F	500	5,0	2,20
STISD 06F	600	5,0	2,50
STISD 07F	700	5,0	2,90
STISD 08F	800	5,0	3,20
STISD 09F	900	5,0	3,50
STISD 10F	1000	5,0	3,90
STISD 11F	1100	5,0	4,20
STISD 12F	1200	5,0	4,50

accessories included:

2 x FRS 10x30F	round-head screw with square, DIN 603	(page H35)
2 x SEM 10F	hexagon-nut, DIN 934	(page H41)
2 x RUS 50-L13F	square washer	(page H42)
2 x SES 8x16E	hexagon head bolt, DIN 933	(page H38)
2 x SEMS 8E	hexagon nut, self-locking, DIN 6923	(page H41)



Vertical ladders

Accessories of ST 81/82

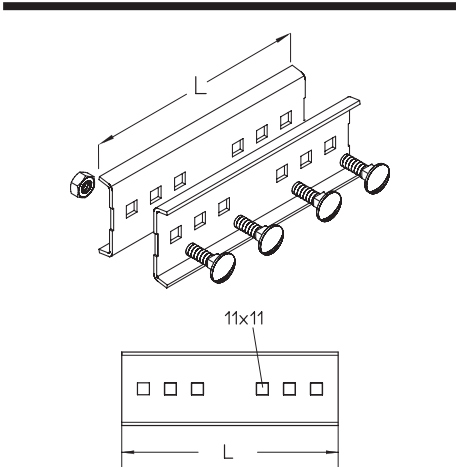
HKI support connector

For an application example, see the chapter assembly.

article number	L mm	G kg
F		
HKI F	200	1,00

accessories included:
4 x **FRS 10x30F** round-head screw with square, DIN 603 (page H35)
4 x **SEM 10F** hexagon-nut, DIN 934 (page H41)

accessories optional:
SD expansion anchor (page G12)



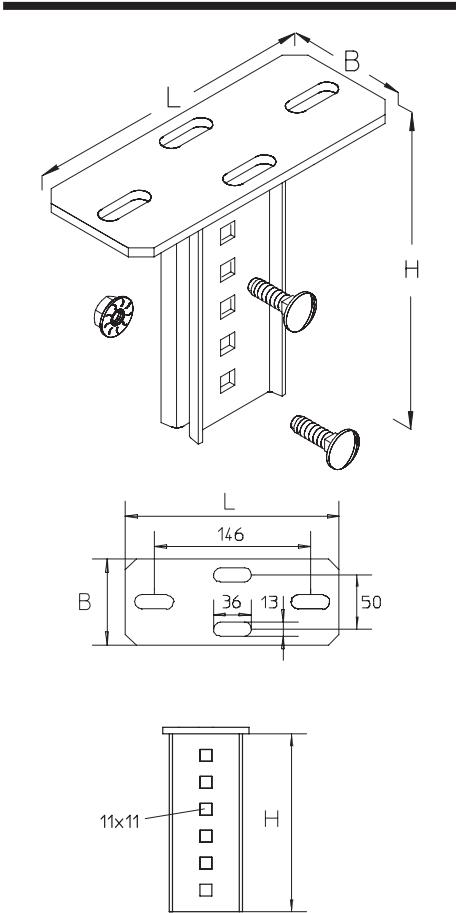
BGI head plate, profile 180

article also available with other inclinations
For an application example, see the chapter assembly.
For assembly instructions, see the chapter assembly.

article number	H mm	B mm	L mm	G kg
F				
BGI F	165	80	200	1,40

accessories included:
2 x **FRS 10x30F** round-head screw with square, DIN 603 (page H35)
2 x **SEM 10F** hexagon-nut, DIN 934 (page H41)

accessories optional:
SD expansion anchor (page G12)



Vertical ladders

Accessories of ST 81/82

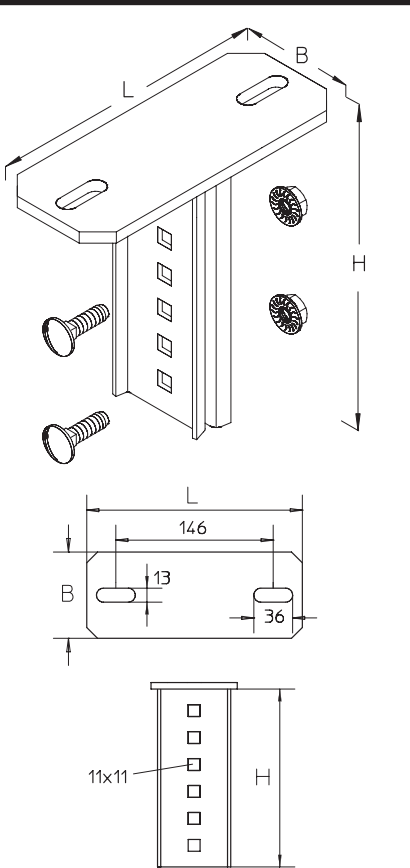
BGIQ head plate, profile I80

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	G kg
F				
BGIQ F	165	80	200	1,40

accessories included:
2 x **FRS 10x30F** round-head screw with square, DIN 603 (page H35)
2 x **SEM 10F** hexagon-nut, DIN 934 (page H41)

accessories optional:
SD expansion anchor (page G12)

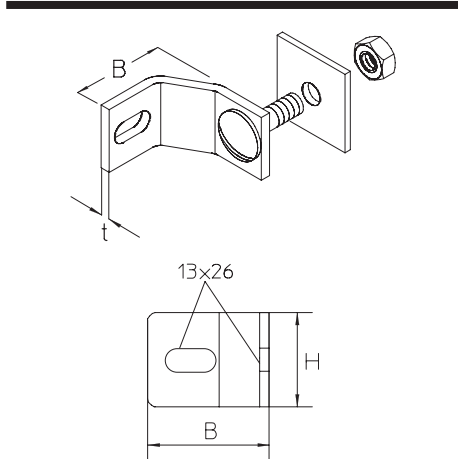


BL 7 corner angle

article number	H mm	B mm	t mm	G kg
F				
BL 7F	50	65	5	0,30

accessories included:
1 x **FRS 12x30F** round-head screw with square, DIN 603 (page H35)
1 x **SEM 12F** hexagon-nut, DIN 934 (page H41)
1 x **RUS 50-L13F** square washer (page H42)

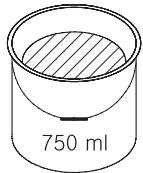
accessories optional:
SD expansion anchor (page G12)



KZF cold zinc paint

For assembly instructions, see the chapter assembly.

article number	I ml	G kg
KZF	750	1,93



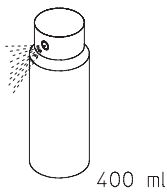
Vertical ladders

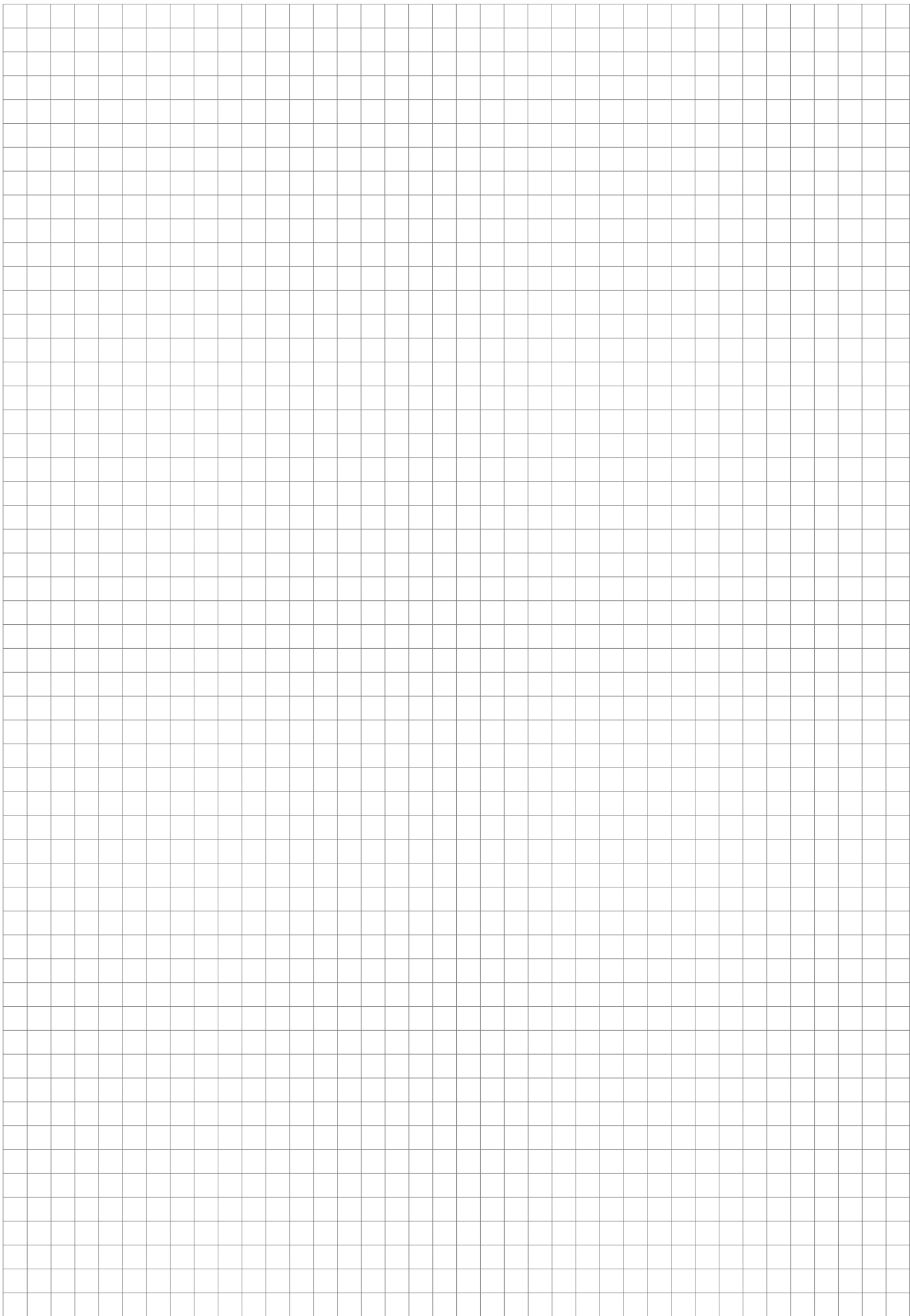
Accessories of ST 81/82

KZS cold zinc spray

For assembly instructions, see the chapter assembly.

article number			l	G
			ml	kg
KZS			400	0,40





E



Support systems

Brackets	F03-F10
Ceiling fixed suspensions	F11-F13
KSL-system	F14-F16
KHU-system	F17-F37
KHI-system	F38-F46
KHA-system	F47-F55
Anchor-rails	F56-F68

Numeric index

Support systems

A

A 2 C-rail, not perforated, 50x31 mm [F56](#)
A 4 C-rail, not perforated, 48x26 mm [F57](#)
A 41 C-rail, not perforated, 41x41 mm [F62](#)
A 7 C-rail, not perforated, 40x22 mm [F58](#)
A 8 C-rail, not perforated, 40x22 mm [F60](#)
A 9 C-rail, not perforated, 40x25 mm [F61](#)
AKL rail clamp [F51](#)
ASK 4 coupler for KHA-profile [F56](#)
ASK 8 coupler for KHA-profile [F56](#)
AV coupler for KHA-profile [F51](#)
AVA corner connector T-piece [F53](#)
AVAW corner connector left / center / right [F54](#)
AVB rail coupler U support [F53](#)
AVE corner connector 90° [F52](#)
AVL fastening strip [F52](#)
AVLW corner connector 90° [F54](#)

B

B 3 profile rail, not perforated, 28x12 mm [F65](#)
B 6 profile rail, not perforated, 28x15 mm [F66](#)
B 7 profile rail, not perforated, 30x15 mm [F66](#)
BGA 41 Mounting/ floor/ ceiling plate [F50](#)
BGA 41/2 head plate, profile 41 [F50](#)
BGI head plate, profile I80 [F41](#)
BGID head plate, profile I80 [F43](#)
BGIQ head plate, profile I80 [F42](#)
BGU 40 head plate, profile U40 [F28](#)
BGU 57 head plate, profile U57 [F28](#)
BGU 60 head plate, profile U60 [F29](#)
BGU 80 head plate, profile U80 [F30](#)
BGUD head plate, profile U40/ U57/ U60 [F31](#)
BGUDW head plate, profile U40/ U57/ U60 [F31](#)
BGUQ head plate, profile U50 [F30](#)
BL 3 corner angle [F44](#)
BL 4 corner angle, profile U50/ U60/ U100 [F35](#)
BL 5 corner angle [F51](#)
BL 7 corner angle [F45](#)
BL 8 corner angle [F45](#)
BLD adaptor diagonal [F36](#)
BLI corner angle [F45](#)

D

DB ceiling fixed bracket [F11](#)
DKSL ceiling fixed bracket, light duty [F15](#)

G

GBAG central hanger [F12](#)
GBAR central hanger [F11](#)

H

HKI support connector [F43](#)
HKIQ support connector [F44](#)
HKIW support connector [F44](#)

K

KA 30 bracket, light duty, profile 41 [F49](#)
KA 41 bracket, standard, profile 41 [F49](#)
KB junction plate [F36](#)
KDAG 41 ceiling fixed bracket, profile 41 [F47](#)
KDI bracket support, heavy, profile I80 [F38](#)
KDU 40 bracket support, 40x30mm [F17](#)
KDU 57 bracket support, 57x30mm [F19](#)
KDU 60 bracket support, heavy, 60x40 mm [F21](#)
KHA 2 C-rail, perforated, 50x31 mm [F57](#)
KHA 21 C-rail, perforated, 41x21 mm [F62](#)
KHA 4 C-rail, perforated, 48x26 mm [F58](#)
KHA 41 C-rail, perforated, 41x41 mm [F48](#), [F63](#)
KHA 42 C-rail, perforated, 41x42 mm [F65](#)

KHA 7 C-rail, perforated, 40x22 mm [F59](#)
KHA 8 C-rail, perforated, 40x22 mm [F60](#)
KHA 82 C-rail, perforated, 41x82 mm [F64](#)
KHA 9 C-rail, perforated, 40x25 mm [F61](#)
KHAL 41 C-rail, perforated, 41x41 mm [F64](#)
KHB 7 profile rail, perforated, 30x15 mm [F67](#)
KHI bracket support, type KT [F39](#)
KHU 40 bracket support, 40x30mm [F22](#)
KHU 57 bracket support, 57x30mm [F24](#)
KHU 60 bracket support, profile U60 [F26](#)
KHU 80 bracket support, profile U80 [F27](#)
KHUSS 40 support piece [F33](#)
KHUSS 57 support piece [F34](#)
KHUSS 60 support piece [F35](#)
KHUV 40 coupler [F32](#)
KHUV 57 coupler [F32](#)
KHUV 60 coupler, profile U60 [F33](#)
KIS bracket, heavy [F09](#)
KISS bracket, very heavy [F10](#)
KSL bracket, light duty [F14](#)
KSL-SP spacer [F16](#)
KSLW bracket, light and ceiling stem [F03](#), [F14](#)
KT bracket, standard, profile I80 [F40](#)
KTS bracket, heavy, profile I80 [F40](#)
KTSS bracket, very heavy, profile I80 [F41](#)
KW bracket, standard [F05](#)
KWF bracket, light duty [F05](#)
KWLL bracket, light duty [F03](#)
KWMS wall bracket, medium duty [F06](#)
KWS bracket, heavy [F07](#)
KWSS bracket, very heavy [F08](#)
KWW wall bracket [F04](#)
KZF cold zinc paint [F37](#), [F46](#)
KZS cold zinc spray [F37](#), [F46](#)

L

LGL elongated hole [F68](#)

M

MA 60 central hanger [F12](#)

P

PRS cut [F67](#)

R

RL round hole [F67](#)

S

SA 1 protection end cap [F54](#)
SA 2 protection end cap [F55](#)
SAI 21 protection end cap [F55](#)
SAI 41 protection end cap [F55](#)
SI protection end cap, yellow [F46](#)
SU 40 protection end cap protection end cap [F37](#)
SU 57 protection end cap protection end cap [F37](#)
SU 60 protection end cap, profile U60 [F37](#)

K

KHUV 80 connector, KHU 80 [F33](#)
SU 80 protection cap, KHU 80 [F37](#)

Support systems

Brackets

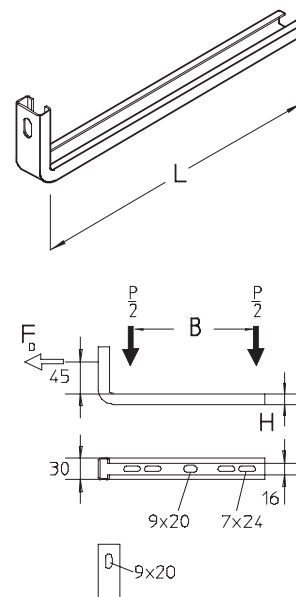
KWLL bracket, light duty

F_D/P : coefficient for calculation of the dowel load F_D with effective bracket load P respectively the sum of effective bracket loads. This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For assembly instructions, see the chapter assembly.

article number	H mm	B mm	L mm	P_{max} kN	F_D/P	G kg
S						
KWLL 010S	15	100	110	0,3	2,0	0,13
KWLL 020S	15	200	210	0,3	3,0	0,20
KWLL 030S	15	300	310	0,3	4,0	0,28
E						
KWLL 010E	15	100	110	0,3	2,0	0,13
KWLL 020E	15	200	210	0,3	3,0	0,20
KWLL 030E	15	300	310	0,3	4,0	0,28

accessories optional:

SD expansion anchor (page H12)
KLR fixing set (page H33)



KSLW bracket, light and ceiling stem

F_D/P : coefficient for calculation of the dowel load F_D with effective bracket load P respectively the sum of effective bracket loads.
For an application example, see the chapter assembly.
For assembly instructions, see the chapter assembly.

article number	H mm	B mm	L mm	G kg
S				
KSLW 010S	20	100	120	0,36
KSLW 020S	20	200	220	0,53
KSLW 030S	20	300	320	0,69
KSLW 040S	20	400	420	0,86
KSLW 050S	20	500	520	1,03
KSLW 060S	20	600	620	1,18

accessories included:

1 x **KSL-SP S** spacer (page F16)

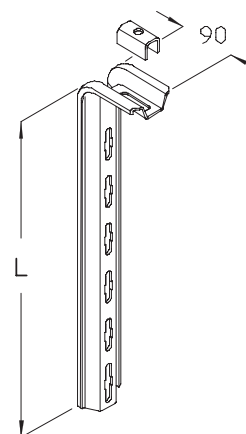
article number	H mm	B mm	L mm	G kg
S				
KSLW 015S	20	150	170	0,45
KSLW 025S	20	250	270	0,61

accessories included:

1 x **KSL-SP F** spacer (page F16)

accessories optional:

SD expansion anchor (page H12)



Support systems

Brackets

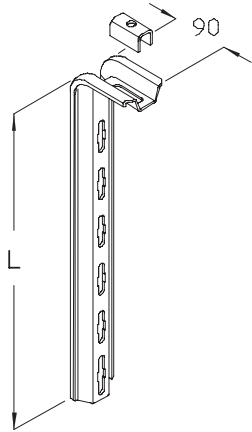
KSLW bracket, light and ceiling stem

F_D/P : coefficient for calculation of the dowel load F_D with effective bracket load P respectively the sum of effective bracket loads.
For an application example, see the chapter assembly.
For assembly instructions, see the chapter assembly.

article number	H mm	B mm	L mm	G kg
F				
KSLW 010F	20	100	120	0,38
KSLW 015F	20	150	170	0,47
KSLW 020F	20	200	220	0,56
KSLW 025F	20	250	270	0,65
KSLW 030F	20	300	320	0,73
KSLW 040F	20	400	420	0,92
KSLW 050F	20	500	520	1,10
KSLW 060F	20	600	620	1,26

accessories included:
1 x **KSL-SP F** spacer (page F16)

accessories optional:
SD expansion anchor (page H12)

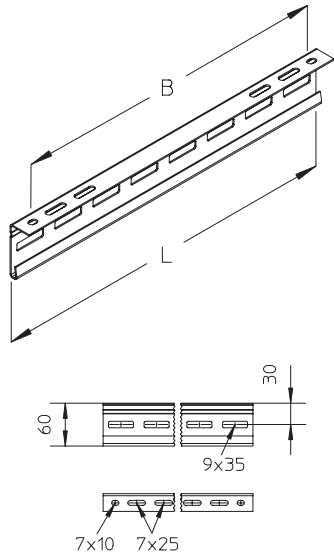


KWW wall bracket

For an application example, see the chapter assembly.
For assembly instructions, see the chapter assembly.

article number	B mm	L mm	G kg
F			
KWW 020F	100	200	0,27
KWW 030F	200	300	0,40
KWW 040F	300	400	0,52
KWW 050F	400	500	0,65
KWW 060F	500	600	0,78
KWW 070F	600	700	0,91

accessories optional:
SD expansion anchor (page H12)
KLU fixing set (page H07)
KLR fixing set (page H33)



Support systems

Brackets

KWF bracket, light duty

F_d/P : coefficient for calculation of the dowel load F_d with effective bracket load P respectively the sum of effective bracket loads.

For assembly instructions, see the chapter assembly.

article number	H mm	B mm	L mm	P_{max} kN	F_d/P	G kg
S						
KWF 010S	80	100	120	1,2	1,58	0,23
KWF 020S	80	200	220	1,2	2,33	0,30
KWF 030S	80	300	320	1,2	3,15	0,45
KWF 040S	80	400	420	1,2	3,99	0,51

accessories included:

1 x **US 10x30** square washer, DIN 9021 (page H40)

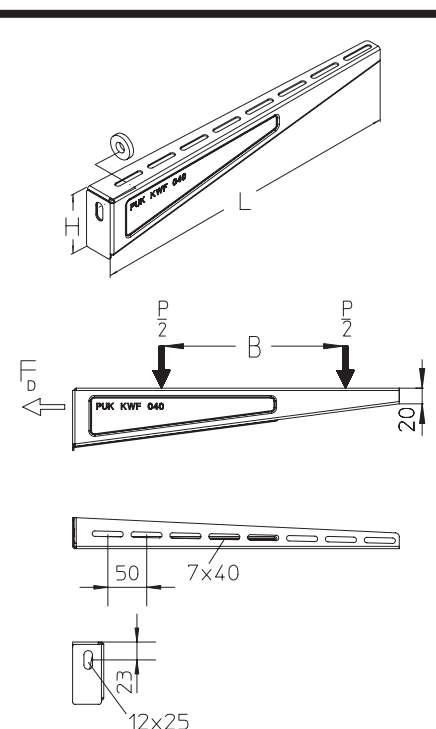
accessories optional:

KDU 57 bracket support, 57x30mm (page F19)

KHU 57 bracket support, 57x30mm (page F24)

KDU 40 bracket support, 40x30mm (page F17)

KHU 40 bracket support, 40x30mm (page F22)



KW bracket, standard

F_d/P : coefficient for calculation of the dowel load F_d with effective bracket load P respectively the sum of effective bracket loads. This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

For an application example, see the chapter assembly.

For assembly instructions, see the chapter assembly.

article number	H mm	B mm	L mm	P_{max} kN	F_d/P	G kg
F						
KW 010F	34	100	120	1,4	3,10	0,13
KW 015F	34	150	170	1,4	4,10	0,16
KW 020F	56	200	220	2,0	3,00	0,35
KW 030F	56	300	320	2,0	4,00	0,50
KW 040F	75	400	420	2,4	3,60	0,80
KW 050F	96	500	520	2,1	3,40	1,40
KW 060F	96	600	620	2,1	4,00	1,60
KW 070F	96	700	720	3,0	5,68	2,27

E						
KW 010E	34	100	120	1,5	3,10	0,13
KW 015E	34	150	170	1,5	4,10	0,16
KW 020E	56	200	220	1,5	3,00	0,39
KW 030E	56	300	320	1,5	4,00	0,47
KW 040E	75	400	420	2,2	3,60	0,76
KW 050E	95	500	520	2,2	3,40	1,20
KW 060E	95	600	620	2,2	4,00	1,40

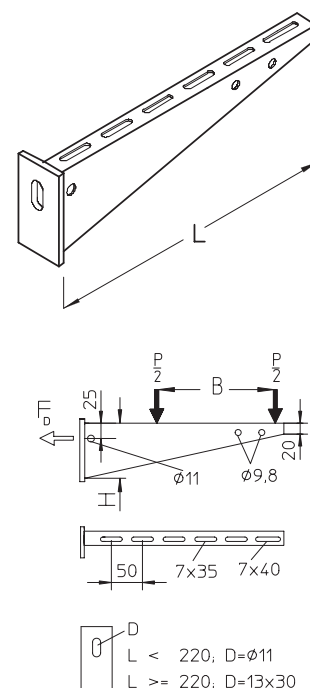
accessories optional:

SD expansion anchor (page H12)

KDU 57 bracket support, 57x30mm (page F19)

KLU fixing set (page H07)

KLR fixing set (page H33)



Support systems

Brackets

KWMS wall bracket, medium duty

F_D/P : coefficient for calculation of the dowel load F_D with effective bracket load P respectively the sum of effective bracket loads.
 For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	P_{max} kN	F_D/P	G kg
F						
KWMS 010F	85	100	120	3,8	1,36	0,53
KWMS 020F	85	200	220	3,8	1,81	0,76
KWMS 030F	85	300	320	3,8	2,32	0,99
KWMS 040F	85	400	420	3,8	2,86	1,21
KWMS 050F	85	400	420	3,8	3,42	1,43
KWMS 060F	85	600	620	3,8	3,99	1,65
KWMS 070F	85	700	720	2,9	5,68	1,88
E						
KWMS 010E	85	100	120	3,8	1,36	0,60
KWMS 020E	85	200	220	3,8	1,81	0,82
KWMS 030E	85	300	320	3,8	2,32	1,03
KWMS 040E	85	400	420	3,8	2,86	1,25
KWMS 050E	85	400	420	3,8	3,42	1,46
KWMS 060E	85	600	620	3,8	3,99	1,68
E4						
KWMS 010E4	85	100	120	3,8	1,36	0,60
KWMS 020E4	85	200	220	3,8	1,81	0,82
KWMS 030E4	85	300	320	3,8	2,32	1,03
KWMS 040E4	85	400	420	3,8	2,86	1,25
KWMS 050E4	85	400	420	3,8	3,42	1,46
KWMS 060E4	85	600	620	3,8	3,99	1,68

- accessories optional:

KDU 57

bracket support, 57x30mm

(page F19)

KDU 60

bracket support, heavy, 60x40 mm

(page F21)

KHU 57

bracket support, 57x30mm

(page F24)

KHU 60

bracket support, profile U60

(page F26)

SD

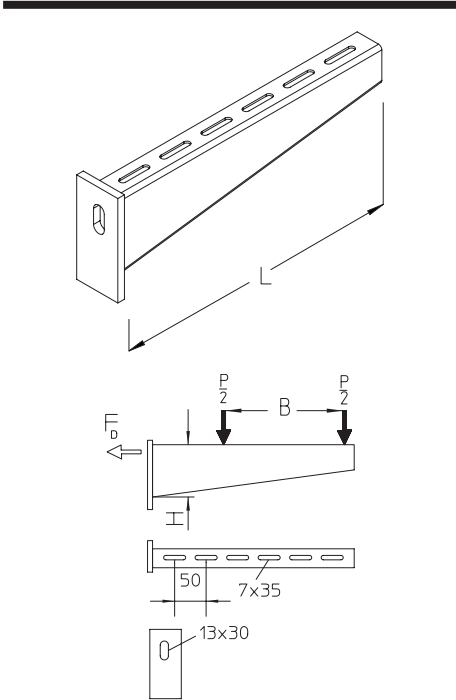
expansion anchor

(page H12)

KLR

fixing set

(page H33)



Support systems

Brackets

KWS bracket, heavy

F_D/P : coefficient for calculation of the dowel load F_D with effective bracket load P respectively the sum of effective bracket loads. This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

For an application example, see the chapter assembly.

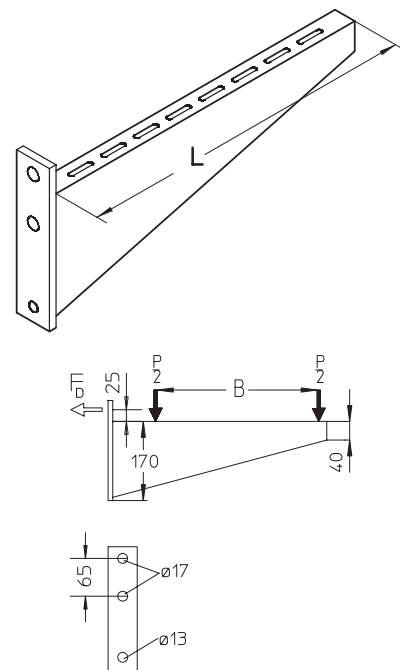
For assembly instructions, see the chapter assembly.



article number	B mm	L mm	P_{max} kN	F_D/P	G kg
F					
KWS 020F	200	280	7,0	1,31	2,04
KWS 030F	300	380	6,7	1,49	2,40
KWS 040F	400	480	6,5	1,69	2,78
KWS 050F	500	580	6,3	1,91	3,32
KWS 060F	600	680	6,1	2,13	3,68
KWS 070F	600	780	5,2	2,60	4,04
KWS 080F	600	880	4,4	3,07	4,41
KWS 090F	600	980	3,6	3,56	4,77
KWS 100F	600	1080	2,8	4,06	5,14
E					
KWS 020E	200	280	7,0	1,31	1.92
KWS 030E	300	380	6,7	1,49	2.26
KWS 040E	400	480	6,5	1,69	2.61
KWS 050E	500	580	6,3	1,91	2.95
KWS 060E	600	680	6,1	2,13	3.29
KWS 070E	600	780	5,2	2,60	3.64
KWS 080E	600	880	4,4	3,07	3.97
KWS 090E	600	980	3,6	3,56	4.32
KWS 100E	600	1080	2,8	4,06	4.67
E4					
KWS 020E4	200	280	7,0	1,31	1.92
KWS 030E4	300	380	6,7	1,49	2.26
KWS 040E4	400	480	6,5	1,69	2.61
KWS 050E4	500	580	6,3	1,91	2.95
KWS 060E4	600	680	6,1	2,13	3.29
KWS 070E4	600	780	5,2	2,60	3.64
KWS 080E4	600	880	4,4	3,07	3.97
KWS 090E4	600	980	3,6	3,56	4.32
KWS 100E4	600	1080	2,8	4,06	4.67

accessories optional:

SD	expansion anchor	(page H12)
KDU 57	bracket support, 57x30mm	(page F19)
KLU	fixing set	(page H07)
WPF-B	flange mounting clamp (brackets)	(page D34)

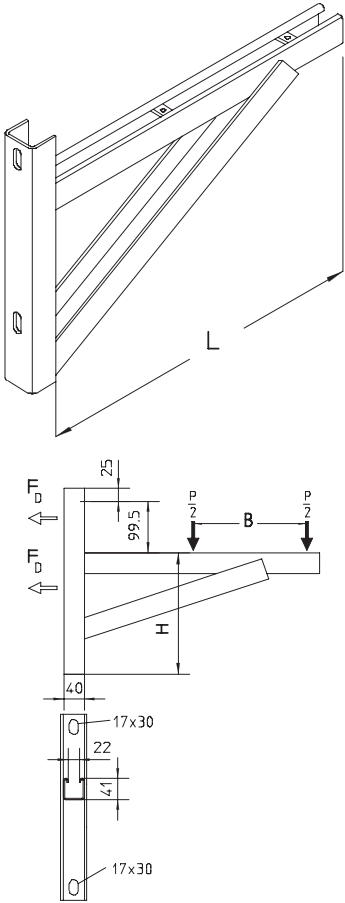


KWSS bracket, very heavy

F_D/P : coefficient for calculation of the dowel load F_D with effective bracket load P respectively the sum of effective bracket loads.
For an application example, see the chapter assembly.
For assembly instructions, see the chapter assembly.

article number	H mm	B mm	L mm	P_{max} kN	F_D/P	G kg
F						
KWSS 020F	166	200	280	10	0,76	2,59
KWSS 030F	196	300	380	10	0,86	3,37
KWSS 040F	236	400	480	10	0,91	4,18
KWSS 050F	266	500	580	10	0,97	4,96
KWSS 060F	236	600	680	10	1,26	5,51
KWSS 070F	266	600	780	10	1,44	6,28
KWSS 080F	301	600	880	10	1,56	7,08
KWSS 090F	331	600	980	10	1,66	7,85
KWSS 100F	366	600	1080	10	1,72	8,65

- accessories optional:
- | | | |
|---------------|------------------------------------|------------|
| SD | expansion anchor | (page H12) |
| WPF-C | flange mounting clamp (C-profiles) | (page D35) |
| VAB-HB | shear connector rod, concrete | (page H14) |
| VAS-AS | shear connector rod, stone | (page H15) |



Support systems

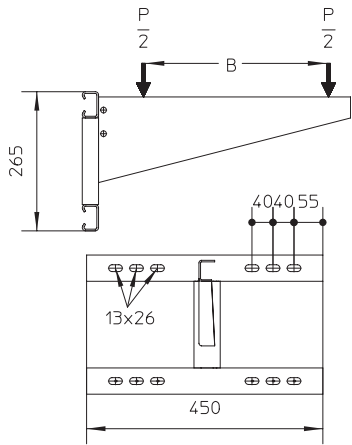
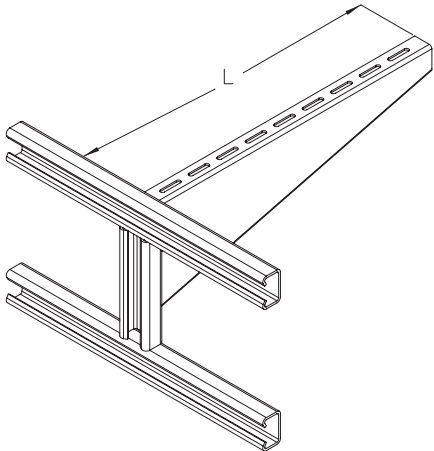
Brackets

KIS bracket, heavy

F_D/P : coefficient for calculation of the dowel load F_D with effective bracket load P respectively the sum of effective bracket loads.
For assembly instructions, see the chapter assembly.

article number	B mm	L mm	P_{max} kN	F_D/P	G kg
F					
KIS 020F	200	280	7,0	0,66	4,32
KIS 030F	300	380	6,7	0,76	4,65
KIS 040F	400	480	6,5	0,86	5,00
KIS 050F	500	580	6,3	0,97	5,34
KIS 060F	600	680	6,1	1,09	5,68
KIS 070F	600	780	5,2	1,33	6,02
KIS 080F	600	880	4,4	1,57	6,36
KIS 090F	600	980	3,6	1,83	6,70
KIS 100F	600	1080	2,8	2,08	7,04

accessories optional:
SKS H beam clamp set (page H03)

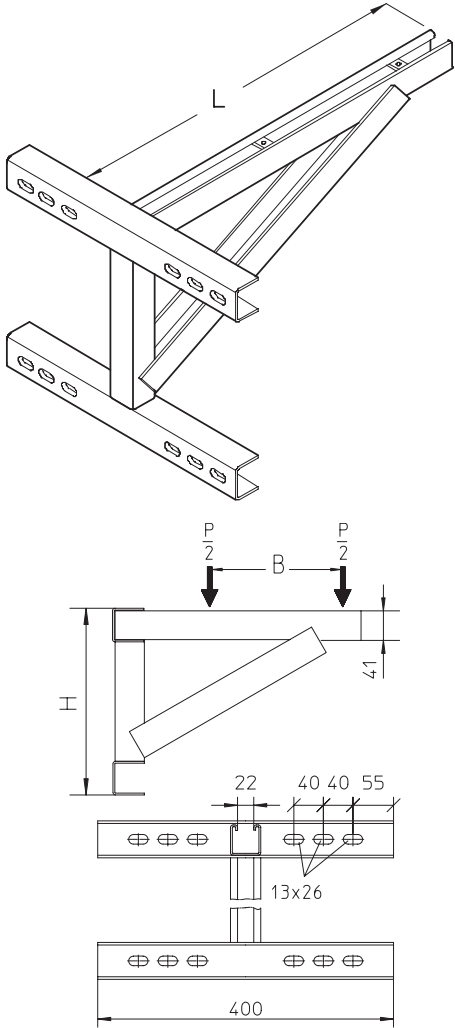


KISS bracket, very heavy

F_D/P : coefficient for calculation of the dowel load F_D with effective bracket load P respectively the sum of effective bracket loads.
For an application example, see the chapter assembly.
For assembly instructions, see the chapter assembly.

article number	H mm	B mm	L mm	P_{max} kN	F_D/P	G kg
F						
KISS 020F	150	200	280	10	0,93	4,66
KISS 030F	185	300	380	10	0,91	5,42
KISS 040F	215	400	480	10	0,92	6,17
KISS 050F	250	500	580	10	0,92	6,93
KISS 060F	280	600	680	10	0,92	7,70
KISS 070F	315	600	780	10	0,99	8,44
KISS 080F	345	600	880	10	1,06	9,21
KISS 090F	380	600	980	10	1,10	9,96
KISS 100F	410	600	1080	10	1,15	10,71

accessories optional:
WPF-C flange mounting clamp (C-profiles) (page D35)
SKS M beam clamp set (page H05)



Support systems

Ceiling fixed suspensions

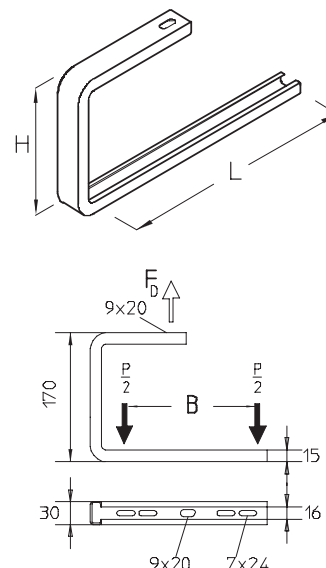
DB ceiling fixed bracket

F_D/P : coefficient for calculation of the dowel load F_D with effective bracket load P respectively the sum of effective bracket loads. This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For assembly instructions, see the chapter assembly.

article number	H mm	B mm	L mm	P_{max} kN	F_D/P	G kg
S						
DB 10S	170	100	110	0,60	1,2	0,25
DB 20S	170	200	210	0,40	1,1	0,36
DB 30S	170	300	310	0,28	1,1	0,47
E						
DB 10E	170	100	110	0,50	1,2	0,30
DB 20E	170	200	210	0,35	1,1	0,44
DB 30E	170	300	310	0,25	1,1	0,58

accessories optional:

KLR fixing set (page H33)
SAZ anchor (page H12)



GBAR central hanger

F_D/P : coefficient for calculation of the dowel load F_D with effective bracket load P respectively the sum of effective bracket loads.
For an application example, see the chapter assembly.

article number	B mm	L mm	P_{max} kN	F_D/P	G kg
S					
GBAR 10S	100	60	0,7	1	0,62
GBAR 20S	200	160	0,7	1	0,75
GBAR 30S	300	260	0,7	1	0,88

accessories included:

1 x **GB M10-10** threaded rod, DIN 976-1 (page H16)
3 x **SEM 10** hexagon-nut, DIN 934 (page H41)
1 x **US 10x30** square washer, DIN 9021 (page H40)
1 x **KLR** fixing set (page H33)

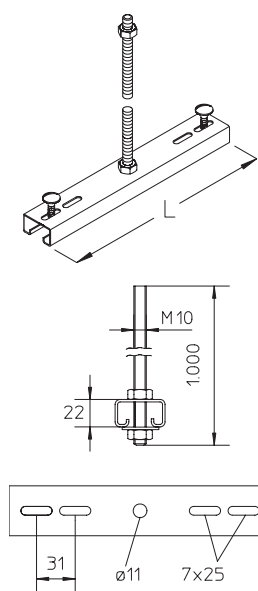
article number	B mm	L mm	P_{max} kN	F_D/P	G kg
E					
GBAR 10E	100	60	0,7	1	0,62
GBAR 20E	200	160	0,7	1	0,75
GBAR 30E	300	260	0,7	1	0,88

accessories included:

1 x **GB M10-10E** threaded rod, DIN 976-1 (page H16)
3 x **SEM 10E** hexagon-nut, DIN 934 (page H41)
1 x **US 10x30E** square washer, DIN 9021 (page H40)
1 x **KLR E** fixing set (page H33)

accessories optional:

SAZ anchor (page H12)



Support systems

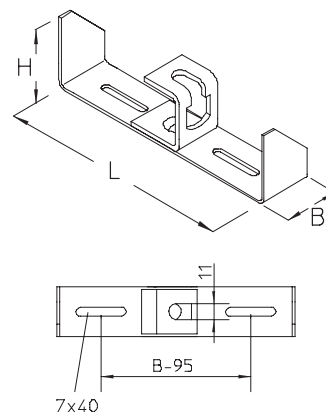
Ceiling fixed suspensions

MA 60 central hanger

article number	H mm	B mm	L mm	G kg
S				
MA 60-10S	56	40	90	0,26
MA 60-20S	56	40	190	0,36
MA 60-30S	56	40	290	0,45

accessories optional:

KLR fixing set (page H33)



GBAG central hanger

F_D/P : coefficient for calculation of the dowel load F_D with effective bracket load P respectively the sum of effective bracket loads.

For an application example, see the chapter assembly.

article number	B mm	L mm	P_{max} kN	F_D/P	G kg
S					
GBAG 10S	100	41	0,5	1	0,42

accessories included:

- 1 x **GB M8-10** threaded rod, DIN 976-1 (page H16)
- 2 x **GV-L 30F** wire-mesh cable tray coupler (page A11)
- 1 x **US 8x17** square washer, DIN 125 (page H39)
- 3 x **SEM 8** hexagon-nut, DIN 934 (page H41)

article number	B mm	L mm	P_{max} kN	F_D/P	G kg
S					
GBAG 20S	200	180	0,5	1	0,50

accessories included:

- 1 x **GB M8-10** threaded rod, DIN 976-1 (page H16)
- 1 x **GV-L 30F** wire-mesh cable tray coupler (page A11)
- 3 x **SEM 8** hexagon-nut, DIN 934 (page H41)
- 1 x **US 8x25** square washer, DIN 9021 (page H40)

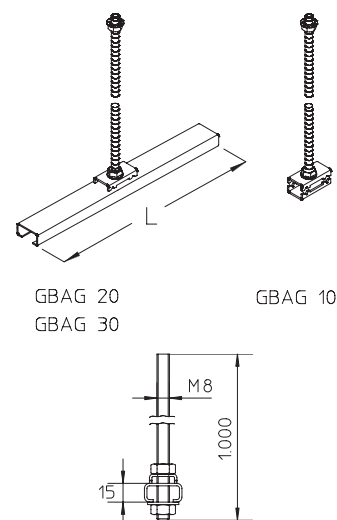
article number	B mm	L mm	P_{max} kN	F_D/P	G kg
S					
GBAG 30S	300	280	0,5	1	0,57

accessories included:

- 1 x **GB M8-10** threaded rod, DIN 976-1 (page H16)
- 1 x **GV-L 30F** wire-mesh cable tray coupler (page A11)
- 1 x **US 8x25** square washer, DIN 9021 (page H40)
- 3 x **SEM 8** hexagon-nut, DIN 934 (page H40)

accessories optional:

SAZ anchor (page H12)



Support systems

Ceiling fixed suspensions

GBAG central hanger

F_D/P : coefficient for calculation of the dowel load F_D with effective bracket load P respectively the sum of effective bracket loads.
 For an application example, see the chapter assembly.

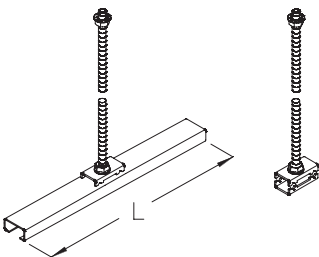
article number	B mm	L mm	P_{max} kN	F_D/P	G kg
E					
GBAG 10E	100	41	0,5	1	0,42

- accessories included:
- 1 x **GB M8-10E** threaded rod, DIN 976-1 (page H16)
 - 3 x **SEM 8E** hexagon-nut, DIN 934 (page H41)
 - 1 x **US 8x17E** square washer, DIN 125 (page H40)
 - 2 x **GV-L 30E** wire-mesh cable tray coupler (page A11)

article number	B mm	L mm	P_{max} kN	F_D/P	G kg
E					
GBAG 20E	200	180	0,5	1	0,50
GBAG 30E	300	280	0,5	1	0,57

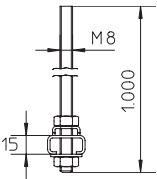
- accessories included:
- 1 x **GB M8-10E** threaded rod, DIN 976-1 (page H16)
 - 3 x **SEM 8E** hexagon-nut, DIN 934 (page H16)
 - 1 x **US 8x25E** square washer, DIN 9021 (page H16)
 - 1 x **GV-L 30E** wire-mesh cable tray coupler (page A11)

- accessories optional:
- SAZ** anchor (page H12)



GBAG 20
 GBAG 30

GBAG 10



Support systems

KSL-system

KSL bracket, light duty

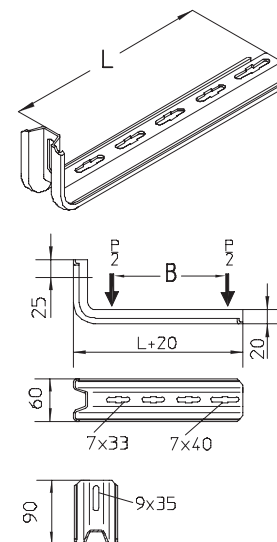
For an application example, see the chapter assembly.



article number	B mm	L mm	P _{max} kN	G kg
S				
KSL 010S	100	120	3,0	0,36
KSL 015S	150	170	2,4	0,45
KSL 020S	200	220	1,9	0,53
KSL 025S	250	270	1,5	0,61
KSL 030S	300	320	1,1	0,69
KSL 040S	400	420	0,8	0,86

accessories included:

1 x **FRS 8x20** round-head screw with square, DIN 603 (page H35)
 1 x **SEMS 8** hexagon nut, self-locking, DIN 6923 (page H41)



article number	B mm	L mm	P _{max} kN	G kg
F				
KSL 010F	100	120	3,0	0,38
KSL 015F	150	170	2,4	0,47
KSL 020F	200	220	1,9	0,56
KSL 025F	250	270	1,5	0,65
KSL 030F	300	320	1,1	0,73
KSL 040F	400	420	0,8	0,92

accessories included:

1 x **FRS 8x20E** round-head screw with square, DIN 603 (page H35)
 1 x **SEMS 8E** hexagon nut, self-locking, DIN 6923 (page H41)

accessories optional:

KLRL clamping assembly (page H36)

KSLW bracket, light and ceiling stem

F_D/P : coefficient for calculation of the dowel load F_D with effective bracket load P respectively the sum of effective bracket loads.

For an application example, see the chapter assembly.

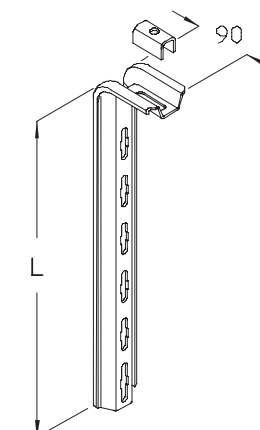
For assembly instructions, see the chapter assembly.



article number	H mm	B mm	L mm	G kg
S				
KSLW 010S	20	100	120	0,36
KSLW 020S	20	200	220	0,53
KSLW 030S	20	300	320	0,69
KSLW 040S	20	400	420	0,86
KSLW 050S	20	500	520	1,03
KSLW 060S	20	600	620	1,18

accessories included:

1 x **KSL-SP S** spacer (page F16)



article number	H mm	B mm	L mm	G kg
S				
KSLW 015S	20	150	170	0,45
KSLW 025S	20	250	270	0,61

accessories included:

1 x **KSL-SP F** spacer (page F16)

accessories optional:

SD expansion anchor (page H12)

Support systems

KSL-system

KSLW bracket, light and ceiling stem

F_d/P : coefficient for calculation of the dowel load F_d with effective bracket load P respectively the sum of effective bracket loads.

For an application example, see the chapter assembly.

For assembly instructions, see the chapter assembly.

article number	H mm	B mm	L mm	G kg
F				
KSLW 010F	20	100	120	0,38
KSLW 015F	20	150	170	0,47
KSLW 020F	20	200	220	0,56
KSLW 025F	20	250	270	0,65
KSLW 030F	20	300	320	0,73
KSLW 040F	20	400	420	0,92
KSLW 050F	20	500	520	1,10
KSLW 060F	20	600	620	1,26

accessories included:

1 x **KSL-SP F** spacer (page F16)

accessories optional:

SD expansion anchor (page H12)

DKSL ceiling fixed bracket, light duty

F_d/P : coefficient for calculation of the dowel load F_d with effective bracket load P respectively the sum of effective bracket loads.

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	P_{max} kN	F_d/P	G kg
S						
DKSL 010S	170	100	120	0,9	3,1	0,59
DKSL 020S	170	200	220	0,5	2,1	0,76
DKSL 030S	170	300	320	0,4	2,7	0,91
DKSL 040S	170	400	420	0,3	3,3	1,08
F						
DKSL 010F	170	100	120	0,9	3,1	0,63
DKSL 020F	170	200	220	0,5	2,1	0,81
DKSL 030F	170	300	320	0,4	2,7	0,97
DKSL 040F	170	400	420	0,3	3,3	1,15

accessories included:

1 x **KSL-SP F** spacer (page F16)

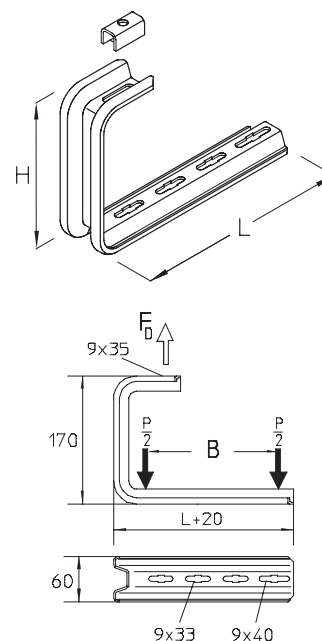
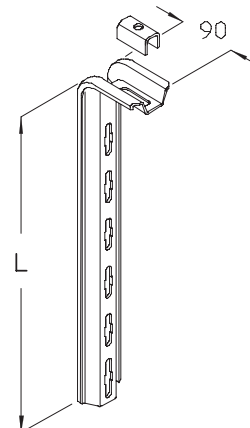
accessories optional:

SD expansion anchor (page H12)

SAZ anchor (page H12)

KLRL clamping assembly (page H36)

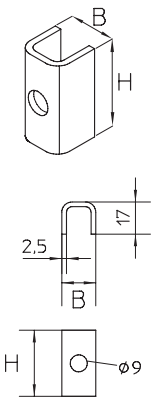
KLU fixing set (page H07)



KSL-SP spacer

For an application example, see the chapter assembly.

article number	H mm	B mm	G kg
S			
KSL-SP S	35	18	0,28
F			
KSL-SP F	35	18	0,03



Support systems

KHU-system

KDU 40 bracket support, 40x30mm

Ceiling bracket support, U-profile 40 x 30mm, continuously three-way perforated, with welded head plate, certified according to DIN EN 61537.

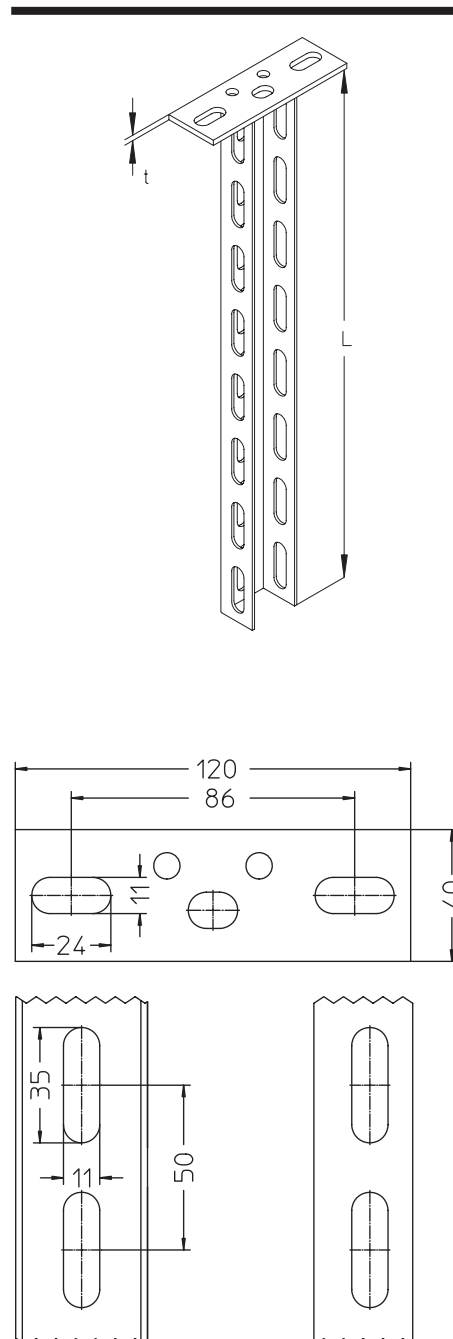
Load figures P_{max} when using a support piece with the hot-dip galvanized Bracket support according to DIN EN 61537 (test No. 10.8.2.3). It is recommended to apply the support piece from a bracket width of 400mm or if the bracket is installed at the end of the ceiling fixed bracket.

For assembly instructions, see the chapter assembly.

article number	L mm	G kg
F		
KDU 40-02F	200	0,38
KDU 40-03F	300	0,50
KDU 40-04F	400	0,62
KDU 40-05F	500	0,73
KDU 40-06F	600	0,86
KDU 40-07F	700	0,98
KDU 40-08F	800	1,10
KDU 40-09F	900	1,22
KDU 40-10F	1000	1,34
KDU 40-11F	1100	1,46
KDU 40-12F	1200	1,58
KDU 40-13F	1300	1,70
KDU 40-14F	1400	1,82
KDU 40-15F	1500	1,94
E		
KDU 40-02E	200	0,36
KDU 40-03E	300	0,47
KDU 40-04E	400	0,60
KDU 40-05E	500	0,70
KDU 40-06E	600	0,81
KDU 40-07E	700	0,92
KDU 40-08E	800	1,03
KDU 40-09E	900	1,15
KDU 40-10E	1000	1,26
KDU 40-11E	1100	1,40
KDU 40-12E	1200	1,50
KDU 40-13E	1300	1,60
KDU 40-14E	1400	1,73
KDU 40-15E	1500	1,83

accessories optional:

KWF	bracket, light duty	(page F05)
KW	bracket, standard	(page F05)
KHU 40	bracket support, 40x30mm	(page F22)
KHUV 40	coupler	(page F32)
KHUSS 40	support piece	(page F33)
SU 40	protection end cap	(page F37)



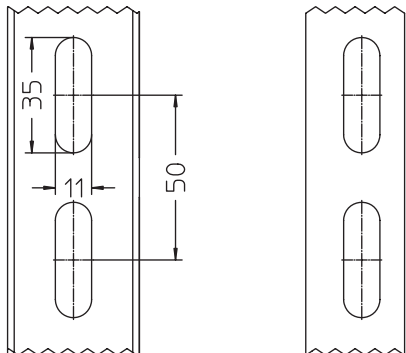
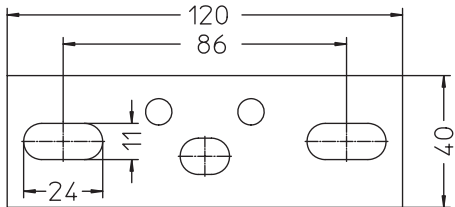
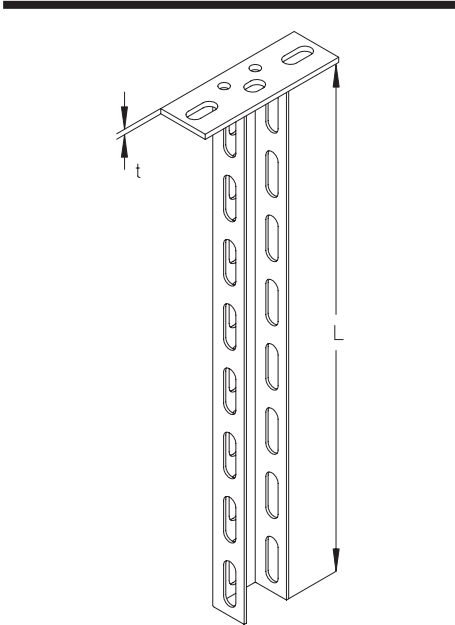
KDU 40 bracket support, 40x30mm

Ceiling bracket support, U-profile 40 x 30mm, continuously three-way perforated, with welded head plate, certified according to DIN EN 61537.
Load figures P_{max} when using a support piece with the hot-dip galvanized Bracket support according to DIN EN 61537 (test No. 10.8.2.3). It is recommended to apply the support piece from a bracket width of 400mm or if the bracket is installed at the end of the ceiling fixed bracket.
For assembly instructions, see the chapter assembly.

article number	L mm	G kg
E4		
KDU 40-02E4	200	0,36
KDU 40-03E4	300	0,47
KDU 40-04E4	400	0,60
KDU 40-05E4	500	0,70
KDU 40-06E4	600	0,81
KDU 40-07E4	700	0,92
KDU 40-08E4	800	1,03
KDU 40-09E4	900	1,16
KDU 40-10E4	1000	1,26
KDU 40-11E4	1100	1,40
KDU 40-12E4	1200	1,50
KDU 40-13E4	1300	1,61
KDU 40-14E4	1400	1,73
KDU 40-15E4	1500	1,84

accessories optional:

KWF	bracket, light duty	(page F05)
KW	bracket, standard	(page F05)
KHU 40	bracket support, 40x30mm	(page F22)
KHUV 40	coupler	(page F32)
KHUSS 40	support piece	(page F33)
SU 40	protection end cap	(page F37)



Support systems

KHU-system

KDU 57 bracket support, 57x30mm

Ceiling bracket support, U-profile 57 x 30mm, continuously three-way perforated, with welded head plate, certified according to DIN EN 61537.

Load figures P_{max} when using a support piece with the hot-dip galvanized Bracket support according to DIN EN 61537 (test No. 10.8.2.3). It is recommended to apply the support piece from a bracket width of 400mm or if the bracket is installed at the end of the ceiling fixed bracket. For the system-tested circuit integrity maintenance the support piece KHUSS 60 must be used.

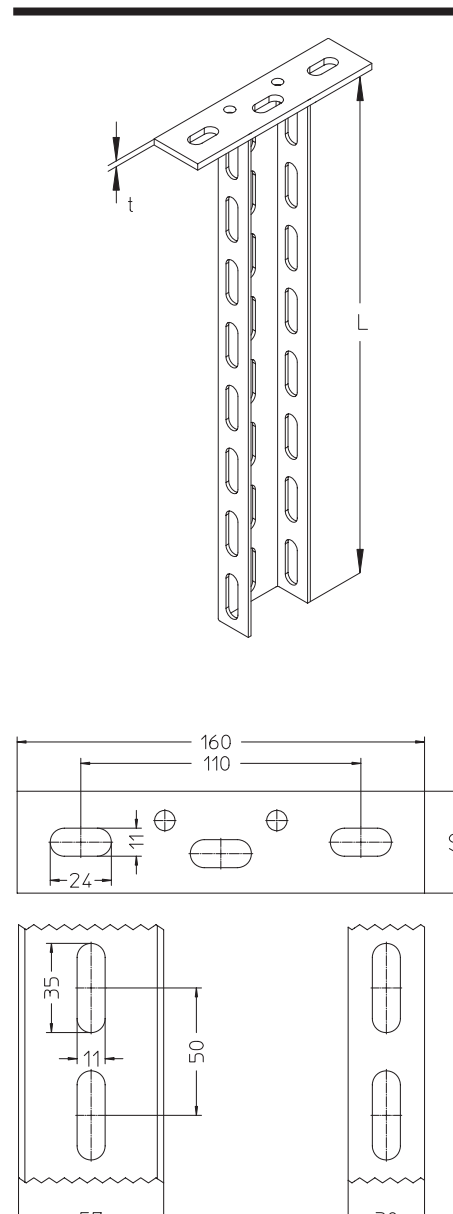
For assembly instructions, see the chapter assembly.

article number	L mm	G kg
F		
KDU 57-02F	200	0,59
KDU 57-03F	300	0,77
KDU 57-04F	400	0,95
KDU 57-05F	500	1,13
KDU 57-06F	600	1,31
KDU 57-07F	700	1,49
KDU 57-08F	800	1,68
KDU 57-09F	900	1,86
KDU 57-10F	1000	2,04
KDU 57-11F	1100	2,22
KDU 57-12F	1200	2,40
KDU 57-13F	1300	2,58
KDU 57-14F	1400	2,77
KDU 57-15F	1500	2,95

E		
KDU 57-02E	200	0,57
KDU 57-03E	300	0,74
KDU 57-04E	400	0,91
KDU 57-05E	500	1,08
KDU 57-06E	600	1,25
KDU 57-07E	700	1,42
KDU 57-08E	800	1,59
KDU 57-09E	900	1,76
KDU 57-10E	1000	1,93
KDU 57-11E	1100	2,10
KDU 57-12E	1200	2,27
KDU 57-13E	1300	2,44
KDU 57-14E	1400	2,61
KDU 57-15E	1500	2,78

accessories optional:

KWF	bracket, light duty	(page F05)
KW	bracket, standard	(page F05)
KWMS	wall bracket, medium duty	(page F06)
KHU 57	bracket support, 57x30mm	(page F24)
KHUV 57	coupler	(page F32)
KHUSS 57	support piece	(page F34)
KHUSS 60	support piece	(page F35)
SU 57	protection end cap	(page F37)



Support systems
KHU-system

KDU 57 bracket support, 57x30mm

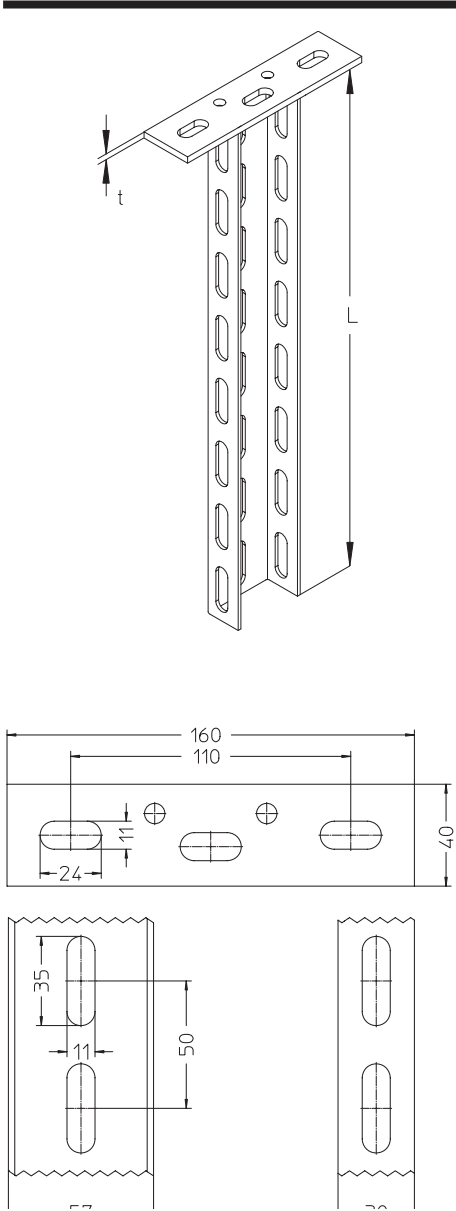
Ceiling bracket support, U-profile 57 x 30mm, continuously three-way perforated, with welded head plate, certified according to DIN EN 61537.

Load figures P_{max} when using a support piece with the hot-dip galvanized Bracket support according to DIN EN 61537 (test No. 10.8.2.3). It is recommended to apply the support piece from a bracket width of 400mm or if the bracket is installed at the end of the ceiling fixed bracket. For the system-tested circuit integrity maintenance the support piece KHUSS 60 must be used.

For assembly instructions, see the chapter assembly.

article number	L mm	G kg
E4		
KDU 57-02E4	200	0,57
KDU 57-03E4	300	0,74
KDU 57-04E4	400	0,91
KDU 57-05E4	500	1,08
KDU 57-06E4	600	1,25
KDU 57-07E4	700	1,42
KDU 57-08E4	800	1,59
KDU 57-09E4	900	1,76
KDU 57-10E4	1000	1,93
KDU 57-11E4	1100	2,10
KDU 57-12E4	1200	2,27
KDU 57-13E4	1300	2,44
KDU 57-14E4	1400	2,61
KDU 57-15E4	1500	2,78

- accessories optional:
- | | | |
|----------|---------------------------|------------|
| KWF | bracket, light duty | (page F05) |
| KW | bracket, standard | (page F05) |
| KWMS | wall bracket, medium duty | (page F06) |
| KHU 57 | bracket support, 57x30mm | (page F24) |
| KHUV 57 | coupler | (page F32) |
| KHUSS 57 | support piece | (page F34) |
| KHUSS 60 | support piece | (page F35) |
| SU 57 | protection end cap | (page F37) |



Support systems

KHU-system

KDU 60 bracket support, heavy, 60x40 mm

F_d/P : coefficient for calculation of the dowel load F_d with effective bracket load P respectively the sum of effective bracket loads. This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

For an application example, see the chapter assembly.

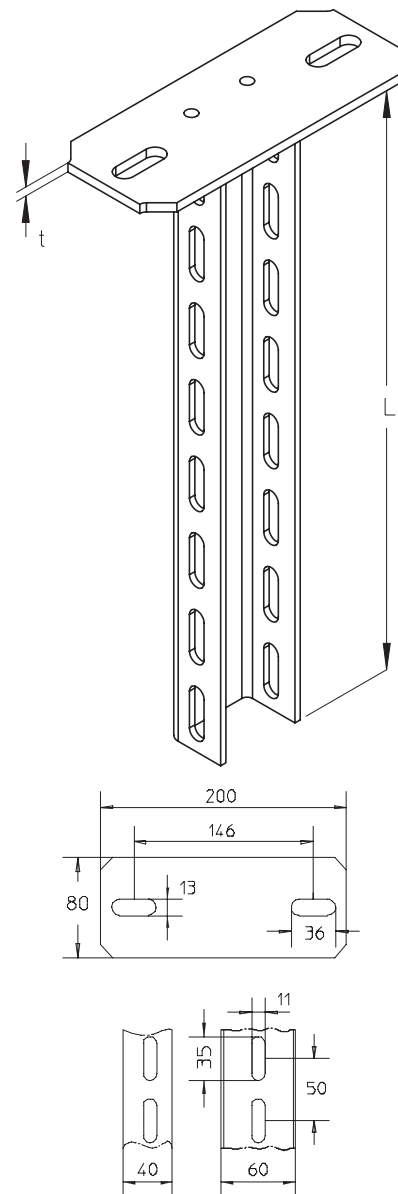
For assembly instructions, see the chapter assembly.



article number	L mm	t mm	G kg
F			
KDU 60-02F	200	6	1,40
KDU 60-03F	300	6	1,80
KDU 60-04F	400	6	2,10
KDU 60-05F	500	6	2,50
KDU 60-06F	600	6	2,80
KDU 60-07F	700	6	3,20
KDU 60-08F	800	6	3,50
KDU 60-09F	900	6	3,90
KDU 60-10F	1000	6	4,20
KDU 60-11F	1100	8	4,80
KDU 60-12F	1200	8	5,20
KDU 60-13F	1300	8	5,50
KDU 60-14F	1400	8	5,90
KDU 60-15F	1500	8	6,30
KDU 60-16F	1600	8	6,60
KDU 60-17F	1700	8	7,00
KDU 60-18F	1800	8	7,30
KDU 60-19F	1900	8	7,70
KDU 60-20F	2000	8	8,00
E			
KDU 60-02E	200	6	1,40
KDU 60-03E	300	6	1,80
KDU 60-04E	400	6	2,10
KDU 60-05E	500	6	2,50
KDU 60-06E	600	6	2,80
KDU 60-07E	700	6	3,20
KDU 60-08E	800	6	3,50
KDU 60-09E	900	6	3,90
KDU 60-10E	1000	6	4,20
KDU 60-11E	1100	6	4,80
KDU 60-12E	1200	6	5,20
KDU 60-13E	1300	6	5,50
KDU 60-14E	1400	6	5,90
KDU 60-15E	1500	6	6,30
KDU 60-16E	1600	6	6,60
KDU 60-17E	1700	6	7,00
KDU 60-18E	1800	6	7,30
KDU 60-19E	1900	6	7,70
KDU 60-20E	2000	6	8,00

accessories optional:

KW	bracket, standard	(page F05)
KWMS	wall bracket, medium duty	(page F06)
KWS	bracket, heavy	(page F07)
SD	expansion anchor	(page H12)
SU 60	protection end cap, profile U60	(page F37)



Support systems
KHU-system

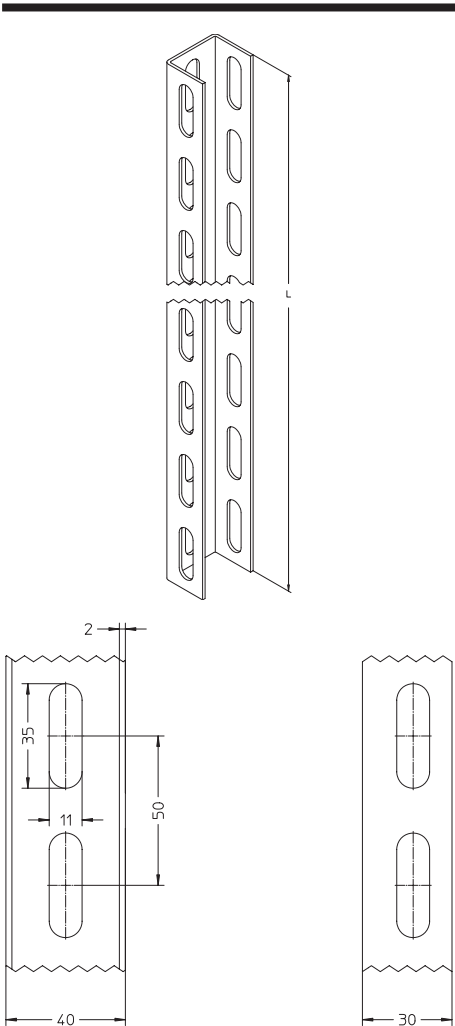
KHU 40 bracket support, 40x30mm

Ceiling bracket support, U-profile 40 x 30mm, continuously three-way perforated.
It is recommended to apply the support piece from a bracket width of 400mm or if the bracket is installed at the end of the ceiling fixed bracket.
For assembly instructions, see the chapter assembly.

article number	L mm	G kg
S		
KHU 40-02S	200	0,22
KHU 40-03S	300	0,34
KHU 40-04S	400	0,45
KHU 40-05S	500	0,56
KHU 40-06S	600	0,67
KHU 40-07S	700	0,79
KHU 40-08S	800	0,90
KHU 40-09S	900	1,01
KHU 40-10S	1000	1,12
KHU 40-11S	1100	1,23
KHU 40-12S	1200	1,35
KHU 40-13S	1300	1,55
KHU 40-14S	1400	1,60
KHU 40-15S	1500	1,70
KHU 40-30S	3000	3,40
KHU 40-60S	6000	6,73
F		
KHU 40-02F	200	0,24
KHU 40-03F	300	0,36
KHU 40-04F	400	0,48
KHU 40-05F	500	0,60
KHU 40-06F	600	0,72
KHU 40-07F	700	0,84
KHU 40-08F	800	0,96
KHU 40-09F	900	1,10
KHU 40-10F	1000	1,20
KHU 40-11F	1100	1,32
KHU 40-12F	1200	1,44
KHU 40-13F	1300	1,60
KHU 40-14F	1400	1,70
KHU 40-15F	1500	1,80
KHU 40-30F	3000	3,60
KHU 40-60F	6000	7,20

accessories optional:

KDU 40	bracket support, 40x30mm	(page F17)
BGU 40	head plate, profile U40	(page F28)
KWF	bracket, light duty	(page F05)
KW	bracket, standard	(page F05)
KHUV 40	coupler	(page F32)
KHUSS 40	support piece	(page F33)
SU 40	protection end cap	(page F37)
BGUD	head plate, profile U40/ U57/ U60	(page F31)
BGUDW	head plate, profile U40/ U57/ U60	(page F31)



Support systems

KHU-system

KHU 40 bracket support, 40x30mm

Ceiling bracket support, U-profile 40 x 30mm, continuously three-way perforated.

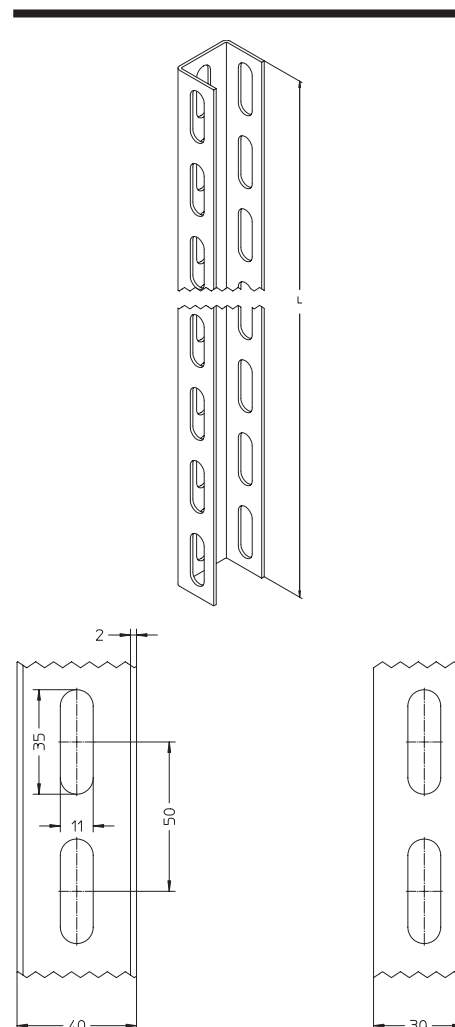
It is recommended to apply the support piece from a bracket width of 400mm or if the bracket is installed at the end of the ceiling fixed bracket.

For assembly instructions, see the chapter assembly.

article number	L mm	G kg
E		
KHU 40-02E	200	0,23
KHU 40-03E	300	0,34
KHU 40-04E	400	0,45
KHU 40-05E	500	0,57
KHU 40-06E	600	0,68
KHU 40-07E	700	0,79
KHU 40-08E	800	0,90
KHU 40-09E	900	1,02
KHU 40-10E	1000	1,13
KHU 40-11E	1100	1,24
KHU 40-12E	1200	1,36
KHU 40-13E	1300	1,47
KHU 40-14E	1400	1,60
KHU 40-15E	1500	1,70
KHU 40-30E	3000	3,40
KHU 40-60E	6000	6,80
E4		
KHU 40-02E4	200	0,23
KHU 40-03E4	300	0,34
KHU 40-04E4	400	0,46
KHU 40-05E4	500	0,57
KHU 40-06E4	600	0,69
KHU 40-07E4	700	0,80
KHU 40-08E4	800	0,92
KHU 40-09E4	900	1,03
KHU 40-10E4	1000	1,14
KHU 40-11E4	1100	1,26
KHU 40-12E4	1200	1,40
KHU 40-13E4	1300	1,50
KHU 40-14E4	1400	1,60
KHU 40-15E4	1500	1,72
KHU 40-30E4	3000	3,43
KHU 40-60E4	6000	6,90

accessories optional:

KDU 40	bracket support, 40x30mm	(page F17)
BGU 40	head plate, profile U40	(page F28)
KWF	bracket, light duty	(page F05)
KW	bracket, standard	(page F05)
KHUV 40	coupler	(page F32)
KHUSS 40	support piece	(page F33)
SU 40	protection end cap	(page F37)
BGUD	head plate, profile U40/ U57/ U60	(page F31)
BGUDW	head plate, profile U40/ U57/ U60	(page F31)



KHU 57 bracket support, 57x30mm

Ceiling bracket support, U-profile 57 x 30mm, continuously three-way perforated.

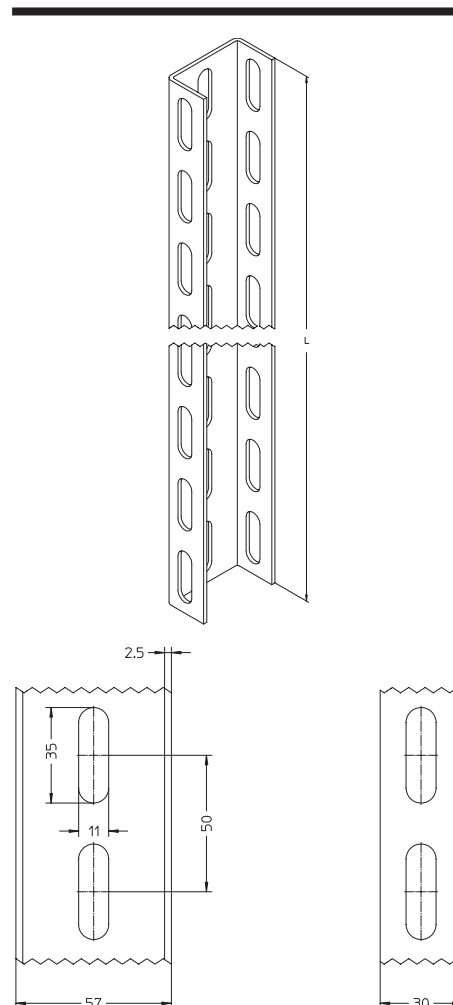
It is recommended to apply the support piece from a bracket width of 400mm or if the bracket is installed at the end of the ceiling fixed bracket.

For assembly instructions, see the chapter assembly.

article number	L mm	G kg
S		
KHU 57-02S	200	0,34
KHU 57-03S	300	0,51
KHU 57-04S	400	0,68
KHU 57-05S	500	0,85
KHU 57-06S	600	1,02
KHU 57-07S	700	1,19
KHU 57-08S	800	1,36
KHU 57-09S	900	1,53
KHU 57-10S	1000	1,70
KHU 57-11S	1100	1,87
KHU 57-12S	1200	2,04
KHU 57-13S	1300	2,21
KHU 57-14S	1400	2,38
KHU 57-15S	1500	2,55
KHU 57-30S	3000	5,09
KHU 57-60S	6000	10,18
F		
KHU 57-02F	200	0,36
KHU 57-03F	300	0,55
KHU 57-04F	400	0,73
KHU 57-05F	500	0,91
KHU 57-06F	600	1,09
KHU 57-07F	700	1,27
KHU 57-08F	800	1,45
KHU 57-09F	900	1,63
KHU 57-10F	1000	1,82
KHU 57-11F	1100	2,00
KHU 57-12F	1200	2,18
KHU 57-13F	1300	2,36
KHU 57-14F	1400	2,54
KHU 57-15F	1500	2,72
KHU 57-30F	3000	5,45
KHU 57-60F	6000	10,89

accessories optional:

BGU 57	head plate, profile U57	(page F28)
KWF	bracket, light duty	(page F05)
KW	bracket, standard	(page F05)
KWMS	wall bracket, medium duty	(page F06)
KDU 57	bracket support, 57x30mm	(page F19)
KHUV 57	coupler	(page F32)
KHUSS 57	support piece	(page F34)
SU 57	protection end cap	(page F37)
BGUD	head plate, profile U40/ U57/ U60	(page F31)
BGUDW	head plate, profile U40/ U57/ U60	(page F31)



Support systems

KHU-system

KHU 57 bracket support, 57x30mm

Ceiling bracket support, U-profile 57 x 30mm, continuously three-way perforated.

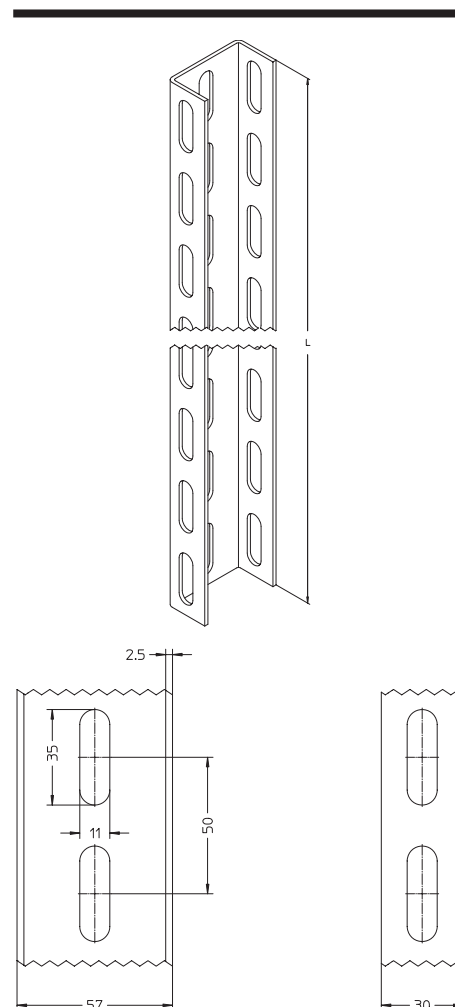
It is recommended to apply the support piece from a bracket width of 400mm or if the bracket is installed at the end of the ceiling fixed bracket.

For assembly instructions, see the chapter assembly.

article number	L mm	G kg
E		
KHU 57-02E	200	0,34
KHU 57-03E	300	0,51
KHU 57-04E	400	0,68
KHU 57-05E	500	0,85
KHU 57-06E	600	1,03
KHU 57-07E	700	1,20
KHU 57-08E	800	1,37
KHU 57-09E	900	1,54
KHU 57-10E	1000	1,71
KHU 57-11E	1100	1,88
KHU 57-12E	1200	2,05
KHU 57-13E	1300	2,22
KHU 57-14E	1400	2,39
KHU 57-15E	1500	2,56
KHU 57-30E	3000	5,12
KHU 57-60E	6000	10,25
E4		
KHU 57-02E4	200	0,35
KHU 57-03E4	300	0,52
KHU 57-04E4	400	0,69
KHU 57-05E4	500	0,87
KHU 57-06E4	600	1,04
KHU 57-07E4	700	1,21
KHU 57-08E4	800	1,38
KHU 57-09E4	900	1,56
KHU 57-10E4	1000	1,73
KHU 57-11E4	1100	1,90
KHU 57-12E4	1200	2,08
KHU 57-13E4	1300	2,25
KHU 57-14E4	1400	2,42
KHU 57-15E4	1500	2,59
KHU 57-30E4	3000	5,19
KHU 57-60E4	6000	10,38

accessories optional:

BGU 57	head plate, profile U57	(page F28)
KWF	bracket, light duty	(page F05)
KW	bracket, standard	(page F05)
KWMS	wall bracket, medium duty	(page F06)
KDU 57	bracket support, 57x30mm	(page F19)
KHUV 57	coupler	(page F32)
KHUSS 57	support piece	(page F34)
SU 57	protection end cap	(page F37)
BGUD	head plate, profile U40/ U57/ U60	(page F31)
BGUDW	head plate, profile U40/ U57/ U60	(page F31)



KHU 60 bracket support, profile U60

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.
For assembly instructions, see the chapter assembly.

article number	H mm	B mm	L mm	G kg
F				
KHU 60-02F	40	60	200	0,70
KHU 60-03F	40	60	300	1,10
KHU 60-04F	40	60	400	1,40
KHU 60-05F	40	60	500	1,80
KHU 60-06F	40	60	600	2,10
KHU 60-07F	40	60	700	2,50
KHU 60-08F	40	60	800	2,80
KHU 60-09F	40	60	900	3,20
KHU 60-10F	40	60	1000	3,50
KHU 60-11F	40	60	1100	3,90
KHU 60-12F	40	60	1200	4,20
KHU 60-13F	40	60	1300	4,60
KHU 60-14F	40	60	1400	4,90
KHU 60-15F	40	60	1500	5,30
KHU 60-20F	40	60	2000	7,00
KHU 60-30F	40	60	3000	10,50
KHU 60-60F	40	60	6000	21,10
E				
KHU 60-30E	40	60	3000	10,50

- accessories optional:
- BGU 60**

head plate, profile U60

(page F29)

SU 60

protection end cap, profile U60

(page F37)

KW

bracket, standard

(page F05)

WPF-B

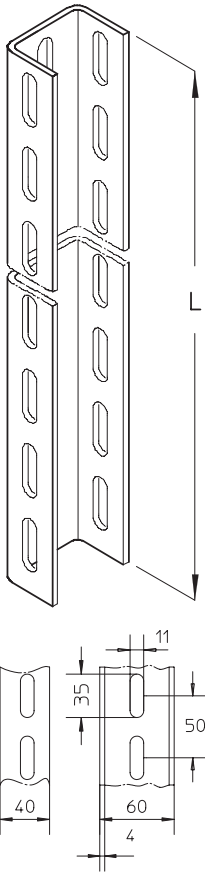
flange mounting clamp (brackets)

(page D34)

KLS

fixing set

(page H33)

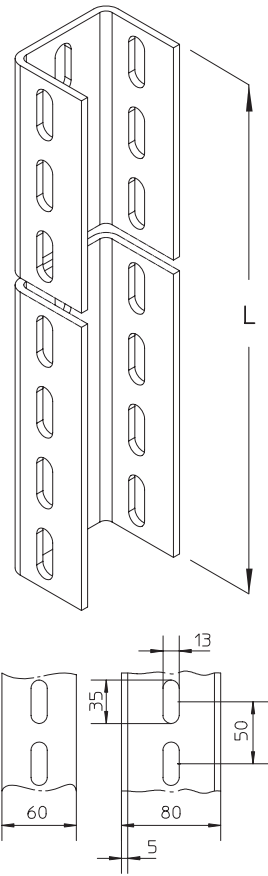


KHU 80 bracket support, profile U80

article number	H mm	B mm	L mm	G kg
F				
KHU 80-02F	80	60	200	1,33
KHU 80-03F	80	60	300	2,00
KHU 80-04F	80	60	400	2,66
KHU 80-05F	80	60	500	3,33
KHU 80-06F	80	60	600	3,99
KHU 80-07F	80	60	700	4,66
KHU 80-08F	80	60	800	5,32
KHU 80-09F	80	60	900	5,99
KHU 80-10F	80	60	1000	6,65
KHU 80-11F	80	60	1100	7,32
KHU 80-12F	80	60	1200	7,98
KHU 80-13F	80	60	1300	8,65
KHU 80-14F	80	60	1400	9,32
KHU 80-15F	80	60	1500	9,98
KHU 80-16F	80	60	1600	10,65
KHU 80-17F	80	60	1700	11,31
KHU 80-18F	80	60	1800	11,98
KHU 80-19F	80	60	1900	12,64
KHU 80-20F	80	60	2000	13,31
KHU 80-30F	80	60	3000	19,96
KHU 80-60F	80	60	6000	39,92

accessories optional:

KW	bracket, standard	(page F05)
WPF-B	flange mounting clamp (brackets)	(page D34)
KLS	fixing set	(page H33)



BGU 40 head plate, profile U40

Head plate for ceiling mounting of KHU 40 bracket support KHU 40
For assembly instructions, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	G kg
F					
BGU 40F	100	40	120	4	0,37

accessories included:

2 x FRSV 10x20F	round-head screw with short square	(page H34)
2 x US 10x21F	square washer, DIN 125	(page H39)
2 x SEM 10F	hexagon-nut, DIN 934	(page H41)

article number	H mm	B mm	L mm	t mm	G kg
E					
BGU 40E	100	40	120	4	0,35

accessories included:

2 x FRSV 10x20E	round-head screw with short square	(page H35)
2 x US 10x21E	square washer, DIN 125	(page H40)
2 x SEM 10E	hexagon-nut, DIN 934	(page H41)

article number	H mm	B mm	L mm	t mm	G kg
E4					
BGU 40E4	100	40	120	4	0,35

accessories included:

2 x FRSV 10x20E4	round-head screw with short square	(page H35)
2 x US 10x21E4	square washer, DIN 125	(page H40)
2 x SEM 10E4	hexagon-nut, DIN 934	(page H41)

BGU 57 head plate, profile U57

Head plate for ceiling mounting of bracket support KHU 57
For assembly instructions, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	G kg
F					
BGU 57F	100	40	160	5	0,54

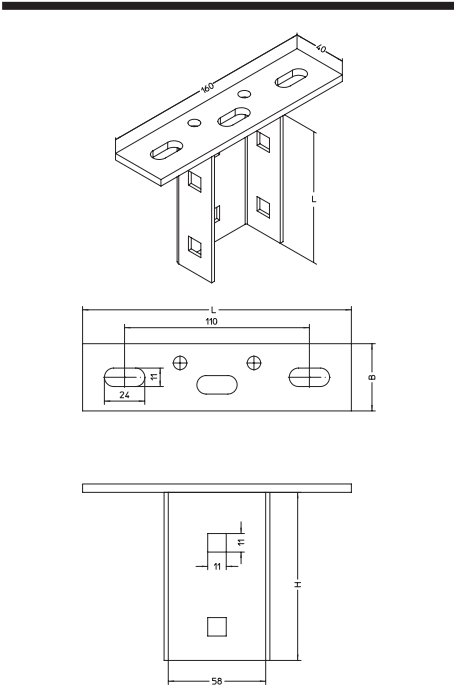
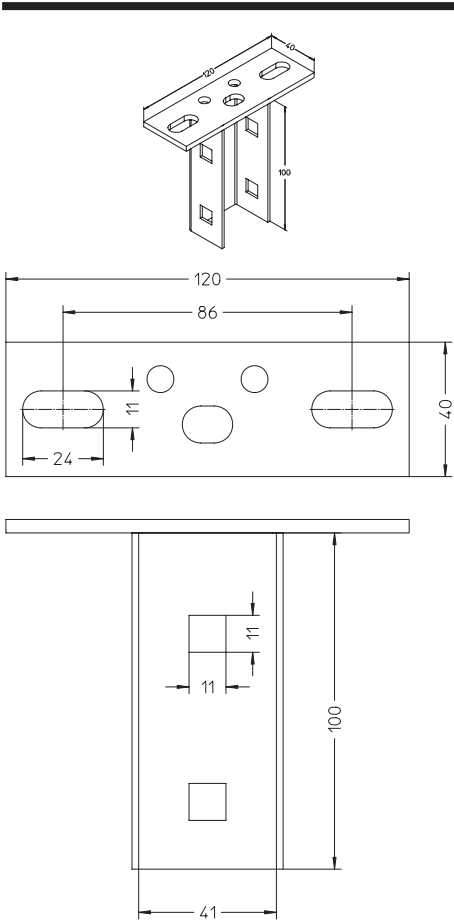
accessories included:

2 x FRSV 10x20F	round-head screw with short square	(page H34)
2 x US 10x21F	square washer, DIN 125	(page H39)
2 x SEM 10F	hexagon-nut, DIN 934	(page H41)

article number	H mm	B mm	L mm	t mm	G kg
E					
BGU 57E	100	40	160	5	0,52

accessories included:

2 x FRSV 10x20E	round-head screw with short square	(page H35)
2 x US 10x21E	square washer, DIN 125	(page H40)
2 x SEM 10E	hexagon-nut, DIN 934	(page H41)



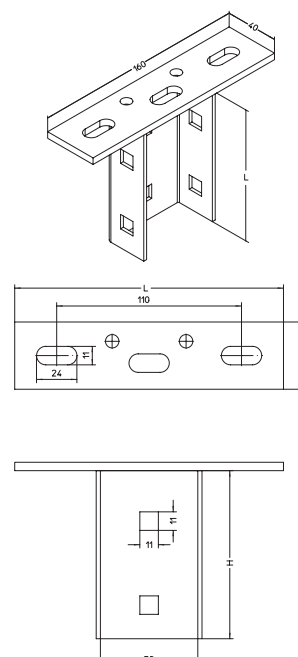
BGU 57 head plate, profile U57

Head plate for ceiling mounting of bracket support KHU 57
For assembly instructions, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	G kg
E4					
BGU 57E4	100	40	160	5	0,52

accessories included:

2 x FRSV 10x20E4	round-head screw with short square	(page H35)
2 x US 10x21E4	square washer, DIN 125	(page H40)
2 x SEM 10E4	hexagon-nut, DIN 934	(page H41)



BGU 60 head plate, profile U60

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.
For assembly instructions, see the chapter assembly.

article number	H mm	B mm	L mm	G kg
F				
BGU 60F	120	80	200	1,28

accessories included:

4 x SES 10x20F	hexagon head bolt, DIN 933	(page H38)
4 x US 10x21F	square washer, DIN 125	(page H39)
4 x SEM 10F	hexagon-nut, DIN 934	(page H41)

article number	H mm	B mm	L mm	G kg
E				
BGU 60E	120	80	200	1,30

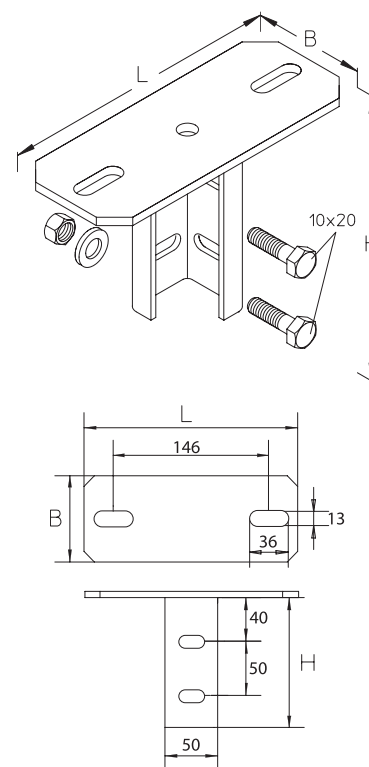
accessories included:

4 x SES 10x20E	hexagon head bolt, DIN 933	(page H38)
4 x US 10x21E	square washer, DIN 125	(page H40)
4 x SEM 10E	hexagon-nut, DIN 934	(page H41)

article number	H mm	B mm	L mm	G kg
E4				
BGU 60E4	120	80	200	1,30

accessories included:

4 x SES 10x20E4	hexagon head bolt, DIN 933	(page H38)
4 x US 10x21E4	square washer, DIN 125	(page H40)
4 x SEM 10E4	hexagon-nut, DIN 934	(page H41)



Support systems
KHU-system

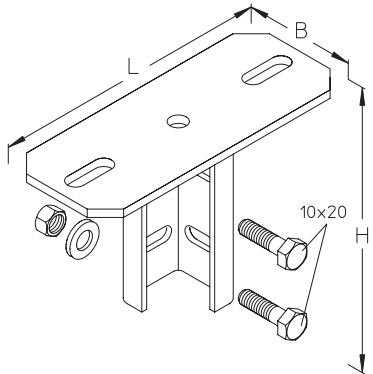
BGU 80 head plate, profile U80

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For assembly instructions, see the chapter assembly.

article number	H mm	B mm	L mm	G kg
F				
BGU 80F	120	80	200	2,05

accessories included:

4 x SEM 12F	hexagon-nut, DIN 934	(page H41)
4 x US 13x24F	square washer, DIN 125	(page H39)
4 x SES 12x20F	hexagon head bolt, DIN 933	(page H38)

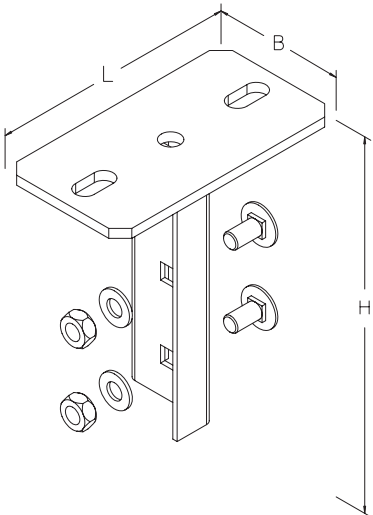


BGUQ head plate, profile U50

article number	H mm	B mm	L mm	G kg
F				
BGUQ 50F	156	80	150	0,86

accessories included:

2 x SEM 10F	hexagon-nut, DIN 934	(page H41)
2 x US 10x21F	square washer, DIN 125	(page H39)
2 x FRSV 10x20F	round-head screw with short square	(page H34)



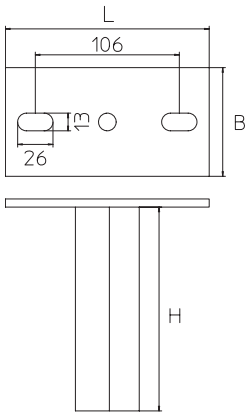
article number	H mm	B mm	L mm	G kg
E				
BGUQ 50E	156	80	150	0,86

accessories included:

2 x SEM 10E	hexagon-nut, DIN 934	(page H41)
2 x US 10x21E4	square washer, DIN 125	(page H40)
2 x US 10x21E	square washer, DIN 125	(page H40)
2 x FRSV 10x20E	round-head screw with short square	(page H35)

accessories optional:

SD	expansion anchor	(page H12)
-----------	------------------	------------



Support systems

KHU-system

BGUD head plate, profile U40/ U57/ U60

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	G kg
F				
BGUD F	125	80	200	1,30

accessories included:

2 x SES 10x20F	hexagon head bolt, DIN 933	(page H38)
2 x SEM 10F	hexagon-nut, DIN 934	(page H41)
2 x US 10x30F	square washer, DIN 9021	(page H40)

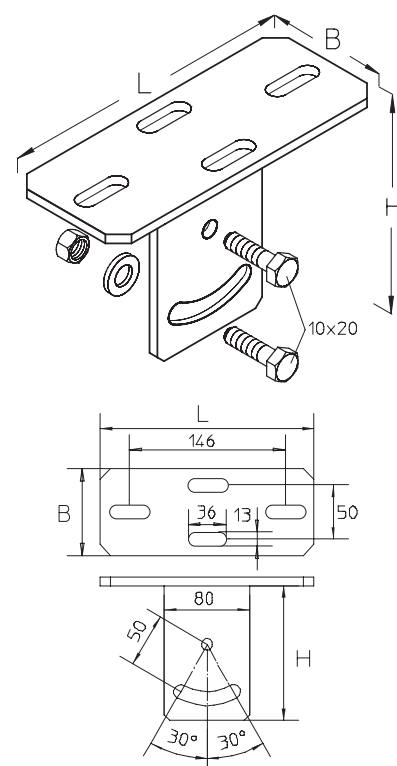
article number	H mm	B mm	L mm	G kg
E				
BGUD E	125	80	200	1,40

accessories included:

2 x SES 10x20E	hexagon head bolt, DIN 933	(page H38)
2 x SEM 10E	hexagon-nut, DIN 934	(page H41)
2 x US 10x30E	square washer, DIN 9021	(page H40)

accessories optional:

SD	expansion anchor	(page H12)
-----------	------------------	------------



BGUDW head plate, profile U40/ U57/ U60

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.

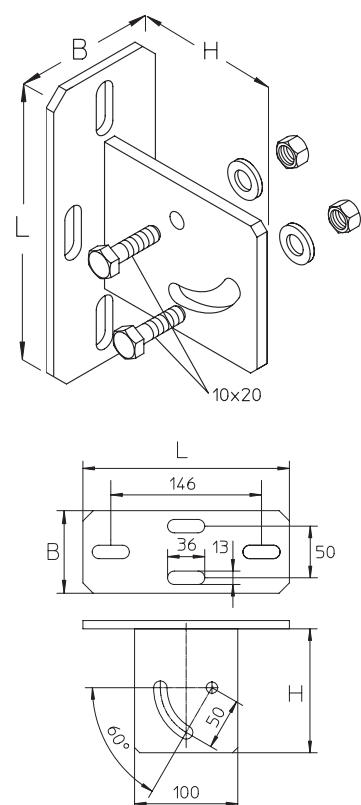
article number	H mm	B mm	L mm	G kg
F				
BGUDW F	120	80	200	1,40

accessories included:

2 x SES 10x20F	hexagon head bolt, DIN 933	(page H38)
2 x SEM 10F	hexagon-nut, DIN 934	(page H41)
2 x US 10x30F	square washer, DIN 9021	(page H40)

accessories optional:

SD	expansion anchor	(page H12)
-----------	------------------	------------



KHUV 40 coupler

article number	H mm	B mm	L mm	t mm	G kg
S					
KHUV 40S	45	32	210	2,5	0,45

accessories included:

4 x SEM 10	hexagon-nut, DIN 934	(page H41)
4 x US 10x21	square washer, DIN 125	(page H39)
4 x FRSV 10x20	round-head screw with short square	(page H34)

article number	H mm	B mm	L mm	t mm	G kg
F					
KHUV 40F	45	32	210	2,5	0,47

accessories included:

4 x SEM 10F	hexagon-nut, DIN 934	(page H41)
4 x US 10x21F	square washer, DIN 125	(page H39)
4 x FRSV 10x20F	round-head screw with short square	(page H34)

article number	H mm	B mm	L mm	t mm	G kg
E					
KHUV 40E	45	32	210	2,5	0,45

accessories included:

4 x SEM 10E	hexagon-nut, DIN 934	(page G41)
4 x US 10x21E	square washer, DIN 125	(page G40)
4 x FRSV 10x20E	round-head screw with short square	(page G35)

article number	H mm	B mm	L mm	t mm	G kg
E4					
KHUV 40E4	45	32	210	2,5	0,46

accessories included:

4 x SEM 10E4	hexagon-nut, DIN 934	(page H41)
4 x US 10x21E4	square washer, DIN 125	(page H40)
4 x FRSV 10x20E4	round-head screw with short square	(page H35)

KHUV 57 coupler

article number	H mm	B mm	L mm	t mm	G kg
S					
KHUV 57S	63	32,5	210	2,5	0,60

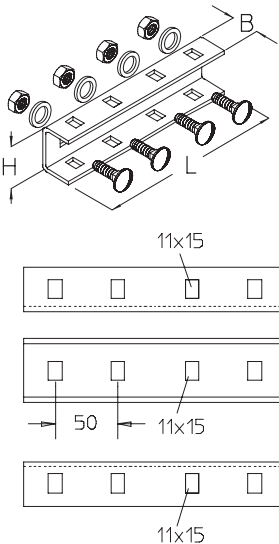
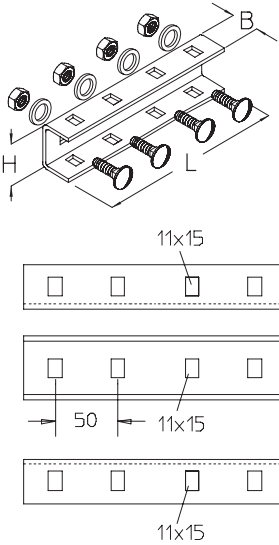
accessories included:

4 x SEM 10	hexagon-nut, DIN 934	(page H41)
4 x US 10x21	square washer, DIN 125	(page H39)
4 x FRSV 10x20	round-head screw with short square	(page H34)

article number	H mm	B mm	L mm	t mm	G kg
F					
KHUV 57F	63	32,5	210	2,5	0,63

accessories included:

4 x SEM 10F	hexagon-nut, DIN 934	(page H41)
4 x US 10x21F	square washer, DIN 125	(page H39)
4 x FRSV 10x20F	round-head screw with short square	(page H34)



KHUV 57 coupler

article number	H mm	B mm	L mm	t mm	G kg
E					
KHUV 57E	63	32,5	210	2,5	0,60

accessories included:

4 x SEM 10E	hexagon-nut, DIN 934	(page H41)
4 x US 10x21E	square washer, DIN 125	(page H40)
4 x FRSV 10x20E	round-head screw with short square	(page H35)

article number	H mm	B mm	L mm	t mm	G kg
E4					
KHUV 57E4	63	32,5	210	2,5	0,61

accessories included:

4 x SEM 10E4	hexagon-nut, DIN 934	(page H41)
4 x US 10x21E4	square washer, DIN 125	(page H40)
4 x FRSV 10x20E4	round-head screw with short square	(page H35)

KHUV 60 coupler, profile U60

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	G kg
F				
KHUV 60F	51	35	210	0,80

accessories included:

4 x KLS 10x20F	fixing set	(page H34)
-----------------------	------------	------------

article number	H mm	B mm	L mm	G kg
E				
KHUV 60E	51	35	210	0,89

E4				
KHUV 60E4	51	35	210	0,89

accessories included:

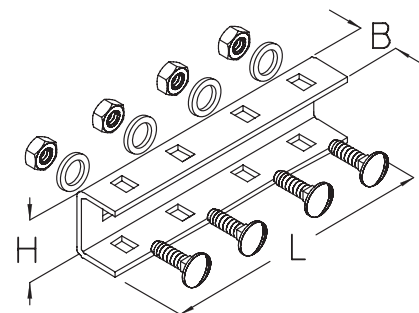
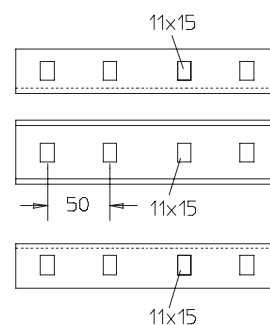
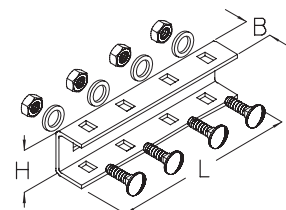
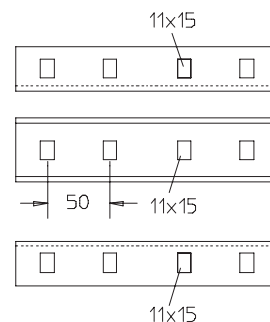
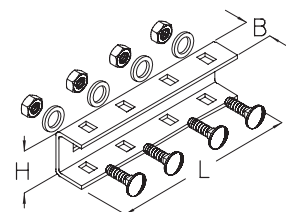
4 x KLS 10x20E	fixing set	(page H34)
-----------------------	------------	------------

KHUV 80 connector, KHU 80

article number	H mm	B mm	L mm	t mm	G kg
F					
KHUV 80F	69	54	310	4,00	1,92

accessories included:

6x SEM 12F	hexagon-nut, DIN 934	(page H41)
6x US 13x24F	square washer, DIN 125	(page H39)
6x FRS 12x30F	round-head screw with square, DIN 603	(page H35)

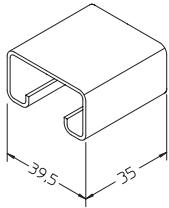


KHUSS 40 support piece

For an application example, see the chapter assembly.

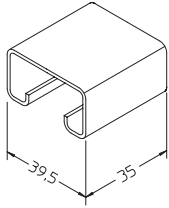
article number	G kg
S	
KHUSS 40S	0,11

- accessories included:
- 1 x **SEM 10** hexagon-nut, DIN 934 (page H41)
 - 2 x **US 10x21** square washer, DIN 125 (page H39)
 - 1 x **SES 10x75** hexagon head bolt, DIN 933 (page H37)



article number	G kg
F	
KHUSS 40F	0,11

- accessories included:
- 1 x **SEM 10F** hexagon-nut, DIN 934 (page H41)
 - 2 x **US 10x21F** square washer, DIN 125 (page H39)
 - 1 x **SES 10x75F** hexagon head bolt, DIN 933 (page H38)



article number	G kg
E	
KHUSS 40E	0,11

- accessories included:
- 1 x **SEM 10E** hexagon-nut, DIN 934 (page H41)
 - 2 x **US 10x21E** square washer, DIN 125 (page H40)
 - 1 x **SES 10x75E** hexagon head bolt, DIN 933 (page H38)

article number	G kg
E4	
KHUSS 40E4	0,11

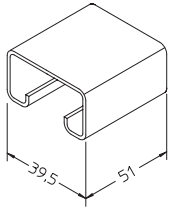
- accessories included:
- 1 x **SEM 10E4** hexagon-nut, DIN 934 (page H41)
 - 2 x **US 10x21E4** square washer, DIN 125 (page H40)
 - 1 x **SES 10x75E4** hexagon head bolt, DIN 933 (page H38)

KHUSS 57 support piece

For an application example, see the chapter assembly.

article number	G kg
S	
KHUSS 57S	0,14

- accessories included:
- 1 x **SEM 10** hexagon-nut, DIN 934 (page H41)
 - 2 x **US 10x21** square washer, DIN 125 (page H39)
 - 1 x **SES 10x100** hexagon head bolt, DIN 933 (page H37)



article number	G kg
F	
KHUSS 57F	0,14

- accessories included:
- 1 x **SEM 10F** hexagon-nut, DIN 934 (page H41)
 - 2 x **US 10x21F** square washer, DIN 125 (page H39)
 - 1 x **SES 10x100F** hexagon head bolt, DIN 933 (page H38)

Support systems

KHU-system

KHUSS 57 support piece

For an application example, see the chapter assembly.

article number	G kg
E	
KHUSS 57E	0,14

accessories included:

1 x SEM 10E	hexagon-nut, DIN 934	(page H41)
2 x US 10x21E	square washer, DIN 125	(page H40)
1 x SES 10x100E	hexagon head bolt, DIN 933	(page H38)

article number	G kg
E4	
KHUSS 57E4	0,14

accessories included:

1 x SEM 10E4	hexagon-nut, DIN 934	(page H41)
2 x US 10x21E4	square washer, DIN 125	(page H40)
1 x SES 10x100E4	hexagon head bolt, DIN 933	(page H38)

KHUSS 60 support piece

For an application example, see the chapter assembly.

article number	G kg
S	
KHUSS 60S	0,18

accessories included:

1 x SES 10x100	hexagon head bolt, DIN 933	(page H37)
2 x US 10x21	square washer, DIN 125	(page H39)
1 x SEM 10	hexagon-nut, DIN 934	(page H41)

article number	G kg
F	
KHUSS 60F	0,19

accessories included:

2 x US 10x21F	square washer, DIN 125	(page H39)
1 x SEM 10F	hexagon-nut, DIN 934	(page H41)
1 x SES 10x100F	hexagon head bolt, DIN 933	(page H38)

BL 4 corner angle, profile U50/ U60/ U100

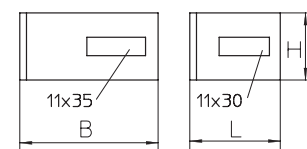
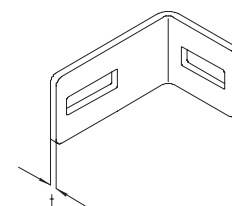
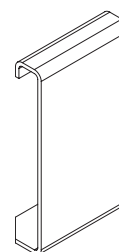
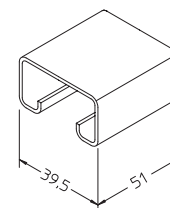
This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	G kg
F					
BL 4F	40	82,5	54	4	0,15
E					
BL 4E	40	82,5	54	4	0,15

accessories optional:

SD	expansion anchor	(page H12)
KLS	fixing set	(page H33)



Support systems

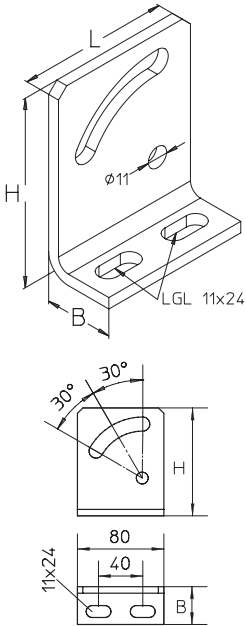
KHU-system

BLD adaptor diagonal

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	G kg
F				
BLD F	100	37	80	0,50

accessories optional:		
SD	expansion anchor	(page H12)
SES	hexagon head bolt, DIN 933	(page H37)
AM22	channel nut, A41/ KHA 41/ KHAL 41	(page H43)
AMF22	channel spring nut, A41	(page H43)
HS18	tee-head bolt, A7/ A8/ A9	(page H45)
AMF18	channel spring nut, A7/ A8	(page H45)



KB junction plate

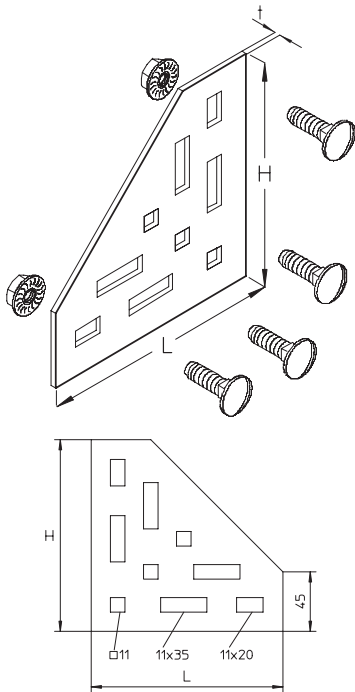
For an application example, see the chapter assembly.

article number	H mm	L mm	t mm	G kg
F				
KB F	150	150	3	0,40

accessories included:		
4 x KLS 10x20F	fixing set	(page H34)

article number	H mm	L mm	t mm	G kg
E				
KB E	150	150	2	0,40

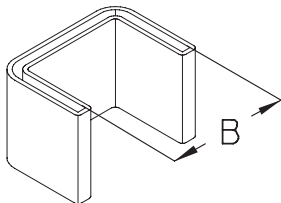
accessories included:		
4 x KLS 10x20E	fixing set	(page H34)



SU 40 protection end cap

article number	B mm	G kg
PE		
SU 40	44	0,01

accessories optional:		
KDU 40	bracket support, 40x30mm	(page F17)
KHU 40	bracket support, 40x30mm	(page F22)



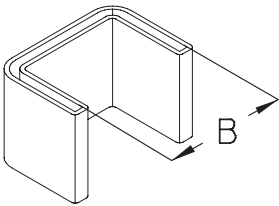
Support systems

KHU-system

SU 57 protection end cap

article number	B mm	G kg
PE		
SU 57	61	0,02

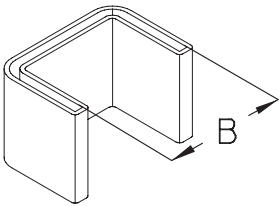
accessories optional:
KDU 57 bracket support, 57x30mm (page F19)
KHU 57 bracket support, 57x30mm (page F24)



SU 60 protection end cap, profile U60

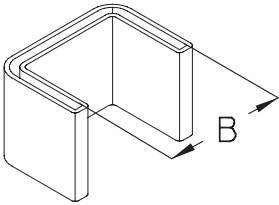
For an application example, see the chapter assembly.

article number	B mm	G kg
PE		
SU 60	64	0,02



SU 80 protection cap, KHU 80

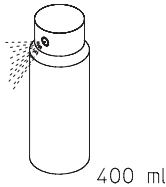
article number	B mm	G kg
PE		
SU 80	84	0.03



KZS cold zinc spray

For assembly instructions, see the chapter assembly.

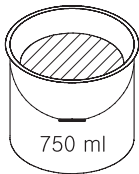
article number	I ml	G kg
KZS		
KZS	400	0,40



KZF cold zinc paint

For assembly instructions, see the chapter assembly.

article number	I ml	G kg
KZF		
KZF	750	1,93



KDI bracket support, heavy, profile I80

F_D/P : coefficient for calculation of the dowel load F_D with effective bracket load P respectively the sum of effective bracket loads.

For an application example, see the chapter assembly.

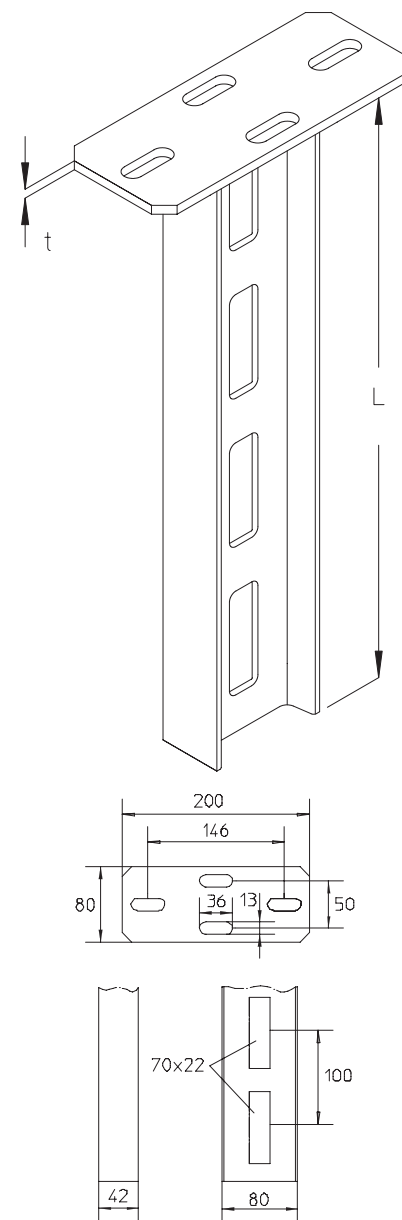
For assembly instructions, see the chapter assembly.



article number	L mm	t mm	G kg
F			
KDI 02F	200	6	1,90
KDI 03F	300	6	2,50
KDI 04F	400	6	3,00
KDI 05F	500	6	3,60
KDI 06F	600	6	4,20
KDI 07F	700	6	4,80
KDI 08F	800	6	5,40
KDI 09F	900	6	6,00
KDI 10F	1000	6	6,60
KDI 11F	1100	8	7,40
KDI 12F	1200	8	8,00
KDI 13F	1300	8	8,60
KDI 14F	1400	8	9,10
KDI 15F	1500	8	9,70
KDI 16F	1600	8	10,30
KDI 17F	1700	8	10,90
KDI 18F	1800	8	11,50
KDI 19F	1900	8	12,10
KDI 20F	2000	8	12,70
KDI 21F	2100	8	13,20
KDI 22F	2200	8	13,80
KDI 23F	2300	8	14,40
KDI 24F	2400	8	15,00
KDI 25F	2500	8	15,60
KDI 26F	2600	8	16,20
KDI 27F	2700	8	16,80
KDI 28F	2800	8	17,30
KDI 29F	2900	8	17,90
KDI 30F	3000	8	18,50

accessories optional:

KT	bracket, standard, profile I80	(page F40)
KTS	bracket, heavy, profile I80	(page F40)
KTSS	bracket, very heavy, profile I80	(page F41)
SD	expansion anchor	(page H12)
SI	protection end cap, yellow	(page F46)



Support systems

KHI-system

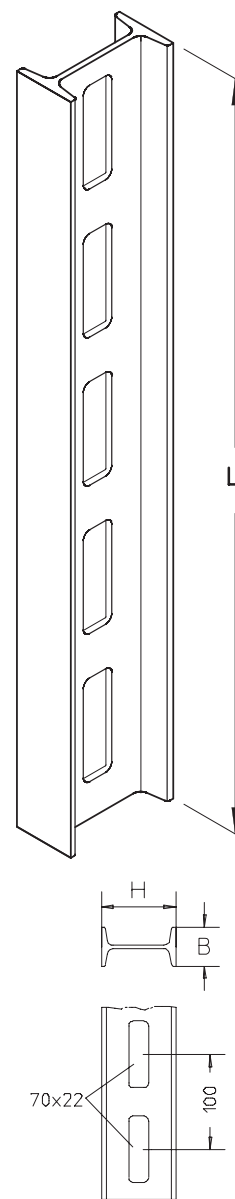
KHI bracket support, type KT

For an application example, see the chapter assembly.
For assembly instructions, see the chapter assembly.

article number	H mm	B mm	L mm	G kg
F				
KHI 02F	80	42	200	1,10
KHI 03F	80	42	300	1,70
KHI 04F	80	42	400	2,30
KHI 05F	80	42	500	2,90
KHI 06F	80	42	600	3,50
KHI 07F	80	42	700	4,10
KHI 08F	80	42	800	4,70
KHI 09F	80	42	900	5,30
KHI 10F	80	42	1000	5,90
KHI 11F	80	42	1100	6,40
KHI 12F	80	42	1200	7,10
KHI 13F	80	42	1300	7,60
KHI 14F	80	42	1400	8,20
KHI 15F	80	42	1500	8,80
KHI 16F	80	42	1600	9,40
KHI 17F	80	42	1700	10,00
KHI 18F	80	42	1800	10,60
KHI 19F	80	42	1900	11,10
KHI 20F	80	42	2000	11,70
KHI 21F	80	42	2100	12,30
KHI 22F	80	42	2200	12,90
KHI 23F	80	42	2300	13,50
KHI 24F	80	42	2400	14,10
KHI 25F	80	42	2500	14,60
KHI 26F	80	42	2600	15,20
KHI 27F	80	42	2700	15,80
KHI 28F	80	42	2800	16,30
KHI 29F	80	42	2900	16,90
KHI 30F	80	42	3000	17,50
KHI 60F	80	42	6000	35,10

accessories optional:

KT	bracket, standard, profile I80	(page F40)
KTSS	bracket, very heavy, profile I80	(page F41)
BL 7	corner angle	(page E23, F45)
BL 3	corner angle	(page F44)
BLI	corner angle	(page F45)
BGI	head plate, profile I80	(page E22, F41)
BGIQ	head plate, profile I80	(page E23, F42)
BGID	head plate, profile I80	(page F43)
HKI	support connector	(page E22, F43)
HKIW	support connector	(page F44)
HKIQ	support connector	(page F44)



Support systems

KHI-system

KT bracket, standard, profile I80

For an application example, see the chapter assembly.

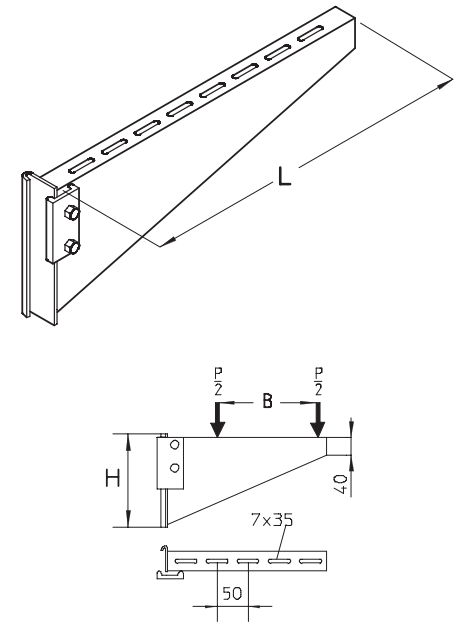
article number	H mm	B mm	L mm	P _{max} kN	G kg
F					
KT 010F	50	100	120	2,0	0,24
KT 020F	70	200	220	2,0	0,56
KT 030F	70	300	320	2,0	0,77
KT 040F	90	400	420	2,0	0,87
KT 050F	110	500	520	2,0	1,40
KT 060F	110	600	620	2,1	1,55

accessories optional:
KLU fixing set (page H07)
KLR fixing set (page H33)

KTS bracket, heavy, profile I80

article number	H mm	B mm	L mm	P _{max} kN	G kg
F					
KTS 020F	180	200	280	7,0	1,64
KTS 030F	180	300	380	6,3	2,00
KTS 040F	180	400	480	5,5	2,38
KTS 050F	180	500	580	4,9	2,74
KTS 060F	180	600	680	4,3	3,10
KTS 070F	180	600	780	3,6	3,47
KTS 080F	180	600	880	3,0	3,83
KTS 090F	180	600	980	2,3	4,19
KTS 100F	180	600	1080	1,7	4,56

accessories optional:
WPF-B flange mounting clamp (brackets) (page D34)
KLU fixing set (page G07)



Support systems

KHI-system

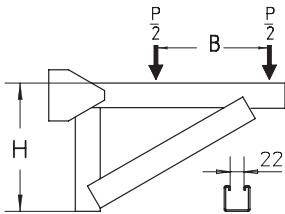
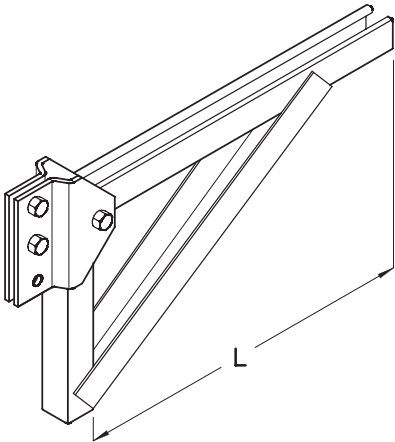
KTSS bracket, very heavy, profile I80

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	P _{max} kN	G kg
F					
KTSS 020F	100	200	280	12	2,94
KTSS 030F	135	300	380	12	3,53
KTSS 040F	165	400	480	12	4,12
KTSS 050F	200	500	580	12	4,71
KTSS 060F	230	600	680	12	6,34

accessories optional:

- WPF-C** flange mounting clamp (C-profiles) (page D35)
- WPF-B** flange mounting clamp (brackets) (page D34)



BGI head plate, profile I80

article also available with other inclinations
For an application example, see the chapter assembly.
For assembly instructions, see the chapter assembly.

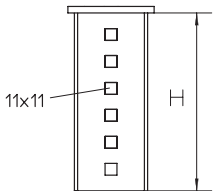
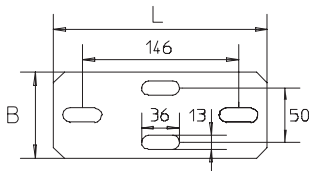
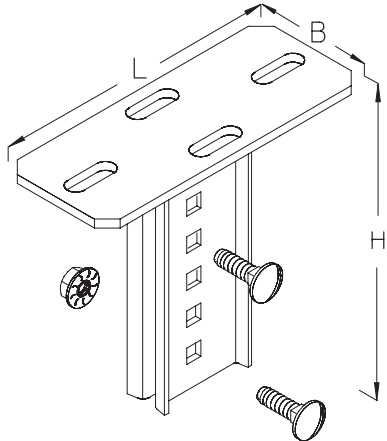
article number	H mm	B mm	L mm	G kg
F				
BGI F	165	80	200	1,40

accessories included:

- 2 x **FRS 10x30F** round-head screw with square, DIN 603 (page H35)
- 2 x **SEM 10F** hexagon-nut, DIN 934 (page H41)

accessories optional:

- SD** expansion anchor (page H12)



Support systems

KHI-system

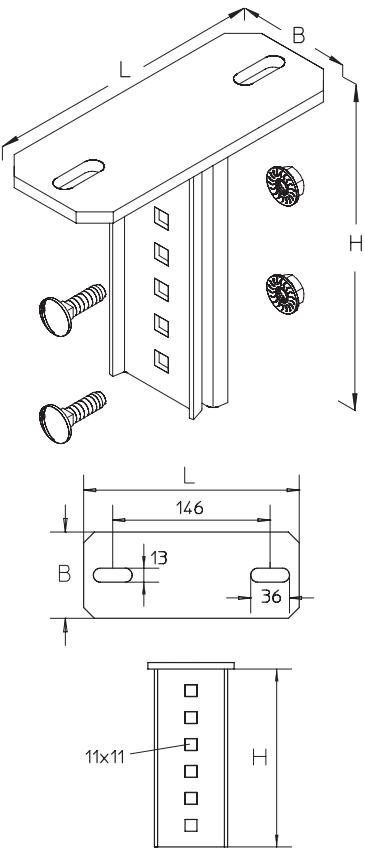
BGIQ head plate, profile I80

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	G kg
F				
BGIQ F	165	80	200	1,40

accessories included:
2 x **FRS 10x30F** round-head screw with square, DIN 603 (page H35)
2 x **SEM 10F** hexagon-nut, DIN 934 (page H41)

accessories optional:
SD expansion anchor (page H12)



Support systems

KHI-system

BGID head plate, profile I80

For an application example, see the chapter assembly.

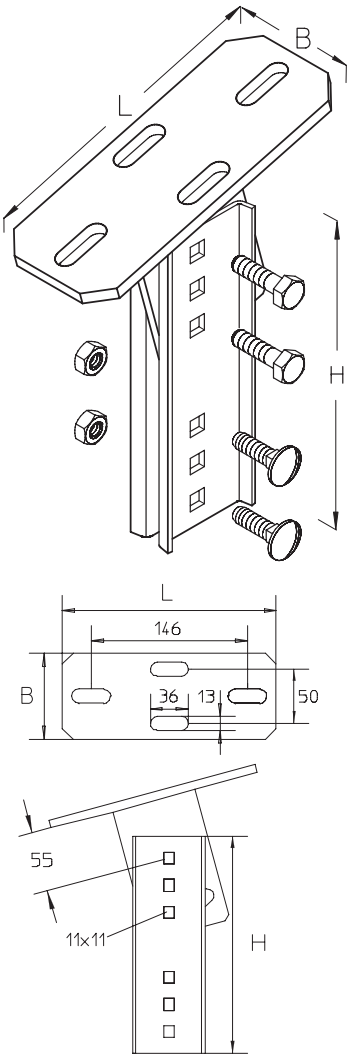
article number	H mm	B mm	L mm	G kg
F				
BGID F	200	80	200	2,30

accessories included:

- 2 x **FRS 10x30F** round-head screw with square, DIN 603 (page H35)
- 2 x **SES 10x30F** hexagon head bolt, DIN 933 (page H38)
- 4 x **SEM 10F** hexagon-nut, DIN 934 (page H41)

accessories optional:

- SD** expansion anchor (page H12)



HKI support connector

For an application example, see the chapter assembly.

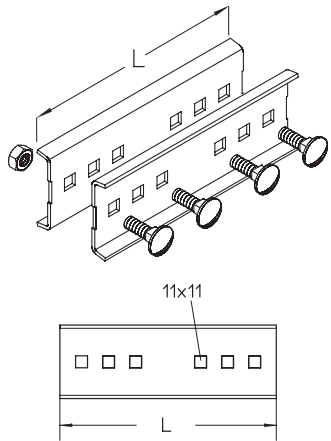
article number	L mm	G kg
F		
HKI F	200	1,00

accessories included:

- 4 x **FRS 10x30F** round-head screw with square, DIN 603 (page H35)
- 4 x **SEM 10F** hexagon-nut, DIN 934 (page H41)

accessories optional:

- SD** expansion anchor (page H12)



Support systems

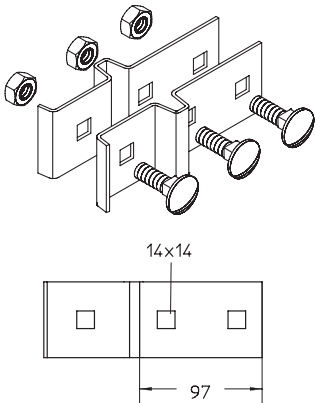
KHI-system

HKIW support connector

For an application example, see the chapter assembly.

article number	G kg
F	
HKIW F	1,00

accessories included:
3 x **FRS 12x30F** round-head screw with square, DIN 603 (page H35)
3 x **SEM 12F** hexagon-nut, DIN 934 (page H41)

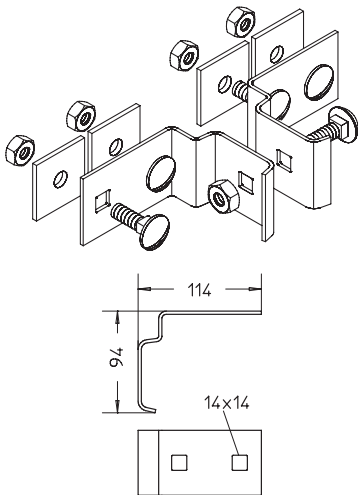


HKIQ support connector

For an application example, see the chapter assembly.

article number	G kg
F	
HKIQ F	1,20

accessories included:
5 x **FRS 12x30F** round-head screw with square, DIN 603 (page H35)
5 x **SEM 12F** hexagon-nut, DIN 934 (page H41)
4 x **RUS 50-L13F** square washer (page H42)

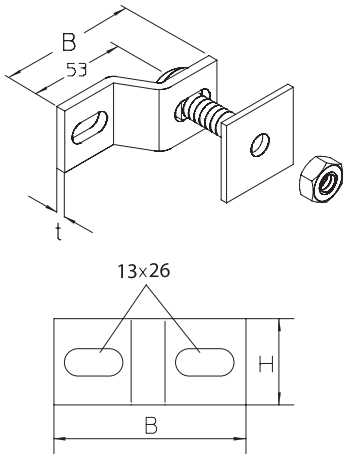


BL 3 corner angle

article number	H mm	B mm	t mm	G kg
F				
BL 3F	40	90	6	0,20

accessories included:
1 x **FRS 12x30F** round-head screw with square, DIN 603 (page H35)
1 x **SEM 12F** hexagon-nut, DIN 934 (page H41)
1 x **RUS 50-L13F** square washer (page H42)

accessories optional:
SD expansion anchor (page H12)



Support systems

KHI-system

BL 7 corner angle

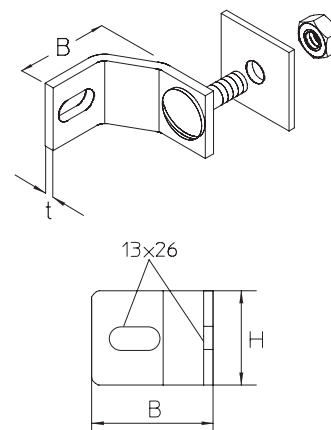
article number	H mm	B mm	t mm	G kg
F				
BL 7F	50	65	5	0,30

accessories included:

1 x FRS 12x30F	round-head screw with square, DIN 603	(page H35)
1 x SEM 12F	hexagon-nut, DIN 934	(page H41)
1 x RUS 50-L13F	square washer	(page H42)

accessories optional:

SD	expansion anchor	(page H12)
-----------	------------------	------------



BL 8 corner angle

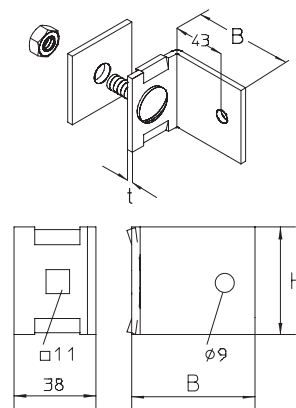
article number	H mm	B mm	t mm	G kg
F				
BL 8F	50	58	4	0,20

accessories included:

1 x FRS 10x30F	round-head screw with square, DIN 603	(page H35)
1 x SEM 10F	hexagon-nut, DIN 934	(page H41)
1 x RUS 50-L13F	square washer	(page H42)

accessories optional:

SD	expansion anchor	(page H12)
-----------	------------------	------------



BLI corner angle

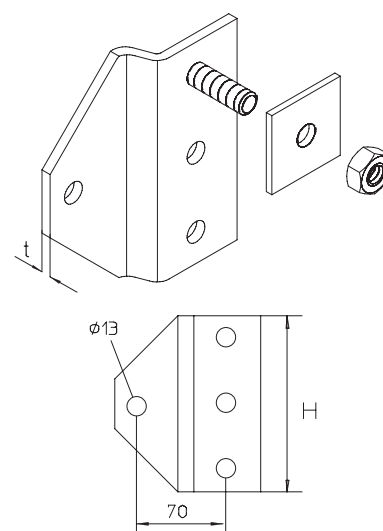
article number	H mm	t mm	G kg
F			
BLI F	140	6	0,80

accessories included:

1 x FRS 12x30F	round-head screw with square, DIN 603	(page H35)
1 x SEM 12F	hexagon-nut, DIN 934	(page H41)
1 x RUS 50-L13F	square washer	(page H42)

accessories optional:

SD	expansion anchor	(page H12)
-----------	------------------	------------

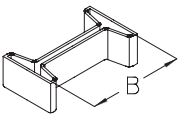


Support systems

KHI-system

SI protection end cap, yellow

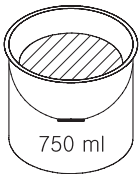
article number	B mm	G kg
PE		
SI	80	0,02



KZF cold zinc paint

For assembly instructions, see the chapter assembly.

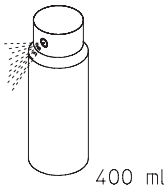
article number	I ml	G kg
KZF	750	1,93



KZS cold zinc spray

For assembly instructions, see the chapter assembly.

article number	I ml	G kg
KZS	400	0,40



KDAG 41 ceiling fixed bracket, profile 41

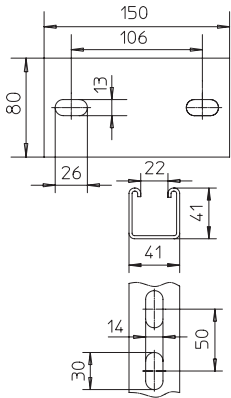
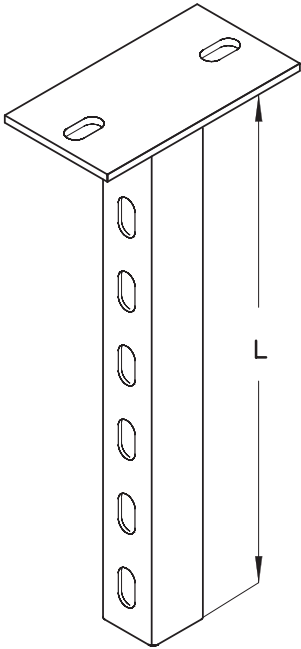
F_D/P : coefficient for calculation of the dowel load F_D with effective bracket load P respectively the sum of effective bracket loads.
For an application example, see the chapter assembly.
For assembly instructions, see the chapter assembly.



article number	L mm	G kg
F		
KDAG 41-02F	200	1,10
KDAG 41-03F	300	1,40
KDAG 41-04F	400	1,70
KDAG 41-05F	500	1,90
KDAG 41-06F	600	2,20
KDAG 41-07F	700	2,50
KDAG 41-08F	800	2,70
KDAG 41-09F	900	3,00
KDAG 41-10F	1000	3,20

accessories optional:

KA 30	bracket, light duty, profile 41	(page F49)
KA 41	bracket, standard, profile 41	(page F49)
SD	expansion anchor	(page H12)
AM22	channel nut, A41/ KHA 41/ KHAL 41	(page H43)
AMF22	channel spring nut, A41	(page H43)
SA 2	protection end cap	(page F55)

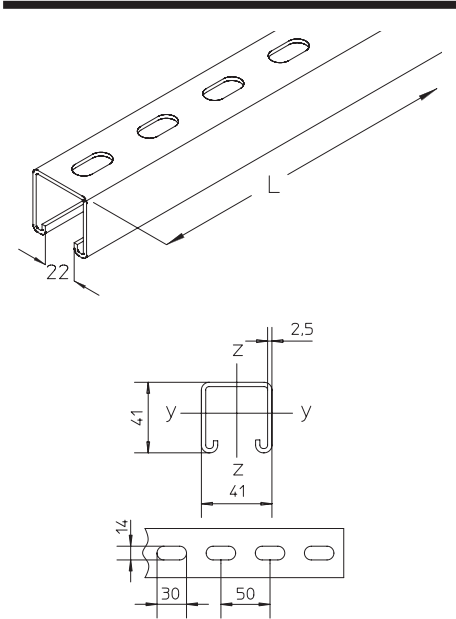


KHA 41 C-rail, perforated, 41x41 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.
For assembly instructions, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	G kg
F					
KHA 41-01F	41	41	100	2,5	0,30
KHA 41-02F	41	41	200	2,5	0,50
KHA 41-03F	41	41	300	2,5	0,80
KHA 41-04F	41	41	400	2,5	1,10
KHA 41-05F	41	41	500	2,5	1,30
KHA 41-06F	41	41	600	2,5	1,60
KHA 41-07F	41	41	700	2,5	1,90
KHA 41-08F	41	41	800	2,5	2,10
KHA 41-09F	41	41	900	2,5	2,40
KHA 41-10F	41	41	1000	2,5	2,60
KHA 41-11F	41	41	1100	2,5	2,90
KHA 41-12F	41	41	1200	2,5	3,20
KHA 41-13F	41	41	1300	2,5	3,40
KHA 41-14F	41	41	1400	2,5	3,70
KHA 41-15F	41	41	1500	2,5	4,00
KHA 41-20F	41	41	2000	2,5	5,30
KHA 41-30F	41	41	3000	2,5	7,90
KHA 41-60F	41	41	6000	2,5	15,90

- accessories optional:
- AM22 channel nut, A41/ KHA 41/ KHAL 41 (page H43)
 - AMF22 channel spring nut, A41 (page H43)
 - RUS 41 stabilization plate, KHA profiles (page H41)
 - SKS A beam clamp set (page H04)
 - SA 2 protection end cap (page F55)
 - SAI 41 protection end cap (page F55)



Support systems

KHA-system

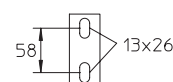
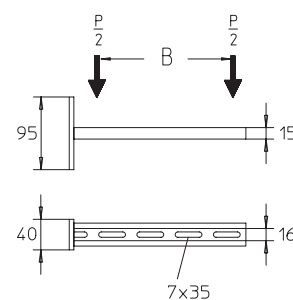
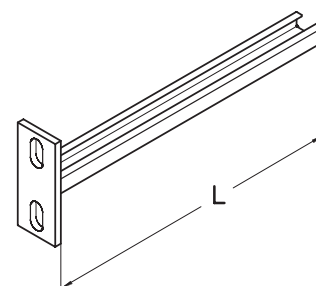
KA 30 bracket, light duty, profile 41

For an application example, see the chapter assembly.

article number	B mm	L mm	P _{max} kN	G kg
F				
KA 30-010F	100	125	0,5	0,20
KA 30-015F	150	175	0,5	0,30
KA 30-020F	200	225	0,5	0,30
KA 30-025F	250	275	0,5	0,40
KA 30-030F	300	325	0,5	0,40
KA 30-040F	400	425	0,5	0,50

accessories optional:

HS16	Tee-head bolt	(page H46)
AM16	channel nut, B7	(page H45)
KLR	fixing set	(page H33)



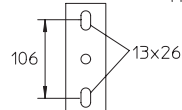
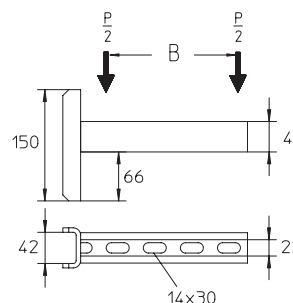
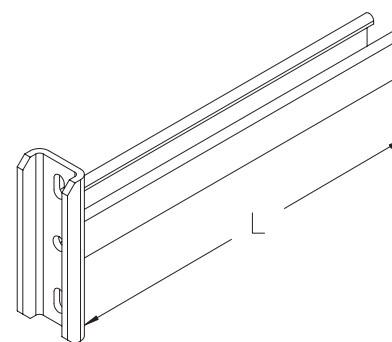
KA 41 bracket, standard, profile 41

For an application example, see the chapter assembly.

article number	B mm	L mm	P _{max} kN	G kg
F				
KA 41-010F	100	125	3,7	1,00
KA 41-015F	150	175	3,7	1,10
KA 41-020F	200	225	3,7	1,20
KA 41-025F	250	275	3,7	1,40
KA 41-030F	300	325	3,7	1,50
KA 41-040F	400	425	3,7	1,60
KA 41-050F	500	525	3,7	1,80
KA 41-060F	600	625	3,7	1,90

accessories optional:

AM22	channel nut, A41/ KHA 41/ KHAL 41	(page H43)
AMF22	channel spring nut, A41	(page H43)
SES	hexagon head bolt, DIN 933	(page H37)

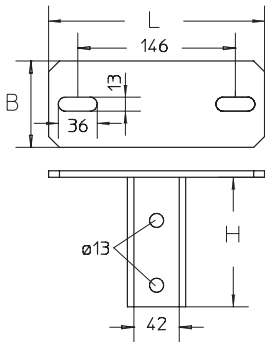
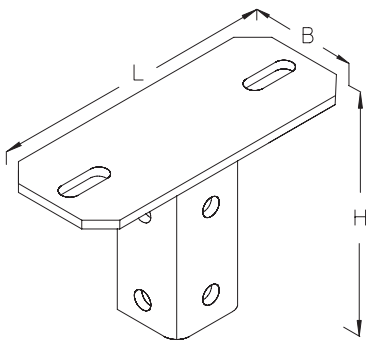


BGA 41 Mounting/ floor/ ceiling plate

For an application example, see the chapter assembly.
For assembly instructions, see the chapter assembly.

article number	H mm	B mm	L mm	G kg
F				
BGA 41F	120	80	200	1,20

accessories optional:		
SD	expansion anchor	(page H12)
SKLC M	beam clamp set	(page H06)
SES	hexagon head bolt, DIN 933	(page H37)
AMF22	channel spring nut, A41	(page H43)
AM22	channel nut, A41/ KHA 41/ KHAL 41	(page H43)

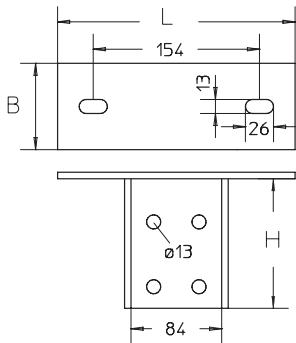
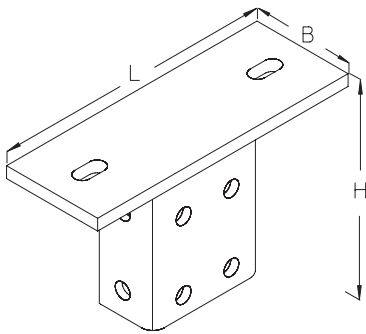


BGA 41/2 head plate, profile 41

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	G kg
F				
BGA 41/2F	120	80	220	1,80

accessories optional:		
SD	expansion anchor	(page H12)
SKLC M	beam clamp set	(page H06)
SES	hexagon head bolt, DIN 933	(page H37)
AMF22	channel spring nut, A41	(page H43)
AM22	channel nut, A41/ KHA 41/ KHAL 41	(page H43)



Support systems

KHA-system

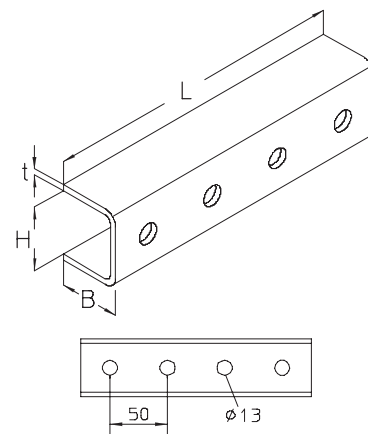
AV coupler for KHA-profile

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	G kg
F					
AV 41F	42	40	200	4	0,70

accessories optional:

AMF22	channel spring nut, A41	(page H43)
AM22	channel nut, A41/ KHA 41/ KHAL 41	(page H43)
US 125	square washer, DIN 125	(page H39)
IK	hexagon socket head screw, DIN 912	(page H36)
SEM	hexagon-nut, DIN 934	(page H41)

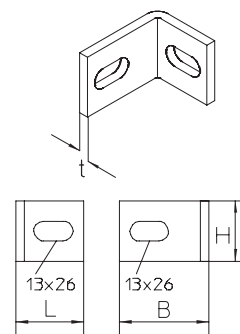


BL 5 corner angle

article number	H mm	B mm	L mm	t mm	G kg
F					
BL 5F	40	45	60	6	0,20

accessories optional:

SD	expansion anchor	(page H12)
SES	hexagon head bolt, DIN 933	(page H37)
AM22	channel nut, A41/ KHA 41/ KHAL 41	(page H43)
AMF22	channel spring nut, A41	(page H43)
HS18	tee-head bolt, A7/ A8/ A9	(page H45)
AMF18	channel spring nut, A7/ A8	(page H45)
AM18	channel nut, A7/ A8	(page H44)



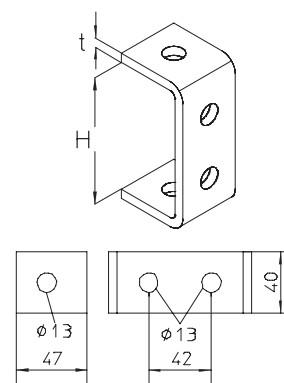
AKL rail clamp

For an application example, see the chapter assembly.

article number	H mm	t mm	G kg
F			
AKL 41F	84	6	0,30

accessories optional:

SES	hexagon head bolt, DIN 933	(page H37)
AM22	channel nut, A41/ KHA 41/ KHAL 41	(page H43)
AMF22	channel spring nut, A41	(page H43)



Support systems

KHA-system

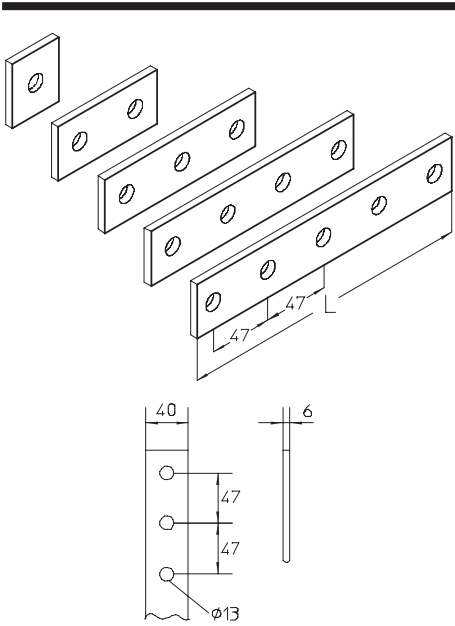
AVL fastening strip

For an application example, see the chapter assembly.

article number	B mm	L mm	t mm	G kg
F				
AVL-1F	40	42	6	0,07
AVL-2F	40	89	6	0,16
AVL-3F	40	136	6	0,24
AVL-4F	40	183	6	0,32
AVL-5F	40	230	6	0,40

accessories optional:

SES	hexagon head bolt, DIN 933	(page H37)
AM22	channel nut, A41/ KHA 41/ KHAL 41	(page H43)
AMF22	channel spring nut, A41	(page H43)



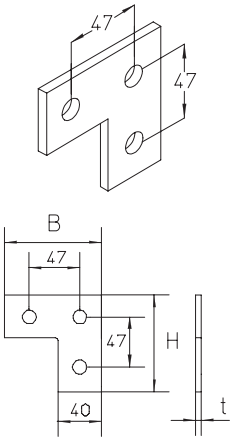
AVE corner connector 90°

For an application example, see the chapter assembly.

article number	B mm	L mm	t mm	G kg
F				
AVE F	90	90	6	0,27

accessories optional:

SES	hexagon head bolt, DIN 933	(page H37)
AM22	channel nut, A41/ KHA 41/ KHAL 41	(page H43)
AMF22	channel spring nut, A41	(page H43)



Support systems

KHA-system

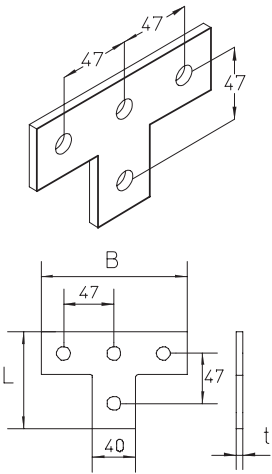
AVA corner connector T-piece

For an application example, see the chapter assembly.

article number	B mm	L mm	t mm	G kg
F				
AVA F	136	90	6	0,36

accessories optional:

SES	hexagon head bolt, DIN 933	(page G37)
AM22	channel nut, A41/ KHA 41/ KHAL 41	(page G43)
AMF22	channel spring nut, A41	(page G43)



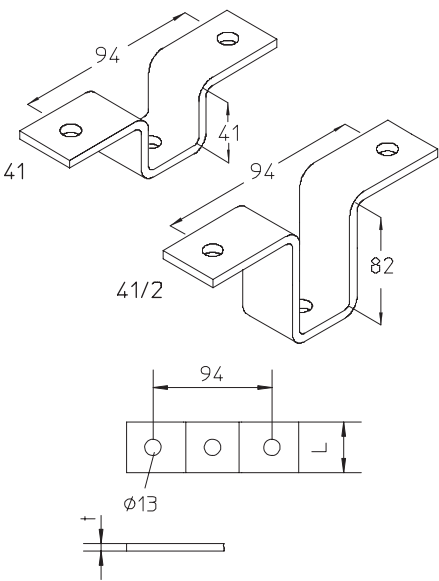
AVB rail coupler U support

For an application example, see the chapter assembly.

article number	H mm	t mm	G kg
F			
AVB 41F	40	6	0,44
AVB 41/2F	40	6	0,48

accessories optional:

SES	hexagon head bolt, DIN 933	(page H37)
AM22	channel nut, A41/ KHA 41/ KHAL 41	(page H43)
AMF22	channel spring nut, A41	(page H43)



Support systems

KHA-system

AVLW corner connector 90°

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	G kg
F					
AVLW 1-1F	40	42	58	6	0,17
AVLW 1-2F	40	42	106	6	0,26
AVLW 1-3F	40	58	136	6	0,36
AVLW 2-2F	40	89	106	6	0,44

- accessories optional:

SES

hexagon head bolt, DIN 933

(page H37)

AM22

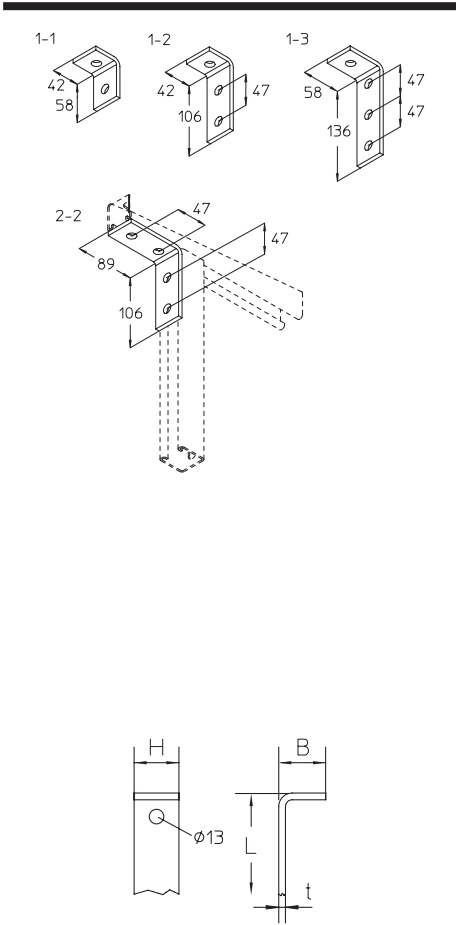
channel nut, A41/ KHA 41/ KHAL 41

(page H43)

AMF22

channel spring nut, A41

(page H43)



AVAW corner connector left / center / right

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	G kg
F					
AVAW-L F	90	98	48	6	0,36
AVAW-M F	51	136	52	6	0,36
AVAW-R F	90	98	48	6	0,36

- accessories optional:

SES

hexagon head bolt, DIN 933

(page H37)

AM22

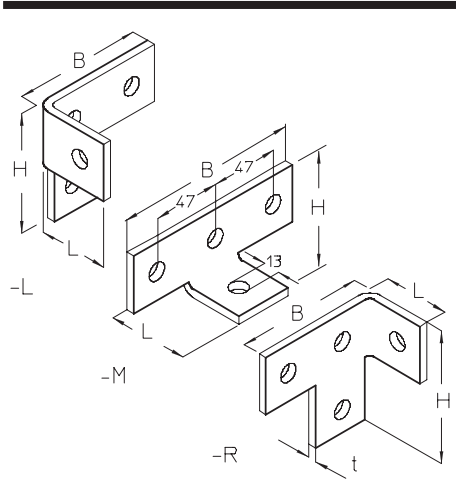
channel nut, A41/ KHA 41/ KHAL 41

(page H43)

AMF22

channel spring nut, A41

(page H43)



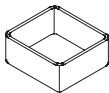
SA 1 protection end cap

article number	G kg
PE	
SA 1	0,01



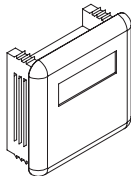
SA 2 protection end cap

article number			G
			kg
PE			
SA 2			0,01



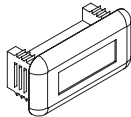
SAI 41 protection end cap

article number		colour	G
			kg
PE			
SAI 41-S		black	0,01
SAI 41-W		white	0,01
SAI 41-Y		yellow	0,01



SAI 21 protection end cap

article number		colour	G
			kg
PE			
SAI 21-S		black	0,01
SAI 21-W		white	0,01
SAI 21-Y		yellow	0,01



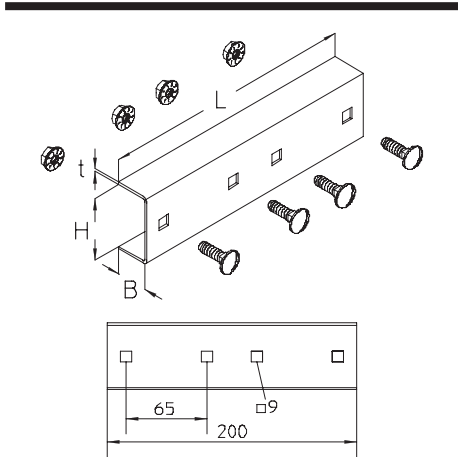
ASK 4 coupler for KHA-profile

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	G kg
F					
ASK 4	49	24	200	2	0,31

accessories included:

4 x **FRS 8x20E** round-head screw with square, DIN 603 (page H35)
4 x **SEMS 8E** hexagon nut, self-locking, DIN 6923 (page H41)



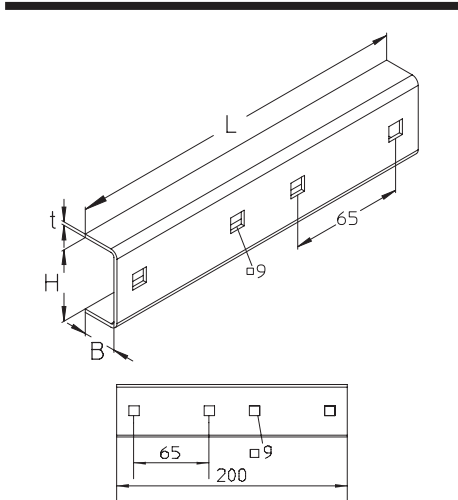
ASK 8 coupler for KHA-profile

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	G kg
F					
ASK 8	41	19	200	2	0,25

accessories included:

4 x **FRS 8x20E** round-head screw with square, DIN 603 (page H35)
4 x **SEMS 8E** hexagon nut, self-locking, DIN 6923 (page H41)

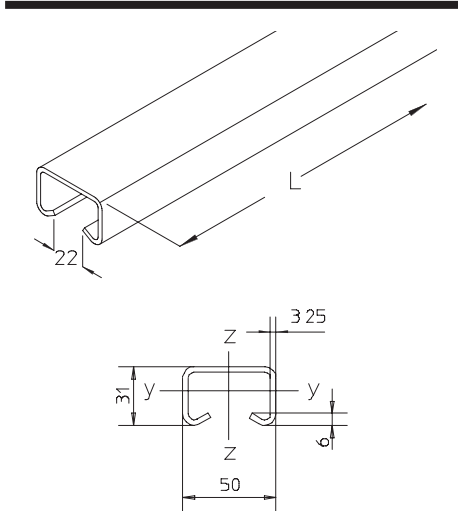


A 2 C-rail, not perforated, 50x31 mm

article number	H mm	B mm	L mm	t mm	G kg
B					
A 2-30B	31	50	3000	3,25	8,80
A 2-60B	31	50	6000	3,25	17,60
F					
A 2-30F	31	50	3000	3,25	9,40
A 2-60F	31	50	6000	3,25	18,80

accessories optional:

HS22 tee-head bolt, A2/ A4 (page H43)
SKS H beam clamp set (page H03)



Support systems

Anchor-rails

KHA 2 C-rail, perforated, 50x31 mm

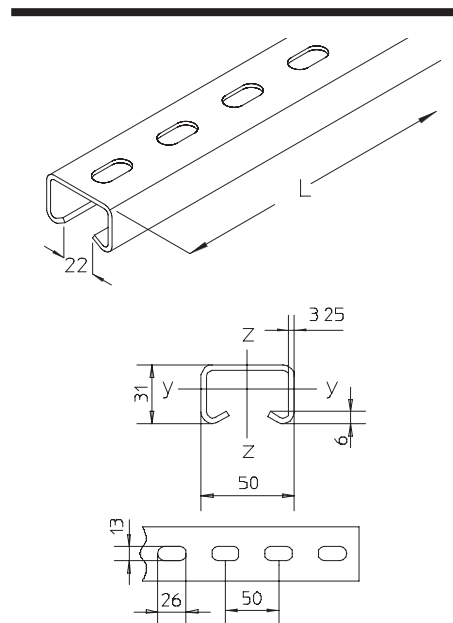
For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	G kg
F					
KHA 2-05F	31	50	500	3,25	1,50
KHA 2-10F	31	50	1000	3,25	3,00
KHA 2-15F	31	50	1500	3,25	4,50
KHA 2-20F	31	50	2000	3,25	6,00
KHA 2-30F	31	50	3000	3,25	9,00
KHA 2-60F	31	50	6000	3,25	17,90

accessories optional:

HS22 tee-head bolt, A2/ A4 (page H43)

SKS H beam clamp set (page H03)

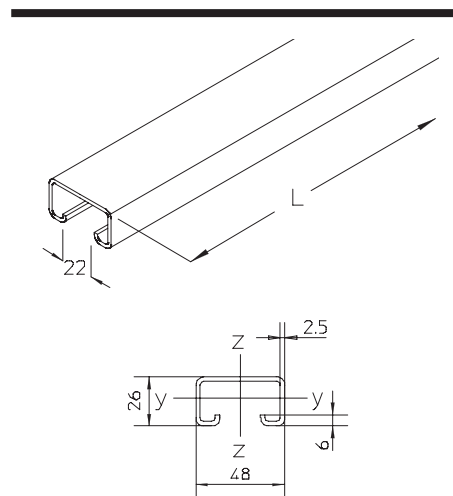


A 4 C-rail, not perforated, 48x26 mm

article number	H mm	B mm	L mm	t mm	G kg
B					
A 4-30B	26	48	3000	2,5	6,70
A 4-60B	26	48	6000	2,5	13,40
F					
A 4-30F	26	48	3000	2,5	7,20
A 4-60F	26	48	6000	2,5	14,40

accessories optional:

HS22 tee-head bolt, A2/ A4 (page H43)

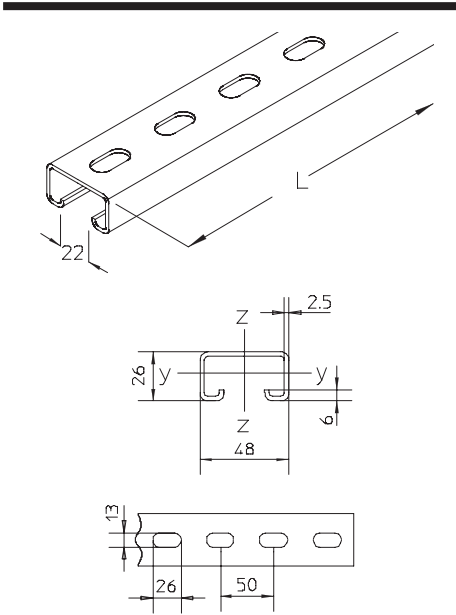


Support systems
Anchor-rails

KHA 4 C-rail, perforated, 48x26 mm

article number	H mm	B mm	L mm	t mm	G kg
F					
KHA 4-30F	26	48	3000	2,5	6,80
KHA 4-60F	26	48	6000	2,5	13,60

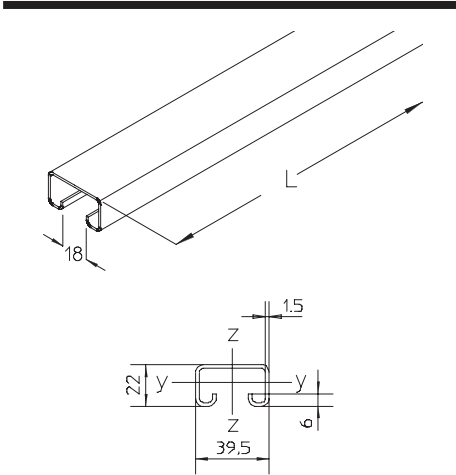
accessories optional:
HS22 tee-head bolt, A2/ A4 (page H43)



A 7 C-rail, not perforated, 40x22 mm

article number	H mm	B mm	L mm	t mm	G kg
S					
A 7-30S	22	39,5	3000	1,5	3,90
A 7-60S	22	39,5	6000	1,5	7,80
E					
A 7-30E	22	39,5	3000	1,5	3,60
A 7-60E	22	39,5	6000	1,5	7,20

accessories optional:
HS18 tee-head bolt, A7/ A8/ A9 (page H45)
AM18 channel nut, A7/ A8 (page H44)
AMF18 channel spring nut, A7/ A8 (page H45)



Support systems

Anchor-rails

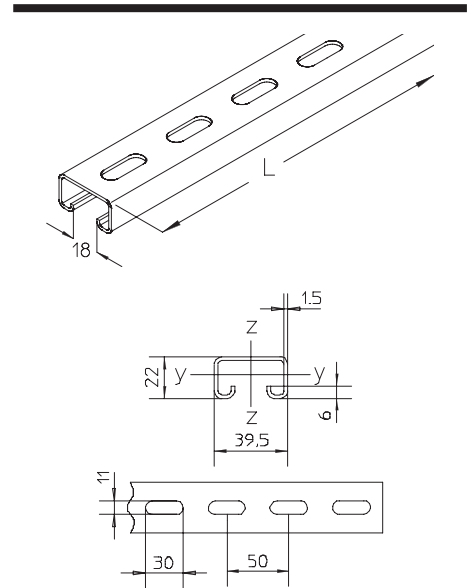
KHA 7 C-rail, perforated, 40x22 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

article number	H mm	B mm	L mm	t mm	G kg
S					
KHA 7-02S	22	39,5	200	1,5	0,20
KHA 7-03S	22	39,5	300	1,5	0,30
KHA 7-04S	22	39,5	400	1,5	0,40
KHA 7-05S	22	39,5	500	1,5	0,50
KHA 7-06S	22	39,5	600	1,5	0,60
KHA 7-07S	22	39,5	700	1,5	0,70
KHA 7-08S	22	39,5	800	1,5	0,80
KHA 7-09S	22	39,5	900	1,5	1,00
KHA 7-10S	22	39,5	1000	1,5	1,10
KHA 7-11S	22	39,5	1100	1,5	1,20
KHA 7-12S	22	39,5	1200	1,5	1,30
KHA 7-13S	22	39,5	1300	1,5	1,40
KHA 7-14S	22	39,5	1400	1,5	1,50
KHA 7-15S	22	39,5	1500	1,5	1,60
KHA 7-20S	22	39,5	2000	1,5	2,20
KHA 7-30S	22	39,5	3000	1,5	3,20
KHA 7-60S	22	39,5	6000	1,5	6,30
E					
KHA 7-01E	22	39,5	100	1,5	0,10
KHA 7-02E	22	39,5	200	1,5	0,20
KHA 7-03E	22	39,5	300	1,5	0,30
KHA 7-04E	22	39,5	400	1,5	0,40
KHA 7-05E	22	39,5	500	1,5	0,60
KHA 7-06E	22	39,5	600	1,5	0,70
KHA 7-07E	22	39,5	700	1,5	0,80
KHA 7-08E	22	39,5	800	1,5	0,90
KHA 7-09E	22	39,5	900	1,5	1,00
KHA 7-10E	22	39,5	1000	1,5	1,10
KHA 7-11E	22	39,5	1100	1,5	1,20
KHA 7-12E	22	39,5	1200	1,5	1,30
KHA 7-13E	22	39,5	1300	1,5	1,50
KHA 7-14E	22	39,5	1400	1,5	1,60
KHA 7-15E	22	39,5	1500	1,5	1,70
KHA 7-20E	22	39,5	2000	1,5	2,20
KHA 7-30E	22	39,5	3000	1,5	3,40
KHA 7-60E	22	39,5	6000	1,5	6,70

accessories optional:

HS18	tee-head bolt, A7/ A8/ A9	(page H45)
AM18	channel nut, A7/ A8	(page H44)
AMF18	channel spring nut, A7/ A8	(page H45)
ASK 8	coupler for KHA-profile	(page F56)
SA 1	protection end cap	(page F54)

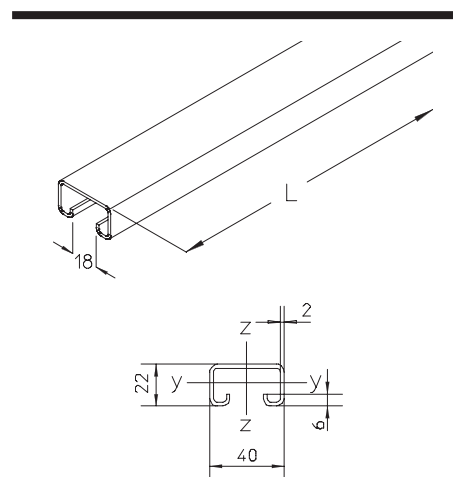


A 8 C-rail, not perforated, 40x22 mm

article number	H mm	B mm	L mm	t mm	G kg
B					
A 8-30B	22	40	3000	2	4,60
A 8-60B	22	40	6000	2	9,20
F					
A 8-30F	22	40	3000	2	5,00
A 8-60F	22	40	6000	2	9,90

accessories optional:

HS18	tee-head bolt, A7/ A8/ A9	(page H45)
AM18	channel nut, A7/ A8	(page H44)
AMF18	channel spring nut, A7/ A8	(page H45)



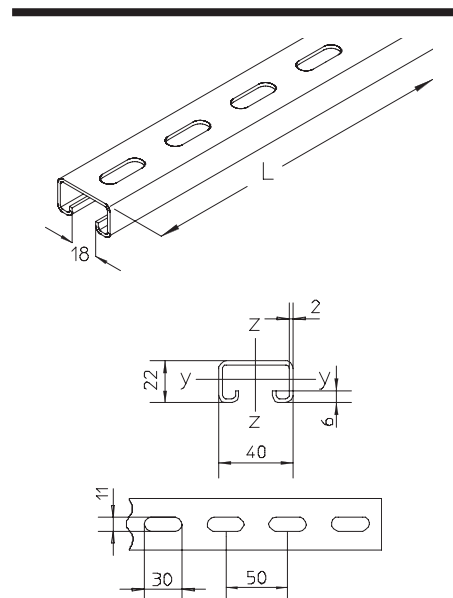
KHA 8 C-rail, perforated, 40x22 mm

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	G kg
F					
KHA 8-01F	22	40	100	2	0,20
KHA 8-02F	22	40	200	2	0,30
KHA 8-03F	22	40	300	2	0,50
KHA 8-04F	22	40	400	2	0,60
KHA 8-05F	22	40	500	2	0,80
KHA 8-06F	22	40	600	2	0,90
KHA 8-07F	22	40	700	2	1,10
KHA 8-08F	22	40	800	2	1,30
KHA 8-09F	22	40	900	2	1,40
KHA 8-10F	22	40	1000	2	1,60
KHA 8-11F	22	40	1100	2	1,70
KHA 8-12F	22	40	1200	2	1,90
KHA 8-13F	22	40	1300	2	2,00
KHA 8-14F	22	40	1400	2	2,20
KHA 8-15F	22	40	1500	2	2,40
KHA 8-20F	22	40	2000	2	3,10
KHA 8-30F	22	40	3000	2	4,70
KHA 8-60F	22	40	6000	2	9,40

accessories optional:

HS18	tee-head bolt, A7/ A8/ A9	(page H45)
AM18	channel nut, A7/ A8	(page H44)
AMF18	channel spring nut, A7/ A8	(page H45)
ASK 8	coupler for KHA-profile	(page F56)



Support systems

Anchor-rails

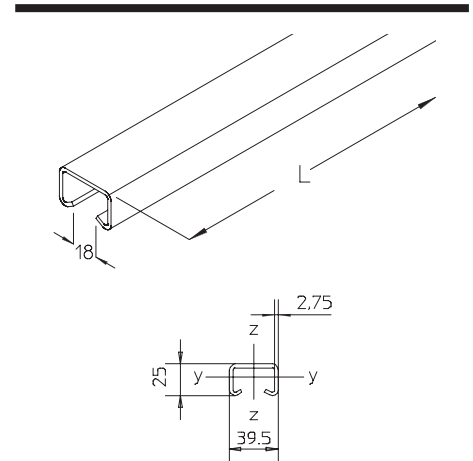
A 9 C-rail, not perforated, 40x25 mm

article number	H mm	B mm	L mm	t mm	G kg
B					
A 9-30B	25	39,5	3000	2,75	5,50
A 9-60B	25	39,5	6000	2,75	11,00
F					
A 9-30F	25	39,5	3000	2,75	5,90
A 9-60F	25	39,5	6000	2,75	11,80

accessories optional:

HS18 tee-head bolt, A7/ A8/ A9 (page H45)

AMA18 channel nut, A7/ A8 (page H44)



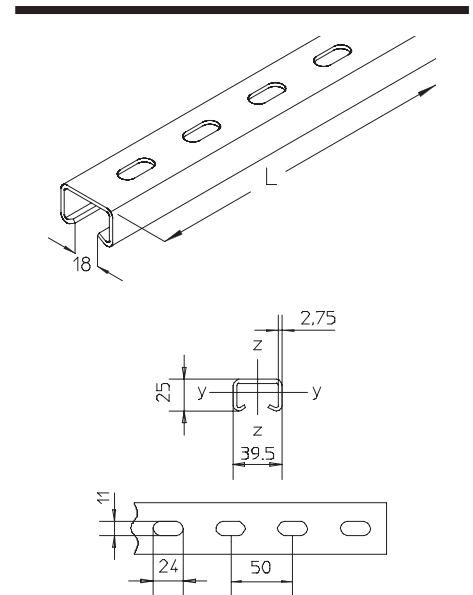
KHA 9 C-rail, perforated, 40x25 mm

article number	H mm	B mm	L mm	t mm	G kg
F					
KHA 9-02F	25	39,5	200	2,75	0,40
KHA 9-03F	25	39,5	300	2,75	0,60
KHA 9-04F	25	39,5	400	2,75	0,80
KHA 9-05F	25	39,5	500	2,75	0,90
KHA 9-06F	25	39,5	600	2,75	1,20
KHA 9-07F	25	39,5	700	2,75	1,40
KHA 9-08F	25	39,5	800	2,75	1,60
KHA 9-09F	25	39,5	900	2,75	1,80
KHA 9-10F	25	39,5	1000	2,75	1,90
KHA 9-11F	25	39,5	1100	2,75	2,10
KHA 9-12F	25	39,5	1200	2,75	2,30
KHA 9-13F	25	39,5	1300	2,75	2,40
KHA 9-14F	25	39,5	1400	2,75	2,60
KHA 9-15F	25	39,5	1500	2,75	2,80
KHA 9-20F	25	39,5	2000	2,75	3,70
KHA 9-30F	25	39,5	3000	2,75	5,60
KHA 9-60F	25	39,5	6000	2,75	11,20

accessories optional:

AMA18 channel nut, A7/ A8 (page H44)

HS18 tee-head bolt, A7/ A8/ A9 (page H45)

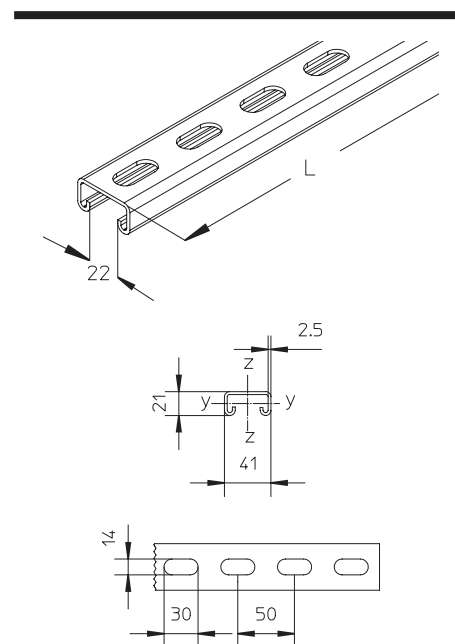


KHA 21 C-rail, perforated, 41x21 mm

article number	H mm	B mm	L mm	t mm	G kg
F					
KHA 21-30F	21	41	3000	2,5	5,30
KHA 21-60F	21	41	6000	2,5	10,60
E4					
KHA 21-30E4	21	41	3000	2,5	5,10
KHA 21-60E4	21	41	6000	2,5	10,10

accessories optional:

AM22	channel nut, A41/ KHA 41/ KHAL 41	(page H43)
RUS 41	stabilization plate, KHA profiles	(page H41)
SA 1	protection end cap	(page F54)
SAI 21	protection end cap	(page F55)

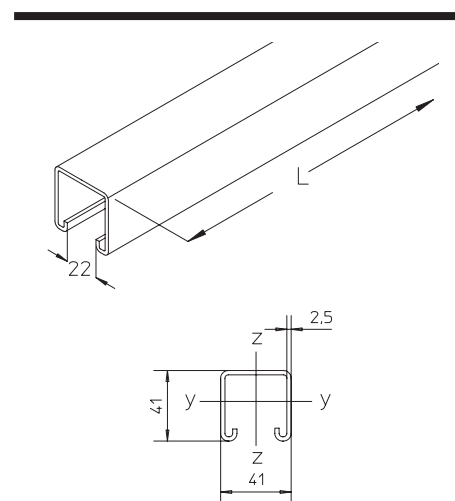


A 41 C-rail, not perforated, 41x41 mm

article number	H mm	B mm	L mm	t mm	G kg
B					
A 41-30B	41	41	3000	2,5	7,80
A 41-60B	41	41	6000	2,5	15,60
F					
A 41-30F	41	41	3000	2,5	8,30
A 41-60F	41	41	6000	2,5	16,60

accessories optional:

AM22	channel nut, A41/ KHA 41/ KHAL 41	(page H43)
AMF22	channel spring nut, A41	(page H43)



Support systems

Anchor-rails

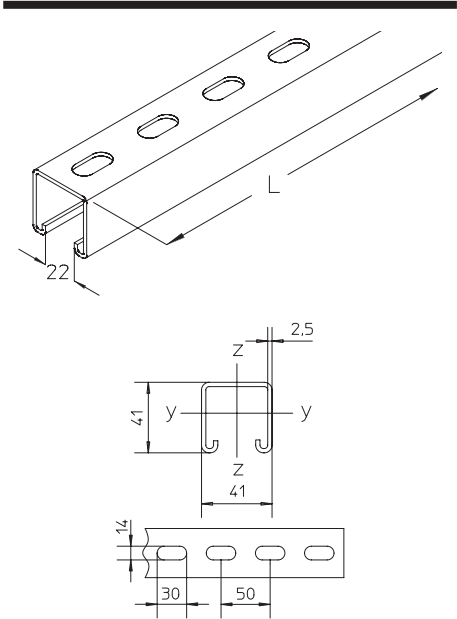
KHA 41 C-rail, perforated, 41x41 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
 For an application example, see the chapter assembly.
 For assembly instructions, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	G kg
F					
KHA 41-01F	41	41	100	2,5	0,30
KHA 41-02F	41	41	200	2,5	0,50
KHA 41-03F	41	41	300	2,5	0,80
KHA 41-04F	41	41	400	2,5	1,10
KHA 41-05F	41	41	500	2,5	1,30
KHA 41-06F	41	41	600	2,5	1,60
KHA 41-07F	41	41	700	2,5	1,90
KHA 41-08F	41	41	800	2,5	2,10
KHA 41-09F	41	41	900	2,5	2,40
KHA 41-10F	41	41	1000	2,5	2,60
KHA 41-11F	41	41	1100	2,5	2,90
KHA 41-12F	41	41	1200	2,5	3,20
KHA 41-13F	41	41	1300	2,5	3,40
KHA 41-14F	41	41	1400	2,5	3,70
KHA 41-15F	41	41	1500	2,5	4,00
KHA 41-20F	41	41	2000	2,5	5,30
KHA 41-30F	41	41	3000	2,5	7,90
KHA 41-60F	41	41	6000	2,5	15,90

accessories optional:

AM22	channel nut, A41/ KHA 41/ KHAL 41	(page H43)
AMF22	channel spring nut, A41	(page H43)
RUS 41	stabilization plate, KHA profiles	(page H41)
SKS A	beam clamp set	(page H04)
SA 2	protection end cap	(page F55)
SAI 41	protection end cap	(page F55)



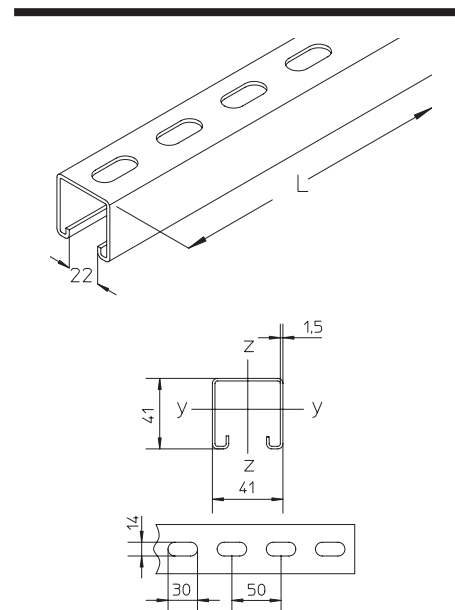
KHAL 41 C-rail, perforated, 41x41 mm

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	G kg
S					
KHAL 41-30S	41	41	3000	1,5	4,70
KHAL 41-60S	41	41	6000	1,5	9,40
F					
KHAL 41-05F	41	41	500	1,5	0,80
KHAL 41-10F	41	41	1000	1,5	1,70
KHAL 41-15F	41	41	1500	1,5	2,50
KHAL 41-20F	41	41	2000	1,5	3,30
KHAL 41-30F	41	41	3000	1,5	5,00
KHAL 41-36F	41	41	3600	1,5	6,01
KHAL 41-60F	41	41	6000	1,5	10,00

accessories optional:

AM22 channel nut, A41/ KHA 41/ KHAL 41 (page H43)
AMF22 channel spring nut, A41 (page H43)



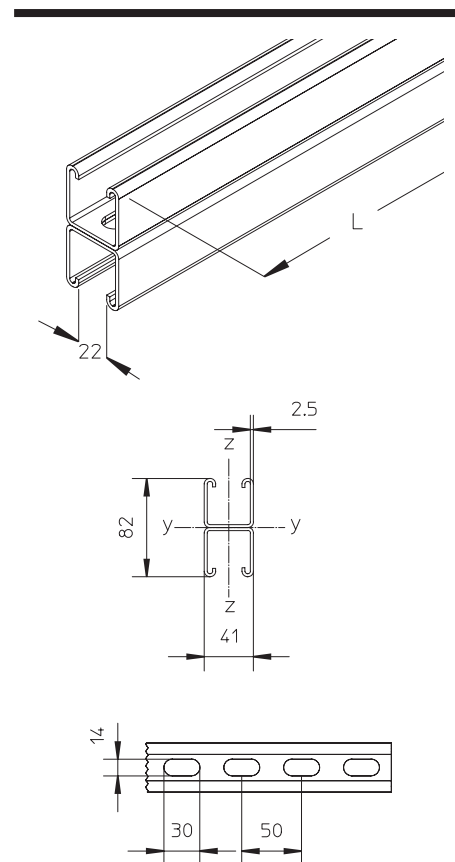
KHA 82 C-rail, perforated, 41x82 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

article number	H mm	B mm	L mm	t mm	G kg
F					
KHA 82-60F	82	41	6000	2,5	31,80

accessories optional:

AM22 channel nut, A41/ KHA 41/ KHAL 41 (page H43)
AMF22 channel spring nut, A41 (page H43)
RUS 41 stabilization plate, KHA profiles (page H41)



Support systems

Anchor-rails

KHA 42 C-rail, perforated, 41x42 mm

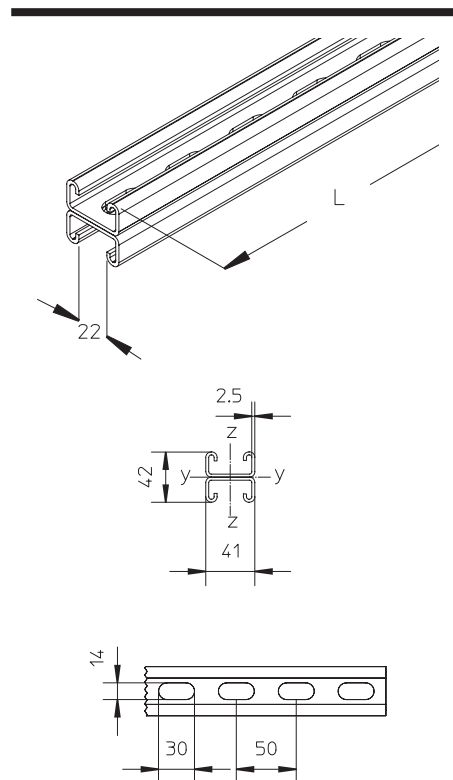
This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

article number	H mm	B mm	L mm	t mm	G kg
F					
KHA 42-60F	42	41	6000	2,5	20,70

accessories optional:

AM22 channel nut, A41/ KHA 41/ KHAL 41 (page H43)

RUS 41 stabilization plate, KHA profiles (page H41)



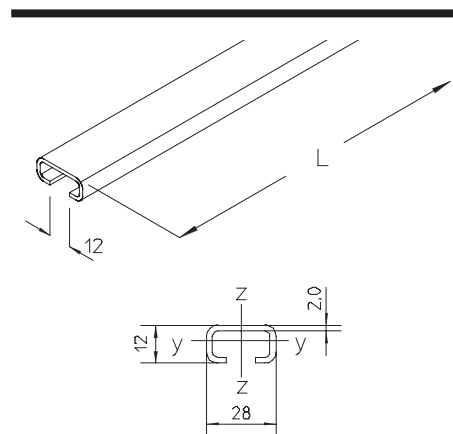
B 3 profile rail, not perforated, 28x12 mm

article number	H mm	B mm	L mm	t mm	G kg
B					
B 3-30B	12	28	3000	2	2,50
B 3-60B	12	28	6000	2	5,00
F					
B 3-30F	12	28	3000	2	2,70
B 3-60F	12	28	6000	2	5,30
E4					
B 3-30E4	12	28	3000	2	2,50
B 3-60E4	12	28	6000	2	5,00

accessories optional:

HS12 Tee-head bolt (page H46)

AM12 channel nut, B3/ B6 (page H46)



Support systems

Anchor-rails

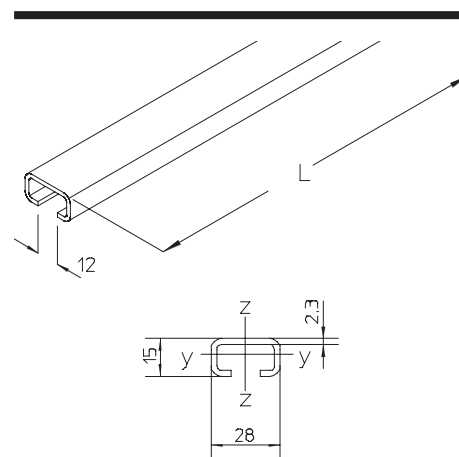
B 6 profile rail, not perforated, 28x15 mm

article number	H mm	B mm	L mm	t mm	G kg
B					
B 6-30B	15	28	3000	2,3	3,10
B 6-60B	15	28	6000	2,3	6,30
F					
B 6-30F	15	28	3000	2,3	3,40
B 6-60F	15	28	6000	2,3	6,70
E					
B 6-30E	15	28	3000	2,3	3,10
B 6-60E	15	28	6000	2,3	6,30
E4					
B 6-30E4	15	28	3000	2,3	3,40
B 6-60E4	15	28	6000	2,3	6,30

accessories optional:

HS12 Tee-head bolt (page H46)

AM12 channel nut, B3/ B6 (page H46)



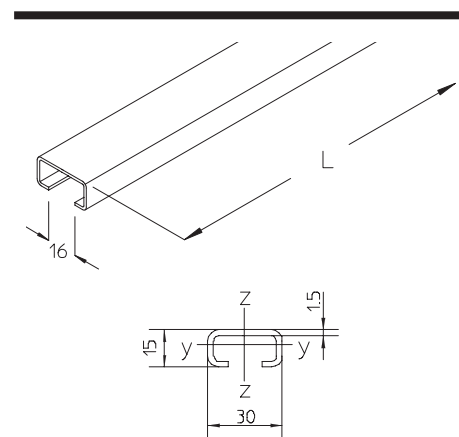
B 7 profile rail, not perforated, 30x15 mm

article number	H mm	B mm	L mm	t mm	G kg
B					
B 7-30B	15	30	3000	1,5	2,20
B 7-60B	15	30	6000	1,5	4,40
S					
B 7-30S	15	30	3000	1,5	2,30
B 7-60S	15	30	6000	1,5	4,50
F					
B 7-30F	15	30	3000	1,5	2,40
B 7-60F	15	30	6000	1,5	4,80
E					
B 7-30E	15	30	3000	1,5	2,20
B 7-60E	15	30	6000	1,5	4,40

accessories optional:

HS16 Tee-head bolt (page H46)

AM16 channel nut, B7 (page H45)



Support systems

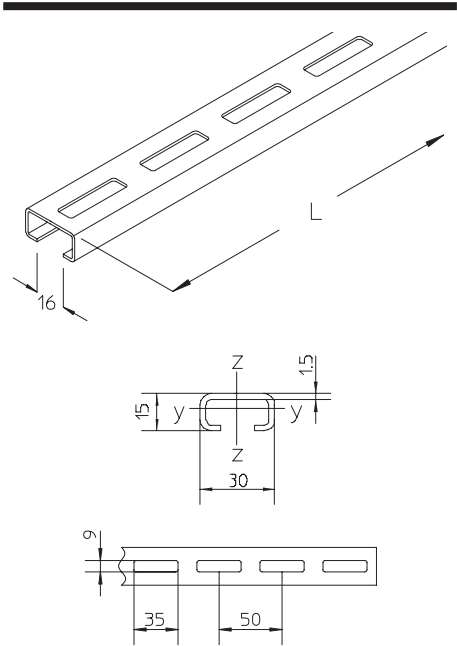
Anchor-rails

KHB 7 profile rail, perforated, 30x15 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

article number	H mm	B mm	L mm	t mm	G kg
S					
KHB 7-30S	15	30	3000	1,5	2,10
KHB 7-60S	15	30	6000	1,5	4,20
F					
KHB 7-30F	15	30	3000	1,5	2,30
KHB 7-60F	15	30	6000	1,5	4,60
E					
KHB 7-20E	15	30	2000	1,5	1,34
KHB 7-30E	15	30	3000	1,5	2,20
KHB 7-60E	15	30	6000	1,5	4,40

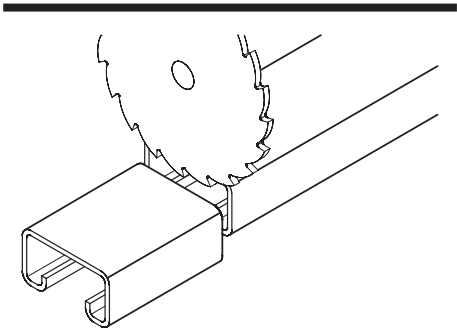
accessories optional:
HS16 Tee-head bolt (page H46)
AM16 channel nut, B7 (page H45)



PRS cut

For detailed explanations, see the chapter planning.

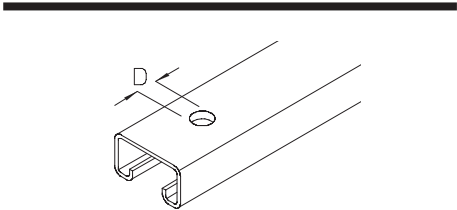
article number
PRS A
PRS B



RL round hole

For detailed explanations, see the chapter planning.

article number	D mm
RL 7	7
RL 9	9
RL 11	11
RL 13	13



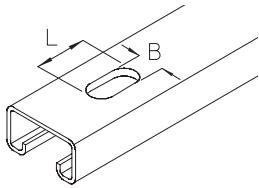
Support systems

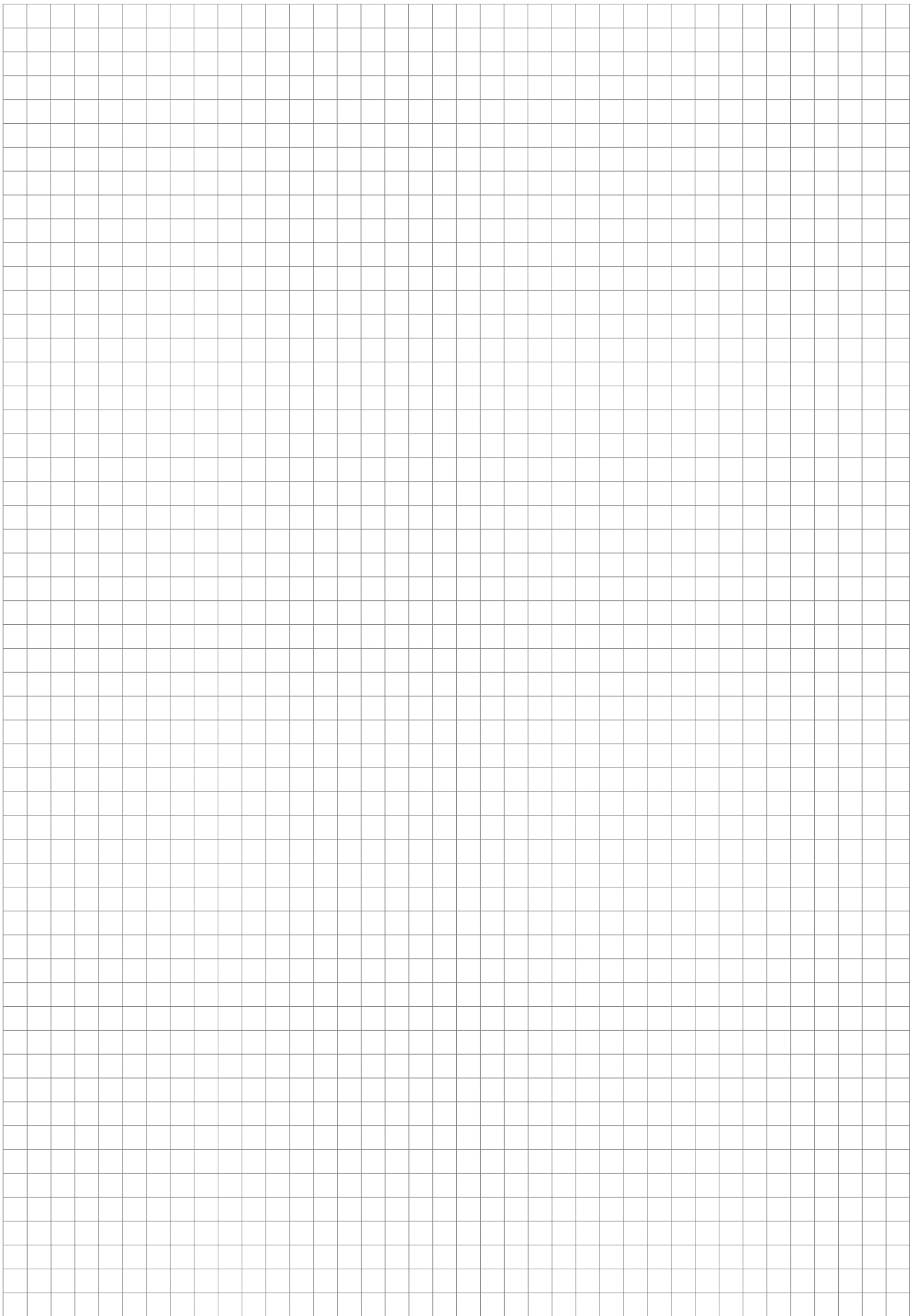
Anchor-rails

LGL elongated hole

For detailed explanations, see the chapter planning.

article number	B mm	L mm
LGL 7x10	7	10
LGL 9x20	9	20
LGL 11x24	11	24
LGL 13x26	13	26







STRUT Systems	G03-G26
Accessories	G27-G31

Numeric index

Fastenings

A

A 41 C-rail, not perforated, 41x41 mm [G05](#)
AKL 41 clamp [G12](#)
AM22 channel nut, A41/ KHA 41/ KHAL 41 [G31](#)
AMF22 channel spring nut, A41 [G31](#)
AMP 22 beam clamp incl. cone pointed bolt [G25](#)
AV 41 rail [G13](#)
AVA rail coupler branch-piece [G16](#)
AWA rail coupler angle [G18](#)
AVB 21 coupler, profile 21 [G16](#)
AVB 41 coupler, profile 41 [G16](#)
AVB 82 coupler, profile 82 [G17](#)
AVBD 41 coupler, 2x profile 41 [G20](#)
AVBL 21 angle for KHA 21 [G20](#)
AVBL 41 angle for KHA 41 [G21](#)
AVBL 82 angle for KHA 82 [G21](#)
AVBLA 41 angle for KHA 41 [G21](#)
AVE rail coupler corner [G14](#)
AVE-L rail connector, 90° left [G15](#)
AVE-R rail connector, 90° right [G15](#)
AVL rail coupler [G14](#)
AVL 60 rail connector 60° [G18](#)
AVLI-1 square washer [G19](#)
AVLK angle bracket 90° 6 holes [G12](#)
AVLW rail coupler bracket, rangular [G17](#)
AVLWB1-2 angle bracket 90° 4 holes [G11](#)
AVLWBF2-2 profile rail connector [G11](#)
AVLWBL1-2 angle bracket 90° 4 holes [G12](#)
AVRS beam clamp incl. cone pointed bolt [G24](#)
AVSK 21 beam clamps for KHA 21 [G22](#)
AVSK 41 beam clamps for KHA 41 [G22](#)
AVSK 82 beam clamps for KHA 41 [G22](#)
AVSKA beam clamps for KHA 41 [G23](#)
AVSKGB beam clamps for KHA 41 [G24](#)
AVSKH beam clamps for KHA 41 [G24](#)
AVSKP beam clamp [G25](#)
AVSKT beam clamps for KHA 41 [G25](#)
AVT rail coupler branch-piece [G13](#)

B

BGA 41 head plate, profile 41 [G09](#)
BGA 82 head plate, profile 82 [G10](#)
BGF 41 base holder, profile 41 [G10](#)
BGF 82 base holder, profile 82 [G10](#)
BL 5 corner angle [G12](#)
BLD adaptor diagonal [G11](#)

K

KHA 21 C-rail, perforated, 41x21 mm [G03](#)
KHA 41 C-rail, perforated, 41x41 mm [G04](#)
KHA 42 C-rail, perforated, 41x42 mm [G06](#)
KHA 82 C-rail, perforated, 41x82 mm [G06](#)
KHA 82-3 profile rail, perforated, 82x82 mm [G08](#)
KHA 82-4 profile rail, perforated, 82x82 mm [G08](#)
KHA 82-C profile rail, perforated, 41x82 mm [G07](#)
KHA 82-V profile rail, perforated, 41x82 mm [G07](#)
KHAD 22 cover, anchor-rail [G09](#)
KHAL 41 C-rail, perforated, 41x41 mm [G05](#)
KHAR 21 C-rail, perforated, 41x21 mm, serrated [G03](#)
KHAR 41 C-rail, perforated, 41x41 mm, serrated [G04](#)
KHAV 90 angel bracket 45° [G19](#)

M

MKD beam clamp – Mounting clamp made of steel [G26](#)

P

PSS channel socket [G27](#)

R

RUS 41 square washer [G30](#)
RUS 50 square washer [G31](#)

S

SAI 21 protection cap [G09](#)
SAI 41 protection cap [G09](#)
SD stud anchor [G27](#)
SEH hexagon wood screw [G28](#)
SEM hexagon-nut, DIN 934 [G29](#)
SES hexagon head bolt, DIN 933 [G28](#)
SESMS hexagon head bolt with tip [G29](#)

U

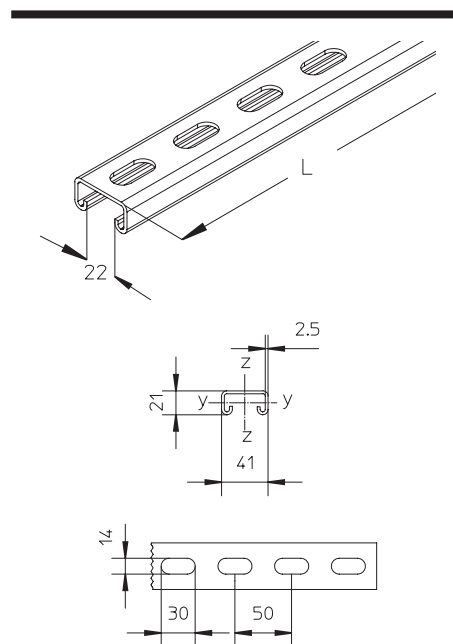
US 125 square washer, DIN 125 [G30](#)
US 9021 square washer, DIN 9021 [G30](#)

KHA 21 C-rail, perforated, 41x21 mm

article number	H mm	B mm	L mm	t mm	G kg
F					
KHA 21-60F	21	41	6000	2,5	10,64
E4					
KHA 21-60E4	21	41	6000	2,5	9,94

accessories optional:

AM22	channel nut, A41/ KHA 41/ KHAL 41	(page G31)
RUS 41	stabilization plate, KHA profiles	(page G30)
SA 1	protection end cap	(page F54)
SAI 21	protection end cap	(page G09)
AVB 21	connector, profile 21	(page G16)
AVBL 21	Z-mounting bracket	(page G20)
AVSK 21	clamp plate	(page G22)



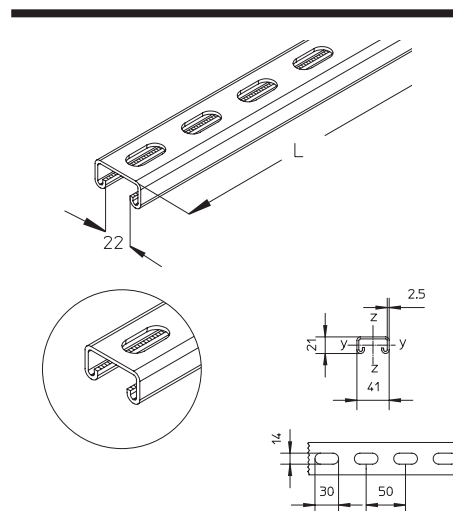
KHAR 21 profile rail, 41x21 mm, perforated, serrated

c-rail, as profile 41x21x2.5 mm, continuously perforated, slot size 22 mm serrated.

article number	H mm	B mm	L mm	t mm	G kg
E4					
KHAR 21-6000-316	21	42	6000	2.5	9.95

accessories optional:

AM22	channel nut, A 41, KHA 41, KHAL 41	(page G31)
RUS 41	washer U-shaped, A/KHA 21/41/42/82	(page G30)
SA 1	protection end cap	(page F54)
SAI 21	protection end cap	(page G09)



KHA 41 C-rail, perforated, 41x41 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).
For an application example, see the chapter assembly.
For assembly instructions, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	G kg
F					
KHA 41-6000-HDG	41	41	6000	2.5	15.60
E					
KHA 41-6000-304	41	41	6000	2.5	15.10
E4					
KHAR 41-6000-316	41	41	6000	2.5	15.28
PG					
KHAR 41-6000-PG	41	41	6000	2.5	15.00

accessories optional:

AM22	channel nut, A41/ KHA 41/ KHAL 41	(page G31)
AMF22	channel spring nut, A41	(page G31)
RUS 41	stabilization plate, KHA profiles	(page G30)
SKS A	beam clamp set	(page H04)
SA 2	protection end cap	(page F55)
SAI 41	protection end cap	(page G09)

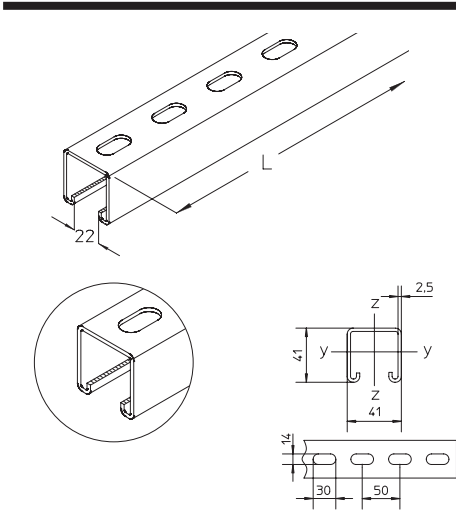
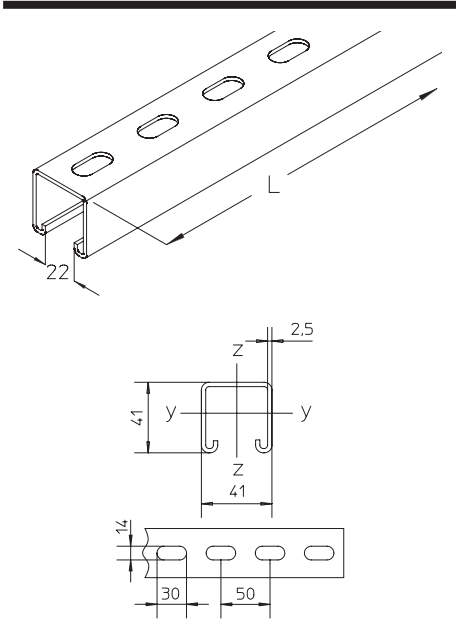
KHAR 41 profile rail, 41x21 mm, perforated, serrated

C-rail, as profile 41x41x2.5 mm, continuously perforated, slot size 22 mm serrated.

article number	H mm	B mm	L mm	t mm	G kg
E4					
KHAR 41-6000-316	41	41	6000	2.5	15.28

accessories optional:

AM22	channel nut, A 41, KHA 41, KHAL 41	(page G31)
AMF22	channel spring nut, A41, KHA 41, KHAL 41	(page G31)
RUS 41	washer U-shaped, A/KHA 21/41/42/82	(page G30)
SA 2	protection end cap	(page F55)
SAI 41	protection end cap	(page G09)



KHAL 41 C-rail, perforated, 41x41 mm

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	G kg
S					
KHAL 41-60S	41	41	6000	1,5	9,40
F					
KHAL 41-60F	41	41	6000	1,5	10,00
PG					
KHAL 41-60PG	41	41	6000	1,5	9,36

accessories optional:

- AM22** channel nut, A41/ KHA 41/ KHAL 41 (page G31)
SA 2 protection end cap (page F55)
AMF22 channel spring nut, A41 (page G31)

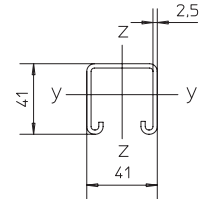
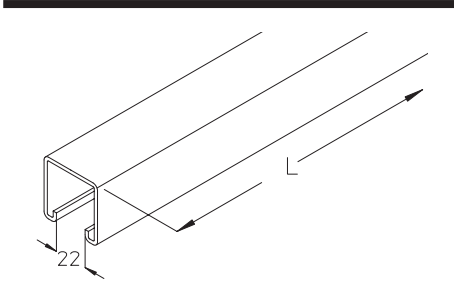
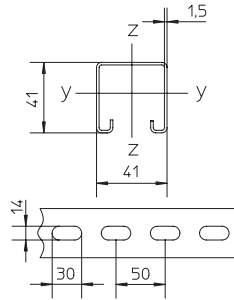
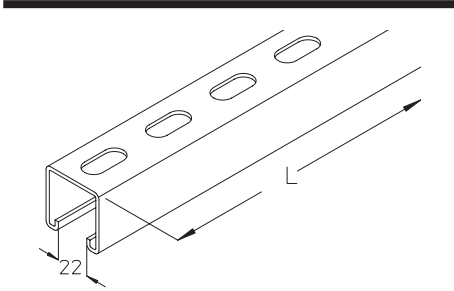
A 41 profile rail 41x41 mm, not perforated

profile rail 41x41x2,50 mm, without perforation, slot size 22 mm

article number	H mm	B mm	L mm	t mm	G kg
F					
A 41-6000-HDG	41	41	6000	2,5	16,63

accessories optional:

- AM22** channel nut, A 41, KHA 41, KHAL 41 (page G31)
SA 2 protection end cap (page F55)
AMF22 channel spring nut, A41, KHA 41, KHAL 41 (page G31)

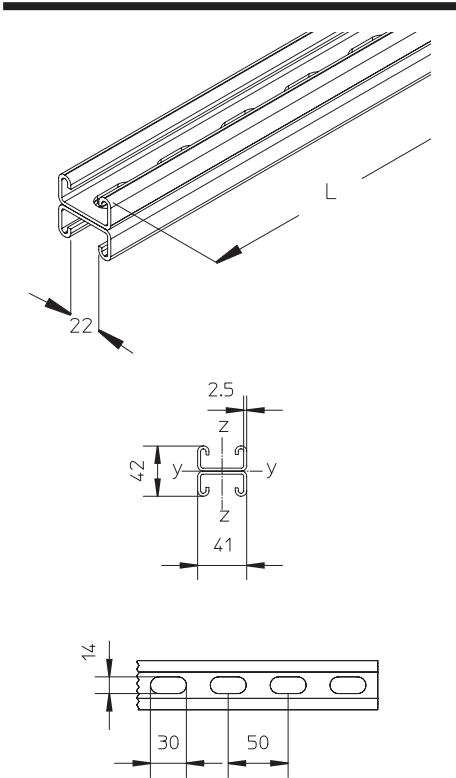


KHA 42 C-rail, perforated, 41x42 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

article number	H mm	B mm	L mm	t mm	G kg
F					
KHA 42-60F	42	41	6000	2,5	20,70

accessories optional:
AM22 channel nut, A41/ KHA 41/ KHAL 41 (page G31)
RUS 41 stabilization plate, KHA profiles (page G30)

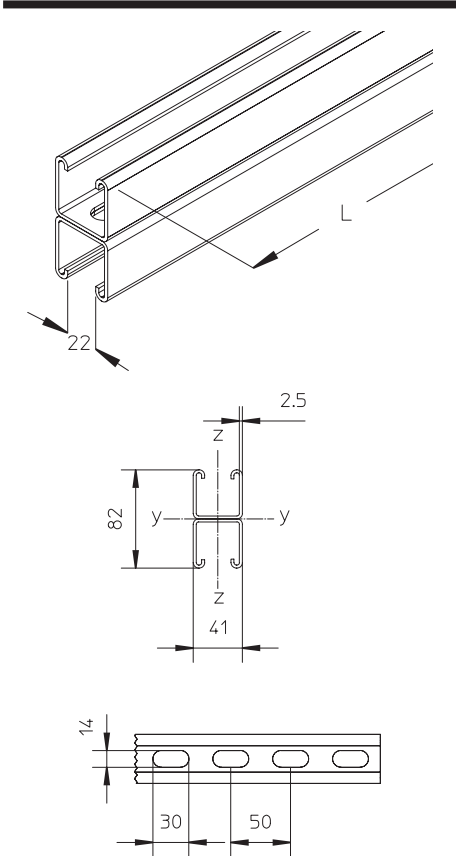


KHA 82 C-rail, perforated, 41x82 mm

This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

article number	H mm	B mm	L mm	t mm	G kg
F					
KHA 82-6000-HDG	82	41	6000	2,5	31,36
E					
KHA 82-6000-304	82	41	6000	2,5	29,74
E4					
KHA 82-6000-316	82	41	6000	2,5	30,10

accessories optional:
AM22 channel nut, A41/ KHA 41/ KHAL 41 (page G31)
AMF22 channel spring nut, A41 (page G31)
RUS 41 stabilization plate, KHA profiles (page G30)



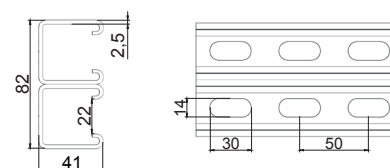
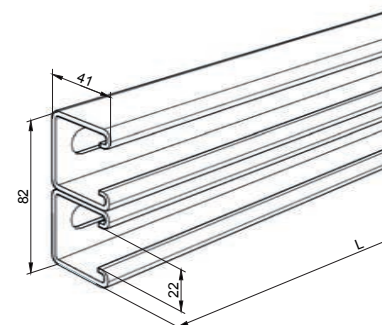
KHA 82-V profile rail 41x82 mm, perforated

Profile rail 41x82x2.50 mm, with continuous perforation 14x30, welded vertical, slot size 22 mm.

article number	H mm	B mm	L mm	t mm	G kg
F					
KHA 82-6000-HDG	82	41	6000	2.50	33.70

accessories optional:

AM22	channel nut, A 41, KHA 41, KHAL 41	(page G31)
BGF 82	base fitting	(page G10)
AVB 82	jointing bracket Omega	(page G17)
AVBL 82	Z-mounting bracket	(page G21)
AVSK 82	clamp plate	(page G22)
AMF22	channel spring nut, A41, KHA 41, KHAL 41	(page G31)
RUS 41	washer U-shaped, A/KHA 21/41/42/82	(page G30)



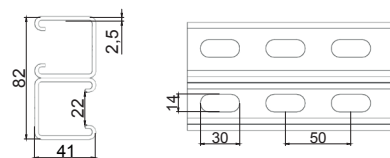
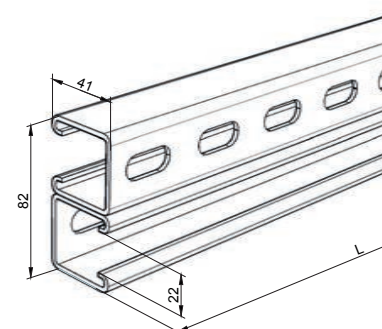
KHA 82-C profile rail 41x82 mm, perforated

Profile rail 41x82x2.50 mm, with continuous perforation 14x30, welded crossed, slot size 22 mm.

article number	H mm	B mm	L mm	t mm	G kg
F					
KHA 82-6000-HDG	82	41	6000	2.50	33.70

accessories optional:

AM22	channel nut, A 41, KHA 41, KHAL 41	(page G31)
BGF 82	base fitting	(page G10)
AVB 82	jointing bracket Omega	(page G17)
AVBL 82	Z-mounting bracket	(page G21)
AVSK 82	clamp plate	(page G22)
AMF22	channel spring nut, A41, KHA 41, KHAL 41	(page G31)
RUS 41	washer U-shaped, A/KHA 21/41/42/82	(page G30)



KHA 82-3 profile rail 82x82 mm, perforated

Profile rail 82x82x2.50 mm, with continuous perforation 14x30, welded back to back and vertical, slot size 22 mm.

article number	H mm	B mm	L mm	t mm	G kg
F					
KHA 82-6000-HDG	82	82	6000	2.50	50.55

- accessories optional:
- AM22

BGF 82

AVB 82

AVBL 82

AVSK 82

AMF22

RUS 41

channel nut, A 41, KHA 41, KHAL 41

base fitting

jointing bracket Omega

Z-mounting bracket

clamp plate

channel spring nut, A41, KHA 41, KHAL 41

(page G31)

(page G10)

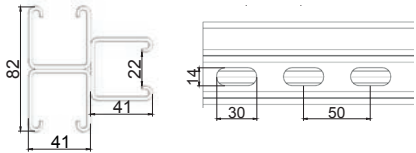
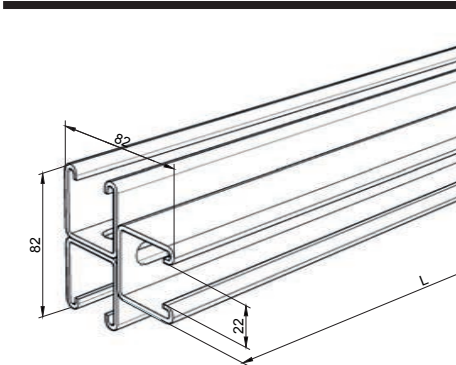
(page G17)

(page G21)

(page G22)

(page G31)

(page G30)



KHA 82-4 profile rail 82x82 mm, perforated

Profile rail 82x82x2.50 mm, with continuous perforation 14x30, welded crossed, slot size 22 mm.

article number	H mm	B mm	L mm	t mm	G kg
F					
KHA 82-6000-HDG	82	82	6000	2.50	67.45

- accessories optional:
- AM22

BGF 82

AVB 82

AVBL 82

AVSK 82

AMF22

RUS 41

channel nut, A 41, KHA 41, KHAL 41

base fitting

jointing bracket Omega

Z-mounting bracket

clamp plate

channel spring nut, A41, KHA 41, KHAL 41

(page G31)

(page G10)

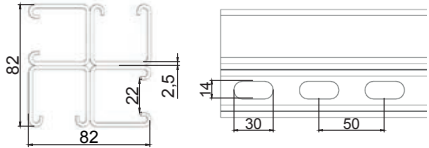
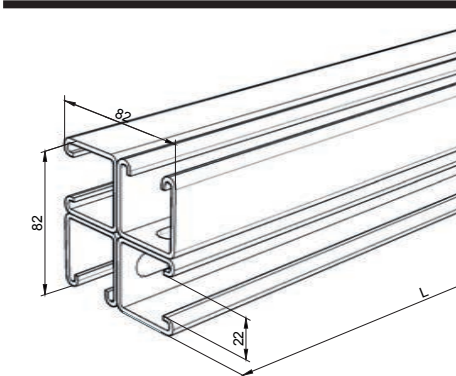
(page G17)

(page G21)

(page G22)

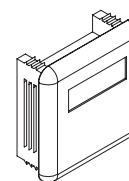
(page G31)

(page G30)



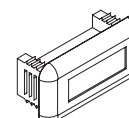
SAI 41 protection end cap

article number	colour	G kg
PE		
SAI 41-S	black	0,01
SAI 41-W	white	0,01
SAI 41-Y	yellow	0,01



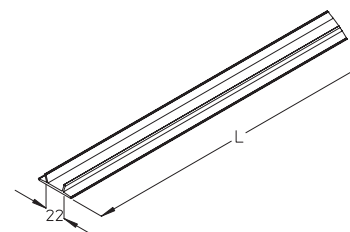
SAI 21 protection end cap

article number	colour	G kg
PE		
SAI 21-S	black	0,01
SAI 21-W	white	0,01
SAI 21-Y	yellow	0,01



KHAD 22 cover, anchor-rail

article number	L mm	colour	G kg
PE			
KHAD 22-black-PE	3000	black	0.23
KHAD 22-white-PE	3000	white	0.23
KHAD 22-M	3000	black	0.23



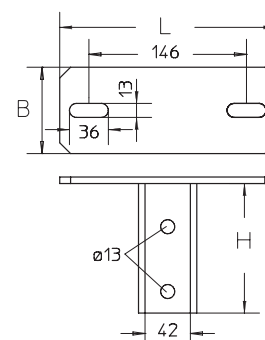
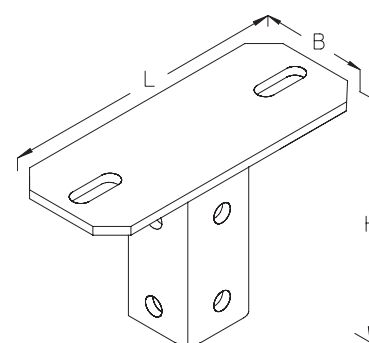
BGA 41 Mounting/ floor/ ceiling plate

assembly plate for fixing bracket support profile KHA 41

article number	H mm	B mm	L mm	G kg
F				
BGA 41-HDG	120	80	200	1.47
E4				
BGA 41-316	120	80	200	1.51

accessories optional:

SD	expansion anchor	(page G27)
SKLC M	beam clamp set	(page H06)
SES	hexagon head bolt, DIN 933	(page G28)
AMF22	channel spring nut, A41	(page G31)
AM22	channel nut, A41/ KHA 41/ KHAL 41	(page G31)

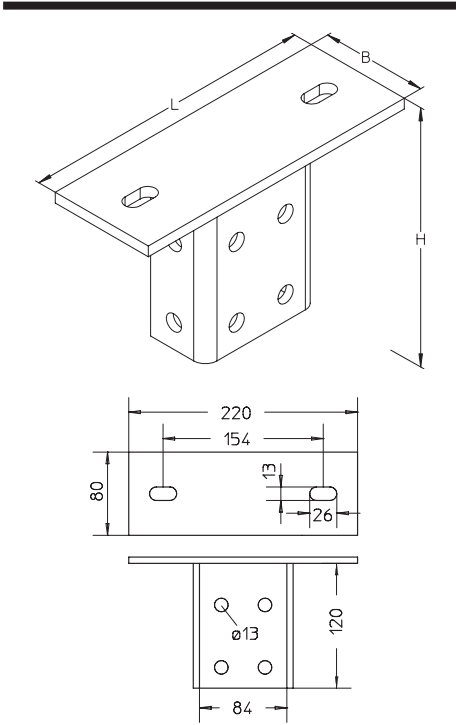


BGA 82 Mounting/ floor/ ceiling plate

Assembly plate for fixing bracket support profile KHA 82.

article number	H mm	B mm	L mm	G kg
F				
BGA 82-HDG	120	80	220	2.15
E4				
BGA 82-316	120	80	220	2.01

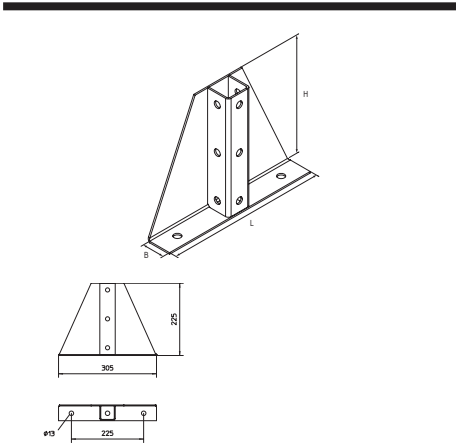
- accessories optional:
- SD** expansion anchor (page G27)
 - SKLC M** beam clamp set (page H06)
 - SES** hexagon head bolt, DIN 933 (page G28)
 - AMF22** channel spring nut, A41 (page G31)
 - AM22** channel nut, A41/ KHA 41/ KHAL 41 (page G31)



BGF 41 base fitting

article number	H mm	B mm	L mm	G kg
F				
BGF 41-HDG	225	49	05	2.21
E4				
BGF 41-316	120	80	220	2.01

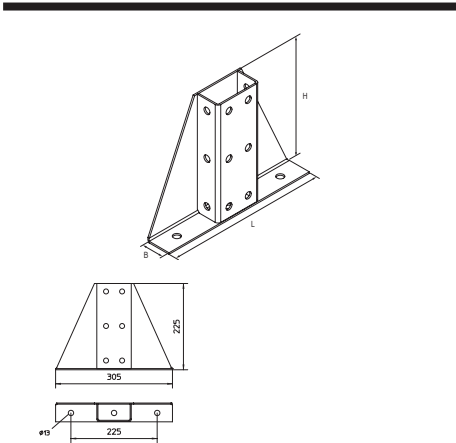
- accessories optional:
- KHA 41** profile rail 41x41 mm, perforated (page G04)



BGF 82 base fitting

article number	H mm	B mm	L mm	G kg
F				
BGF 82-HDG	225	49	305	2.44
E4				
BGF 82-316	225	49	305	2.44

- accessories optional:
- KHA 82** profile rail 41x82 mm, perforated (page G06)



PUK STRUT

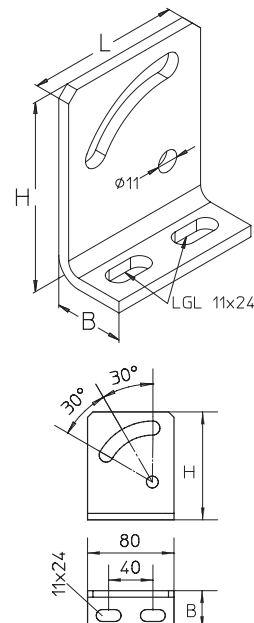
BLD adaptor diagonal

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	G kg
F				
BLD F	100	37	80	0,50
E4				
BLD-316	100	37	80	0.41

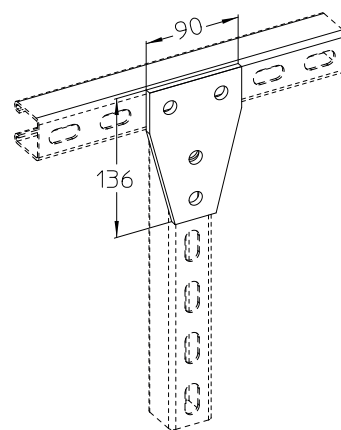
accessories optional:

SD	expansion anchor	(page G27)
SES	hexagon head bolt, DIN 933	(page G28)
AM22	channel nut, A41/ KHA 41/ KHAL 41	(page G31)
AMF22	channel spring nut, A41	(page G31)
HS18	tee-head bolt, A7/ A8/ A9	(page H45)
AMF18	channel spring nut, A7/ A8	(page G31)



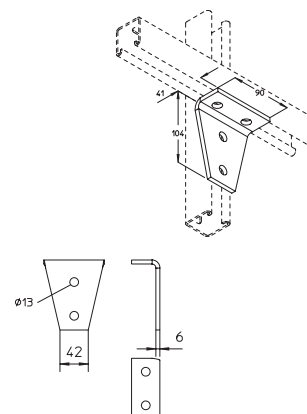
AVLWBF2-2 profile rail connector

article number	H mm	B mm	G kg
F			
AVLWBF2-2-HDG	137	89	0.45
E4			
AVLWBF2-2-316	137	89	0.45



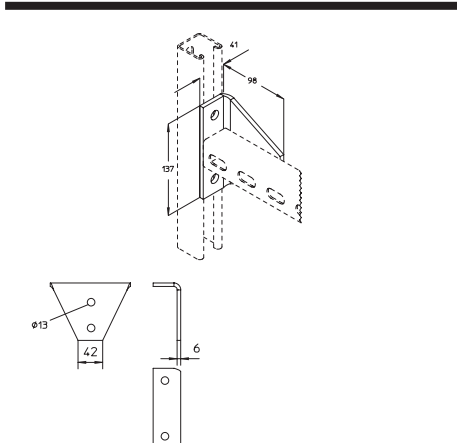
AVLWB1-2 angle bracket 90° 4 holes

article number	H mm	B mm	L mm	G kg
F				
AVLWB1-2-HDG	104	41	90	0.45
E4				
AVLWB1-2-316	104	41	90	0.45



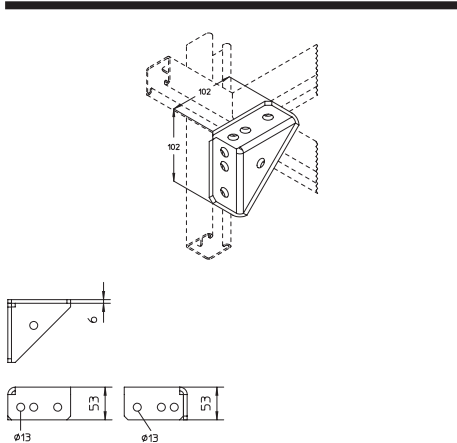
AVLWBL1-2 angle bracket 90° 4 holes

article number	H mm	B mm	L mm	G kg
F				
AVLWBL1-2-HDG	98	41	137	0.65
E4				
AVLWBL1-2-316	98	41	137	0.65



AVLK angle bracket 90° 6 holes

article number	H mm	B mm	L mm	t mm	G kg
F					
AVLK-HDG	102	53	102	6.00	0.56
E4					
AVLK-316	102	53	102	6.00	0.56

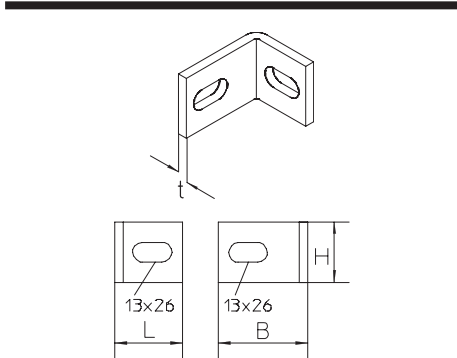


BL 5 corner angle

Wall angle for fastening bracket supports KHU 40/57/60 and KHA to walls.
This article is available made in material No. 1.4571/1.4404 (V4A) stainless steel finish.

article number	H mm	B mm	L mm	t mm	G kg
F					
BL 5F	40	45	60	6.00	0,20
E4					
BL 5-316	40	45	60	6.00	0.14

- accessories optional:
- | | | |
|--------------|-----------------------------------|------------|
| SD | expansion anchor | (page G27) |
| SES | hexagon head bolt, DIN 933 | (page G28) |
| AM22 | channel nut, A41/ KHA 41/ KHAL 41 | (page G31) |
| AMF22 | channel spring nut, A41 | (page G31) |
| HS18 | tee-head bolt, A7/ A8/ A9 | (page H45) |
| AMF18 | channel spring nut, A7/ A8 | (page G31) |
| AM18 | channel nut, A7/ A8 | (page H44) |



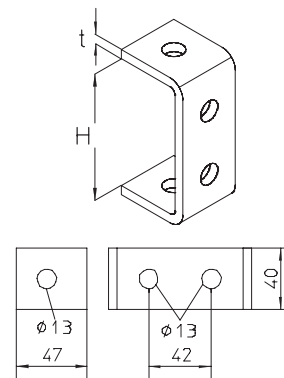
AKL rail clamp

For an application example, see the chapter assembly.

article number	H mm	t mm	G kg
F			
AKL 41F	84	6.00	0,30
E4			
AKL 41-316	84	6.00	0.32

accessories optional:

SES	hexagon head bolt, DIN 933	(page G28)
AM22	channel nut, A41/ KHA 41/ KHAL 41	(page G31)
AMF22	channel spring nut, A41	(page G31)
KHA 41	profile rail 41x41 mm, perforated	(page G04)



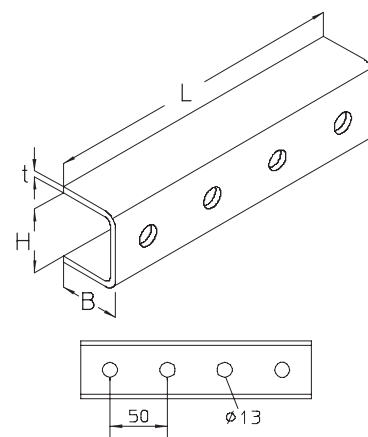
AV connector, A/KHA 21/41/42/82

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	G kg
F					
AV 41F	42	40	200	4.00	0,70
E4					
AV 41-316	42	40	200	6.00	0.72

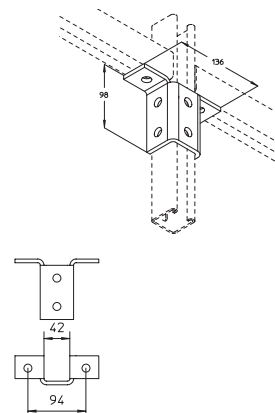
accessories optional:

AMF22	channel spring nut, A41	(page G31)
AM22	channel nut, A41/ KHA 41/ KHAL 41	(page G31)
US 125	square washer, DIN 125	(page G30)
IK	hexagon socket head screw, DIN 912	(page H36)
SEM	hexagon-nut, DIN 934	(page G29)



AVT beam clamp

article number	G kg
F	
AVT-HDG	0,71
E4	
AVT-316	0,66

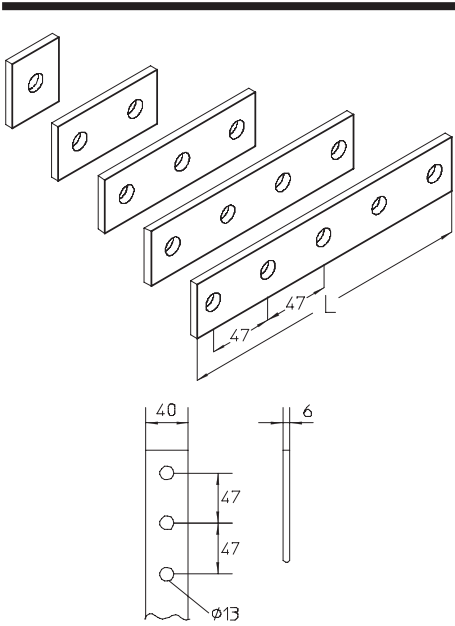


AVL rail connector

For an application example, see the chapter assembly.

article number	B mm	L mm	t mm	G kg
F				
AVL-1F	40	42	6.00	0,07
AVL-2F	40	89	6.00	0,16
AVL-3F	40	136	6.00	0,24
AVL-4F	40	183	6.00	0,32
AVL-5F	40	230	6.00	0,40
E4				
AVL-1-316	40	42	6.00	0.07
AVL-2-316	40	89	6.00	0.16
AVL-3-316	40	136	6.00	0.24
AVL-4-316	40	183	6.00	0.33
AVL-5-316	40	230	6.00	0.40

- accessories optional:
- SES hexagon head bolt, DIN 933 (page G28)
 - AM22 channel nut, A41/ KHA 41/ KHAL 41 (page G31)
 - AMF22 channel spring nut, A41 (page G31)

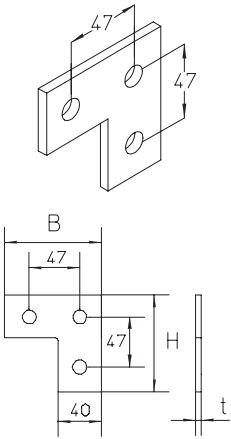


AVE corner connector 90°

For an application example, see the chapter assembly.

article number	B mm	L mm	t mm	G kg
F				
AVE F	90	90	6.00	0,27
E4				
AVE-316	90	90	6.00	0.26

- accessories optional:
- SES hexagon head bolt, DIN 933 (page G28)
 - AM22 channel nut, A41/ KHA 41/ KHAL 41 (page G31)
 - AMF22 channel spring nut, A41 (page G31)

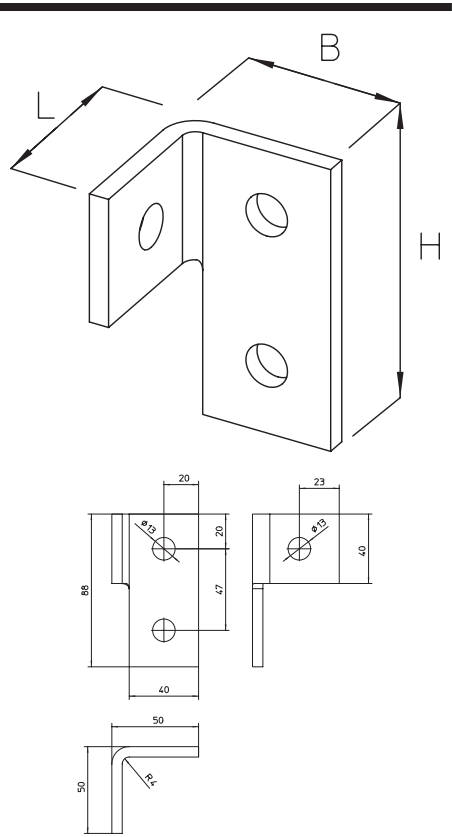


AVE-L rail connector, 90° left

article number	H mm	B mm	L kg	t mm	G kg
F					
AVE-L-HDG	88	50	50	6.00	0.26
E4					
AVE-L-316	88	50	50	6.00	0.26

accessories optional:

SES	hexagon head bolt, DIN 933	(page G28)
AM22	channel nut, A 41, KHA 41, KHAL 41	(page G31)
AMF22	channel spring nut, A41, KHA 41, KHAL 41	(page G31)

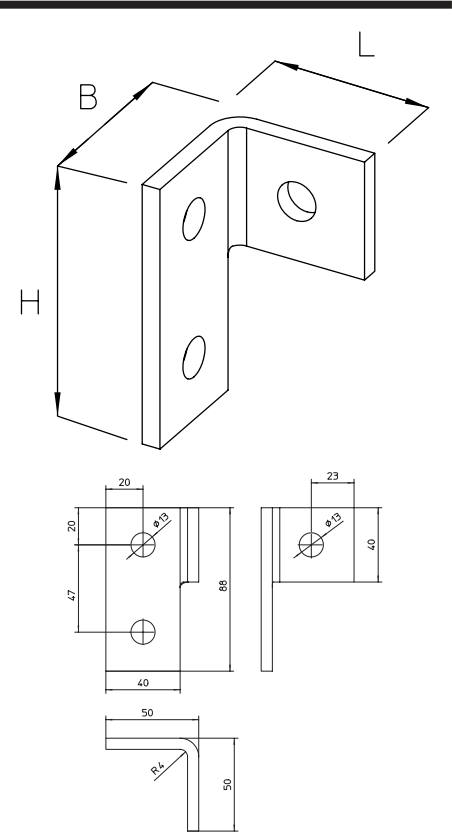


AVE-R rail connector, 90° right

article number	H mm	B mm	L kg	t mm	G kg
F					
AVE-R-HDG	88	50	50	6.00	0.26
E4					
AVE-R-316	88	50	50	6.00	0.26

accessories optional:

SES	hexagon head bolt, DIN 933	(page G28)
AM22	channel nut, A 41, KHA 41, KHAL 41	(page G31)
AMF22	channel spring nut, A41, KHA 41, KHAL 41	(page G31)

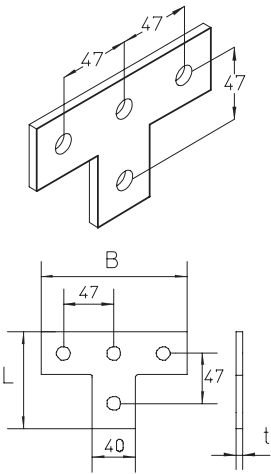


AVA corner connector T-piece

For an application example, see the chapter assembly.

article number	B mm	L mm	t mm	G kg
F				
AVA F	136	90	6.00	0,36
E4				
AVA-316	136	90	6.00	0.36

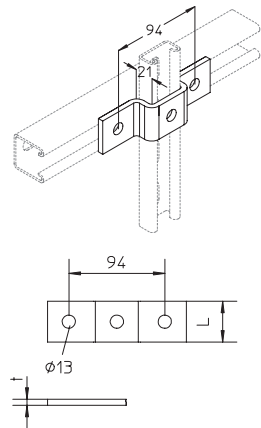
- accessories optional:
- SES** hexagon head bolt, DIN 933 (page G28)
 - AM22** channel nut, A41/ KHA 41/ KHAL 41 (page G31)
 - AMF22** channel spring nut, A41 (page G31)



AVB 21 connector, profile 21

article number	B mm	L mm	t mm	G kg
F				
AVB 21-HDG	134	40	6.00	0.29
E4				
AVB 21-316	134	40	6.00	0.29

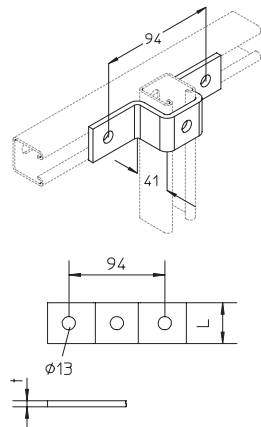
- accessories optional:
- KHA 21** profile rail 41x21 mm, perforated (page G03)



AVB 41 jointing bracket Omega

article number	B mm	t mm	G kg
F			
AVB 41-HDG	134	6.00	0.44
E4			
AVB 41-316	134	6.00	0.44

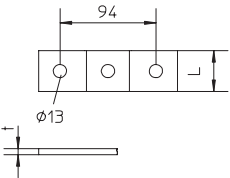
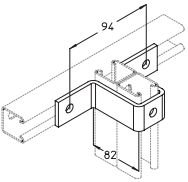
- accessories optional:
- KHA 41** profile rail 41x41 mm, perforated (page G04)



AVB 82 jointing bracket Omega

article number	B mm	L mm	t mm	G kg
F				
AVB 82-HDG	134	40	6.00	0.48
E4				
AVB 82-316	134	40	6.00	0.48

accessories optional:
KHA 82 profile rail 41x82 mm, perforated (page G06)

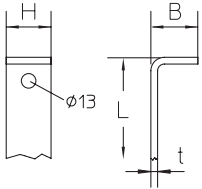
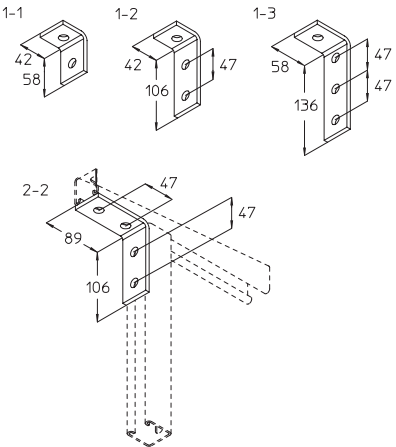


AVLW corner connector 90°

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	G kg
F					
AVLW 1-1F	40	42	58	6.00	0,17
AVLW 1-2F	40	42	106	6.00	0,26
AVLW 1-3F	40	58	136	6.00	0,36
AVLW 2-2F	40	89	106	6.00	0,44
E4					
AVLW 1-1-316	40	42	58	6.00	0.17
AVLW 1-2-316	40	42	106	6.00	0.26
AVLW 1-3-316	40	58	136	6.00	0.36
AVLW 2-2-316	40	89	106	6.00	0.44

accessories optional:
SES hexagon head bolt, DIN 933 (page G28)
AM22 channel nut, A41/ KHA 41/ KHAL 41 (page G31)
AMF22 channel spring nut, A41 (page G31)



accessories optional:		
SES	hexagon head bolt, DIN 933	(page G28)
AM22	channel nut, A 41, KHA 41, KHAL 41	(page G31)
AMF22	channel spring nut, A41, KHA 41, KHAL 41	(page G31)

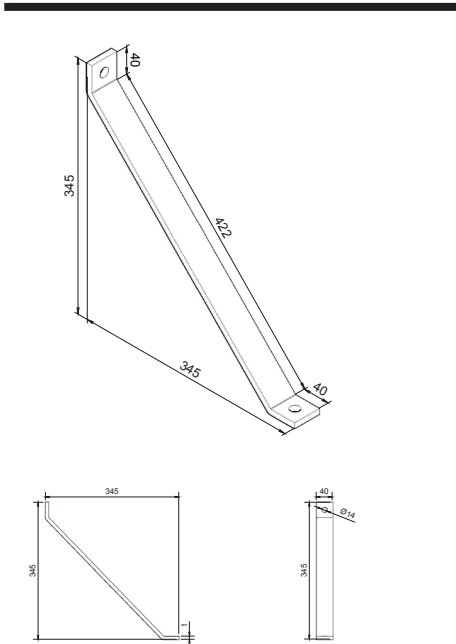


accessories optional:

SES	hexagon head bolt, DIN 933	(page G28)
AM22	channel nut, A41/ KHA 41/ KHAL 41	(page G31)
AMF22	channel spring nut, A41	(page G31)

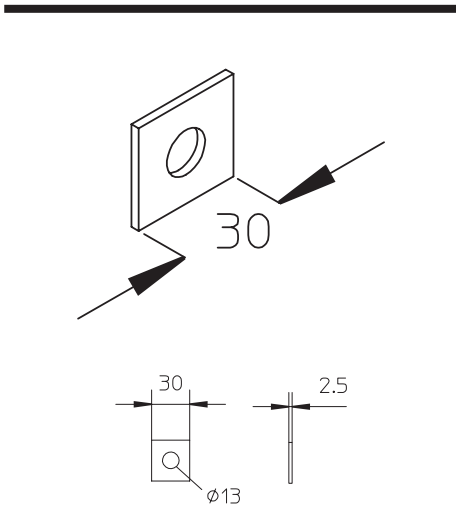
KHAV 90 angle bracket 45°

article number	H mm	L mm	B mm	t mm	G kg
F					
KHAV 90-HDG	345	422	40	8	1.30



AVLI-1 square washer

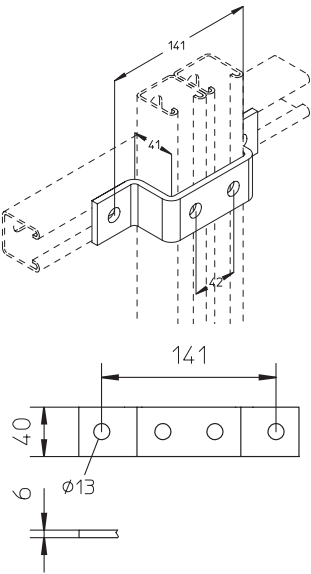
article number	G kg
F	
AVLI-1-HDG	0.02
E4	
AVLI-1-316	0.02



AVBD 41 jointing bracket Omega

article number	G
	kg
F	
AVBD 41-HDG	0.47

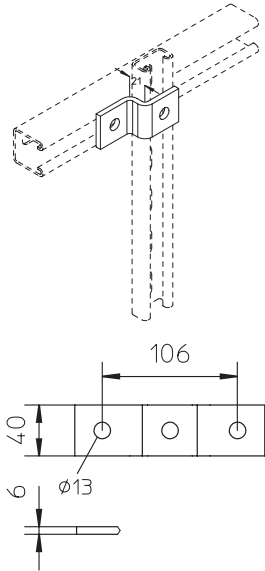
accessories optional:
KHA 41 profile rail 41x41 mm, perforated (page G04)



AVBL 21 Z-mounting bracket

article number	G
	kg
F	
AVBL 21-HDG	0.19
E4	
AVBL 21-316	0.19

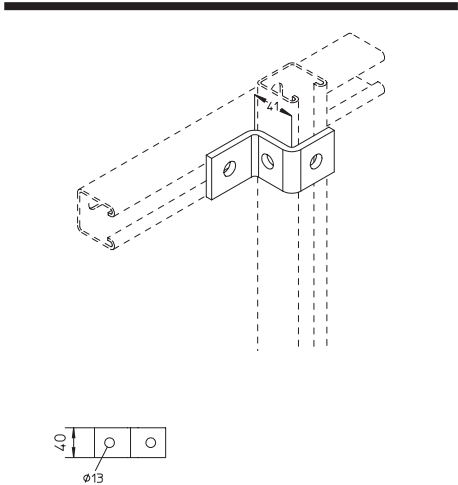
accessories optional:
KHA 21 profile rail 41x21 mm, perforated (page G03)



AVBL 41 Z-mounting bracket

article number	G
	kg
F	
AVBL 41-HDG	0.22
E4	
AVBL 41-316	0.22

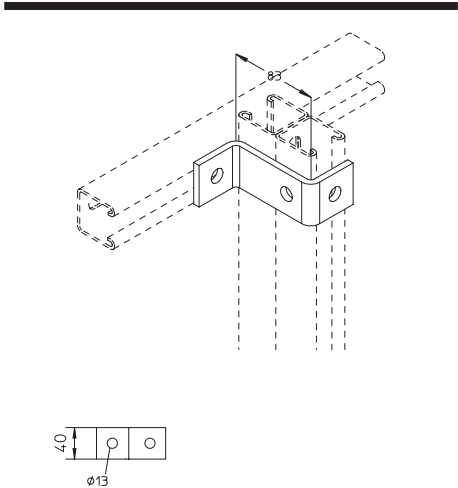
accessories optional:
KHA 41 profile rail 41x41 mm, perforated (page G04)



AVBL 82 Z-mounting bracket

article number	G
	kg
F	
AVBL 82-HDG	0.31
E4	
AVBL 82-316	0.31

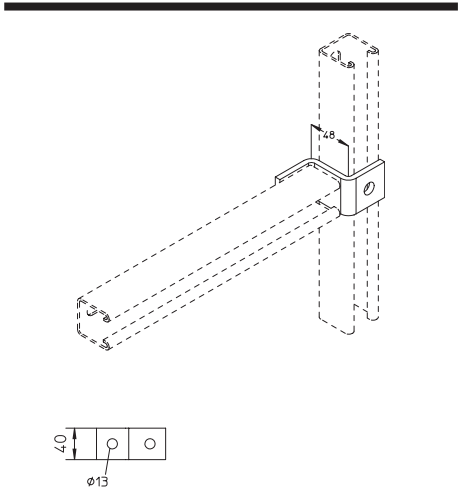
accessories optional:
KHA 82 profile rail 41x82 mm, perforated (page G21)



AVBLA 41 Z-mounting bracket

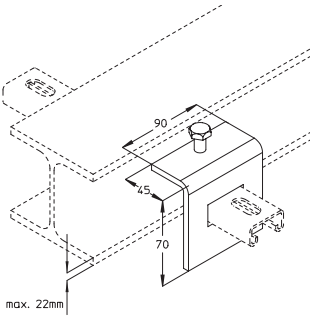
article number	G
	kg
F	
AVBLA 41-HDG	0.24

accessories optional:
KHA 41 profile rail 41x41 mm, perforated (page G04)



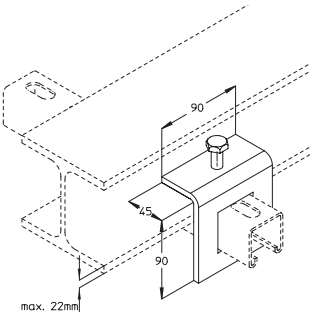
AVSK 21 clamp plate

article number			G
			kg
F			
AVSK 21-HDG			0.46
accessories included:			
1x SESMS 10X40-HDG	hexagon head bolt with tip	(page H41)	
E4			
AVSK 21-316			0.44
accessories included:			
1x SESMS 10X40-316	hexagon head bolt with tip	(page H41)	
accessories optional:			
SESMS	hexagon head bolt with tip	(page H41)	



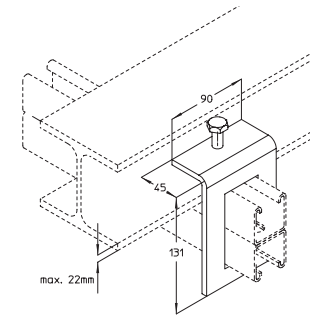
AVSK 41 clamp plate

article number			G
			kg
F			
AVSK 41-HDG			0.46
accessories included:			
1x SESMS 10X40-HDG	hexagon head bolt with tip	(page H41)	
E4			
AVSK 41-316			0.46
accessories included:			
1x SESMS 10X40-316	hexagon head bolt with tip	(page H41)	
accessories optional:			
SESMS	hexagon head bolt with tip	(page H41)	
KHA 41	profile rail 41x41 mm, perforated	(page G04)	



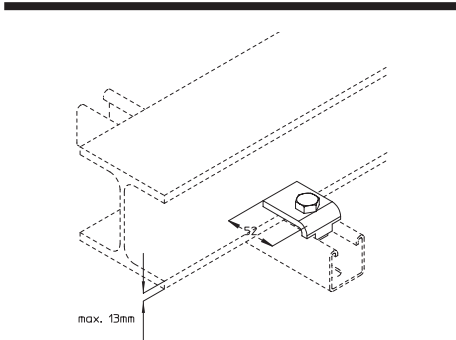
AVSK 82 clamp plate

article number			G
			kg
F			
AVSK 82-HDG			0.61
accessories included:			
1x SESMS 10X40-HDG	hexagon head bolt with tip	(page H41)	
E4			
AVSK 82-316			0.61
accessories included:			
1x SESMS 10X40-316	hexagon head bolt with tip	(page H41)	
accessories optional:			
SESMS	hexagon head bolt with tip	(page H41)	
KHA 82	profile rail 41x82 mm, perforated	(page G06)	



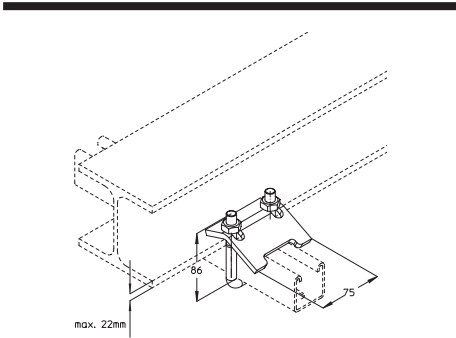
AVSKA beam clamp

article number			G
			kg
F			
AVSKA-HDG			0.12
accessories included:			
1x SES 12X40-HDG	hexagon head bolt, DIN 933	(page G28)	
1x AM22 M12-HDG	channel nut, A 41, KHA 41, KHAL 41	(page G31)	
E4			
AVSKA-316			0.12
accessories included:			
1x SES 12X40-316	hexagon head bolt, DIN 933	(page G28)	
1x AM22 M12-HDG	channel nut, A 41, KHA 41, KHAL 41	(page G31)	
accessories optional:			
KHA 41	profile rail 41x41 mm, perforated	(page G04)	



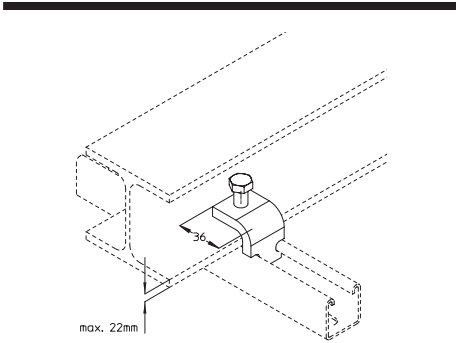
AVSKGB beam clamp

article number		G
		kg
F		
AVSKGB 41-HDG		0.36
AVSKGB 82-HDG		0.58
accessories included:		
2x SEM 10-HDG	hexagon-nut, DIN 934	(page G29)
E4		
AVSKGB 41-316		0.36
AVSKGB 82-316		0.58
accessories included:		
2x SEM 10-316	hexagon-nut, DIN 934	(page G29)



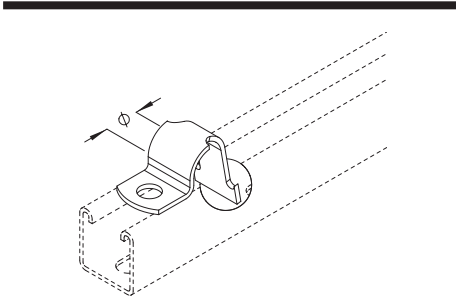
AVSKH beam clamp

article number		G
		kg
F		
AVSKH-HDG		0.35
accessories included:		
1x SES 12X40-HDG	hexagon head bolt, DIN 933	(page G28)
E4		
AVSKH-316		0.35
accessories included:		
1x SES 12X40-316	hexagon head bolt, DIN 933	(page G28)
accessories optional:		
KHA 41	profile rail 41x41 mm, perforated	(page G04)



AVRS tube clamp

article number		G
		kg
F		
AVRS 30-HDG		0.07
AVRS 60-HDG		0.14
E4		
AVRS 30-316		0.07
AVRS 60-316		0.14



accessories optional:
KHA 41 profile rail 41x41 mm, perforated (page G04)



AVSKP beam clamp

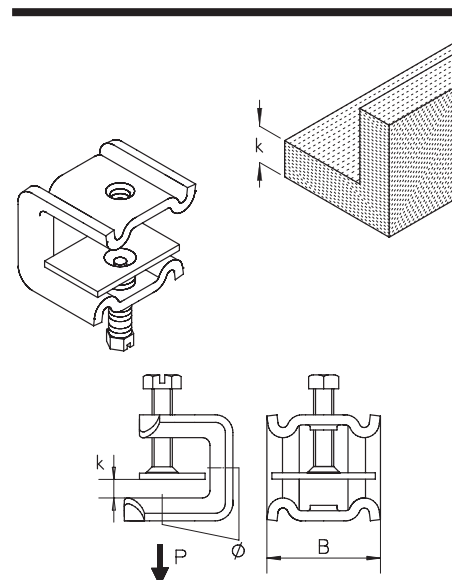
accessories optional:
KHA 41 profile rail 41x41 mm, perforated (page G04)



MKD beam clamp

For an application example, see the chapter assembly.

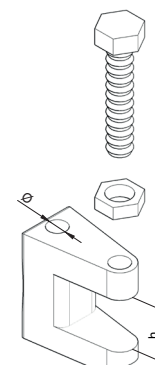
article number	B mm	Ø mm	K mm	P kN	M nM	G kg/100
F						
MKD 21	44	M8	6-21	1.50	4	19
MKD 21 M6	44	M6	6-21	1.50	4	18
MKD 21 M10	44	M10	6-21	1.50	4	17.3
MKD 40	44	M8	20-40	1.30	4	20.4
E						
MKD 21E	44	M8	6-21	1.50	4	19
MKD 21E M6	44	M6	6-21	1.50	4	18
MKD 21E M10	44	M10	6-21	1.50	4	17.3
MKD 40E	44	M8	20-40	1.30	4	19.3
E4						
MKD 21E4	44	M8	6-21	1.50	4	19
MKD 40E4	44	M8	20-40	1.30	4	19.3



TKN beam clamp

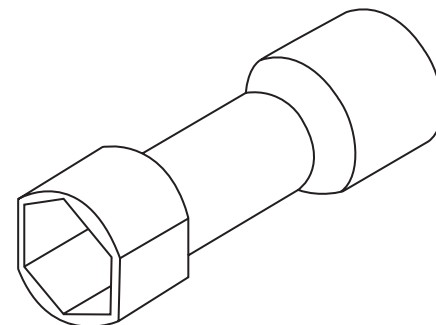
Mounting clamp made of steel.

article number	B mm	Ø mm	K mm	P kN	M nM	G kg/100
GV						
TKN 8-HDG	21	9	20,6	1.20	14	9
TKN 10-HDG	23	11	20,6	2.50	14	15
E4						
TKN 8-316	21,5	9	6-21	1.00	7-9	9
TKN 10-316	21,5	11	20-40	1.30	17-20	15
S						
TKN M8	21	M8	20,6	1.20	14	9
TKN M10	23	M10	20,6	2.50	14	15



PSS channel socket

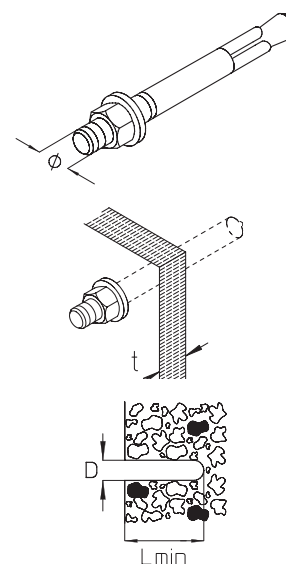
article number	G kg
GV	
PSS 21	0.08
PSS 41	0.11



SD expansion anchor

Manufacturer's information has to be observed strictly (ETA-05/0069). *Permissible load for a single anchor in cracked normal concrete (concrete tension zone) with a consistency of $\geq$ C20/25
For an application example, see the chapter assembly.

article number	$\varnothing$ mm	D mm	t mm	P _{zul} * kN	L _{min} mm	G kg/100
GV						
SDK 10/10	10	10	0-10	4,3	55	5,88
SD 8/10	8	8	0 - 10	3,6	55	3,50
SD 8/30	8	8	0 - 30	3,6	55	4,40
SD 10/10	10	10	0 - 10	5,7	75	6,20
SD 10/30	10	10	0 - 30	5,7	75	7,80
SD 12/10	12	12	0 - 10	9,5	90	11,00
SD 16/25	16	16	0 - 25	13,4	110	26,30
E4						
SD 8/10E4	8	8	0 - 10	3,6	55	3,60
SD 10/10E4	10	10	0 - 10	5,7	75	6,20
SD 12/10E4	12	12	0 - 10	9,5	90	10,90



SES hexagon head bolt, DIN 933

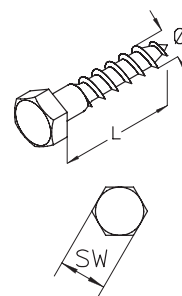
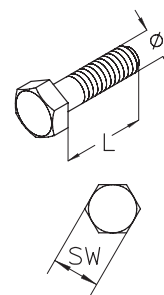
article number	Ø mm	L mm	SW mm	G kg/100
F				
SES 10x20F	10	20	17(16)	2,1
SES 10x25F	10	25	17(16)	2,4
SES 10x30F	10	30	17(16)	2,6
SES 10x55F	10	55	17(16)	3,9
SES 10x75F	10	75	17(16)	4,9
SES 10x90F	10	90	17(16)	5,6
SES 10x100F	10	100	17(16)	6,1
SES 12x20F	12	20	19(18)	3,1
SES 12x30F	12	30	19(18)	3,8
SES 12x40F	12	40	19(18)	4,5
SES 12x50F	12	50	19(18)	5,2
SES 12x70F	12	70	19(18)	6,6

E				
SES 6x16E	6	16	10	0,5
SES 8x16E	8	16	13	1,1
SES 6x20E	6	20	10	0,6
SES 8x20E	8	20	13	1,2
SES 8x25E	8	25	13	1,4
SES 8x30E	8	30	13	1,5
SES 10x20E	10	20	17	2,1
SES 10x30E	10	30	17	2,6
SES 10x75E	10	75	17(16)	4,9
SES 10x100E	10	100	17(16)	6,1

E4				
SES 8x20E4	8	20	13	1,2
SES 8x30E4	8	30	13	1,5
SES 10x20E4	10	20	17	2,1
SES 10x75E4	10	75	17(16)	4,9
SES 10x100E4	10	100	17(16)	6,1

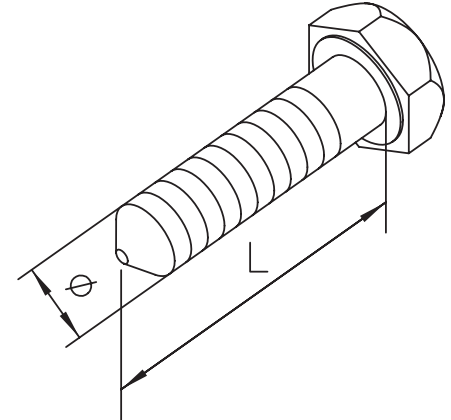
SEH hexagon wood screw

article number	Ø mm	L mm	SW mm	G kg/100
GV				
SEH 8x50	8	50	13	1,8
SEH 8x60	8	60	13	2,1
SEH 10x50	10	50	17	3,2
SEH 10x60	10	60	17	3,6
SEH 10x80	10	80	17	4,5



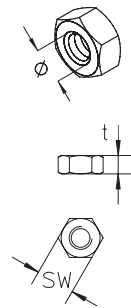
SESMS hexagon head bolt with tip

article number	L mm	Ø mm	SW mm	G kg/100
F				
SESMS 10X40-HDG	40	10	17(16)	3.10
E4				
SESMS 10X40-316	40	10	17(16)	3.30



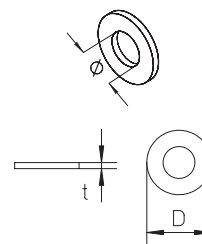
SEM hexagon-nut, DIN 934

article number	Ø mm	t mm	SW mm	G kg/100
GV				
SEM 6	6	5,0	10	0,3
SEM 8	8	6,5	13	0,5
SEM 10	10	8,0	17(15)	1,2
SEM 12	12	10,0	19(18)	1,7
F				
SEM 10F	10	8,0	17(15)	1,2
SEM 12F	12	10,0	19(18)	1,7
E				
SEM 6E	6	5,0	10	0,3
SEM 8E	8	6,5	13	0,5
SEM 10E	10	8,0	17(15)	1,2
SEM 12E	12	10,0	19(18)	1,7
E4				
SEM 6E4	6	5,0	10	0,3
SEM 8E4	8	6,5	13	0,5
SEM 10E4	10	8,0	17(15)	1,2



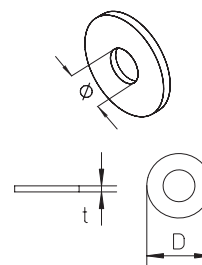
US 125 square washer, DIN 125

article number	Ø mm	D mm	t mm	G kg/100
GV				
US 6x12	6,4	12,5	1,6	0,1
US 8x17	8,4	17,0	2,0	0,2
US 10x21	10,5	21,0	2,0	0,4
US 13x24	13,0	24,0	2,5	0,6
US 17x30	17,0	30,0	3,0	1,1
F				
US 10x21F	10,5	21,0	2,0	0,4
US 13x24F	13,0	24,0	2,5	0,6
US 17x30F	17,0	30,0	3,0	1,1



US 9021 square washer, DIN 9021

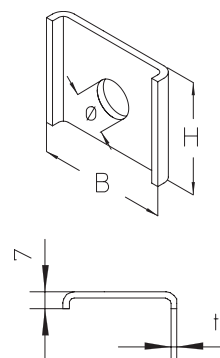
article number	Ø mm	D mm	t mm	G kg/100
GV				
US 6x18	6,4	18	1,6	0,3
US 8x25	8,4	25	2,0	0,7
US 10x30	10,5	30	2,5	1,2
US 13x40	13,0	40	3,0	2,7
F				
US 10x30F	10,5	30	2,5	1,2
US 13x40F	13,0	40	3,0	2,7
E				
US 6x18E	6,4	18	1,6	0,3
US 8x25E	8,4	25	2,0	0,7
US 10x30E	10,5	30	2,5	1,2
E4				
US 10x30E4	10,5	30	2,5	1,2



RUS 41 stabilization plate, KHA profiles

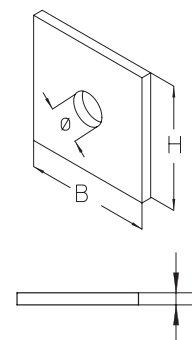
For an application example, see the chapter assembly.

article number	H mm	B mm	Ø mm	t mm	G kg/100
F					
RUS 41-L13F	40	46	13	2,5	4,00
E					
RUS 41-L13E	40	46	13	1,8	2,84



RUS 50 mounting plate, KHA profiles

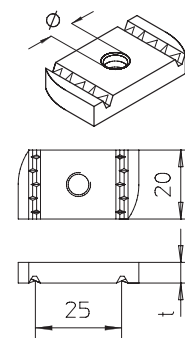
article number	H mm	B mm	Ø mm	t mm	G kg/100
F					
RUS 50-L11-HDG	50	50	11	4.00	8.10
RUS 50-L13-HDG	50	50	13	4	7,54
E					
RUS 50-L13E	50	50	13	4	7,54



AM22 channel nut, A41/ KHA 41/ KHAL 41

For an application example, see the chapter assembly.

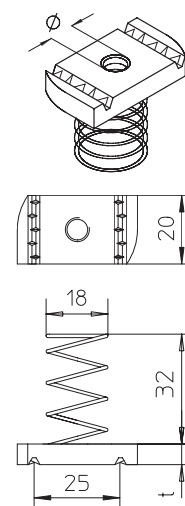
article number	Ø mm	t mm	G kg/100
GV			
AM22 M6	6	6,0	2,6
AM22 M8	8	6,0	2,4
AM22 M10	10	8,0	3,3
AM22 M12	12	9,5	4,2
F			
AM22 M6F	6	6,0	2,8
AM22 M8F	8	6,0	2,6
AM22 M10F	10	8,0	3,5
AM22 M12F	12	9,0	4,2
E4			
AM22 M6E4	6	6,0	2,6
AM22 M8E4	8	6,0	2,4
AM22 M10E4	10	8,0	3,3
AM22 M12E4	12	9,5	4,2



AMF22 channel spring nut, A41

For an application example, see the chapter assembly.

article number	Ø mm	t mm	G kg/100
GV			
AMF22 M6	6	6,0	2,8
AMF22 M8	8	6,0	2,6
AMF22 M10	10	8,0	3,5
AMF22 M12	12	9,5	4,4
F			
AMF22 M6F	6	6,0	3,0
AMF22 M8F	8	6,0	2,8
AMF22 M10F	10	8,0	3,7
AMF22 M12F	12	9,5	4,7
E4			
AMF22 M6E4	6	6.00	2.7
AMF22 M8E4	8	6.00	2.9
AMF22 M10E4	10	8.00	3.5





Fastenings

Clamping assembly	H03-H11
Plugs	H12-H15
Suspension components	H16-H32
Bolting fasteners/ bolts and nuts	H33-H42
Channel nuts and bolts	H43-H47
Electrical fastenings	H48-H51

Numeric index

Fastenings

A

AKB channel bolt, A7/ A8/ A9 [G47](#)
AM12 channel nut, B3/ B6 [G46](#)
AM16 channel nut, B7 [G45](#)
AM18 channel nut, A7/ A8 [G44](#)
AM22 channel nut, A41/ KHA 41/ KHAL 41 [G43](#)
AMA18 channel nut, A7/ A8 [G44](#)
AMF18 channel spring nut, A7/ A8 [G45](#)
AMF22 channel spring nut, A41 [G43](#)
AN support [G11](#)

B

BFS K quick-mounting clip for all-rounder cable holder, plastic [G50](#)
BFS ND K quick-mounting clip for all-rounder cable holder, plastic with nail plug [G50](#)

D

DAS wire eyebolt [G17](#)

F

FKS slotted cylinder head screw, DIN 84 [G35](#)
FR spring ring [G39](#)
FRS round-head screw with square, DIN 603 [G35](#)
FRSV round-head screw with short square [G34](#)
FS serrated lock washer [G39](#)

G

GB threaded rod, DIN 976-1 [G16](#)
GCB beam clip [G31](#)
GRIPADAP thread adaptor with hole [G30](#)
GRIPCLE 1 adjustment key [G32](#)
GRIPCLE 2 adjustment key [G32](#)
GRIPM pigtail anchor bolt [G31](#)
GRIPPINC wire cutter [G32](#)
GRIPTRAP trapezium lock [G30](#)
GRIPTRAPP trapezium lock plus [G31](#)
GRIPTWIS wire end cap [G32](#)

H

HFE3 wire suspension with hook and universal closure [G18](#)
HFECEXP 1 wire suspension with hook and express closure [G18](#)
HFECEXP 2 wire suspension with hook and express closure [G18](#)
HFEF10 3 wire suspension with threaded end M10 and universal closure [G21](#)
HFEF10 4 wire suspension with threaded end M10 and universal closure [G21](#)
HFEF10EXP 2 wire suspension with threaded end M10 and express closure [G20](#)
HFEF6 2 wire suspension with threaded end M6 and universal closure [G19](#)
HFEF6 3 wire suspension with threaded end M6 and universal closure [G19](#)
HFEF6EXP 1 wire suspension with threaded end M6 and express closure [G19](#)
HFEF6EXP 2 wire suspension with threaded end M6 and express closure [G19](#)
HFEF8 2 wire suspension with threaded end M8 and universal closure [G20](#)
HFEF8 3 wire suspension with threaded end M8 and universal closure [G20](#)
HFEF8EXP 2 wire suspension with threaded end M8 and express closure [G20](#)
HFEM 2 wire suspension with carbine and universal closure [G21](#)
HFEM 3 wire suspension with carbine and universal closure [G21](#)
HFE0 3 wire suspension with eyelet straight and universal closure [G22](#)

HFEOEXP 2 wire suspension with eyelet straight and express closure [G22](#)
HFET6EXP 1 wire suspension with threaded transition M6 and express closure [G22](#)
HFET6EXP 2 wire suspension with threaded transition M6 and express closure [G22](#)
HFET8EXP 2 wire suspension with threaded transition M8 and express closure [G23](#)
HFFR 2 wire suspension with loop and universal closure [G23](#)
HFFR 3 wire suspension with loop and universal closure [G24](#)
HFFR 4 wire suspension with loop and universal closure [G24](#)
HFFR 5 wire suspension with loop and universal closure [G24](#)
HFREXP 1 wire suspension with loop and express closure [G23](#)
HFREXP 2 wire suspension with loop and express closure [G23](#)
HFSP 2 wire suspension with cross anchor and universal closure [G25](#)
HFSP 3 wire suspension with cross anchor and universal closure [G25](#)
HFSPEXP 1 wire suspension with cross anchor and express closure [G24](#)
HFSPEXP 2 wire suspension with cross anchor and express closure [G25](#)
HFTHEXP 1 wire suspension with trapezium sheet metal hook and express closure [G25](#)
HFTHEXP 2 wire suspension with trapezium sheet metal hook and express closure [G26](#)
HS12 Tee-head bolt [G46](#)
HS16 Tee-head bolt [G46](#)
HS18 tee-head bolt, A7/ A8/ A9 [G45](#)
HS22 tee-head bolt, A2/ A4 [G43](#)

I

IK hexagon socket head screw, DIN 912 [G36](#)

K

KD plastic dowel [G13](#)
KLR fixing set [G33](#)
KLRL clamping assembly [G36](#)
KLS fixing set [G33](#)
KLU fixing set [G07](#)
KLUS clamping assembly [G08](#)
KLUT clamping assembly [G09](#)
KNK chain [G17](#)
KNK-NG chain, emergency link [G17](#)
KOT K coupling piece, plastic [G50](#)
KSD plastic plug-in dowel [G51](#)

L

LK K cable holder, plastic [G49](#)
LK ND K cable holder, plastic with moulded-in nail plug [G50](#)

M

MKD beam clamp [G09](#)

R

RGW reducing bolt [G11](#)
RUS 41 stabilization plate, KHA profiles [G41](#)
RUS 50 mounting plate, KHA profiles [G42](#)

S

SA anchor [G13](#)
SA-D anchor [G13](#)
SAZ anchor [G12](#)
SAZ-B Ferro-concrete drill [G12](#)
SAZ-D anchor [G13](#)
SD expansion anchor [G12](#)
SD-BS straddling dowel, fire protection [G51](#)
SEH hexagon wood screw [G38](#)

SEM hexagon-nut, DIN 934 [G41](#)
SEMS hexagon nut, self-locking, DIN 6923 [G41](#)
SEMSS hexagon-nut, self-locking, DIN 985 [G42](#)
SES hexagon head bolt, DIN 933 [G37](#)
SH K multiple cable holder, plastic [G48](#)
SH ND K multiple cable holder, plastic with nail plug [G48](#)
SH QS multiple cable holder, metal [G48](#)
SHH eyebolt [G18](#)
SHK K cable holder, plastic [G49](#)
SHK ND K cable holder, plastic with nail plug [G49](#)
SHS eyebolt [G17](#)
SK clamping claw [G10](#)
SKL A beam clamp set [G07](#)
SKL M beam clamp set [G06](#)
SKS A beam clamp set [G04](#)
SKS H beam clamp set [G03](#)
SKS M beam clamp set [G05](#)
SN screw nail anchor [G51](#)
SN G beam clamp [G10](#)
SPRINGCLIP spring clip [G31](#)
SSK protection end cap [G42](#)

T

TBS trapezium bow [G16](#)
TIGERCLIP Tiger clip [G31](#)
TPZPEC 2 wire suspension with hook and trapezium closure plus [G26](#)
TPZPEC 3 wire suspension with hook and trapezium closure plus [G26](#)
TPZPEF10 2 wire suspension with threaded end M10 and trapezium closure plus [G27](#)
TPZPEF10 3 wire suspension with threaded end M10 and trapezium closure plus [G27](#)
TPZPEF10 4 wire suspension with threaded end M10 and trapezium closure plus [G27](#)
TPZPEF8 2 wire suspension with threaded end M8 and trapezium closure plus [G26](#)
TPZPEF8 3 wire suspension with threaded end M8 and trapezium closure plus [G27](#)
TPZPFR 2 wire suspension with loop and trapezium closure plus [G28](#)
TPZPFR 3 wire suspension with loop and trapezium closure plus [G28](#)
TPZPFR 4 wire suspension with loop and trapezium closure plus [G28](#)
TPZPSP 2 wire suspension with cross anchor and trapezium closure plus [G28](#)
TPZPSP 3 wire suspension with cross anchor and trapezium closure plus [G29](#)
TPZPTH 2 wire suspension with trapezium sheet metal hook and trapezium closure plus [G29](#)

U

US 125 square washer, DIN 125 [G39](#)
US 9021 square washer, DIN 9021 [G40](#)
UVS captive washer [G40](#)

V

VA-AP shear connector rod, pistol [G14](#)
VAB-HB shear connector rod, concrete [G14](#)
VAB-HB B shear connector rod, brush [G14](#)
VAB-HB M shear connector mortar [G14](#)
VAS-AS shear connector rod, stone [G15](#)
VAS-BS shear connector rod, fire protection [G15](#)
VAS-M shear connector mortar [G15](#)
VAS-SH perforated bush for shear connector, stone [G15](#)
VM rod coupling [G16](#)

Y

YAJCT 2 Y-Fit accessory with hook for cable trays [G30](#)
YAJEC 1 Y-Fit accessory with hook [G29](#)
YAJEC 2 Y-Fit accessory with hook [G29](#)
YAJEC 3 Y-Fit accessory with hook [G30](#)

Fastenings

Clamping assembly

SKS H beam clamp set

For an application example, see the chapter assembly.

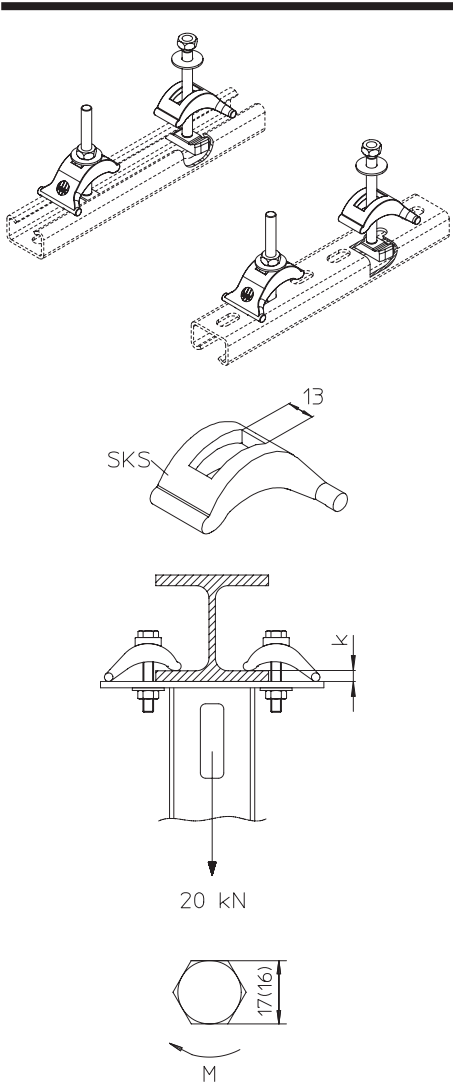
article number	k mm	P _{max} kN	M Nm	G kg/set
F				
SKS HF	10 - 30	20	50	0,61

accessories included:
 2 x **HS22 10x80F** tee-head bolt, A2/ A4 (page G44)
 2 x **US 10x30F** square washer, DIN 9021 (page G40)

article number	k mm	P _{max} kN	M Nm	G kg/set
E4				
SKS HE4	10 - 30	20	50	0,63

accessories included:
 2 x **HS22 10x80E4** tee-head bolt, A2/ A4 (page G44)
 2 x **US 10x30E4** square washer, DIN 9021 (page G40)

accessories optional:
KHA 2 C-rail, perforated, 50x31 mm (page F57)



Fastenings

Clamping assembly

SKS A beam clamp set

For an application example, see the chapter assembly.

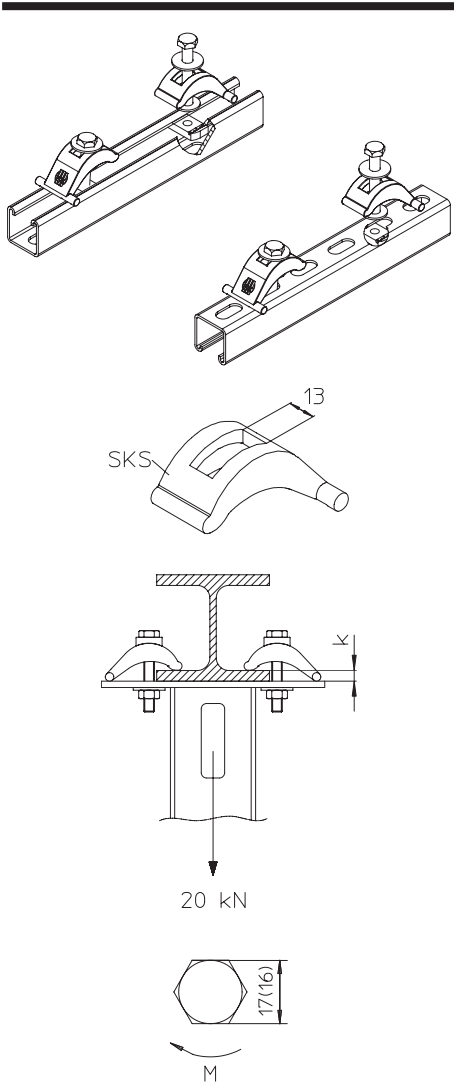
article number	k mm	P _{max} kN	M Nm	G kg/set
F				
SKS AF	10 - 30	20	50	0,56

- accessories included:
- 2 x **SES 10x75F** hexagon head bolt, DIN 933 (page H38)
 - 2 x **US 10x30F** square washer, DIN 9021 (page H40)
 - 2 x **AM22 M10F** channel nut, A41/ KHA 41/ KHAL 41 (page H43)
 - 2 x **UVS M10x24** captive washer (page H40)

article number	k mm	P _{max} kN	M Nm	G kg/set
E4				
SKS AE4	10 - 30	20	50	0,59

- accessories included:
- 2 x **SES 10x75E4** hexagon head bolt, DIN 933 (page H38)
 - 2 x **US 10x30E4** square washer, DIN 9021 (page H40)
 - 2 x **UVS M10x24** captive washer (page H40)
 - 2 x **AM22 M10E4** channel nut, A41/ KHA 41/ KHAL 41 (page H43)

- accessories optional:
- A 41** C-rail, not perforated, 41x41 mm (page F62)
 - KHA 41** C-rail, perforated, 41x41 mm (page F48)



Fastenings

Clamping assembly

SKS M beam clamp set

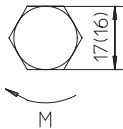
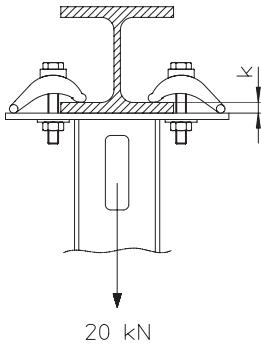
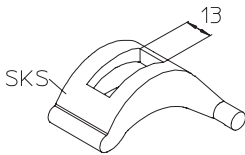
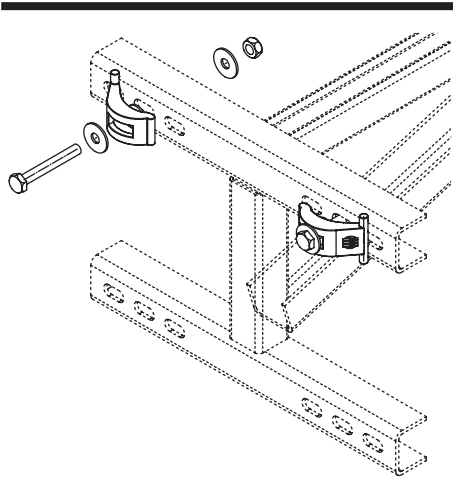
article number	k mm	P _{max} kN	M Nm	G kg/set
F				
SKS MF	10 - 30	20	50	0,52

- accessories included:
- 2 x **SES 10x75F** hexagon head bolt, DIN 933 (page H38)
 - 4 x **US 10x30F** square washer, DIN 9021 (page H40)
 - 2 x **UVS M10x24** captive washer (page H40)
 - 2 x **SEM 10F** hexagon-nut, DIN 934 (page H41)

article number	k mm	P _{max} kN	M Nm	G kg/set
E4				
SKS ME4	10 - 30	20	50	0,3

- accessories included:
- 2 x **SES 10x75E4** hexagon head bolt, DIN 933 (page H38)
 - 4 x **US 10x30E4** square washer, DIN 9021 (page H40)
 - 2 x **UVS M10x24** captive washer (page H40)
 - 2 x **SEM 10E4** hexagon-nut, DIN 934 (page H41)

- accessories optional:
- KISS** bracket, very heavy (page F10)



Fastenings

Clamping assembly

SKLC M beam clamp set

For an application example, see the chapter assembly.

article number	k mm	P _{max} kN	M Nm	G kg/set
F				
SKLC M-HDG	5 - 25	10	35	0,45

accessories included:

2 x SES 10x55F	hexagon head bolt, DIN 933	(page H38)
2 x US 10x21F	square washer, DIN 125	(page H39)
2 x US 10x30F	square washer, DINH4021	(page H40)
2 x SEM 10F	hexagon-nut, DIN 934	(page H41)
2 x UVS M10x24	captive washer	(page G40)

accessories optional:

KDU 60	bracket support, heavy, 60x40 mm	(page F21)
KHA 2	C-rail, perforated, 50x31 mm	(page F57)
HS22	tee-head bolt, A2/ A4	(page H43)

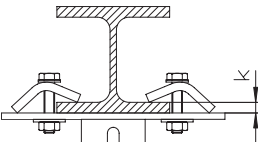
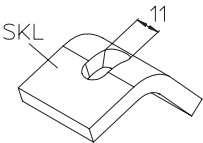
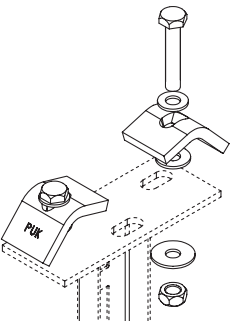
article number	k mm	P _{max} kN	M Nm	G kg/set
E4				
SKLC M-316	5 - 25	10	35	0,45

accessories included:

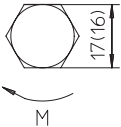
2 x SES 10x55F	hexagon head bolt, DIN 933	(page H38)
2 x US 10x21F	square washer, DIN 125	(page H39)
2 x US 10x30F	square washer, DIN 9021	(page H40)
2 x SEM 10F	hexagon-nut, DIN 934	(page H41)
2 x UVS M10x24	captive washer	(page H40)

accessories optional:

KDU 60	bracket support, heavy, 60x40 mm	(page F21)
KHA 2	C-rail, perforated, 50x31 mm	(page F57)
HS22	tee-head bolt, A2/ A4	(page H43)



10 kN



Fastenings

Clamping assembly

SKL A beam clamp set

For an application example, see the chapter assembly.

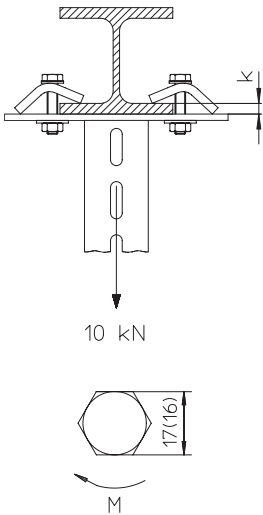
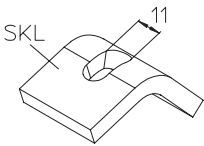
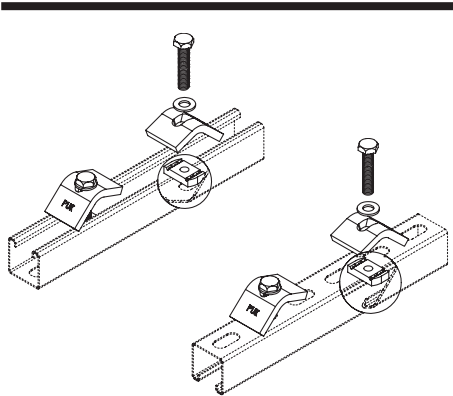
article number	k mm	P _{max} kN	M Nm	G kg/set
F				
SKL AF	5 - 25	10	35	0,49

accessories included:

2 x SES 10x55F	hexagon head bolt, DIN 933	(page H38)
2 x US 10x21F	square washer, DIN 125	(page H39)
2 x AM22 M10F	channel nut, A41/ KHA 41/ KHAL 41	(page H43)
2 x UVS M10x24	captive washer	(page H40)

accessories optional:

A 41	C-rail, not perforated, 41x41 mm	(page F62)
KHA 41	C-rail, perforated, 41x41 mm	(page F48)
KHAL 41	C-rail, perforated, 41x41 mm	(page F64)



KLU fixing set

For an application example, see the chapter assembly.

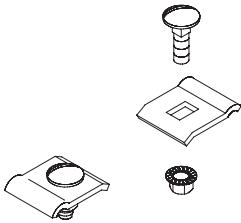
article number	G kg/100
S	
KLU	2,5

accessories included:

2 x FRSV 6x16	round-head screw with short square	(page H34)
2 x SEMS 6	hexagon nut, self-locking, DIN 6923	(page H41)

accessories optional:

FRSV	round-head screw with short square	(page H34)
FRS	round-head screw with square, DIN 603	(page H35)
SEMS	hexagon nut, self-locking, DIN 6923	(page H41)



Fastenings

Clamping assembly

KLU fixing set

For an application example, see the chapter assembly.

article number	G kg/100
F	
KLU F	2,5
E	
KLU E	2,5

accessories included:
2 x **SEMS 6E** hexagon nut, self-locking, DIN 6923 (page H41)
2 x **FRSV 6x16E** round-head screw with short square (page H35)

article number	G kg/100
E4	
KLU E4	2,5

accessories included:
2 x **FKS 6x16E4** slotted cylinder head screw, DIN 84 (page H36)
2 x **US 6x12E4** square washer, DIN 125 (page H40)
2 x **SEM 6E4** hexagon-nut, DIN 934 (page H41)

accessories optional:
FRSV round-head screw with short square (page H34)
FRS round-head screw with square, DIN 603 (page H35)
SEMS hexagon nut, self-locking, DIN 6923 (page H41)

KLUS clamping assembly

For an application example, see the chapter assembly.

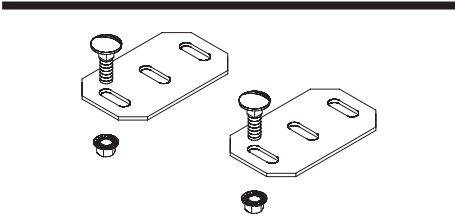
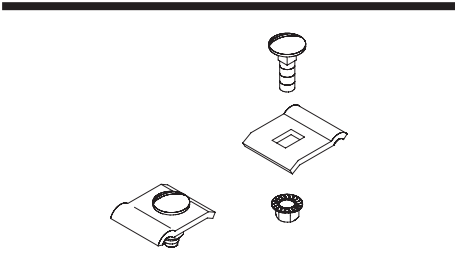
article number	G kg/100
S	
KLUS	9,3

accessories included:
2 x **FRSV 6x16** round-head screw with short square (page H34)
2 x **SEMS 6** hexagon nut, self-locking, DIN 6923 (page H41)

article number	G kg/100
E	
KLUS E	8,1

accessories included:
2 x **FRSV 6x16E** round-head screw with short square (page H35)
2 x **SEMS 6E** hexagon nut, self-locking, DIN 6923 (page H41)

accessories optional:
FRSV round-head screw with short square (page H34)
FRS round-head screw with square, DIN 603 (page H35)
SEMS hexagon nut, self-locking, DIN 6923 (page H41)



Fastenings

Clamping assembly

KLUT clamping assembly

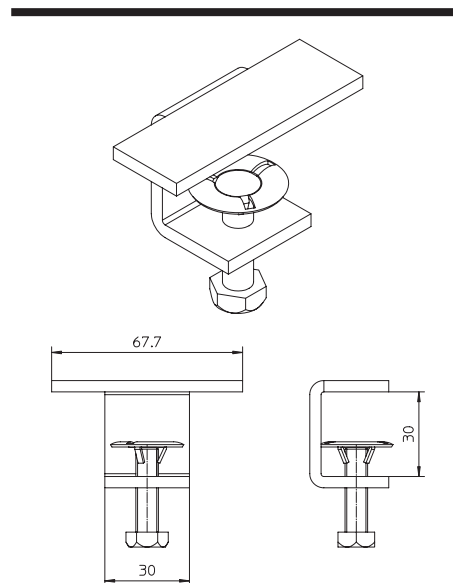
article number	G kg/100
F	
KLUT F	12,4

article number	G kg/100
E	
KLUT E	11,2

accessories included:
1 x **SES 8x30E** hexagon head bolt, DIN 933 (page H38)

article number	G kg/100
E4	
KLUT E4	11,2

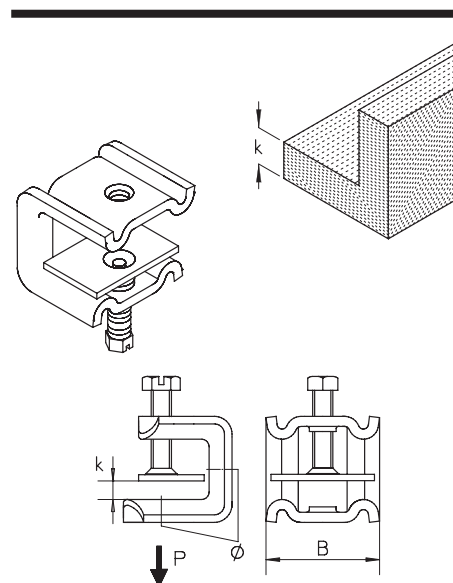
accessories included:
1 x **SES 8x30E4** hexagon head bolt, DIN 933 (page H38)



MKD beam clamp

For an application example, see the chapter assembly.

article number	B mm	Ø mm	K mm	P kN	M nM	G kg/100
F						
MKD 21	44	M8	6-21	1.50	4	19
MKD 21 M6	44	M6	6-21	1.50	4	18
MKD 21 M10	44	M10	6-21	1.50	4	17.3
MKD 40	44	M8	20-40	1.30	4	20.4
E						
MKD 21E	44	M8	6-21	1.50	4	19
MKD 21E M6	44	M6	6-21	1.50	4	18
MKD 21E M10	44	M10	6-21	1.50	4	17.3
MKD 40E	44	M8	20-40	1.30	4	19.3
E4						
MKD 21E4	44	M8	6-21	1.50	4	19
MKD 40E4	44	M8	20-40	1.30	4	19.3



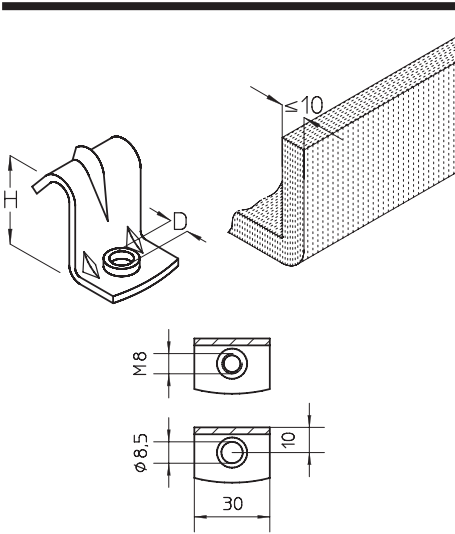
Fastenings

Clamping assembly

SN G beam clamp

For an application example, see the chapter assembly.

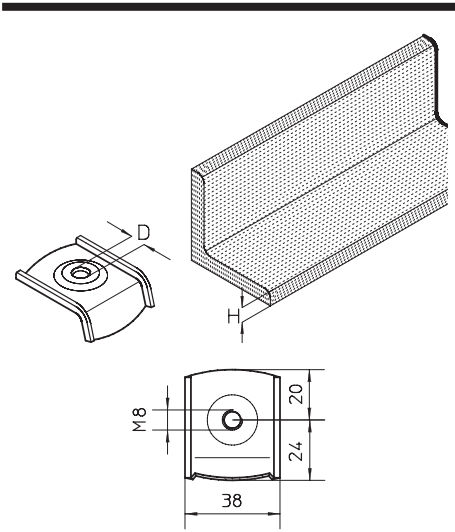
article number	H mm	D mm	G kg
F			
SN 25 M/G	25	M 8	0,04
SN 35 M/G	35	M 8	0,05
SN 25 O/G	25	8,5	0,04
SN 35 O/G	35	8,5	0,05



SK clamping claw

For an application example, see the chapter assembly.

article number	H mm	D mm	G kg
F			
SK 4 M8	4	M 8	0,04
SK 6 M8	6	M 8	0,04
SK 8 M8	8	M 8	0,04
SK 10 M8	10	M 8	0,04
SK 12 M8	12	M 8	0,04



Fastenings

Clamping assembly

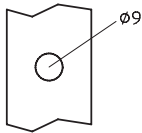
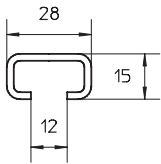
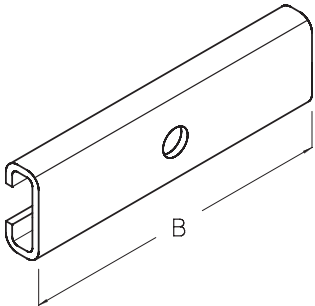
AN support

For an application example, see the chapter assembly.

article number	B mm	G kg
F		
AN 100	100	8,00

accessories optional:

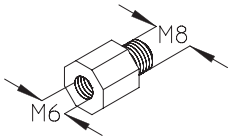
B	cable clamp for fastening to profile rails	(catalogue cable clamps)
HB	cable clamp for fastening to profile rails	(catalogue cable clamps)
ACF-E	cable clamp for fastening to C-profiles	(catalogue cable clamps)



RGW reducing bolt

For an application example, see the chapter assembly.

article number	G kg
Z	
RGW 8/6	0,01
E	
RGW 8/6E	0,01



Fastenings

Plugs

SD expansion anchor

Manufacturer's information has to be observed strictly (ETA-05/0069). *Permissible load for a single anchor in cracked normal concrete (concrete tension zone) with a consistency of $\geq C20/25$
For an application example, see the chapter assembly.

article number	$\varnothing$ mm	D mm	t mm	P_{zul} kN	L_{min} mm	G kg/100
GV						
SDK 10/10	10	10	0-10	4,3	55	5,88
SD 8/10	8	8	0 - 10	3,6	55	3,50
SD 8/30	8	8	0 - 30	3,6	55	4,40
SD 10/10	10	10	0 - 10	5,7	75	6,20
SD 10/30	10	10	0 - 30	5,7	75	7,80
SD 12/10	12	12	0 - 10	9,5	90	11,00
SD 16/25	16	16	0 - 25	13,4	110	26,30
E4						
SD 8/10E4	8	8	0 - 10	3,6	55	3,60
SD 10/10E4	10	10	0 - 10	5,7	75	6,20
SD 12/10E4	12	12	0 - 10	9,5	90	10,90

SAZ anchor

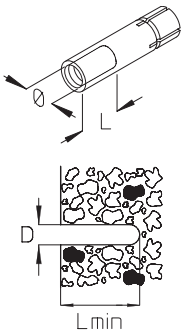
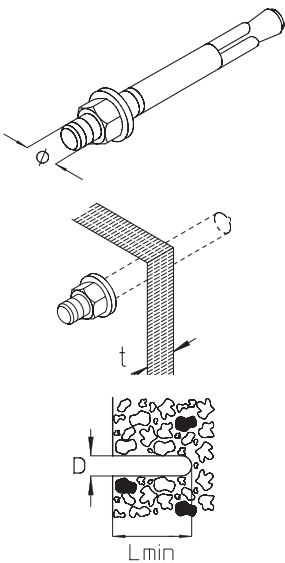
Manufacturer's information has to be observed strictly (ETA-06/0271). *Permissible load for a single anchor in cracked normal concrete (concrete tension zone) with a consistency of $\geq C20/25$

article number	$\varnothing$ mm	D mm	L mm	P_{zul} kN	L_{min} mm	G kg/100
GV						
SAZ 6	6	12	8 - 13	2,4	43	3,2
SAZ 8	8	10	11 - 17	1,6	43	1,4
SAZ 10	10	12	13 - 19	3,0	43	1,9
SAZ 12	12	14	15 - 21	3,6	43	2,6
E4						
SAZ 8E4	8	10	11 - 17	1,6	43	1,4
SAZ 10E4	10	12	13 - 19	3,0	43	1,9
SAZ 12E4	12	14	15 - 21	3,6	43	2,6

SAZ-B Ferro-concrete drill

manufacturer's information has to be observed strictly.

article number	G kg/100
GV	
SAZ-B 8	8,2
SAZ-B 10	14,0
SAZ-B 12	20,0



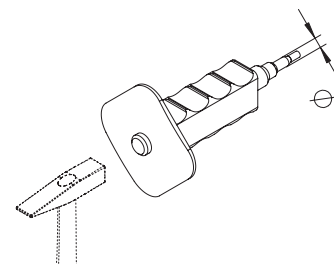
Fastenings

Plugs

SAZ-D anchor

manufacturer's information has to be observed strictly.

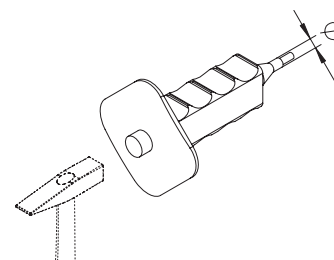
article number	Ø mm	G kg/100
GV		
SAZ-D 8	8	44,4
SAZ-D 10	10	45,0
SAZ-D 12	12	45,2



SA-D anchor

manufacturer's information has to be observed strictly.

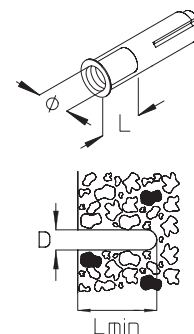
article number	Ø mm	G kg/100
GV		
SA-D 8	8	49,5
SA-D 10	10	50,5
SA-D 12	12	51,0



SA anchor

Manufacturer's information has to be observed strictly (ETA-07/0135). *Permissible load for a single anchor in non-cracked normal concrete (compressive concrete zone) with a consistency of $\geq C20/25$

article number	Ø mm	D mm	L mm	P _{zul} kN	L _{min} mm	G kg/100
GV						
SA 6	6	8	6 - 12	3,95	27	0,4
SA 8	8	10	11 - 17	3,95	33	0,5
SA 10	10	12	13 - 19	6,10	44	0,8
SA 12	12	15	15 - 21	8,50	54	1,6
E4						
SA 6E4	6	8	6 - 12	3,95	27	0,4
SA 8E4	8	10	11 - 17	3,95	33	0,5
SA 10E4	10	12	13 - 19	6,10	44	0,8
SA 12E4	12	15	15 - 21	8,50	54	1,6



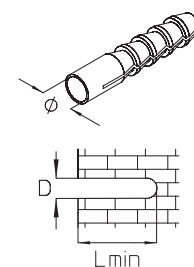
KD plastic dowel

manufacturer's information has to be observed strictly.

article number	Ø mm	D mm	L _{min} mm	G kg/100
PA				
KD 6	6	8	55	0,2
KD 8	8	10	70	0,3
KD 10	10	12	80	0,5
KD 12	12	14	95	0,7

accessories optional:

SEH hexagon wood screw (page H38)

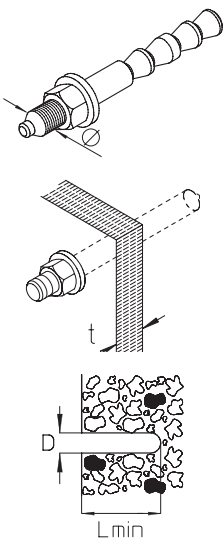


VAB-HB shear connector rod, concrete

Manufacturer's information has to be observed strictly (ETA-05/0164). *Permissible load for a single anchor in cracked normal concrete (concrete tension zone) with a consistency of $\geq C20/25$

article number	Ø mm	D mm	t mm	P _{zul} kN	L _{min} mm	G kg/100
GV						
VAB-HB 10/20	10	10	0 - 20	8	75	6,7
VAB-HB 12/25	12	12	0 - 25	11,1	90	11,9
VAB-HB 16/30	16	16	0 - 30	15,9	110	30,0
E4						
VAB-HB 10/20E4	10	10	0 - 20	8	75	6,9
VAB-HB 12/25E4	12	12	0 - 25	11,1	90	12,0
VAB-HB 16/30E4	16	16	0 - 30	15,9	110	30,2

accessories optional:
VAB-HB M shear connector mortar (page H14)



VAB-HB B shear connector rod, brush

manufacturer's information has to be observed strictly. 40-50 dowels per cartridge

article number	G kg
VAB-HB B10	0,03
VAB-HB B12	0,04
VAB-HB B16	0,08

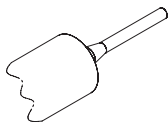


VAB-HB M shear connector mortar

manufacturer's information has to be observed strictly. Dowels per cartridge in concrete: VAS-HB 10/20 approx. 40x; VAS-HB 12/25 approx. 34x; VAS-HB 16/30 approx. 21x

article number	G kg/100
VAB-HB M	23

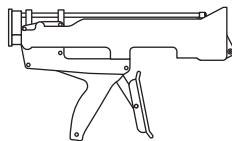
accessories optional:
VA-AP shear connector rod, pistol (page H14)



VA-AP shear connector rod, pistol

manufacturer's information has to be observed strictly.

article number	G kg
VA-AP	1,15



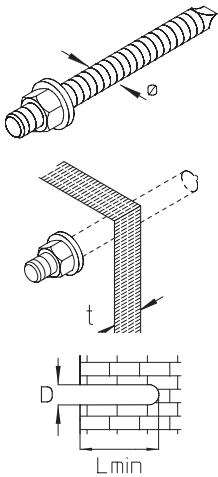
VAS-AS shear connector rod, stone

Manufacturer's information has to be observed strictly (Z-21.3-1824). load specifications are dependent on the ground.
30-40 dowels per cartridge

article number	Ø mm	D mm	t mm	L _{min} mm	G kg/100
GV					
VAS-AS 8/15	8	10	0 - 15	80	4,2
VAS-AS 10/25	10	12	0 - 25	80	7,0
VAS-AS 12/40	12	14	0 - 40	80	11,8
E4					
VAS-AS 8/15E4	8	10	0 - 15	80	4,2
VAS-AS 10/25E4	10	12	0 - 25	80	7,2
VAS-AS 12/40E4	12	14	0 - 40	80	12,1

accessories optional:

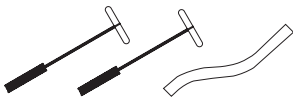
VAS-BS	shear connector rod, fire protection	(page H15)
VAS-M	shear connector mortar	(page H15)
VAS-SH	perforated bush for shear connector, stone	(page H15)



VAS-BS shear connector rod, fire protection

manufacturer's information has to be observed strictly.

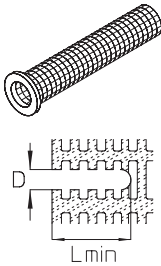
article number	G kg
GV	
VAS-BS 14/20	10,30



VAS-SH perforated bush for shear connector, stone

manufacturer's information has to be observed strictly.

article number	G kg/100
GV	
VAS-SH	0,2



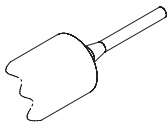
VAS-M shear connector mortar

manufacturer's information has to be observed strictly. Dowels per cartridge in solid brick: VAS-AS 8/15 approx. 50x; VAS-AS 10/25 approx. 40x; VAS-AS 12/40 approx. 30x Dowels per cartridge in perforated brick: VAS-AS + VAS-SH approx. 14x

article number	G kg/100
VAS-M	
VAS-M	67,2

accessories optional:

VA-AP	shear connector rod, pistol	(page H14)
-------	-----------------------------	------------



Fastenings

Suspension components

TBS trapezium bow

manufacturer's information has to be observed strictly. For hanging direct in trapeze profile.
For an application example, see the chapter assembly.
For assembly instructions, see the chapter assembly.

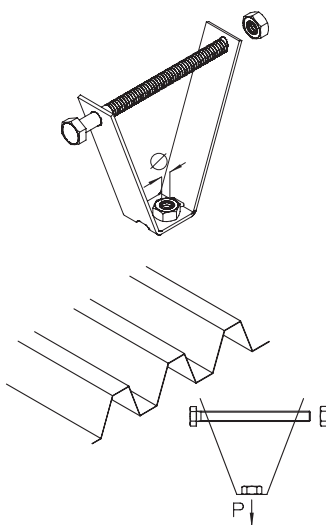
article number	Ø mm	P _{zul} kN	G kg/100
TBS 8	8	1,3	0,14
TBS 10	10	1,3	0,14

accessories included:

1 x **SES 8x110** hexagon head bolt, DIN 933 (page H37)
1 x **SEM 8** hexagon-nut, DIN 934 (page H41)

accessories optional:

HFEF8EXP 2 wire suspension with threaded end M8 and express closure (page H20)
HFEF8 3 wire suspension with threaded end M8 and universal closure (page H20)
HFEF10EXP 2 wire suspension with threaded end M10 and express closure (page H20)
HFEF10 3 wire suspension with threaded end M10 and universal closure (page H21)
HFEF10 4 wire suspension with threaded end M10 and universal closure (page H21)

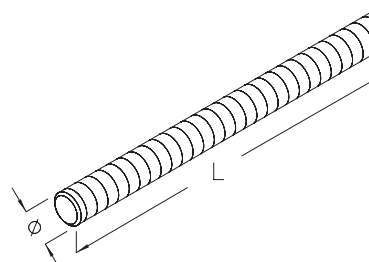


GB threaded rod, DIN 976-1

Stress-areas according to DIN 267 T4: GB M8 = 36.6 mm², GB M10 = 58.0 mm², GB M12 = 84.3 mm²
For an application example, see the chapter assembly.

article number	Ø mm	L mm	G kg
GV			
GB M8-03	8	300	0,09
GB M8-05	8	500	0,15
GB M8-10	8	1000	0,30
GB M10-03	10	300	0,15
GB M10-05	10	500	0,25
GB M10-10	10	1000	0,50
GB M12-03	12	300	0,21
GB M12-05	12	500	0,35
GB M12-10	12	1000	0,70

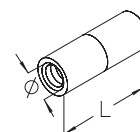
E			
GB M8-10E	8	1000	0,30
GB M10-10E	10	1000	0,50
GB M12-10E	12	1000	0,70



VM rod coupling

article number	Ø mm	L mm	G kg
GV			
VM M8	8	30	0,01
VM M10	10	30	0,03
VM M12	12	30	0,05

E			
VM M8E	8	30	0,01
VM M10E	10	30	0,03
VM M12E	12	30	0,05



Fastenings

Suspension components

KNK chain

Chain elongation app. 0,1 x length.
For an application example, see the chapter assembly.

article number	t mm	G kg/m
GV		
KNK	3	0,2

accessories optional:
KNK-NG chain, emergency link (page H17, K05)

KNK-NG chain, emergency link

For an application example, see the chapter assembly.

article number	t mm	G kg/100
GV		
KNK-NG	3	0,36

DAS wire eyebolt

For an application example, see the chapter assembly.

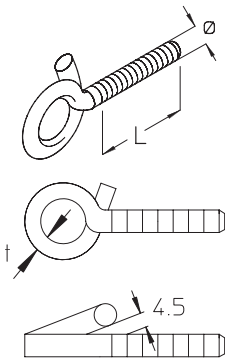
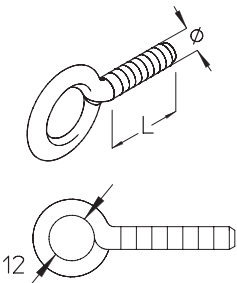
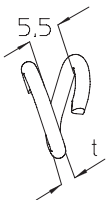
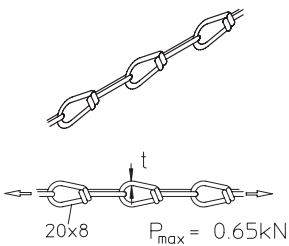
article number	Ø mm	L mm	t mm	P _{max} kN	G kg
DAS 8x30	8	30	7	0,5	0,02

SHS eyebolt

For an application example, see the chapter assembly.

article number	Ø mm	L mm	t mm	G kg
GV				
SHS 6x40	6	40	5,2	0,02
SHS 8x45	8	45	7,0	0,03

accessories optional:
KNK chain (page H17, K05)



P_{max} = 0,4 kN

Fastenings

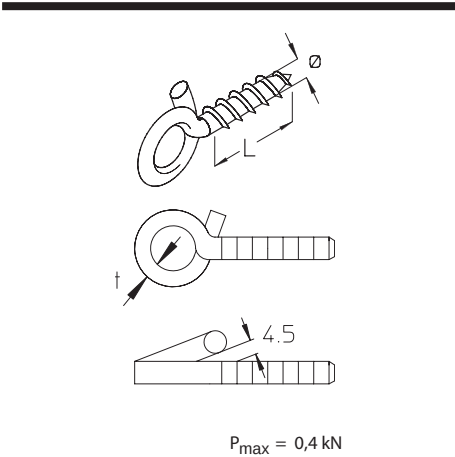
Suspension components

SHH eyebolt

For an application example, see the chapter assembly.

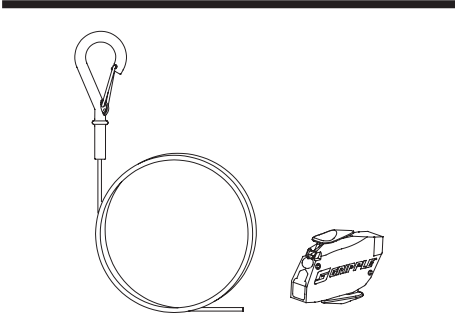
article number	Ø mm	L mm	t mm	G kg
GV				
SHH 6x40	6	40	5,2	0,02

accessories optional:
KNK chain (page H17, K05)



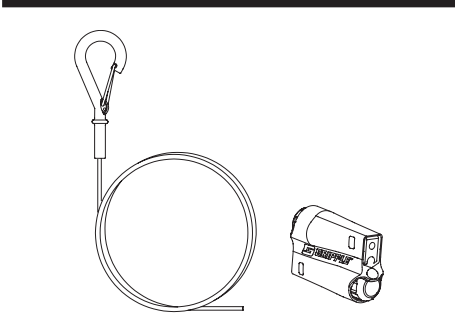
HFCEXP 1 wire suspension with hook and express closure

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
HFCEXP 11GV	1000	15	1	0,06
HFCEXP 12GV	2000	15	1	0,06
HFCEXP 13GV	3000	15	1	0,06
HFCEXP 14GV	4000	15	1	0,08
HFCEXP 15GV	5000	15	1	0,09
HFCEXP 110GV	10000	15	1	0,09



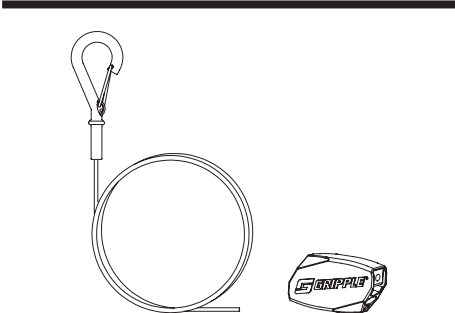
HFCEXP 2 wire suspension with hook and express closure

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
HFCEXP 21GV	1000	45	2	0,06
HFCEXP 22GV	2000	45	2	0,08
HFCEXP 23GV	3000	45	2	0,09
HFCEXP 24GV	4000	45	2	0,13
HFCEXP 25GV	5000	45	2	0,14
HFCEXP 210GV	10000	45	2	0,21



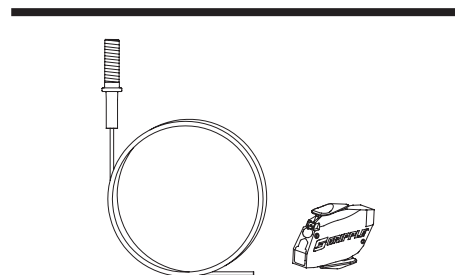
HFEC 3 wire suspension with hook and universal closure

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
HFEC 31GV	1000	90	3	0,08
HFEC 32GV	2000	90	3	0,13
HFEC 33GV	3000	90	3	0,16
HFEC 34GV	4000	90	3	0,20
HFEC 35GV	5000	90	3	0,24
HFEC 310GV	1000	90	3	0,43



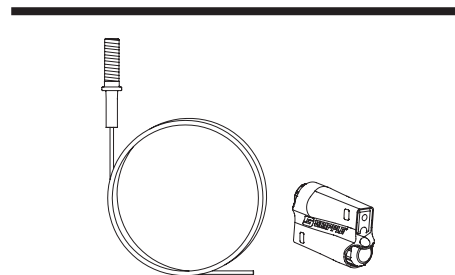
HFEF6EXP 1 wire suspension with threaded end M6 and express closure

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
HFEF6EXP 11GV	1000	15	1	0,04
HFEF6EXP 12GV	2000	15	1	0,06
HFEF6EXP 13GV	3000	15	1	0,06
HFEF6EXP 14GV	4000	15	1	0,06
HFEF6EXP 15GV	5000	15	1	0,07
HFEF6EXP 110GV	10000	15	1	0,12



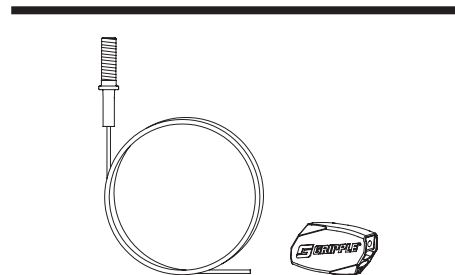
HFEF6EXP 2 wire suspension with threaded end M6 and express closure

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
HFEF6EXP 21GV	1000	45	2	0,06
HFEF6EXP 22GV	2000	45	2	0,08
HFEF6EXP 23GV	3000	45	2	0,10
HFEF6EXP 24GV	4000	45	2	0,11
HFEF6EXP 25GV	5000	45	2	0,13
HFEF6EXP 210GV	10000	45	2	0,22



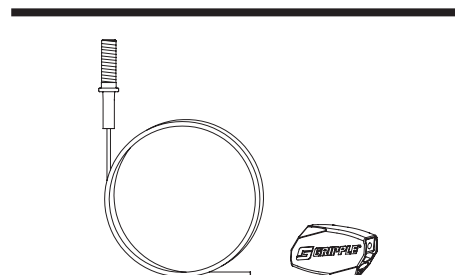
HFEF6 2 wire suspension with threaded end M6 and universal closure

article number	L mm	P _{max} kg	Gripple load class	G kg
E2				
HFEF6 21E2	1000	45	2	0,05
HFEF6 22E2	2000	45	2	0,07
HFEF6 23E2	3000	45	2	0,08
HFEF6 24E2	4000	45	2	0,09
HFEF6 25E2	5000	45	2	0,10
HFEF6 210E2	10000	45	2	0,18



HFEF6 3 wire suspension with threaded end M6 and universal closure

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
HFEF6 31GV	1000	90	3	0,06
HFEF6 32GV	2000	90	3	0,10
HFEF6 33GV	3000	90	3	0,14
HFEF6 34GV	4000	90	3	0,18
HFEF6 35GV	5000	90	3	0,22
HFEF6 310GV	10000	90	3	0,42

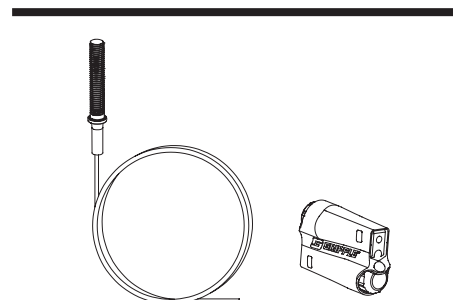


Fastenings

Suspension components

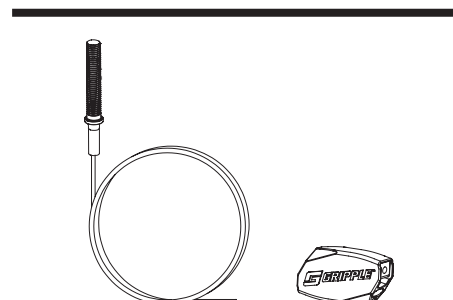
HFEF8EXP 2 wire suspension with threaded end M8 and express closure

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
HFEF8EXP 21GV	1000	45	2	0,08
HFEF8EXP 22GV	2000	45	2	0,09
HFEF8EXP 23GV	3000	45	2	0,11
HFEF8EXP 24GV	4000	45	2	0,13
HFEF8EXP 25GV	5000	45	2	0,14
HFEF8EXP 210GV	10000	45	2	0,23



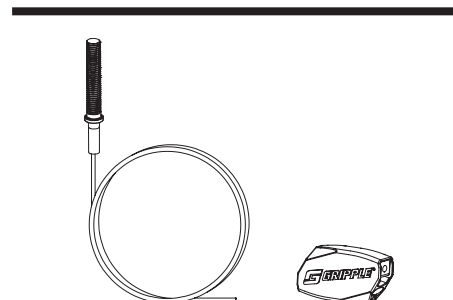
HFEF8 2 wire suspension with threaded end M8 and universal closure

article number	L mm	P _{max} kg	Gripple load class	G kg
E2				
HFEF8 21E2	1000	45	2	0,05
HFEF8 22E2	2000	45	2	0,07
HFEF8 23E2	3000	45	2	0,08
HFEF8 24E2	4000	45	2	0,09
HFEF8 25E2	5000	45	2	0,10
HFEF8 210E2	10000	45	2	0,18



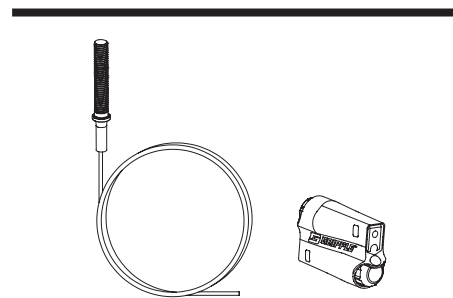
HFEF8 3 wire suspension with threaded end M8 and universal closure

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
HFEF8 31GV	1000	90	3	0,10
HFEF8 32GV	2000	90	3	0,14
HFEF8 33GV	3000	90	3	0,18
HFEF8 34GV	4000	90	3	0,22
HFEF8 35GV	5000	90	3	0,26
HFEF8 310GV	10000	90	3	0,42
E2				
HFEF8 31E2	1000	90	3	0,08
HFEF8 32E2	2000	90	3	0,11
HFEF8 33E2	3000	90	3	0,14
HFEF8 34E2	4000	90	3	0,18
HFEF8 35E2	5000	90	3	0,20
HFEF8 310E2	10000	90	3	0,37



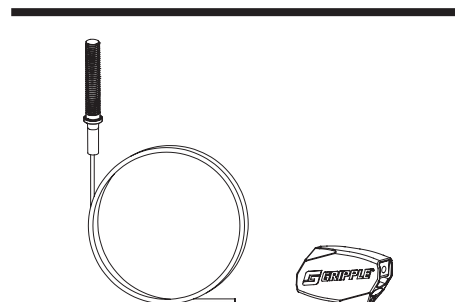
HFEF10EXP 2 wire suspension with threaded end M10 and express closure

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
HFEF10EXP 21GV	1000	45	2	0,08
HFEF10EXP 22GV	2000	45	2	0,09
HFEF10EXP 23GV	3000	45	2	0,11
HFEF10EXP 24GV	4000	45	2	0,13
HFEF10EXP 25GV	5000	45	2	0,14
HFEF10EXP 210GV	10000	45	2	0,23



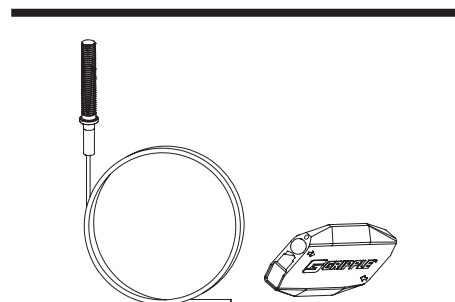
HFEF10 3 wire suspension with threaded end M10 and universal closure

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
HFEF10 31GV	1000	90	3	0,10
HFEF10 32GV	2000	90	3	0,14
HFEF10 33GV	3000	90	3	0,17
HFEF10 34GV	4000	90	3	0,21
HFEF10 35GV	5000	90	3	0,25
HFEF10 310GV	10000	90	3	0,42



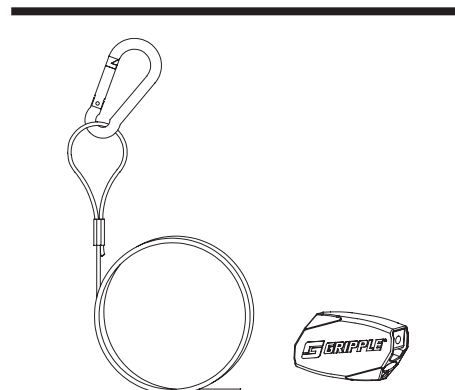
HFEF10 4 wire suspension with threaded end M10 and universal closure

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
HFEF10 41GV	1000	225	4	0,21
HFEF10 42GV	2000	225	4	0,30
HFEF10 43GV	3000	225	4	0,39
HFEF10 44GV	4000	225	4	0,47
HFEF10 45GV	5000	225	4	0,55
HFEF10 410GV	10000	225	4	0,99



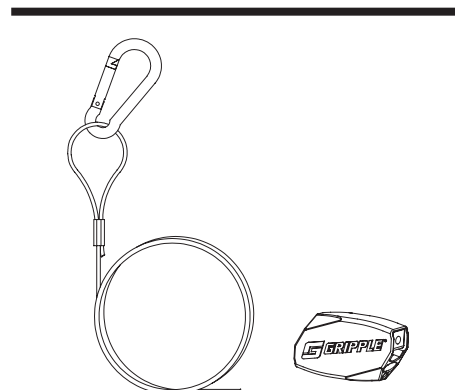
HFEM 2 wire suspension with carbine and universal closure

article number	L mm	P _{max} kg	Gripple load class	G kg
E4				
HFEM 21E4	1000	45	2	0,05
HFEM 22E4	2000	45	2	0,07
HFEM 23E4	3000	45	2	0,08
HFEM 24E4	4000	45	2	0,09
HFEM 25E4	5000	45	2	0,10
HFEM 210E4	10000	45	2	0,18



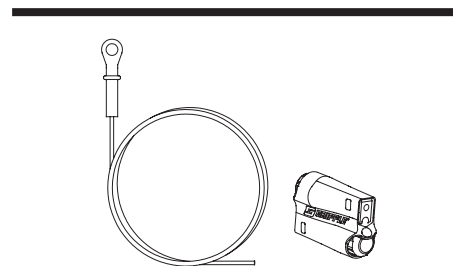
HFEM 3 wire suspension with carbine and universal closure

article number	L mm	P _{max} kg	Gripple load class	G kg
E4				
HFEM 31E4	1000	90	3	0,08
HFEM 32E4	2000	90	3	0,11
HFEM 33E4	3000	90	3	0,14
HFEM 34E4	4000	90	3	0,18
HFEM 35E4	5000	90	3	0,20
HFEM 310E4	10000	90	3	0,37



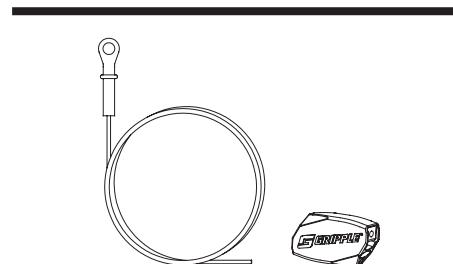
HFEOEXP 2 wire suspension with eyelet straight and express closure

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
HFEOEXP 21GV	1000	45	2	0,05
HFEOEXP 22GV	2000	45	2	0,07
HFEOEXP 23GV	3000	45	2	0,09
HFEOEXP 24GV	4000	45	2	0,10
HFEOEXP 25GV	5000	45	2	0,12
HFEOEXP 210GV	10000	45	2	0,20



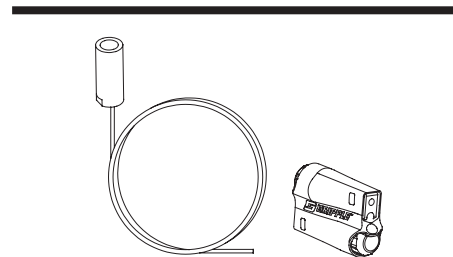
HFEO 3 wire suspension with eyelet straight and universal closure

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
HFEO 31GV	1000	90	3	0,08
HFEO 32GV	2000	90	3	0,13
HFEO 33GV	3000	90	3	0,16
HFEO 34GV	4000	90	3	0,21
HFEO 35GV	5000	90	3	0,38
HFEO 310GV	10000	90	3	0,45



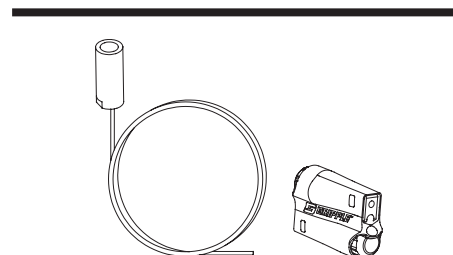
HFET6EXP 1 wire suspension with threaded transition M6 and express closure

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
HFET6EXP 11GV	1000	15	1	0,04
HFET6EXP 12GV	2000	15	1	0,06
HFET6EXP 13GV	3000	15	1	0,06
HFET6EXP 14GV	4000	15	1	0,06
HFET6EXP 15GV	5000	15	1	0,07
HFET6EXP 110GV	10000	15	1	0,12



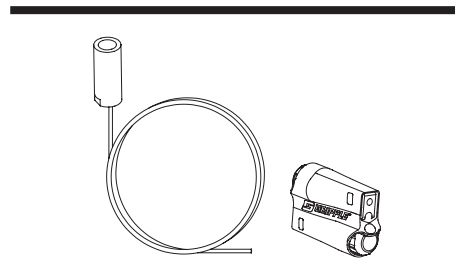
HFET6EXP 2 wire suspension with threaded transition M6 and express closure

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
HFET6EXP 21GV	1000	45	2	0,06
HFET6EXP 22GV	2000	45	2	0,08
HFET6EXP 23GV	3000	45	2	0,10
HFET6EXP 24GV	4000	45	2	0,11
HFET6EXP 25GV	5000	45	2	0,13
HFET6EXP 210GV	10000	45	2	0,22



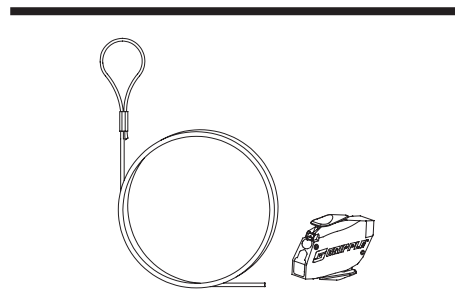
HFET8EXP 2

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
HFET8EXP 21GV	1000	45	2	0,06
HFET8EXP 22GV	1000	45	2	0,08
HFET8EXP 23GV	1000	45	2	0,10
HFET8EXP 24GV	1000	45	2	0,11
HFET8EXP 25GV	1000	45	2	0,13
HFET8EXP 210GV	1000	45	2	0,22



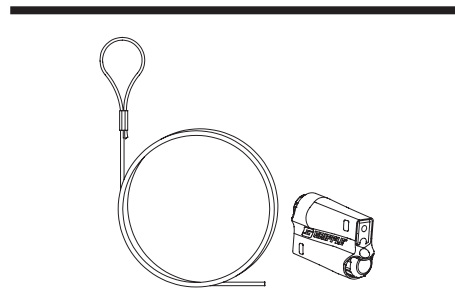
HFFREXP 1

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
HFFREXP 11GV	1000	15	1	0,04
HFFREXP 12GV	2000	15	1	0,04
HFFREXP 13GV	3000	15	1	0,06
HFFREXP 14GV	4000	15	1	0,06
HFFREXP 15GV	5000	15	1	0,07
HFFREXP 110GV	10000	15	1	0,11



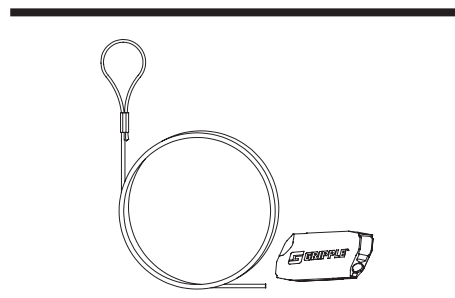
HFFREXP 2 wire suspension with loop and express closure

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
HFFREXP 21GV	1000	45	2	0,05
HFFREXP 22GV	2000	45	2	0,06
HFFREXP 23GV	3000	45	2	0,08
HFFREXP 24GV	4000	45	2	0,10
HFFREXP 25GV	5000	45	2	0,12
HFFREXP 210GV	10000	45	2	0,21



HFFR 2 wire suspension with loop and universal closure

article number	L mm	P _{max} kg	Gripple load class	G kg
E4				
HFFR 21E4	1000	45	2	0,03
HFFR 22E4	2000	45	2	0,05
HFFR 23E4	3000	45	2	0,07
HFFR 24E4	4000	45	2	0,10
HFFR 25E4	5000	45	2	0,10
HFFR 210E4	10000	45	2	0,18



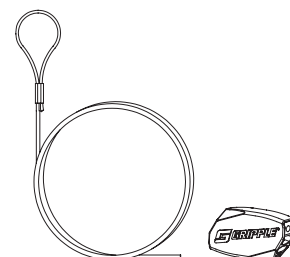
Fastenings

Suspension components

HFFR 3 wire suspension with loop and universal closure

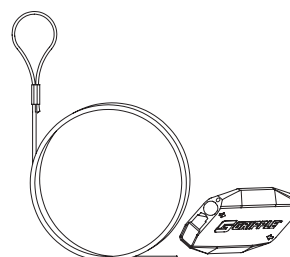
article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
HFFR 31GV	1000	90	3	0,08
HFFR 32GV	2000	90	3	0,12
HFFR 33GV	3000	90	3	0,16
HFFR 34GV	4000	90	3	0,18
HFFR 35GV	5000	90	3	0,22
HFFR 310GV	10000	90	3	0,39

E4				
HFFR 31E4	1000	90	3	0,08
HFFR 32E4	2000	90	3	0,11
HFFR 33E4	3000	90	3	0,14
HFFR 34E4	4000	90	3	0,18
HFFR 35E4	5000	90	3	0,20
HFFR 310E4	10000	90	3	0,37



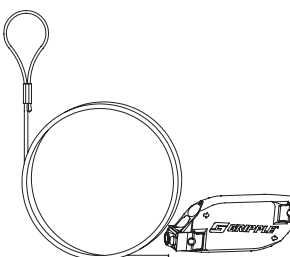
HFFR 4 wire suspension with loop and universal closure

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
HFFR 41GV	1000	225	4	0,22
HFFR 42GV	2000	225	4	0,29
HFFR 43GV	3000	225	4	0,39
HFFR 44GV	4000	225	4	0,45
HFFR 45GV	5000	225	4	0,61
HFFR 410GV	10000	225	4	1,09



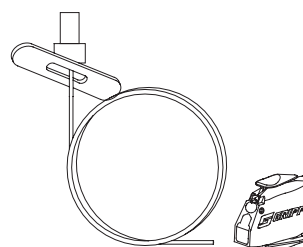
HFFR 5 wire suspension with loop and universal closure

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
HFFR 51GV	1000	325	5	0,40
HFFR 52GV	2000	325	5	0,70
HFFR 53GV	3000	325	5	0,73
HFFR 54GV	4000	325	5	0,89
HFFR 55GV	5000	325	5	1,08
HFFR 510GV	10000	325	5	1,88



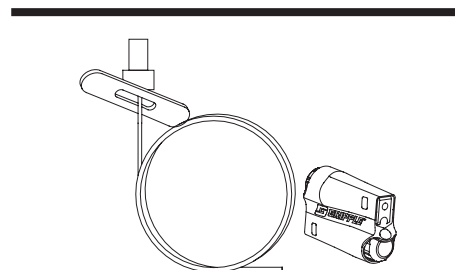
HFSPEXP 1 wire suspension with cross anchor and express closure

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
HFSPEXP 11GV	1000	15	1	0,04
HFSPEXP 12GV	2000	15	1	0,04
HFSPEXP 13GV	3000	15	1	0,06
HFSPEXP 14GV	4000	15	1	0,06
HFSPEXP 15GV	5000	15	1	0,07
HFSPEXP 110GV	10000	15	1	0,12



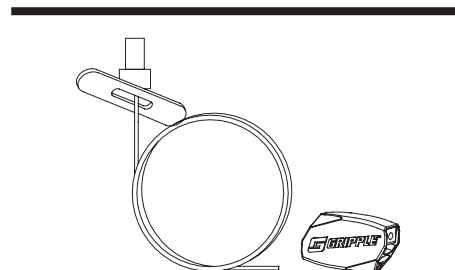
HFSPEXP 2 wire suspension with cross anchor and express closure

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
HFSPEXP 21GV	1000	45	2	0,05
HFSPEXP 22GV	2000	45	2	0,06
HFSPEXP 23GV	3000	45	2	0,08
HFSPEXP 24GV	4000	45	2	0,10
HFSPEXP 25GV	5000	45	2	0,12
HFSPEXP 210GV	10000	45	2	0,21



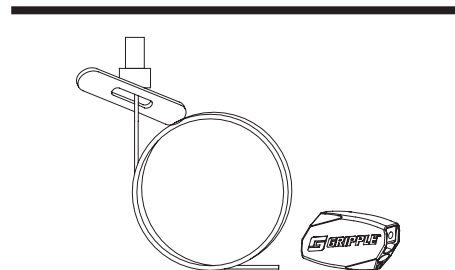
HFSP 2 wire suspension with cross anchor and universal closure

article number	L mm	P _{max} kg	Gripple load class	G kg
E2				
HFSP 21E2	1000	45	2	0,05
HFSP 22E2	2000	45	2	0,07
HFSP 23E2	3000	45	2	0,08
HFSP 24E2	4000	45	2	0,09
HFSP 25E2	5000	45	2	0,10
HFSP 210E2	10000	45	2	0,18



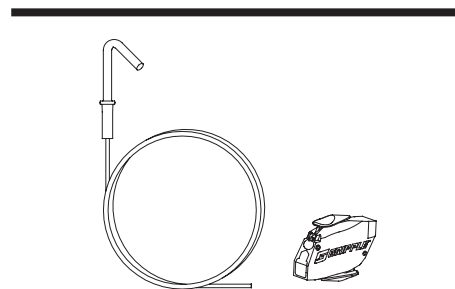
HFSP 3 wire suspension with cross anchor and universal closure

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
HFSP 31GV	1000	90	3	0,08
HFSP 32GV	2000	90	3	0,12
HFSP 33GV	3000	90	3	0,15
HFSP 34GV	4000	90	3	0,20
HFSP 35GV	5000	90	3	0,23
HFSP 310GV	10000	90	3	0,43



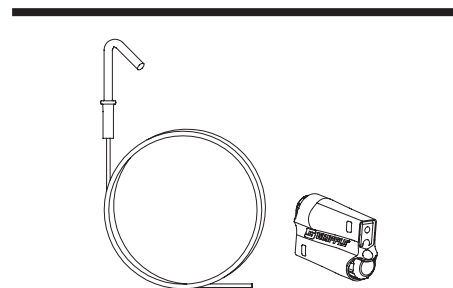
HFTHEXP 1 wire suspension with trapezium sheet metal hook and express closure

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
HFTHEXP 11GV	1000	15	1	0,04
HFTHEXP 12GV	2000	15	1	0,04
HFTHEXP 13GV	3000	15	1	0,06
HFTHEXP 14GV	4000	15	1	0,06
HFTHEXP 15GV	5000	15	1	0,07
HFTHEXP 110GV	10000	15	1	0,12



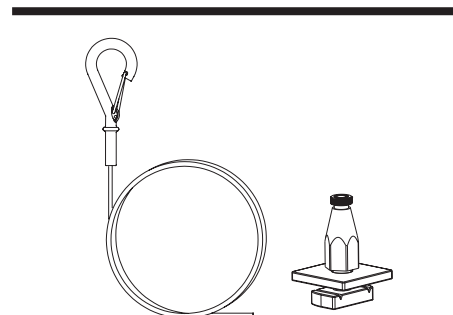
HFTHEXP 2 wire suspension with trapezium sheet metal hook and express closure

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
HFTHEXP 21GV	1000	45	2	0,05
HFTHEXP 22GV	2000	45	2	0,06
HFTHEXP 23GV	3000	45	2	0,08
HFTHEXP 24GV	4000	45	2	0,10
HFTHEXP 25GV	5000	45	2	0,12
HFTHEXP 210GV	10000	45	2	0,21



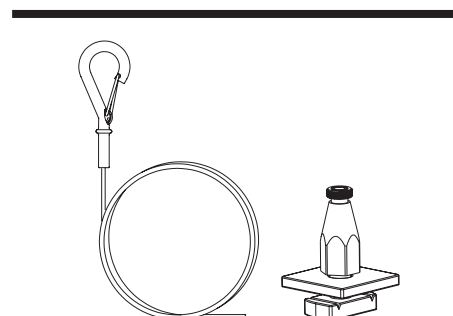
TPZPEC 2 wire suspension with hook and trapezium closure plus

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
TPZPEC 21GV	1000	45	2	0,14
TPZPEC 22GV	2000	45	2	0,16
TPZPEC 23GV	3000	45	2	0,17
TPZPEC 24GV	4000	45	2	0,20
TPZPEC 25GV	5000	45	2	0,22
TPZPEC 210GV	10000	45	2	0,28



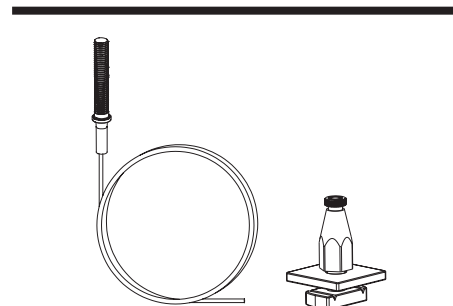
TPZPEC 3 wire suspension with hook and trapezium closure plus

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
TPZPEC 31GV	1000	90	3	0,14
TPZPEC 32GV	2000	90	3	0,18
TPZPEC 33GV	3000	90	3	0,21
TPZPEC 34GV	4000	90	3	0,25
TPZPEC 35GV	5000	90	3	0,29
TPZPEC 310GV	10000	90	3	0,48



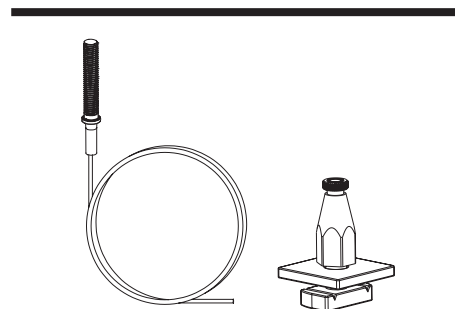
TPZPEF8 2 wire suspension with threaded end M8 and trapezium closure plus

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
TPZPEF8 21GV	1000	45	2	0,15
TPZPEF8 22GV	2000	45	2	0,17
TPZPEF8 23GV	3000	45	2	0,19
TPZPEF8 24GV	4000	45	2	0,20
TPZPEF8 25GV	5000	45	2	0,22
TPZPEF8 210GV	10000	45	2	0,31



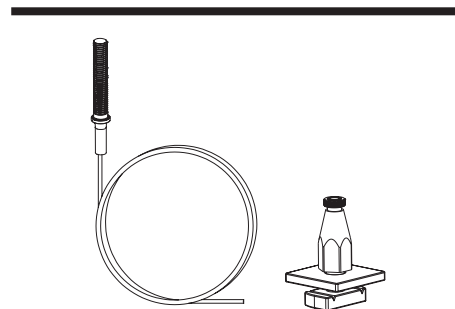
TPZPEF8 3 wire suspension with threaded end M8 and trapezium closure plus

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
TPZPEF8 31GV	1000	90	3	0,15
TPZPEF8 32GV	2000	90	3	0,19
TPZPEF8 33GV	3000	90	3	0,23
TPZPEF8 34GV	4000	90	3	0,27
TPZPEF8 35GV	5000	90	3	0,31
TPZPEF8 310GV	10000	90	3	0,47



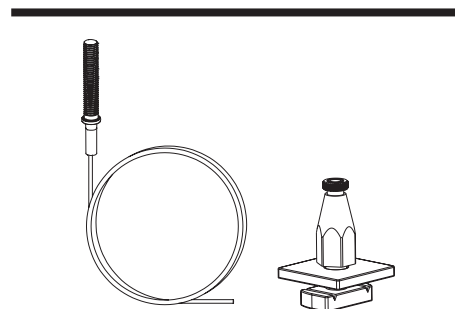
TPZPEF10 2 wire suspension with threaded end M10 and trapezium closure plus

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
TPZPEF10 21GV	1000	45	2	0,15
TPZPEF10 22GV	2000	45	2	0,17
TPZPEF10 23GV	3000	45	2	0,19
TPZPEF10 24GV	4000	45	2	0,20
TPZPEF10 25GV	5000	45	2	0,22
TPZPEF10 210GV	10000	45	2	0,31



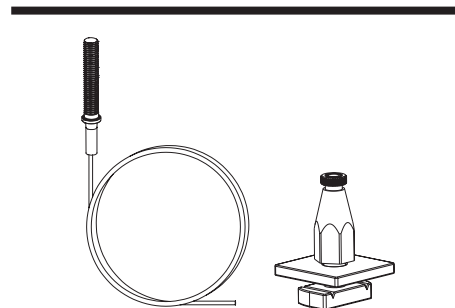
TPZPEF10 3 wire suspension with threaded end M10 and trapezium closure plus

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
TPZPEF10 31GV	1000	90	3	0,15
TPZPEF10 32GV	2000	90	3	0,19
TPZPEF10 33GV	3000	90	3	0,22
TPZPEF10 34GV	4000	90	3	0,26
TPZPEF10 35GV	5000	90	3	0,30
TPZPEF10 310GV	10000	90	3	0,47



TPZPEF10 4 wire suspension with threaded end M10 and trapezium closure plus

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
TPZPEF10 41GV	1000	225	4	0,21
TPZPEF10 42GV	2000	225	4	0,30
TPZPEF10 43GV	3000	225	4	0,39
TPZPEF10 44GV	4000	225	4	0,48
TPZPEF10 45GV	5000	225	4	0,56
TPZPEF10 410GV	10000	225	4	0,99

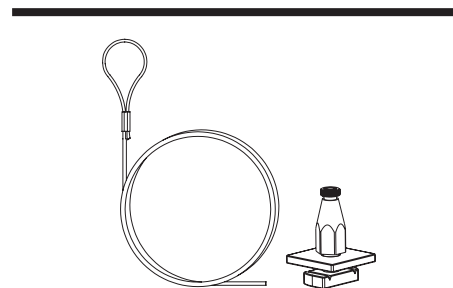


Fastenings

Suspension components

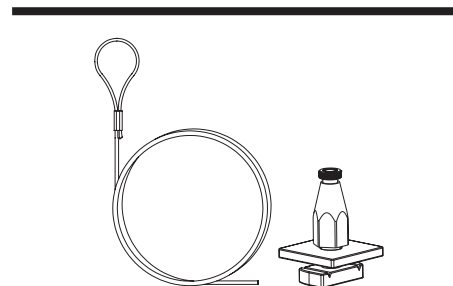
TPZPFR 2 wire suspension with loop and trapezium closure plus

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
TPZPFR 21GV	1000	45	2	0,13
TPZPFR 22GV	2000	45	2	0,14
TPZPFR 23GV	3000	45	2	0,16
TPZPFR 24GV	4000	45	2	0,17
TPZPFR 25GV	5000	45	2	0,19
TPZPFR 210GV	1000	45	2	0,29



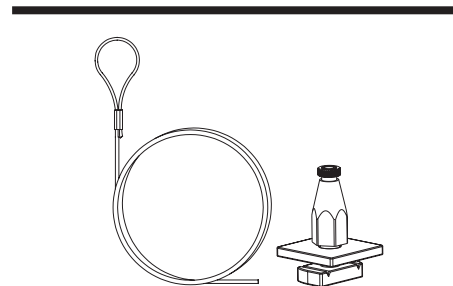
TPZPFR 3 wire suspension with loop and trapezium closure plus

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
TPZPFR 31GV	1000	90	3	0,13
TPZPFR 32GV	2000	90	3	0,17
TPZPFR 33GV	3000	90	3	0,21
TPZPFR 34GV	4000	90	3	0,23
TPZPFR 35GV	5000	90	3	0,27
TPZPFR 310GV	1000	90	3	0,44



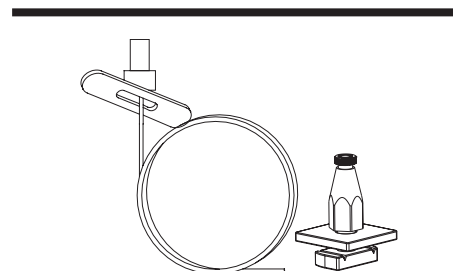
TPZPFR 4 wire suspension with loop and trapezium closure plus

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
TPZPFR 41GV	1000	225	4	0,22
TPZPFR 42GV	2000	225	4	0,29
TPZPFR 43GV	3000	225	4	0,39
TPZPFR 44GV	4000	225	4	0,45
TPZPFR 45GV	5000	225	4	0,62
TPZPFR 410GV	1000	225	4	1,09



TPZPSP 2 wire suspension with cross anchor and trapezium closure plus

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
TPZPSP 21GV	1000	45	2	0,13
TPZPSP 22GV	2000	45	2	0,14
TPZPSP 23GV	3000	45	2	0,16
TPZPSP 24GV	4000	45	2	0,18
TPZPSP 25GV	5000	45	2	0,20
TPZPSP 210GV	10000	45	2	0,29

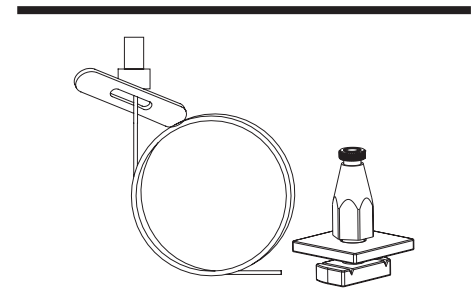


Fastenings

Suspension components

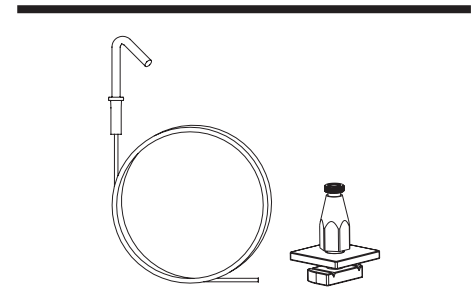
TPZPSP 3 wire suspension with cross anchor and trapezium closure plus

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
TPZPSP 31GV	1000	90	3	0,13
TPZPSP 32GV	2000	90	3	0,17
TPZPSP 33GV	3000	90	3	0,20
TPZPSP 34GV	4000	90	3	0,25
TPZPSP 35GV	5000	90	3	0,28
TPZPSP 310GV	10000	90	3	0,48



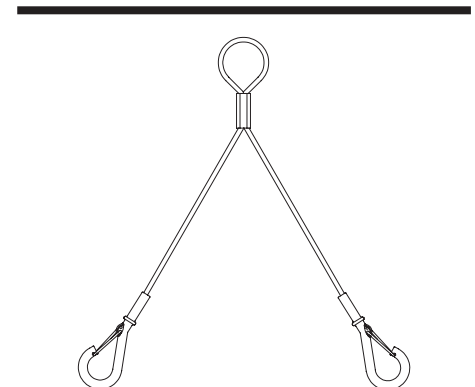
TPZPTH 2 wire suspension with trapezium sheet metal hook and trapezium closure plus

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
TPZPTH 21GV	1000	45	2	0,13
TPZPTH 22GV	2000	45	2	0,14
TPZPTH 23GV	3000	45	2	0,16
TPZPTH 24GV	4000	45	2	0,18
TPZPTH 25GV	5000	45	2	0,20
TPZPTH 210GV	10000	45	2	0,29



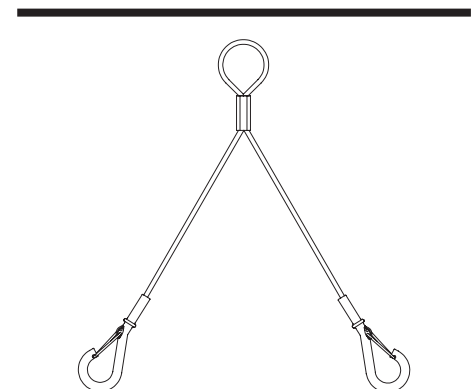
YAJEC 1 Y-Fit accessory with hook

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
YAJEC 1150GV	150	15	1	0,05
YAJEC 1300GV	300	15	1	0,05
YAJEC 1500GV	500	15	1	0,06
YAJEC 1800GV	800	15	1	0,08



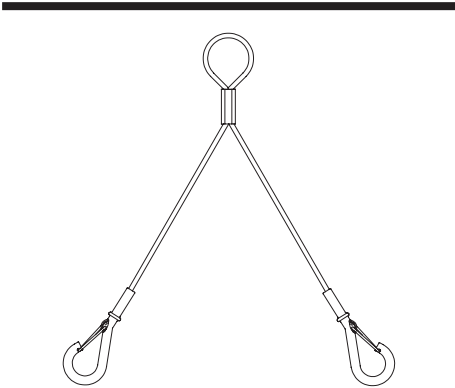
YAJEC 2 Y-Fit accessory with hook

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
YAJEC 2150GV	150	45	2	0,06
YAJEC 2300GV	300	45	2	0,07
YAJEC 2500GV	500	45	2	0,07
YAJEC 2800GV	800	45	2	0,08



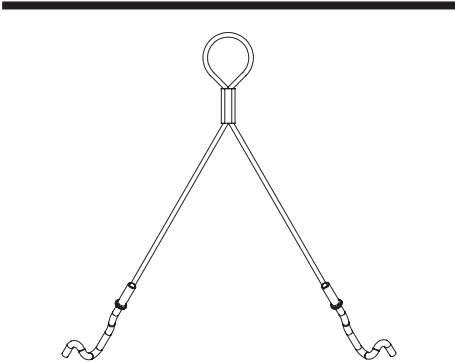
YAJEC 3 Y-Fit accessory with hook

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
YAJEC 3150GV	150	90	3	0,10
YAJEC 3300GV	300	90	3	0,13
YAJEC 3500GV	500	90	3	0,17
YAJEC 3800GV	800	90	3	0,26



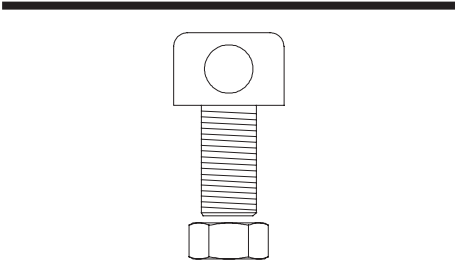
YAJCT 2 Y-Fit accessory with hook for cable trays

article number	L mm	P _{max} kg	Gripple load class	G kg
GV				
YAJCT 2150GV	150	45	2	0,06
YAJCT 2300GV	300	45	2	0,07



GRIPADAP thread adaptor with hole

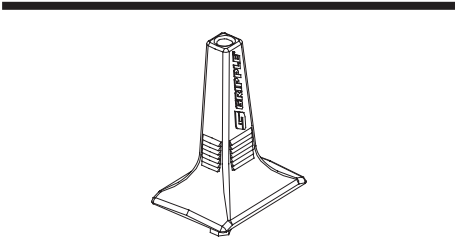
article number	Ø mm	G kg
GV		
GRIPADAP 6GV	6	0,01
GRIPADAP 8GV	8	0,03



GRIPTRAP trapezium lock

Trapeze lock for arranging several levels on one cable.

article number	Gripple load class	G kg
GV		
GRIPTRAP 2GV	2	0,02
GRIPTRAP 3GV	3	0,03



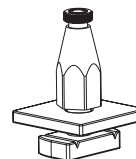
Fastenings

Suspension components

GRIPTRAPP trapezium lock plus

Trapeze lock for arranging several levels on one cable.

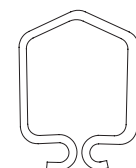
article number	Grippler load class	G kg
GV		
GRIPTRAPP 2GV	2	0,10
GRIPTRAPP 3GV	3	0,14
GRIPTRAPP 4GV	4	0,17



SPRINGCLIP spring clip

Push-in fastening for drills of 6 to 8 mm.

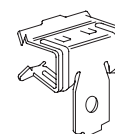
article number	G kg
GV	
SPRINGCLIP GV	0,01



GCB beam clip

Impact clip, light design. Ideal in combination with hooks (EC).

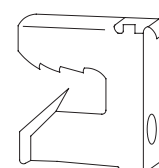
article number	t mm	P _{max} kg	G kg
GV			
GCB 24GV	2 - 4	72	0,01
GCB 59GV	5 - 9	90	0,01
GCB 1016GV	10 - 16	90	0,02
GCB 1720GV	17 - 20	90	0,02



TIGERCLIP Tiger clip

Impact clip. Ideal in combination with hooks (EC).

article number	t mm	P _{max} kg	G kg
GV			
TIGERCLIP 28GV	2 - 8	120	0,01
TIGERCLIP 816GV	8 - 16	120	0,01



GRIPM pigtail anchor bolt

Rapid attachment of a loop in drill holes.

article number	Ø mm	L mm	G kg
GV			
GRIPM 620GV	6	20	0,03
GRIPM 645GV	6	45	0,03
GRIPM 845GV	8	45	0,08



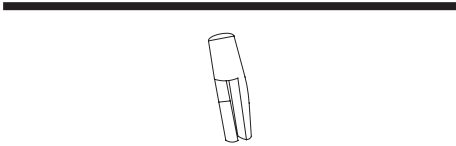
Fastenings

Suspension components

GRIPTWIS wire end cap

For secure and accurate attachment of wire cable end.

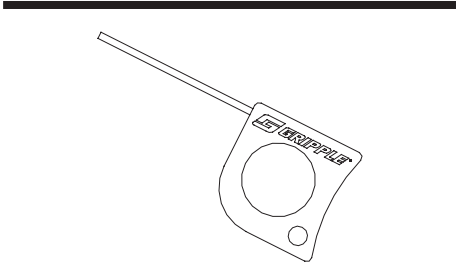
article number	Gripple load class	G kg
GV		
GRIPTWIS GV	2 - 3	0,01



GRIPCLE 1 adjustment key

Replacement key for universal locks.

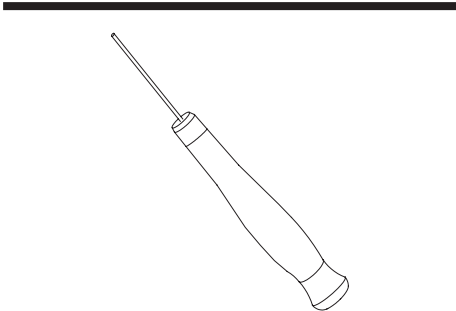
article number	Gripple load class	G kg
GV		
GRIPCLE 1	1 - 3	0,02



GRIPCLE 2 adjustment key

Replacement key for universal locks.

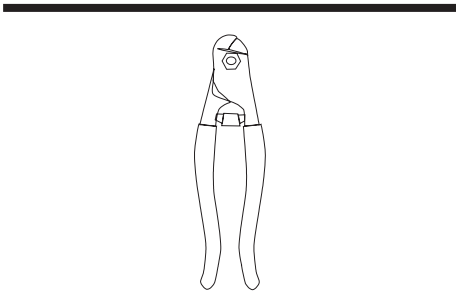
article number	Gripple load class	G kg
GV		
GRIPCLE 2	4 - 5	0,02



GRIPPINC wire cutter

Special tool for splice-free shortening of wire cable.

article number	Q_{Lk} kN/m	G kg
GV		
GRIPPINC	1 - 3	0,30
GRIPPINC 6	4 - 5	7,90



Fastenings

Bolting fasteners/bolts and nuts

KLR fixing set

For an application example, see the chapter assembly.

article number	G
	kg/100
GV	
KLR	0,9

accessories included:

2 x FRSV 6x12	round-head screw with short square	(page H34)
2 x SEMS 6	hexagon nut, self-locking, DIN 6923	(page H41)

article number	G
	kg/100
E	
KLR E	0,9

accessories included:

2 x FRSV 6x12E	round-head screw with short square	(page H35)
2 x SEMS 6E	hexagon nut, self-locking, DIN 6923	(page H41)

article number	G
	kg/100
GV	
KLR 6x25	1,4

accessories included:

2 x FRS 6x25	round-head screw with square, DIN 603	(page H35)
2 x SEMS 6	hexagon nut, self-locking, DIN 6923	(page H41)

article number	G
	kg/100
E	
KLR 6x25E	1,4

accessories included:

2 x FRS 6x25E	round-head screw with square, DIN 603	(page H35)
2 x SEMS 6E	hexagon nut, self-locking, DIN 6923	(page H41)

accessories optional:

FRSV	round-head screw with short square	(page H34)
FRS	round-head screw with square, DIN 603	(page H35)
SEMS	hexagon nut, self-locking, DIN 6923	(page H41)

KLS fixing set

For an application example, see the chapter assembly.

article number	Ø	L	G
	mm	mm	kg/100
GV			
KLS 8x16	8	16	1,8

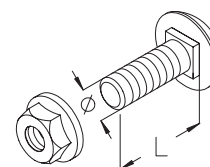
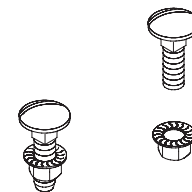
accessories included:

1 x FRSV 8x16	round-head screw with short square	(page H34)
1 x SEMS 8	hexagon nut, self-locking, DIN 6923	(page H41)

article number	Ø	L	G
	mm	mm	kg/100
GV			
KLS 8x25	8	25	2,2

accessories included:

1 x FRS 8x25	round-head screw with square, DIN 603	(page H35)
1 x SEMS 8	hexagon nut, self-locking, DIN 6923	(page H41)



Fastenings

Bolting fasteners/bolts and nuts

KLS fixing set

For an application example, see the chapter assembly.

article number	Ø mm	L mm	G kg/100
GV			
KLS 10x20	10	20	3,9

accessories included:

1 x **FRSV 10x20** round-head screw with short square (page H34)
 1 x **SEMS 10** hexagon nut, self-locking, DIN 6923 (page H41)

article number	Ø mm	L mm	G kg/100
F			
KLS 10x20F	10	20	4

accessories included:

1 x **FRSV 10x20F** round-head screw with short square (page H34)
 1 x **SEM 10F** hexagon-nut, DIN 934 (page H41)
 1 x **US 10x21F** square washer, DIN 125 (page H39)

article number	Ø mm	L mm	G kg/100
E			
KLS 8x16E	8	16	1,8

accessories included:

1 x **FRSV 8x16E** round-head screw with short square (page H35)
 1 x **SEMS 8E** hexagon nut, self-locking, DIN 6923 (page H41)

article number	Ø mm	L mm	G kg/100
E			
KLS 8x25E	8	25	2,2

accessories included:

1 x **FRS 8x25E** round-head screw with square, DIN 603 (page H35)
 1 x **SEMS 8E** hexagon nut, self-locking, DIN 6923 (page H41)

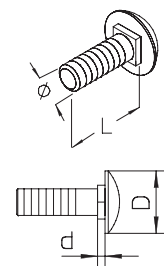
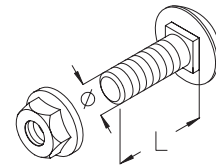
article number	Ø mm	L mm	G kg/100
E			
KLS 10x20E	10	20	3,9

accessories included:

1 x **FRSV 10x20E** round-head screw with short square (page H35)
 1 x **SEM 10E** hexagon-nut, DIN 934 (page H41)
 1 x **US 10x21E** square washer, DIN 125 (page H40)

FRSV round-head screw with short square

article number	Ø mm	D mm	d mm	L mm	G kg/100
GV					
FRSV 6x12	6	16	1,5	12	0,5
FRSV 6x16	6	16	1,5	16	0,7
FRSV 8x16	8	20	2,0	16	1,3
FRSV 10x20	10	24	2,5	20	2,3
F					
FRSV 10x20F	10	24	2,5	20	2,3

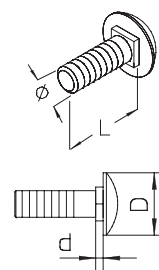


Fastenings

Bolting fasteners/bolts and nuts

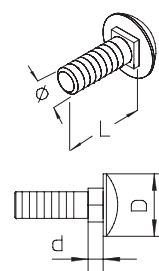
FRSV round-head screw with short square

article number	Ø mm	D mm	d mm	L mm	G kg/100
E					
FRSV 6x12E	6	16	1,5	12	0,5
FRSV 6x16E	6	16	1,5	16	0,7
FRSV 8x16E	8	20	2,0	16	1,3
FRSV 10x20E	10	24	2,5	20	2,3
E4					
FRSV 6x12E4	6	16	1,5	12	0,5
FRSV 10x20E4	10	24	2,5	20	2,4



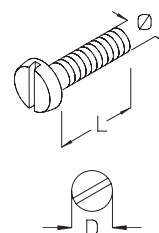
FRS round-head screw with square, DIN 603

article number	Ø mm	D mm	d mm	L mm	G kg/100
GV					
FRS 6x25	6	16	4	25	0,9
FRS 8x20	8	20	5	20	1,4
FRS 8x25	8	20	5	25	1,5
FRS 8x35	8	20	5	35	1,9
FRS 8x50	8	20	5	50	2,5
FRS 10x30	10	24	6	30	2,8
FRS 12x30	12	30	8	30	4,6
F					
FRS 10x30F	10	24	6	30	2,8
FRS 12x30F	12	30	8	30	4,6
E					
FRS 6x16E	6	16	4	16	0,7
FRS 6x20E	6	16	4	20	0,8
FRS 6x25E	6	16	4	25	0,9
FRS 8x20E	8	20	5	20	1,4
FRS 8x25E	8	20	5	25	1,5
FRS 8x35E	8	20	5	35	1,9
FRS 8x50E	8	20	5	50	2,5
FRS 10x30E	10	24	6	30	2,8
FRS 12x30E	12	30	8	30	4,6



FKS slotted cylinder head screw, DIN 84

article number	Ø mm	D mm	L mm	t mm	G kg/100
GV					
FKS 6x10	6	12	10	4	0,4
FKS 6x20	6	12	20	4	0,6
FKS 6x25	6	12	25	4	0,7
FKS 8x20	8	16	20	5	1,3
E					
FKS 6x10E	6	12	10	4	0,4
FKS 6x16E	6	12	16	4	0,4
FKS 6x20E	6	12	20	4	0,6
FKS 6x25E	6	12	25	4	0,7

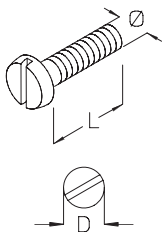


Fastenings

Bolting fasteners/bolts and nuts

FKS slotted cylinder head screw, DIN 84

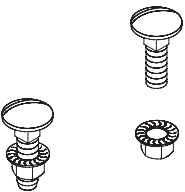
article number	Ø mm	D mm	L mm	t mm	G kg/100
E4					
FKS 6x16E4	6	12	16	4	0,4



KLRL clamping assembly

article number	G kg/100
S	
KLRL	1

accessories included:
2 x **FRSV 6x16** round-head screw with short square (page H34)
2 x **SEMS 6** hexagon nut, self-locking, DIN 6923 (page H41)

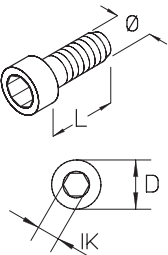


article number	G kg/100
E	
KLRL E	1

accessories included:
2 x **FRSV 6x16E** round-head screw with short square (page H35)
2 x **SEMS 6E** hexagon nut, self-locking, DIN 6923 (page H41)

IK hexagon socket head screw, DIN 912

article number	Ø mm	D mm	L mm	IK mm	G kg/100
GV					
IK 6x20	6	10,2	20	5	0,7
IK 8x20	8	13,3	20	6	1,3
IK 8x25	8	13,3	25	6	1,5
IK 8x30	8	13,3	30	6	1,7
IK 8x40	8	13,3	40	6	2,1
IK 10x20	10	16,3	20	8	2,3
IK 10x25	10	16,3	25	8	2,5
IK 10x30	10	16,3	30	8	2,8
IK 10x40	10	16,3	40	8	3,3
IK 12x20	12	18,3	20	10	3,2
IK 12x25	12	18,3	25	10	3,6
IK 12x30	12	18,3	30	10	3,9
IK 12x40	12	18,3	40	10	4,7
IK 12x50	12	18,3	50	10	5,5

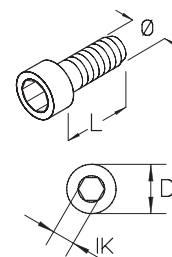


Fastenings

Bolting fasteners/bolts and nuts

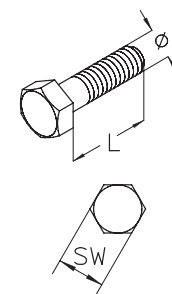
IK hexagon socket head screw, DIN 912

article number	Ø mm	D mm	L mm	IK mm	G kg/100
E					
IK 8x10E	8	13,3	10	6	1,0
IK 8x20E	8	13,3	20	6	1,3
IK 8x25E	8	13,3	25	6	1,3
IK 8x30E	8	13,3	30	6	1,7
IK 8x40E	8	13,3	40	6	2,1
IK 8x50E	8	13,3	50	6	2,5
IK 10x20E	10	16,3	20	8	2,3
IK 10x25E	10	16,3	25	8	2,5
IK 10x30E	10	16,3	30	8	2,8
IK 10x40E	10	16,3	40	8	3,3
IK 12x20E	12	18,3	20	10	3,2
IK 12x25E	12	18,3	25	10	3,6
IK 12x30E	12	18,3	30	10	3,9
IK 12x40E	12	18,3	40	10	4,7
IK 12x50E	12	18,3	50	10	5,5



SES hexagon head bolt, DIN 933

article number	Ø mm	L mm	SW mm	G kg/100
GV				
SES 6x16	6	16	10	0,5
SES 6x20	6	20	10	0,6
SES 6x25	6	25	10	0,7
SES 6x30	6	30	10	0,8
SES 8x16	8	16	13	1,1
SES 8x20	8	20	13	1,2
SES 8x25	8	25	13	1,4
SES 8x30	8	30	13	1,4
SES 8x40	8	40	13	1,9
SES 8x110	8	110	13	4,1
SES 10x20	10	20	17(16)	2,1
SES 10x25	10	25	17(16)	2,4
SES 10x30	10	30	17(16)	2,6
SES 10x40	10	40	17(16)	3,1
SES 10x75	10	75	17(16)	4,7
SES 10x90	10	90	17(16)	5,6
SES 10x100	10	100	17(16)	6,1
SES 12x20	12	20	19(18)	3,1
SES 12x25	12	25	19(18)	3,4
SES 12x30	12	30	19(18)	3,8
SES 12x40	12	40	19(18)	4,5
SES 12x50	12	50	19(18)	5,2



Fastenings

Bolting fasteners/bolts and nuts

SES hexagon head bolt, DIN 933

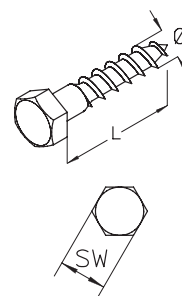
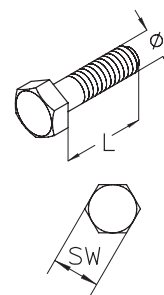
article number	Ø mm	L mm	SW mm	G kg/100
F				
SES 10x20F	10	20	17(16)	2,1
SES 10x25F	10	25	17(16)	2,4
SES 10x30F	10	30	17(16)	2,6
SES 10x55F	10	55	17(16)	3,9
SES 10x75F	10	75	17(16)	4,9
SES 10x90F	10	90	17(16)	5,6
SES 10x100F	10	100	17(16)	6,1
SES 12x20F	12	20	19(18)	3,1
SES 12x30F	12	30	19(18)	3,8
SES 12x40F	12	40	19(18)	4,5
SES 12x50F	12	50	19(18)	5,2
SES 12x70F	12	70	19(18)	6,6

E				
SES 6x16E	6	16	10	0,5
SES 8x16E	8	16	13	1,1
SES 6x20E	6	20	10	0,6
SES 8x20E	8	20	13	1,2
SES 8x25E	8	25	13	1,4
SES 8x30E	8	30	13	1,5
SES 10x20E	10	20	17	2,1
SES 10x30E	10	30	17	2,6
SES 10x75E	10	75	17(16)	4,9
SES 10x100E	10	100	17(16)	6,1

E4				
SES 8x20E4	8	20	13	1,2
SES 8x30E4	8	30	13	1,5
SES 10x20E4	10	20	17	2,1
SES 10x75E4	10	75	17(16)	4,9
SES 10x100E4	10	100	17(16)	6,1

SEH hexagon wood screw

article number	Ø mm	L mm	SW mm	G kg/100
GV				
SEH 8x50	8	50	13	1,8
SEH 8x60	8	60	13	2,1
SEH 10x50	10	50	17	3,2
SEH 10x60	10	60	17	3,6
SEH 10x80	10	80	17	4,5



Fastenings

Bolting fasteners/bolts and nuts

FR spring ring

article number	Ø mm	D mm	G kg/100
GV			
FR B6	6,1	11,8	0,10
FR B8	8,1	14,8	0,15
FR B10	10,2	18,1	0,20
FR B12	12,2	21,1	0,25

E			
FR B6E	6,1	11,8	0,10
FR B8E	8,1	14,8	0,15
FR B10E	10,2	18,1	0,20
FR B12E	12,2	21,1	0,25

E4			
FR B6E4	6,1	11,8	0,10
FR B8E4	8,1	14,8	0,15
FR B10E4	10,2	18,1	0,20
FR B12E4	12,2	21,1	0,25



FS serrated lock washer

article number	Ø mm	D mm	G kg/100
GV			
FS 6	6,4	11,0	0,04
FS 8	8,2	14,0	0,08
FS 10	10,5	18,0	0,13
FS 12	12,5	20,5	0,17

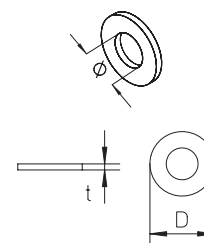
E			
FS 6E	6,4	11,0	0,04
FS 8E	8,2	14,0	0,08
FS 10E	10,5	18,0	0,13
FS 12E	12,5	20,5	0,17



US 125 square washer, DIN 125

article number	Ø mm	D mm	t mm	G kg/100
GV				
US 6x12	6,4	12,5	1,6	0,1
US 8x17	8,4	17,0	2,0	0,2
US 10x21	10,5	21,0	2,0	0,4
US 13x24	13,0	24,0	2,5	0,6
US 17x30	17,0	30,0	3,0	1,1

F				
US 10x21F	10,5	21,0	2,0	0,4
US 13x24F	13,0	24,0	2,5	0,6
US 17x30F	17,0	30,0	3,0	1,1

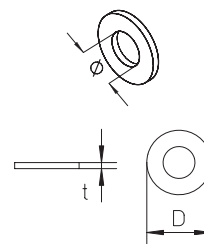


Fastenings

Bolting fasteners/bolts and nuts

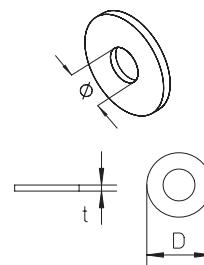
US 125 square washer, DIN 125

article number	Ø mm	D mm	t mm	G kg/100
E				
US 6x12E	6,4	12,5	1,5	0,1
US 8x17E	8,4	17,0	1,5	0,2
US 10x21E	10,5	21,0	0,0	0,4
US 13x24E	13,0	24,0	2,5	1,2
E4				
US 6x12E4	6,4	12,5	1,5	0,1
US 10x21E4	10,5	21,0	0,0	0,2
US 8x17E4	8,4	17,0	1,5	0,2



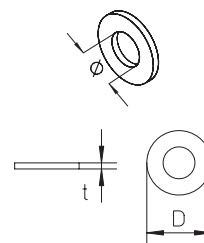
US 9021 square washer, DIN 9021

article number	Ø mm	D mm	t mm	G kg/100
GV				
US 6x18	6,4	18	1,6	0,3
US 8x25	8,4	25	2,0	0,7
US 10x30	10,5	30	2,5	1,2
US 13x40	13,0	40	3,0	2,7
F				
US 10x30F	10,5	30	2,5	1,2
US 13x40F	13,0	40	3,0	2,7
E				
US 6x18E	6,4	18	1,6	0,3
US 8x25E	8,4	25	2,0	0,7
US 10x30E	10,5	30	2,5	1,2
E4				
US 10x30E4	10,5	30	2,5	1,2



UVS captive washer

article number	Ø mm	D mm	t mm	G kg/100
PE				
UVS M6	6,0	12,5	1,30	< 0.01
UVS M8	8,0	16,2	1,65	< 0.01
UVS M10	10,5	30,0	2,10	< 0.01
UVS M10x24	10,0	24,0	2,10	< 0.01

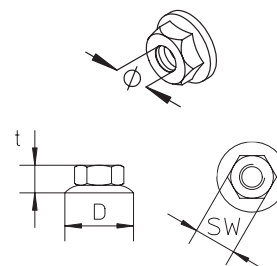


Fastenings

Bolting fasteners/bolts and nuts

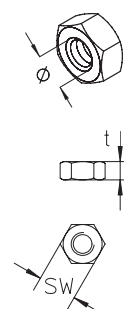
SEMS hexagon nut, self-locking, DIN 6923

article number	Ø mm	D mm	t mm	SW mm	G kg/100
GV					
SEMS 6	6	14	5,5	10	0,3
SEMS 8	8	17	7,5	13	0,7
SEMS 10	10	21	9,5	15	1,6
E					
SEMS 6E	6	14	5,5	10	0,3
SEMS 8E	8	17	7,5	13	0,7
SEMS 10E	10	21	9,5	15	1,6



SEM hexagon-nut, DIN 934

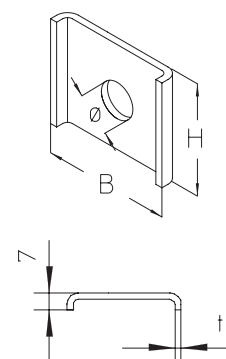
article number	Ø mm	t mm	SW mm	G kg/100
GV				
SEM 6	6	5,0	10	0,3
SEM 8	8	6,5	13	0,5
SEM 10	10	8,0	17(15)	1,2
SEM 12	12	10,0	19(18)	1,7
F				
SEM 10F	10	8,0	17(15)	1,2
SEM 12F	12	10,0	19(18)	1,7
E				
SEM 6E	6	5,0	10	0,3
SEM 8E	8	6,5	13	0,5
SEM 10E	10	8,0	17(15)	1,2
SEM 12E	12	10,0	19(18)	1,7
E4				
SEM 6E4	6	5,0	10	0,3
SEM 8E4	8	6,5	13	0,5
SEM 10E4	10	8,0	17(15)	1,2



RUS 41 stabilization plate, KHA profiles

For an application example, see the chapter assembly.

article number	H mm	B mm	Ø mm	t mm	G kg/100
F					
RUS 41-L13F	40	46	13	2,5	4,00
E					
RUS 41-L13E	40	46	13	1,8	2,84

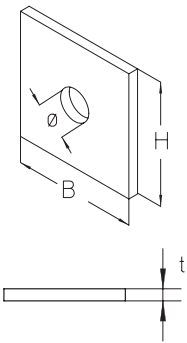


Fastenings

Bolting fasteners/bolts and nuts

RUS 50 mounting plate, KHA profiles

article number	H mm	B mm	Ø mm	t mm	G kg/100
F					
RUS 50-L13F	50	50	13	4	7,54
E					
RUS 50-L13E	50	50	13	4	7,54



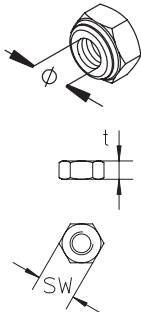
SSK protection end cap

article number	IK mm	G kg/100
SSK 6	10	0,1
SSK 8	13	0,1
SSK 10	17	0,2



SEMSS hexagon-nut, self-locking, DIN 985

article number	Ø mm	t mm	SW mm	G kg/100
GV				
SEMSS 6	6	6	10	0,2
SEMSS 10	10	10	17	1,1
E				
SEMSS 6E	6	6	10	0,2
SEMSS 10E	10	10	17	1,1



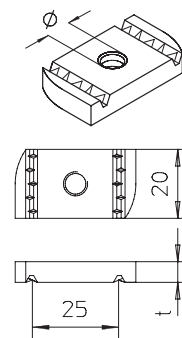
Fastenings

Channel nuts and bolts

AM22 channel nut, A41/ KHA 41/ KHAL 41

For an application example, see the chapter assembly.

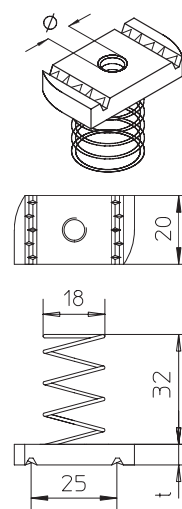
article number	Ø mm	t mm	G kg/100
GV			
AM22 M6	6	6,0	2,6
AM22 M8	8	6,0	2,4
AM22 M10	10	8,0	3,3
AM22 M12	12	9,5	4,2
F			
AM22 M6F	6	6,0	2,8
AM22 M8F	8	6,0	2,6
AM22 M10F	10	8,0	3,5
AM22 M12F	12	9,0	4,2
E4			
AM22 M6E4	6	6,0	2,6
AM22 M8E4	8	6,0	2,4
AM22 M10E4	10	8,0	3,3
AM22 M12E4	12	9,5	4,2



AMF22 channel spring nut, A41

For an application example, see the chapter assembly.

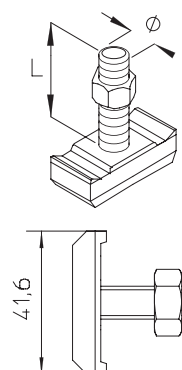
article number	Ø mm	t mm	G kg/100
GV			
AMF22 M6	6	6,0	2,8
AMF22 M8	8	6,0	2,6
AMF22 M10	10	8,0	3,5
AMF22 M12	12	9,5	4,4
F			
AMF22 M6F	6	6,0	3,0
AMF22 M8F	8	6,0	2,8
AMF22 M10F	10	8,0	3,7
AMF22 M12F	12	9,5	4,7



HS22 tee-head bolt, A2/ A4

For an application example, see the chapter assembly.

article number	Ø mm	L mm	G kg/100
GV			
HS22 12x30	12	30	9,5
HS22 12x40	12	40	10,0
HS22 12x50	12	50	10,8
HS22 12x60	12	60	11,4
HS22 16x40	16	40	16,2
HS22 16x60	16	60	18,6



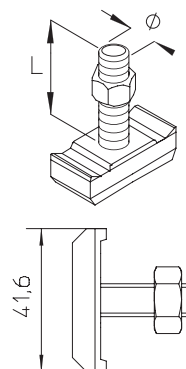
Fastenings

Channel nuts and bolts

HS22 tee-head bolt, A2/ A4

For an application example, see the chapter assembly.

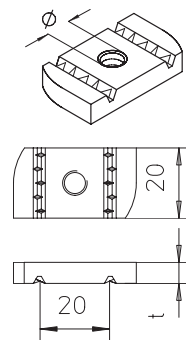
article number	Ø mm	L mm	G kg/100
F			
HS22 10x80F	10	80	9,7
E4			
HS22 10x80E4	10	80	9,7
HS22 12x30E4	12	30	9,6
HS22 12x40E4	12	40	10,1
HS22 12x50E4	12	50	10,9
HS22 12x60E4	12	60	11,5
HS22 16x40E4	16	40	16,3
HS22 16x60E4	16	60	18,7



AM18 channel nut, A7/ A8

For an application example, see the chapter assembly.

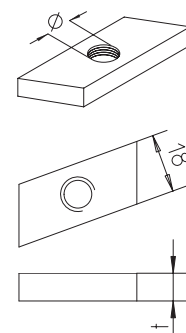
article number	Ø mm	t mm	G kg/100
GV			
AM18 M6	6	6,0	2,6
AM18 M8	8	6,0	2,4
AM18 M10	10	8,0	3,3
AM18 M12	12	9,5	4,2
F			
AM18 M6F	6	6,0	2,8
AM18 M8F	8	6,0	2,6
AM18 M10F	10	8,0	3,5
AM18 M12F	12	9,5	4,5
E4			
AM18 M6E4	6	6,0	3,0
AM18 M8E4	8	6,0	2,9
AM18 M10E4	10	8,0	3,6
AM18 M12E4	12	9,5	3,4



AMA18 channel nut, A7/ A8

For an application example, see the chapter assembly.

article number	Ø mm	t mm	G kg/100
F			
AMA18 M6F	6	5,0	2,7
AMA18 M8F	8	6,0	3,0
AMA18 M10F	10	8,0	3,8
E			
AMA18 M6E	6	6,0	2,7
AMA18 M8E	8	6,0	3,0
AMA18 M10E	10	8,0	3,8



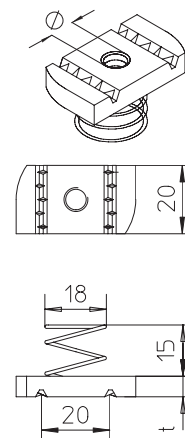
Fastenings

Channel nuts and bolts

AMF18 channel spring nut, A7/ A8

For an application example, see the chapter assembly.

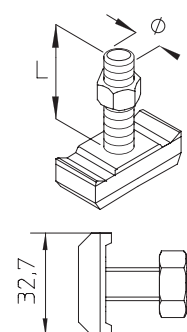
article number	Ø mm	t mm	G kg/100
GV			
AMF18 M6	6	6,0	2,7
AMF18 M8	8	6,0	2,5
AMF18 M10	10	8,0	3,4
AMF18 M12	12	9,5	4,3
F			
AMF18 M6F	6	6,0	2,9
AMF18 M8F	8	6,0	2,7
AMF18 M10F	10	8,0	3,6
AMF18 M12F	12	9,5	4,6



HS18 tee-head bolt, A7/ A8/ A9

For an application example, see the chapter assembly.

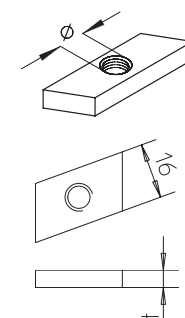
article number	Ø mm	L mm	G kg/100
GV			
HS18 10x30	10	30	5,9
HS18 10x40	10	40	6,3
HS18 10x50	10	50	6,9
HS18 10x60	10	60	7,4
HS18 12x30	12	30	7,4
HS18 12x40	12	40	7,9
HS18 12x60	12	60	9,4
HS18 16x40	16	40	13,4
HS18 16x60	16	60	16,0
HS18 16x80	16	80	18,8
E4			
HS18 10x30E4	10	30	6,0
HS18 10x40E4	10	40	6,5
HS18 10x50E4	10	50	7,0



AM16 channel nut, B7

For an application example, see the chapter assembly.

article number	Ø mm	t mm	G kg/100
F			
AM16 M6F	6	5,0	1
AM16 M8F	8	5,0	1
E4			
AM16 M6E4	6	5,0	1

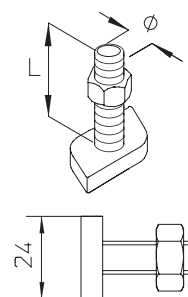


Fastenings

Channel nuts and bolts

HS16 Tee-head bolt

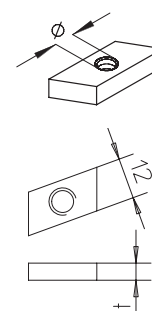
article number	Ø mm	L mm	G kg/100
GV			
HS16 8x20	8	20	3,0
HS16 8x40	8	40	3,9
HS16 10x30	10	30	4,6
HS16 10x50	10	50	5,8



AM12 channel nut, B3/ B6

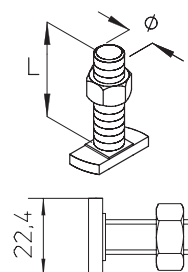
For an application example, see the chapter assembly.

article number	Ø mm	t mm	G kg/100
F			
AM12 M6F	6	5,0	1,0
AM12 M8F	8	5,0	0,9
E			
AM12 M8E	8	5,0	0,9



HS12 Tee-head bolt

article number	Ø mm	L mm	G kg/100
GV			
HS12 6x30	6	30	1,6
HS12 6x40	6	40	1,7
HS12 8x20	8	20	2,0
HS12 8x30	8	30	2,3
HS12 8x40	8	40	2,6
HS12 10x20	10	20	3,0
HS12 10x30	10	30	3,5
HS12 10x40	10	40	3,9
E4			
HS12 10x20E4	10	20	3,1
HS12 10x30E4	10	30	3,6
HS12 10x40E4	10	40	4,0



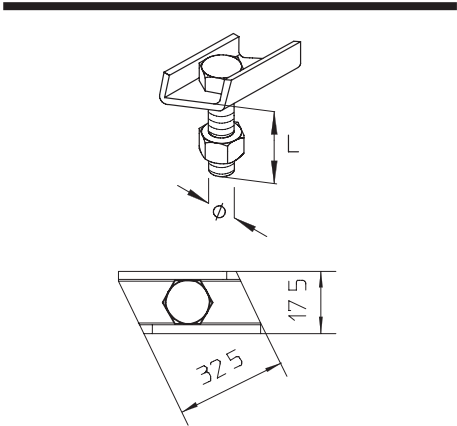
Fastenings

Channel nuts and bolts

AKB channel bolt, A7/ A8/ A9

For an application example, see the chapter assembly.

article number	Ø mm	L mm	G kg/100
AKB 6x25	6	25	2,4
AKB 8x25	8	25	3,5
AKB 8x35	8	35	3,7
AKB 8x45	8	45	4,0
AKB 10x35	10	35	5,4
AKB 10x45	10	45	5,9
AKB 12x35	12	35	7,0
AKB 12x45	12	45	7,7



Fastenings

Electrical fastenings

SH QS multiple cable holder, metal

Multiple cable holder approved for continuous function E30 - E90, for wall and ceiling mounting. Please see the General Building Inspection Test Certificate (P-MPA-E-15-012) for further information.

The information on the number of cables relating to the use of NYM cable (3 x 1.5 mm²).

article number	number of cables	G kg/100
S		
SH 15Q S	15	3,08
SH 30Q S	30	7,20

accessories optional:

SD-BS straddling dowel, fire protection (page H51)



SH K multiple cable holder, plastic

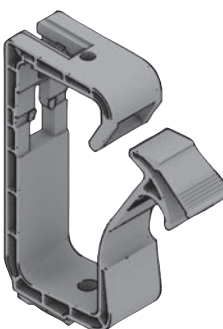
flame-resistant according to specification of UL94 V-0 and fire hazard testing VDE 0471/DIN IEC 695 part 2-1, testing temperature T_{max}

The information on the number of cables relating to the use of NYM cable (3 x 1.5 mm²).

article number	number of cables	T _{max} °C	colour	G kg/100
PA				
SH 15 K	15	750	RAL 7035	2,88
SH 30 K	30	750	RAL 7035	4,90
SH 15 FWK	15	960	RAL 7030	2,95
SH 30 FWK	30	960	RAL 7030	5,02

accessories optional:

KOT K coupling piece, plastic (page H50)
BFS K quick-mounting clip for all-rounder cable holder, plastic (page H50)
BFS ND K quick-mounting clip for all-rounder cable holder, plastic with nail plug (page H50)
SN screw nail anchor (page H51)
KSD plastic plug-in dowel (page H51)



SH ND K multiple cable holder, plastic with nail plug

flame-resistant according to specification of UL94 V-0 and fire hazard testing VDE 0471/DIN IEC 695 part 2-1, testing temperature T_{max}

The information on the number of cables relating to the use of NYM cable (3 x 1.5 mm²).

article number	number of cables	T _{max} °C	colour	G kg/100
PA				
SH 15 ND K	15	750	RAL 7035	3,48
SH 30 ND K	30	750	RAL 7035	5,56

accessories included:

1 x **BFS ND K** quick-mounting clip for all-rounder cable holder, plastic with nail plug (page H50)

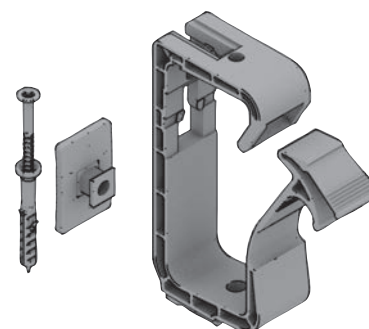
article number	number of cables	T _{max} °C	colour	G kg/100
PA				
SH 15 ND FWK	15	960	RAL 7030	3,88
SH 30 ND FWK	30	960	RAL 7030	6,02

accessories included:

1 x **BFS ND FWK** quick-mounting clip for all-rounder cable holder, plastic with nail plug (page H50)

accessories optional:

KOT K coupling piece, plastic (page G50)



Fastenings

Electrical fastenings

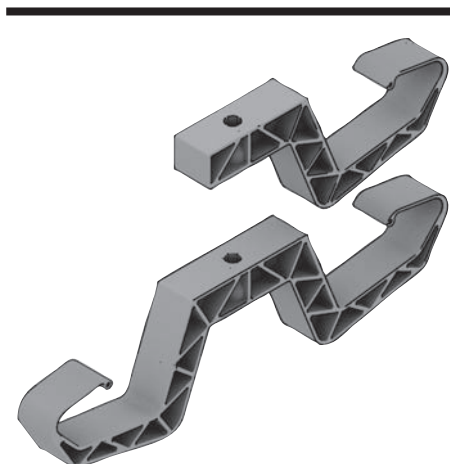
SHK K cable holder, plastic

flame-resistant according to fire hazard testing VDE 0471/DIN IEC 695 part 2-1, testing temperature T_{max}
Suitable for applications with limited installation height. The information on the number of cables relating to the use of NYM cable (3 x 1.5 mm²).

article number	H mm	number of cables	T_{max} °C	colour	G kg/100
PA					
SHK 10 K	58	10	750	RAL 7035	2,27
SHK 20 K	58	20	750	RAL 7035	2,70
SHK 40 K	58	40	750	RAL 7035	4,86

accessories optional:

SN screwnail anchor (page H51)
KSD plastic plug-in dowel (page H51)



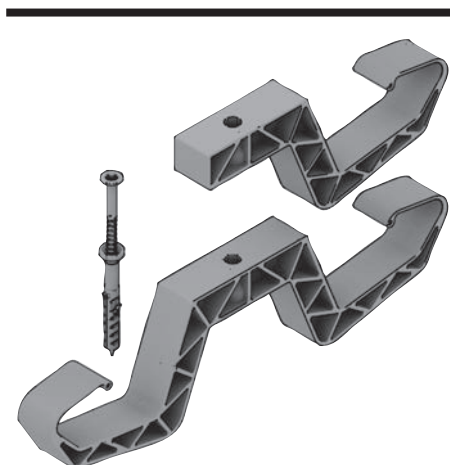
SHK ND K cable holder, plastic with nail plug

flame-resistant according to fire hazard testing VDE 0471/DIN IEC 695 part 2-1, testing temperature T_{max}
Suitable for applications with limited installation height. The information on the number of cables relating to the use of NYM cable (3 x 1.5 mm²).

article number	H mm	number of cables	T_{max} °C	colour	G kg/100
PA					
SHK 10 ND K	58	10	750	RAL 7035	3,16
SHK 20 ND K	58	20	750	RAL 7035	3,64
SHK 40 ND K	58	40	750	RAL 7035	5,40

accessories included:

1 x **SN 6x50** screwnail anchor (page H51)



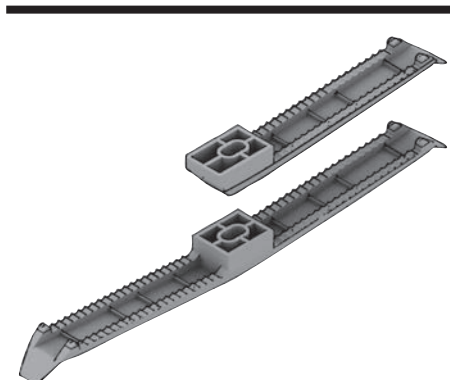
LK K cable holder, plastic

flame-resistant according to specification of UL94 V-0 and fire hazard testing VDE 0471/DIN IEC 695 part 2-1, testing temperature T_{max}
Suitable for applications with low installation height. The information on the number of cables relating to the use of NYM cable (3 x 1.5 mm²).

article number	H mm	number of cables	T_{max} °C	colour	G kg/100
PA					
LK 8 K	16	8	750	RAL 7035	1,23
LK 10 K	16	10	750	RAL 7035	1,11
LK 16 K	16	16	750	RAL 7035	1,73
LK 8 FWK	16	8	960	RAL 7030	1,10
LK 10 FWK	16	10	960	RAL 7030	0,89
LK 16 FWK	16	16	960	RAL 7030	1,60

accessories optional:

SN screwnail anchor (page H51)
KSD plastic plug-in dowel (page H51)



Fastenings

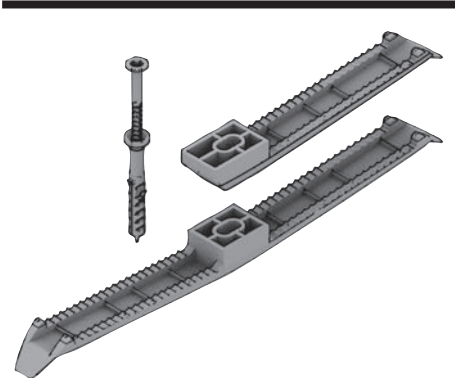
Electrical fastenings

LK ND K cable holder, plastic with moulded-in nail plug

flame-resistant according to specification of UL94 V-0 and fire hazard testing VDE 0471/DIN IEC 695 part 2-1, testing temperature T_{max}
Suitable for applications with low installation height. The information on the number of cables relating to the use of NYM cable (3 x 1.5 mm²).

article number	H mm	number of cables	T_{max} °C	colour	G kg/100
PA					
LK 8 ND K	16	8	750	RAL 7035	1,92
LK 10 ND K	16	10	750	RAL 7035	1,68
LK 16 ND K	16	16	750	RAL 7035	2,63
LK 8 ND FWK	16	8	960	RAL 7030	2,24
LK 10 ND FWK	16	10	960	RAL 7030	1,80
LK 16 ND FWK	16	16	960	RAL 7030	2,68

accessories included:
1 x **SN 6x50** screwnail anchor (page H51)



KOT K coupling piece, plastic

flame-resistant according to specification of UL94 V-0 and fire hazard testing VDE 0471/DIN IEC 695 part 2-1, testing temperature T_{max}

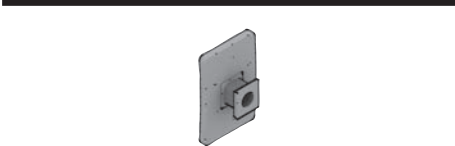
article number	T_{max} °C	colour	G kg/100
PA			
KOT K	750	RAL 7035	0,36
KOT FWK	960	RAL 7030	0,41



BFS K quick-mounting clip for all-rounder cable holder, plastic

flame-resistant according to specification of UL94 V-0 and fire hazard testing VDE 0471/DIN IEC 695 part 2-1, testing temperature T_{max}

article number	T_{max} °C	colour	G kg/100
PA			
BFS K	750	RAL 7035	0,41
BFS FWK	960	RAL 7030	0,43

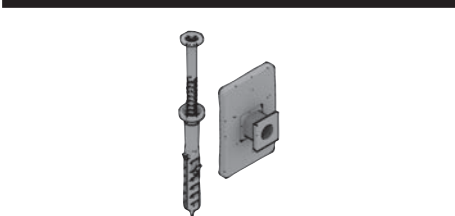


BFS ND K quick-mounting clip for all-rounder cable holder, plastic with nail plug

flame-resistant according to specification of UL94 V-0 and fire hazard testing VDE 0471/DIN IEC 695 part 2-1, testing temperature T_{max}

article number	T_{max} °C	colour	G kg/100
PA			
BFS ND K	750	RAL 7035	0,91
BFS ND FWK	960	RAL 7030	0,89

accessories included:
1 x **SN 6x50** screwnail anchor (page H51)



Fastenings

Electrical fastenings

SN screwnail anchor

article number	G kg
SN 6x50	0,01



KSD plastic plug-in dowel

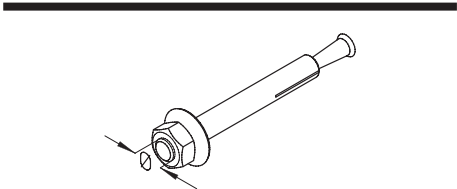
article number	G kg
KSD 6x40	0,01



SD-BS straddling dowel, fire protection

manufacturer's information has to be observed strictly.

article number	Ø mm	D mm	t mm	L _{min} mm	G kg/100
GV					
SD-BS 6/5	6	6	0 - 5	46	0,3





Cable support trough

Cable support trough	I03-I05
----------------------	---------



Numeric index

Cable support trough

K

KTW-A 4-12 cable support trough, Ø 40-120 mm [H05](#)

KTW-R 10/2-10 cable support trough, Ø 100 mm [H03](#)

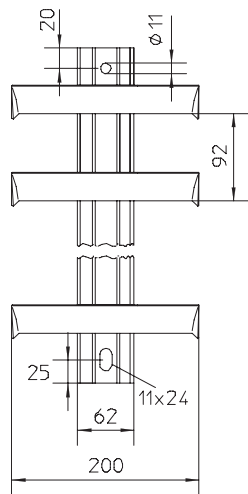
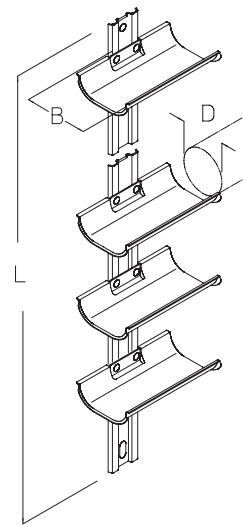
KTW-R 4-12/2-10 cable support trough, Ø 40-120 mm
[H04](#)

Cable support trough

KTW-R 10/2-10 cable support trough, Ø 100 mm

For an application example, see the chapter assembly.

article number	B mm	D mm	L mm	G kg
F				
KTW-R 10/2	118	100	237	1,10
KTW-R 10/3	118	100	329	1,60
KTW-R 10/4	118	100	421	2,10
KTW-R 10/5	118	100	518	2,60
KTW-R 10/6	118	100	605	3,10
KTW-R 10/7	118	100	698	3,60
KTW-R 10/8	118	100	789	4,20
KTW-R 10/9	118	100	881	4,70
KTW-R 10/10	118	100	973	5,20

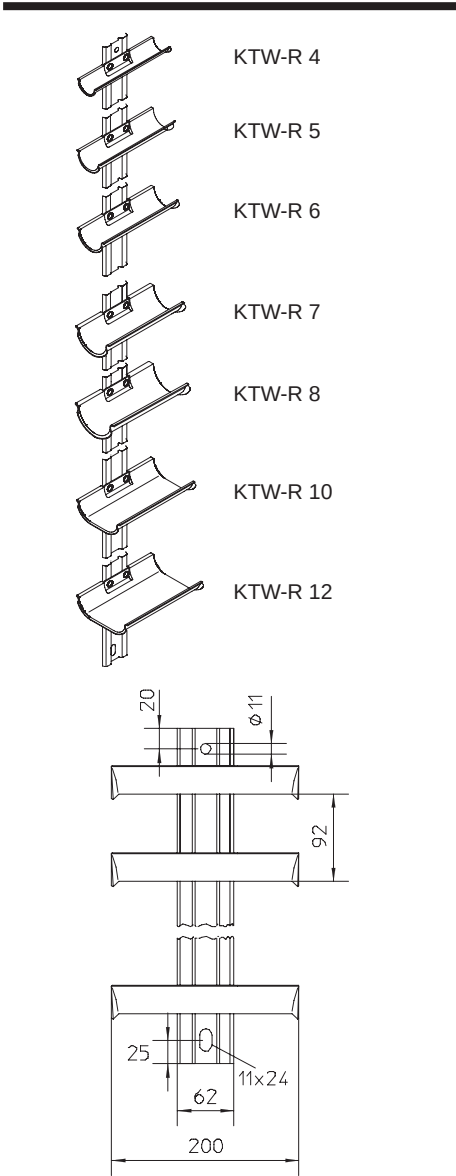


Cable support trough

KTW-R 4-12/2-10 cable support trough, Ø 40-120 mm

For an application example, see the chapter assembly.

article number	B mm	D mm
KTW-R 4/2-10	56	40
KTW-R 5/2-10	66	50
KTW-R 6/2-10	76	60
KTW-R 7/2-10	86	70
KTW-R 8/2-10	97	80
KTW-R 10/2-10	118	100
KTW-R 12/2-10	138	120

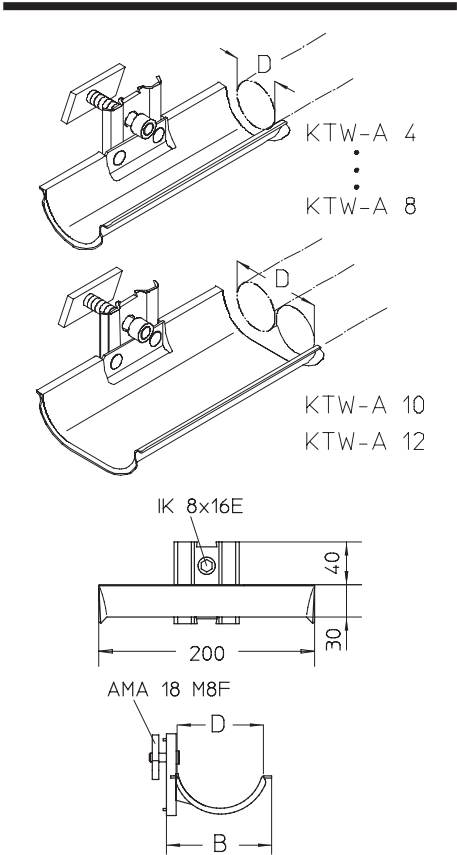


Cable support trough

KTW-A 4-12 cable support trough, Ø 40-120 mm

For an application example, see the chapter assembly.

article number	B mm	D mm	G kg
F			
KTW-A 4	56	40	0,30
KTW-A 5	66	50	0,32
KTW-A 6	76	60	0,35
KTW-A 7	86	70	0,39
KTW-A 8	96	80	0,44
KTW-A 10	118	100	0,48
KTW-A 12	138	120	0,55





Line of protection tubes

Line of protection tubes

J03-J09



Numeric index

Line of protection tubes

S

SR protection tube [I03](#)

SRB 45 tube bow [I04](#)

SRB 90 tube bow [I03](#)

SRF floor fastening system [I08](#)

SRFW base bracket [I08](#)

SRHB protection tube bracket [I05](#)

SRHD protection tube bracket, pivoted [I05](#)

SRK-G end cap [I09](#)

SRK-O final sleeve as edge protective strip [I08](#)

SRL protection tube, slotted [I03](#)

SRM clamp socket [I04](#)

SRML elongated slot socket [I04](#)

SRMP-A assembly plate, 165x175 mm [I07](#)

SRMP-B assembly plate, 175x260 mm [I07](#)

SRMP-C assembly plate, 270x380 mm [I07](#)

SRS-A support clamp [I06](#)

SRS-B tube bar clamp [I06](#)

SRS-R tube clamp [I06](#)

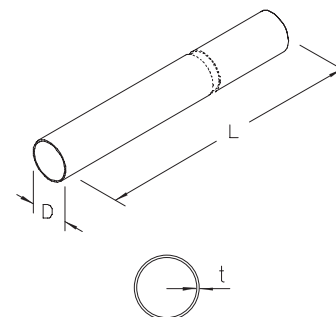
SRS-W dual fastening clamp [I06](#)

Line of protection tubes

SR protection tube, length=6000 mm

For an application example, see the chapter assembly.

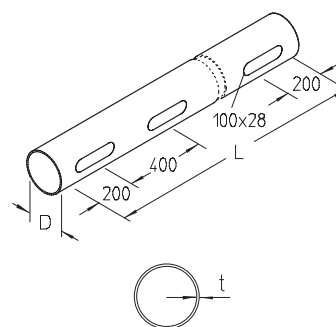
article number	D mm	L mm	t mm	G kg
F				
SR 30F	30	6000	1,5	6,65
SR 60F	60	6000	2,0	17,40
E				
SR 30E	30	6000	1,5	6,65
SR 60E	60	6000	2,0	17,40



SRL protection tube, slotted, length=6000 mm

For an application example, see the chapter assembly.

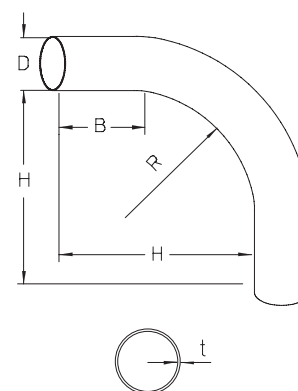
article number	D mm	L mm	t mm	G kg
F				
SRL 60F	60	6000	2	16,30
E				
SRL 60E	60	6000	2	16,30



SRB 90 tube bow

For an application example, see the chapter assembly.

article number	H mm	B mm	D mm	R mm	t mm	G kg
F						
SRB 90-30F	185	100	30	140	1,5	0,40
SRB 90-60F	225	100	60	150	2,0	1,30
E						
SRB 90-30E	185	100	30	140	1,5	0,40
SRB 90-60E	225	100	60	150	2,0	1,30

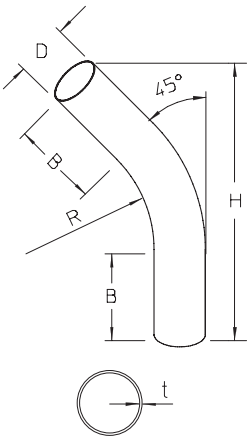


Line of protection tubes

SRB 45 tube bow

For an application example, see the chapter assembly.

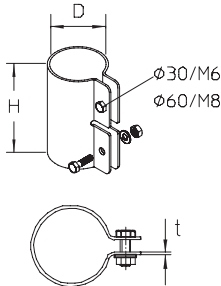
article number	H mm	B mm	D mm	R mm	t mm	G kg
F						
SRB 45-30F	270	100	30	140	1,5	0,30
SRB 45-60F	350	100	60	150	2,0	1,05
E						
SRB 45-30E	270	100	30	140	1,5	0,30
SRB 45-60E	350	100	60	150	2,0	1,05



SRM clamp socket

For an application example, see the chapter assembly.

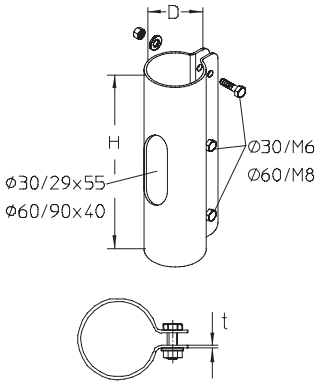
article number	H mm	D mm	t mm	G kg
F				
SRM 30F	80	30	1,5	0,15
SRM 60F	115	60	2,5	0,55
E				
SRM 30E	80	30	1,5	0,15
SRM 60E	115	60	2,5	0,55



SRML elongated slot socket

For an application example, see the chapter assembly.

article number	H mm	D mm	t mm	G kg
F				
SRML 30F	130	30	1,5	0,20
SRML 60F	180	60	2,5	1,05
E				
SRML 30E	130	30	1,5	0,20
SRML 60E	180	60	2,5	1,05

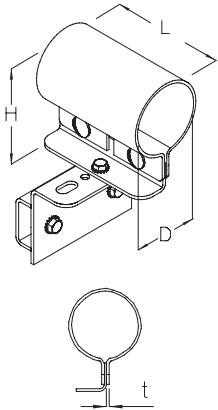


Line of protection tubes

SRHD protection tube bracket, pivoted

For an application example, see the chapter assembly.

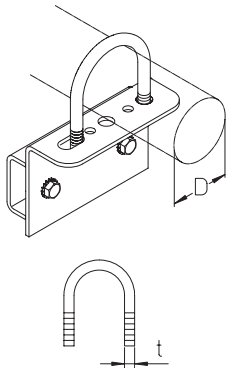
article number	H mm	B mm	D mm	L mm	t mm	G kg
F						
SRHD 30F	62	1,5	30	80	1,5	0,70
SRHD 60F	102	1,5	60	115	2,0	1,20
E						
SRHD 30E	62	1,5	30	80	1,5	0,70
SRHD 60E	102	1,5	60	115	2,0	1,20



SRHB protection tube bracket

For an application example, see the chapter assembly.

article number	D mm	t mm	G kg
F			
SRHB 30F	31	6	0,52
SRHB 60F	61	10	0,62
E			
SRHB 30E	31	6	0,52
SRHB 60E	61	8	0,62

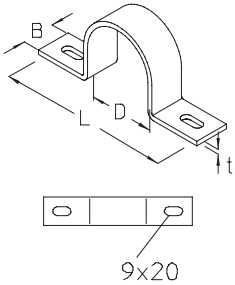


Line of protection tubes

SRS-R tube clamp

For an application example, see the chapter assembly.

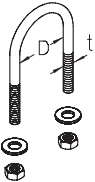
article number	B mm	D mm	L mm	t mm	G kg
F					
SRS-R 30F	25	31	85	2,5	0,06
SRS-R 60F	30	61	160	4,0	0,22
E					
SRS-R 30E	25	31	85	2,5	0,06
SRS-R 60E	30	61	160	4,0	0,22



SRS-B tube bar clamp

For an application example, see the chapter assembly.

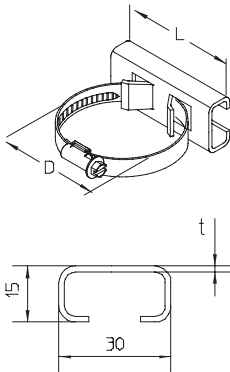
article number	D mm	t mm	G kg
F			
SRS-B 30-6F	31	6	0,03
SRS-B 60-10F	61	10	0,22
E			
SRS-B 30-6E	31	6	0,03
SRS-B 60-8E	61	8	0,22



SRS-A support clamp

For an application example, see the chapter assembly.

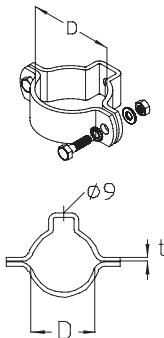
article number	D mm	L mm	t mm	G kg
F				
SRS-A 30F	30	70	1,5	0,06
SRS-A 60F	60	70	1,5	0,08
E				
SRS-A 30E	30	70	1,5	0,06
SRS-A 60E	60	70	1,5	0,08



SRS-W dual fastening clamp

For an application example, see the chapter assembly.

article number	D mm	t mm	G kg
F			
SRS-W 30F	31	4	0,21
SRS-W 60F	61	4	0,31
E			
SRS-W 30E	31	4	0,21
SRS-W 60E	61	4	0,31

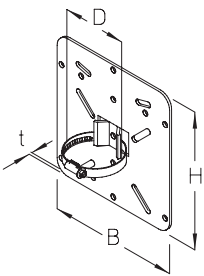


Line of protection tubes

SRMP-A assembly plate, 165x175 mm

other dimensions on request
For an application example, see the chapter assembly.

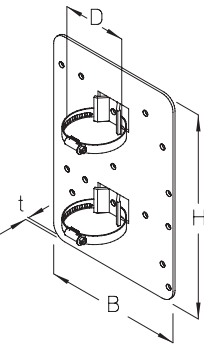
article number	H mm	B mm	D mm	t mm	G kg
F					
SRMP-A 30F	175	165	30	3	0,58
SRMP-A 60F	175	165	60	3	0,60
E					
SRMP-A 30E	175	165	30	3	0,58
SRMP-A 60E	175	165	60	3	0,60



SRMP-B assembly plate, 175x260 mm

other dimensions on request
For an application example, see the chapter assembly.

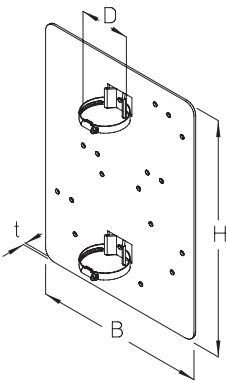
article number	H mm	B mm	D mm	t mm	G kg
F					
SRMP-B 30F	260	175	30	3	1,00
SRMP-B 60F	260	175	60	3	1,00
E					
SRMP-B 30E	260	175	30	3	1,00
SRMP-B 60E	260	175	60	3	1,00



SRMP-C assembly plate, 270x380 mm

other dimensions on request
For an application example, see the chapter assembly.

article number	H mm	B mm	D mm	t mm	G kg
F					
SRMP-C 60F	380	270	60	3	2,70
E					
SRMP-C 60E	380	270	60	3	2,70

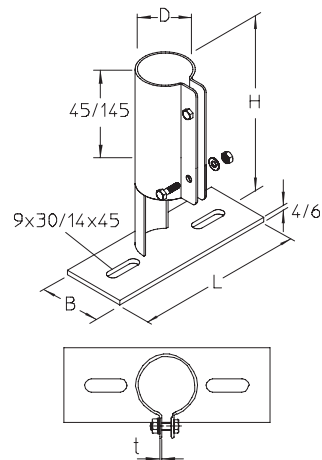


Line of protection tubes

SRF floor fastening system

For an application example, see the chapter assembly.

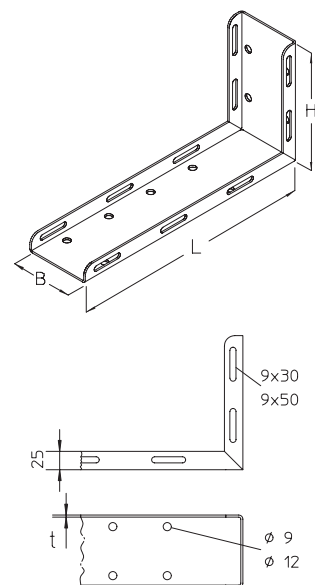
article number	H mm	B mm	D mm	L mm	t mm	G kg
F						
SRF 30F	130	40	31	130	1,5	0,28
SRF 60F	230	80	61	220	2,5	1,75
E						
SRF 30E	130	40	31	130	1,5	0,28
SRF 60E	230	80	61	220	2,5	1,75



SRFW base bracket

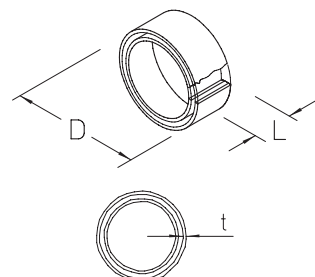
For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	G kg
F					
SRFW 30F	100	60	200	2	0,52
SRFW 60F	200	100	400	3	1,95
E					
SRFW 30E	100	60	200	2	0,52
SRFW 60E	200	100	400	3	1,95



SRK-O final sleeve as edge protective strip

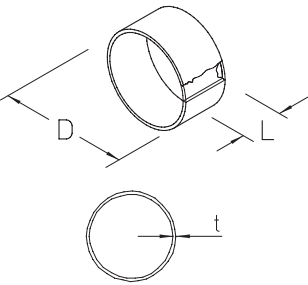
article number	D mm	L mm	t mm	G kg
PVC				
SRK-O 30	30	25	2	0,01
SRK-O 60	60	25	2	0,02



Line of protection tubes

SRK-G end cap

article number	D mm	L mm	t mm	G kg
PVC				
SRK-G 30	30	30	2	0,01
SRK-G 60	60	35	2	0,02





Light channel system

Light channel system

K03-K05



K

Numeric index

Light channel system

A

AM 8 M5 channel nut [K04](#)

K

KNK chain [K05](#)

KNK-NG chain, emergency link [K05](#)

KPB Jointing bracket [K04](#)

KPD cover strap [K03](#)

KPE end cap [K04](#)

KPH holding clip [K05](#)

KPR 40 support rail for light fittings [K03](#)

KPV KPR-coupler [K03](#)

S

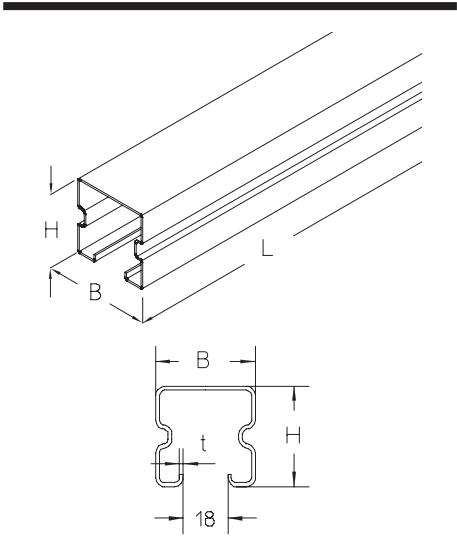
SMH hexagon nut [K05](#)

Light channel system

KPR 40 support rail for light fittings

For a load diagram, see the chapter planning.
For an application example, see the chapter assembly.

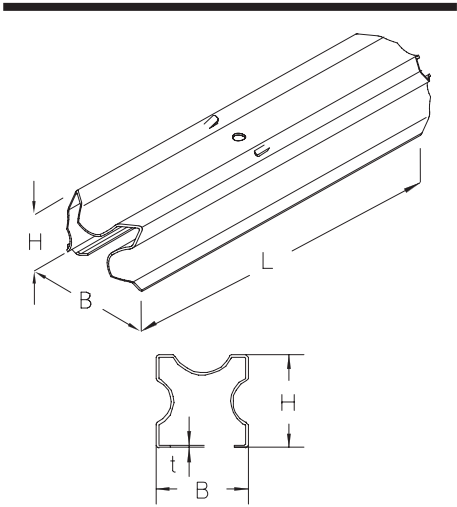
article number	H mm	B mm	L mm	t mm	G kg
S					
KPR 40	40	40	6000	1,5	10,80
KPR 40-3	40	40	3000	1,5	5,40



KPV KPR-coupler

For an application example, see the chapter assembly.

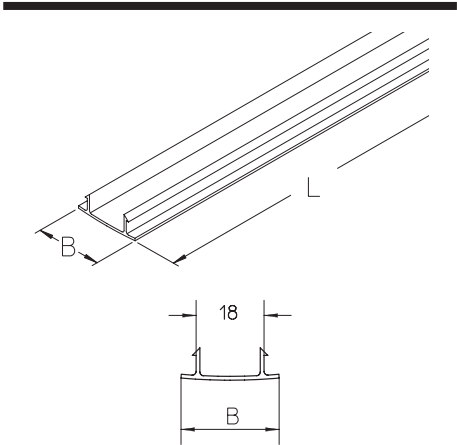
article number	H mm	B mm	L mm	t mm	G kg
S					
KPV	37	37	300	1	0,31



KPD cover strap

For an application example, see the chapter assembly.

article number	B mm	L mm	colour	G kg
PVC				
KPD	26	6000	RAL 7011 (iron grey)	0,42
KPD-3	26	3000	RAL 7011 (iron grey)	0,21

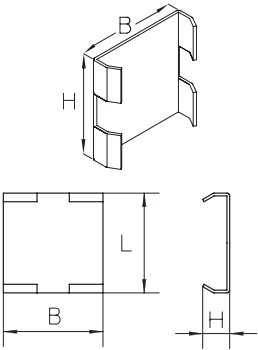


Light channel system

KPE end cap

For an application example, see the chapter assembly.

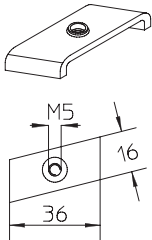
article number	H mm	B mm	L mm	G kg/100
S				
KPE	10	37	37	2,2



AM 8 M5 channel nut

For an application example, see the chapter assembly.

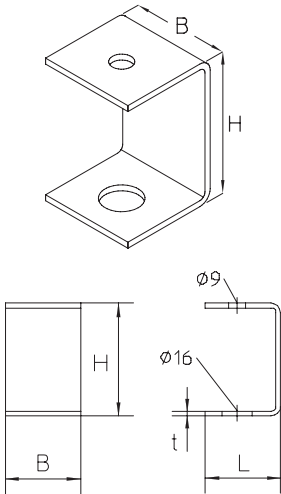
article number	G kg/100
F	
AM 8 M5	1,6



KPB Jointing bracket

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	G kg/100
F					
KPBF	60	40	40	2,5	11



Light channel system

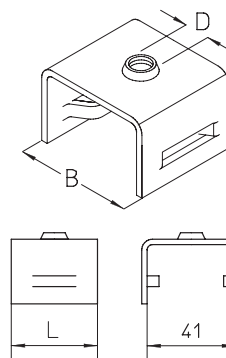
KPH holding clip

For an application example, see the chapter assembly.

article number	B mm	D mm	L mm	G kg/100
F				
KPH 8F	46	M8	40	7,8
KPH-PG 9	46	R 3/8"	40	6,0

accessories optional:

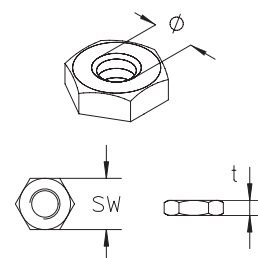
DAS wire eyebolt (page H17)
SHS eyebolt (page H17)



SMH hexagon nut

For an application example, see the chapter assembly.

article number	Ø mm	t mm	SW mm	G kg/100
SMH 8	M8	4,0	13	0,31
SMH-PG 9	R 3/8"	6,0	27	1,93



KNK chain

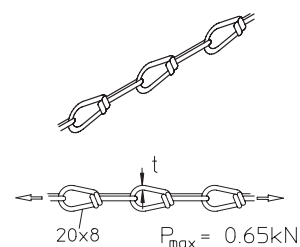
Chain elongation app. 0,1 x length.

For an application example, see the chapter assembly.

article number	t mm	G kg/m
GV		
KNK	3	0,2

accessories optional:

KNK-NG chain, emergency link (page H17, K05)



KNK-NG chain, emergency link

For an application example, see the chapter assembly.

article number	t mm	G kg/100
GV		
KNK-NG	3	0,36





Ship ladders

Ship ladders	L03-L06
Fittings	L07-L08
Accessoires	L09-L15



Numeric index

Ship ladders

F

FRSV round-head screw with short square, DIN 603
[L12](#)

K

KLS fixing set [L12](#)

S

SEM hexagon-nut, DIN 934 [L14](#)
SEMS hexagon nut with flange, DIN EN 1661 [L14](#)
SES hexagon head bolt, DIN 933 [L13](#)
SKL ship ladder [L03](#)
SKLTR ship ladder seperating strip [L04](#)
SLA ship ladder, branch-T-piece, height=30mm [L07](#)
SLAA ship ladder attachment branch-piece [L08](#)
SLB ship ladder bend, height=30 mm [L05](#)
SLF ship ladder hook [L11](#)
SLS ship ladder inside outside riser [L06](#)
SLV ship ladder coupler [L09](#)
SLVV ship ladder coupler, vertical [L09](#)
SLW ship ladder angle [L10](#)

U

US 125 square washer, DIN 125 [L15](#)
US 9021 square washer, DIN 9021 [L15](#)

Ship ladders

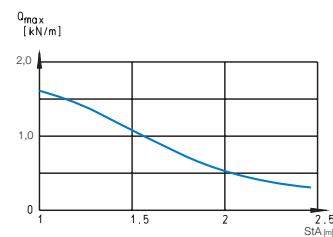
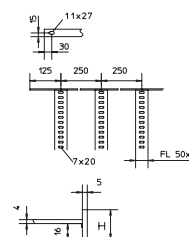
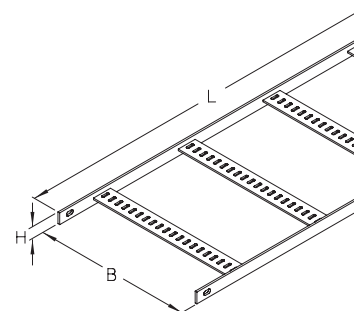
SKL ship ladder height=30 mm, length=3000 mm

Ship ladder with continuously perforated and welded rungs made of flatsteel.

article number	H mm	B mm	R mm	G kg
BRIGHT ROLLED				
SKL 075B	30	75	3000	8.40
SKL 100B	30	100	3000	8.70
SKL 150B	30	150	3000	9.30
SKL 200B	30	200	3000	9.90
SKL 250B	30	250	3000	10.80
SKL 300B	30	300	3000	11.40
SKL 400B	30	400	3000	12.90
SKL 500B	30	500	3000	14.40
WELD-PRIMED				
SKL 075M	30	75	3000	8.40
SKL 100M	30	100	3000	8.70
SKL 150M	30	150	3000	9.30
SKL 200M	30	200	3000	9.90
SKL 250M	30	250	3000	10.80
SKL 300M	30	300	3000	11.40
SKL 400M	30	400	3000	12.90
SKL 500M	30	500	3000	14.40
F				
SKL 75-HDG	30	75	3000	8.40
SKL 100-HDG	30	100	3000	8.70
SKL 150-HDG	30	150	3000	9.30
SKL 200-HDG	30	200	3000	9.90
SKL 300-HDG	30	300	3000	11.40
SKL 400-HDG	30	400	3000	12.90
SKL 500-HDG	30	500	3000	14.40
E				
SKL 75-304	30	75	3000	8.40
SKL 100-304	30	100	3000	8.70
SKL 150-304	30	150	3000	9.30
SKL 200-304	30	200	3000	9.90
SKL 300-304	30	300	3000	11.40
SKL 400-304	30	400	3000	12.90
SKL 500-304	30	500	3000	14.40
E4				
SKL 75-316	30	75	3000	8.40
SKL 100-316	30	100	3000	8.70
SKL 150-316	30	150	3000	9.30
SKL 200-316	30	200	3000	9.90
SKL 300-316	30	300	3000	11.40
SKL 400-316	30	400	3000	12.90
SKL 500-316	30	500	3000	14.40

accessories included:

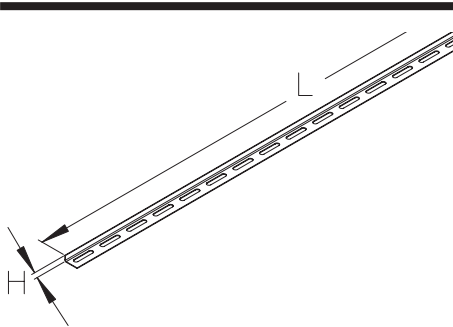
SLW	ship ladder angle	(page L10)
SLV	ship ladder connector	(page L09)
SLVV	ship ladder connector, vertical	(page L09)



Ship ladders

SKLTR ship ladder seperating strip

article number		H mm	L mm	G kg
F				
SKLTR-HDG		10	3000	0.92
accessories included:				
3x FRSV 6X12-304	round-head screw with short square, DIN 603	(page L12)		
3x SEMS 6-304	hexagon nut with flange, DIN EN 1661	(page L14)		
E4				
SKLTR-316		10	3000	0.93
accessories included:				
3x FRSV 6X12-316	round-head screw with short square, DIN 603	(page L12)		
3x SEMS 6-316	hexagon nut with flange, DIN EN 1661	(page L14)		
3x US 6X12-316	square washer, DIN 125	(page L15)		



Ship ladders

Fittings

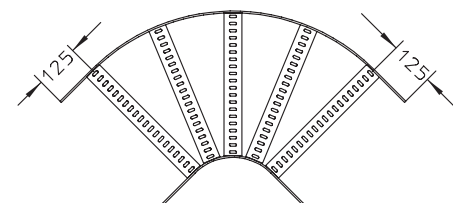
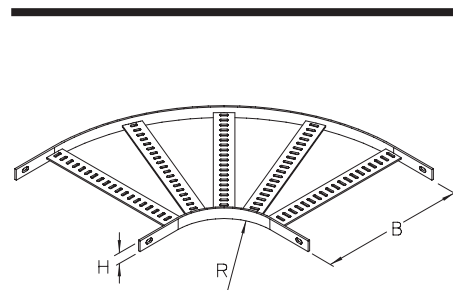
SLB ship ladder bend, height=30 mm

Ship ladder bend 90 for horizontal change of direction.

article number	H mm	B mm	R mm	G kg
BRIGHT ROLLED				
SLB 075B	30	75	100	1.60
SLB 100B	30	100	100	1.70
SLB 150B	30	150	100	2.00
SLB 200B	30	200	100	2.20
SLB 250B	30	250	100	2.80
SLB 300B	30	300	150	3.70
SLB 400B	30	400	150	4.50
SLB 500B	30	500	200	6.10
WELD-PRIMED				
SLB 075M	30	75	100	1.60
SLB 100M	30	100	100	1.70
SLB 150M	30	150	100	2.00
SLB 200M	30	200	100	2.20
SLB 250M	30	250	100	2.80
SLB 300M	30	300	150	3.70
SLB 400M	30	400	150	4.50
SLB 500M	30	500	200	6.10
F				
SLB 75-HDG	30	75	100	1.60
SLB 100-HDG	30	100	100	1.70
SLB 150-HDG	30	150	100	2.00
SLB 200-HDG	30	200	100	2.20
SLB 300-HDG	30	300	150	3.70
SLB 400-HDG	30	400	150	4.50
SLB 500-HDG	30	500	200	6.10
E				
SLB 75-304	30	75	100	1.45
SLB 100-304	30	100	100	1.60
SLB 150-304	30	150	100	1.90
SLB 200-304	30	200	100	2.20
SLB 300-304	30	300	150	3.45
SLB 400-304	30	400	150	4.20
SLB 500-304	30	500	200	5.90
E4				
SLB 75-316	30	75	100	1.60
SLB 100-316	30	100	100	1.70
SLB 150-316	30	150	100	2.00
SLB 200-316	30	200	100	2.20
SLB 300-316	30	300	150	3.70
SLB 400-316	30	400	150	4.50
SLB 500-316	30	500	200	6.10

accessories included:

SLW	ship ladder angle	(page L10)
SLV	ship ladder connector	(page L09)
SLVV	ship ladder connector, vertical	(page L09)



Ship ladders

Fittings

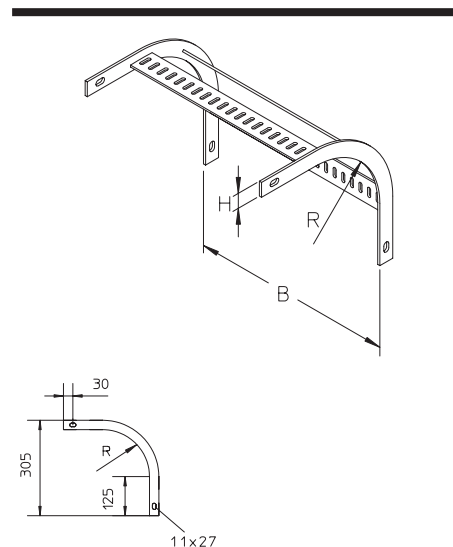
SLS ship ladder inside outside riser, height = 30 mm

Ship ladder bend 90 for vertical change of direction.

article number	H mm	B mm	R mm	G kg
BRIGHT ROLLED				
SLS 075B	30	75	150	0.90
SLS 100B	30	100	150	1.00
SLS 150B	30	150	150	1.00
SLS 200B	30	200	150	1.30
SLS 250B	30	250	150	1.50
SLS 300B	30	300	150	1.70
SLS 400B	30	400	150	2.80
SLS 500B	30	500	150	3.30
WELD-PRIMED				
SLS 075M	30	75	150	0.90
SLS 100M	30	100	150	1.00
SLS 150M	30	150	150	1.00
SLS 200M	30	200	150	1.30
SLS 250M	30	250	150	1.50
SLS 300M	30	300	150	1.70
SLS 400M	30	400	150	2.00
SLS 500M	30	500	150	3.30
F				
SLS 75-HDG	30	75	150	0.90
SLS 100-HDG	30	100	150	1.00
SLS 150-HDG	30	150	150	1.00
SLS 200-HDG	30	200	150	1.30
SLS 300-HDG	30	300	150	1.70
SLS 400-HDG	30	400	150	2.80
SLS 500-HDG	30	500	150	3.30
E				
SLS 75-304	30	75	150	1.52
SLS 100-304	30	100	150	1.65
SLS 150-304	30	150	150	1.85
SLS 200-304	30	200	150	2.10
SLS 300-304	30	300	150	2.50
SLS 400-304	30	400	150	2.95
SLS 500-304	30	500	150	3.35
E4				
SLS 75-316	30	75	150	0.90
SLS 100-316	30	100	150	1.00
SLS 150-316	30	150	150	1.00
SLS 200-316	30	200	150	1.30
SLS 300-316	30	300	150	1.70
SLS 400-316	30	400	150	2.80
SLS 500-316	30	500	150	3.30

accessories included:

SLW	ship ladder angle	(page L10)
SLV	ship ladder connector	(page L09)
SLVV	ship ladder connector, vertical	(page L09)



Ship ladders

Fittings

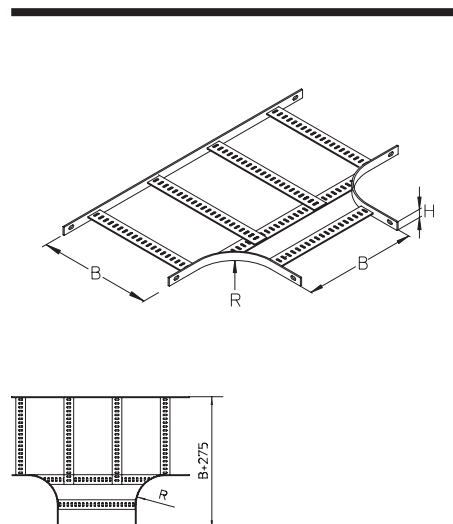
SLA ship ladder branch, height=30 mm

Ship ladder branch, shaped piece as T-piece.

article number	H mm	B mm	R mm	G kg
BRIGHT ROLLED				
SLA 075B	30	75	100	2.50
SLA 100B	30	100	100	2.70
SLA 150B	30	150	100	3.20
SLA 200B	30	200	100	3.60
SLA 250B	30	250	100	4.10
SLA 300B	30	300	150	5.40
SLA 400B	30	400	150	6.50
SLA 500B	30	500	200	8.80
WELD-PRIMED				
SLA 075M	30	75	100	2.50
SLA 100M	30	100	100	2.70
SLA 150M	30	150	100	3.20
SLA 200M	30	200	100	3.60
SLA 250M	30	250	100	4.10
SLA 300M	30	300	150	5.40
SLA 400M	30	400	150	6.50
SLA 500M	30	500	200	8.80
F				
SLA 75-HDG	30	75	100	2.50
SLA 100-HDG	30	100	100	2.70
SLA 150-HDG	30	150	100	3.20
SLA 200-HDG	30	200	100	3.60
SLA 300-HDG	30	300	150	5.40
SLA 400-HDG	30	400	150	6.50
SLA 500-HDG	30	500	200	8.80
E				
SLA 75-304	30	75	100	2.26
SLA 100-304	30	100	100	2.47
SLA 150-304	30	150	100	2.90
SLA 200-304	30	200	100	3.30
SLA 300-304	30	300	150	4.50
SLA 400-304	30	400	150	5.33
SLA 500-304	30	500	200	6.60
E4				
SLA 75-316	30	75	100	2.50
SLA 100-316	30	100	100	2.70
SLA 150-316	30	150	100	3.20
SLA 200-316	30	200	100	3.60
SLA 300-316	30	300	150	5.40
SLA 400-316	30	400	150	6.50
SLA 500-316	30	500	200	8.80

accessories included:

SLW	ship ladder angle	(page L10)
SLV	ship ladder connector	(page L09)
SLVV	ship ladder connector, vertical	(page L09)



Ship ladders

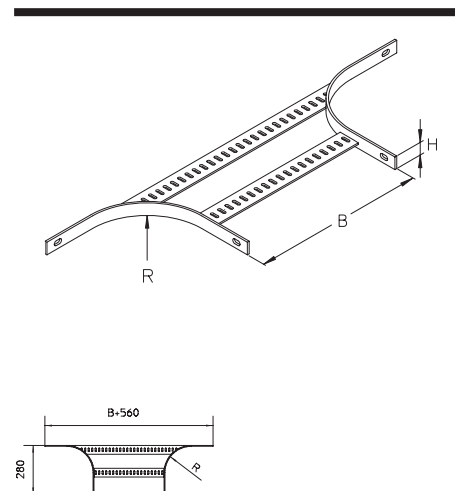
Fittings

SLAA Ship duct attachment branch, height = 30 mm

article number	H mm	B mm	R mm	G kg
BRIGHT ROLLED				
SLAA 075B	30	75	100	1.40
SLAA 100B	30	100	100	1.50
SLAA 150B	30	150	100	1.70
SLAA 200B	30	200	100	1.80
SLAA 250B	30	250	100	2
SLAA 300B	30	300	150	2.50
SLAA 400B	30	400	150	2.80
SLAA 500B	30	500	200	3.40
WELD-PRIMED				
SLAA 075M	30	75	100	1.40
SLAA 100M	30	100	100	1.50
SLAA 150M	30	150	100	1.70
SLAA 200M	30	200	100	1.80
SLAA 250M	30	250	100	2
SLAA 300M	30	300	150	2.50
SLAA 400M	30	400	150	2.80
SLAA 500M	30	500	200	3.40
F				
SLAA 75-HDG	30	75	100	1.40
SLAA 100-HDG	30	100	100	1.50
SLAA 150-HDG	30	150	100	1.70
SLAA 200-HDG	30	200	100	1.80
SLAA 300-HDG	30	300	150	2.50
SLAA 400-HDG	30	400	150	2.80
SLAA 500-HDG	30	500	200	3.40
E				
SLAA 75-304	30	75	100	1.30
SLAA 100-304	30	100	100	1.38
SLAA 150-304	30	150	100	1.52
SLAA 200-304	30	200	100	1.66
SLAA 300-304	30	300	150	2.20
SLAA 400-304	30	400	150	2.50
SLAA 500-304	30	500	200	3.10
E4				
SLAA 75-316	30	75	100	1.40
SLAA 100-316	30	100	100	1.50
SLAA 150-316	30	150	100	1.70
SLAA 200-316	30	200	100	1.80
SLAA 300-316	30	300	150	2.50
SLAA 400-316	30	400	150	2.80
SLAA 500-316	30	500	200	3.40

accessories included:

SLW	ship ladder angle	(page L10)
SLV	ship ladder connector	(page L09)
SLVV	ship ladder connector, vertical	(page L09)

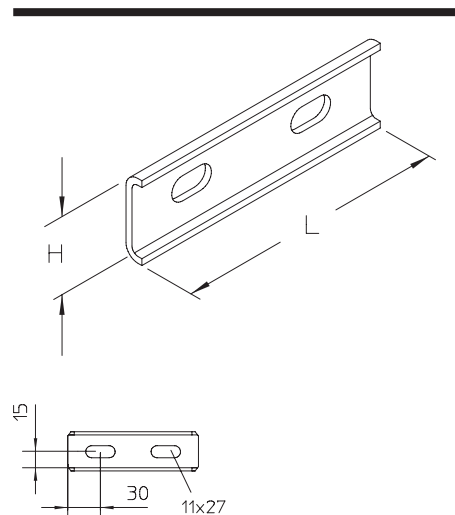


Ship ladders

Accessoires

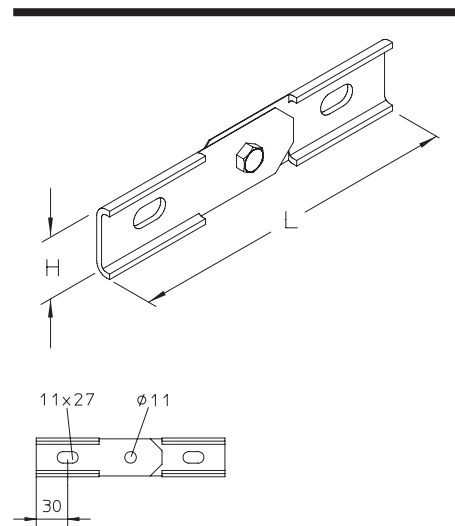
SLV ship ladder connector, vertical

article number		H mm	L mm	G kg
BRIGHT ROLLED				
SLV B		38	120	0.10
accessories included:				
2x KLS 10X20F	fixing set		(page L12)	
WELD-PRIMED				
SLV M		38	120	0.10
accessories included:				
2x KLS 10X20F	fixing set		(page L12)	
F				
SLV-HDG		38	120	0.17
accessories included:				
2x KLS 10X20-HDG	fixing set		(page L12)	
E4				
SLV-316		38	120	0.10
accessories included:				
2x KLS 10X20-316	fixing set		(page L12)	



SLW ship ladder connector, vertical

article number		H mm	L mm	G kg
BRIGHT ROLLED				
SLW B		38	180	0.20
accessories included:				
2x KLS 10X20F	fixing set		(page L12)	
1x SES 10X20F	hexagon head bolt, DIN 933		(page L13)	
1x US 10X21F	square washer, DIN 125		(page L15)	
1x SEM 10F	hexagon-nut, DIN 934		(page L14)	
WELD-PRIMED				
SLW M		38	180	0.20
accessories included:				
2x KLS 10X20F	fixing set		(page L12)	
1x SES 10X20F	hexagon head bolt, DIN 933		(page L13)	
1x US 10X21F	square washer, DIN 125		(page L15)	
1x SEM 10F	hexagon-nut, DIN 934		(page L14)	

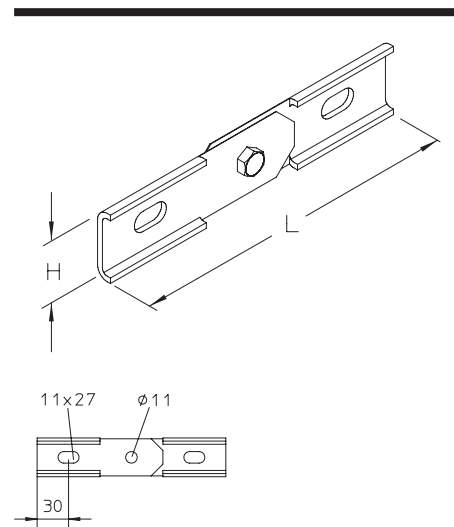


Ship ladders

Accessoires

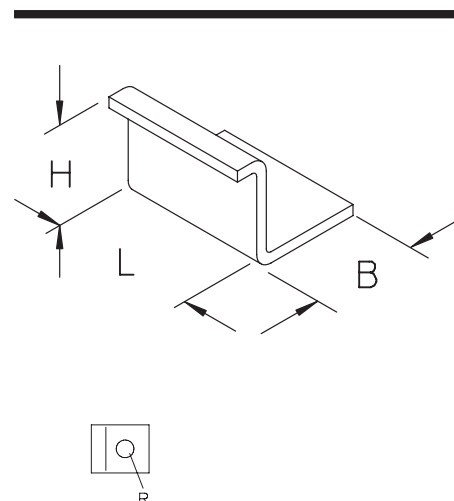
SLVV ship ladder connector, vertical

article number		H mm	L mm	G kg
F				
SLVV-HDG		38	180	0.30
accessories included:				
2x KLS 10X20-HDG	fixing set	(page L12)		
1x SES 10X20-HDG	hexagon head bolt, DIN 933	(page L13)		
1x US 10X21-HDG	square washer, DIN 125	(page L15)		
1x SEM 10-HDG	hexagon-nut, DIN 934	(page L14)		
E4				
SLVV-316		38	180	0.30
accessories included:				
2x KLS 10X20-316	fixing set	(page L12)		
1x SES 10X20-316	hexagon head bolt, DIN 933	(page L13)		
1x US 10X21-316	square washer, DIN 125	(page L15)		
1x SEM 10-316	hexagon-nut, DIN 93	(page L14)		



SLW ship ladder angle

article number		H mm	B mm	L mm	R mm	G kg
BRIGHT ROLLED						
SLW 7B		27	31	40	7	0.10
accessories included:						
1x SES 6X20E	hexagon head bolt, DIN 933	(page L13)				
1x US 6X12E	square washer, DIN 125	(page L15)				
1x SEM 6E	hexagon-nut, DIN 934	(page L14)				
F						
SLW 7M		27	31	40	7	0.10
accessories included:						
1x SES 6X20E	hexagon head bolt, DIN 933	(page L13)				
1x US 6X12E	square washer, DIN 125	(page L15)				
1x SEM 6E	hexagon-nut, DIN 934	(page L14)				
WELD-PRIMED						
SLW 7M		27	31	40	7	0.10
accessories included:						
1x SES 6X20E	hexagon head bolt, DIN 933	(page L13)				
1x US 6X12E	square washer, DIN 125	(page L15)				
1x SEM 6E	hexagon-nut, DIN 934	(page L14)				
BRIGHT ROLLED						
SLW 10B		27	31	40	11	0.10
accessories included:						
1x SES 10X20F	hexagon head bolt, DIN 933	(page L13)				
1x US 10x21F	square washer, DIN 125	(page L15)				
1x SEM 10F	hexagon-nut, DIN 934	(page L14)				

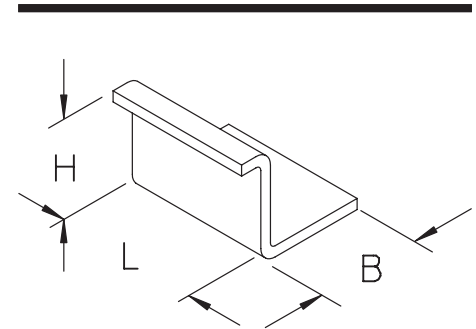


Ship ladders

Accessoires

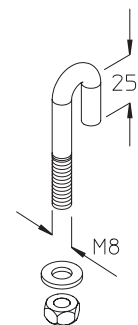
SLW ship ladder angle

article number	H mm	B mm	L mm	R mm	G kg
WELD-PRIMED					
SLW 10M	27	31	40	11	0.10
accessories included:					
1x SES 6X20E	hexagon head bolt, DIN 933	(page L13)			
1x US 6X12E	square washer, DIN 125	(page L15)			
1x SEM 6E	hexagon-nut, DIN 934	(page L14)			
F					
SLW 10-3-HDG	27	31	40	11	0.13
SLW 10-4-HDG	27	31	40	11	0.13
accessories included:					
1x SES 10X20-HDG	hexagon head bolt, DIN 933	(page L13)			
1x US 10X21F-HDG	square washer, DIN 125	(page L15)			
1x SEM 10F-HDG	hexagon-nut, DIN 934	(page L14)			
E4					
SLW 10-3-316	27	31	40	11	0.10
accessories included:					
1x SES 10X20-316	hexagon head bolt, DIN 933	(page L13)			
1x US 10X21F-316	square washer, DIN 125	(page L15)			
1x SEM 10F-316	hexagon-nut, DIN 934	(page L14)			



SLF ship ladder hook

article number	G kg
F	
SLF-HDG	0.03
E4	
SLF-316	0.03
accessories included:	
1x SEM 8-316	hexagon-nut, DIN 934 (page L14)
1x US 8X17-316	square washer, DIN 125 (page L15)



L

Ship ladders

Accessoires

KLS fixing set

For an application example, see the chapter assembly.

article number	Ø mm	L mm	G kg/100
GV			
KLS 8x16	8	16	1,8

accessories included:

1 x FRSV 8x16	round-head screw with short square	(page L12)
1 x SEMS 8	hexagon nut, self-locking, DIN 6923	(page L14)

GV			
KLS 8x25	8	25	2,2

accessories included:

1 x FRS 8x25	round-head screw with square, DIN 603	(page L12)
1 x SEMS 8	hexagon nut, self-locking, DIN 6923	(page L14)

GV			
KLS 10x20	10	20	3,9

accessories included:

1 x FRSV 10x20	round-head screw with short square	(page L12)
1 x SEMS 10	hexagon nut, self-locking, DIN 6923	(page L14)

F			
KLS 10x20F	10	20	4

accessories included:

1 x FRSV 10x20F	round-head screw with short square	(page L12)
1 x SEM 10F	hexagon-nut, DIN 934	(page L14)
1 x US 10x21F	square washer, DIN 125	(page L15)

E			
KLS 8x16E	8	16	1,8

accessories included:

1 x FRSV 8x16E	round-head screw with short square	(page L12)
1 x SEMS 8E	hexagon nut, self-locking, DIN 6923	(page L14)

E			
KLS 8x25E	8	25	2,2

accessories included:

1 x FRS 8x25E	round-head screw with square, DIN 603	(page L12)
1 x SEMS 8E	hexagon nut, self-locking, DIN 6923	(page L14)

E			
KLS 10x20E	10	20	3,9

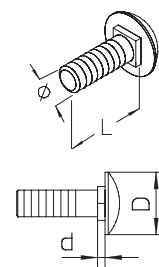
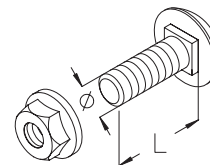
accessories included:

1 x FRSV 10x20E	round-head screw with short square	(page L12)
1 x SEM 10E	hexagon-nut, DIN 934	(page L14)
1 x US 10x21E	square washer, DIN 125	(page L15)

FRSV round-head screw with short square

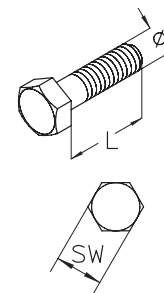
article number	Ø mm	D mm	d mm	L mm	G kg/100
E					
FRSV 6x12E	6	16	1,5	12	0,5
FRSV 6x16E	6	16	1,5	16	0,7
FRSV 8x16E	8	20	2,0	16	1,3
FRSV 10x20E	10	24	2,5	20	2,3

E4					
FRSV 6x12E4	6	16	1,5	12	0,5
FRSV 10x20E4	10	24	2,5	20	2,4



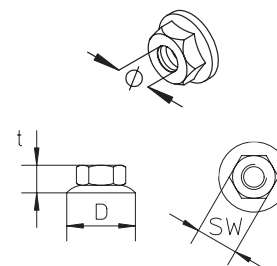
SES hexagon head bolt, DIN 933

article number	Ø mm	L mm	SW mm	G kg/100
GV				
SES 6x16	6	16	10	0,5
SES 6x20	6	20	10	0,6
SES 6x25	6	25	10	0,7
SES 6x30	6	30	10	0,8
SES 8x16	8	16	13	1,1
SES 8x20	8	20	13	1,2
SES 8x25	8	25	13	1,4
SES 8x30	8	30	13	1,4
SES 8x40	8	40	13	1,9
SES 8x110	8	110	13	4,1
SES 10x20	10	20	17(16)	2,1
SES 10x25	10	25	17(16)	2,4
SES 10x30	10	30	17(16)	2,6
SES 10x40	10	40	17(16)	3,1
SES 10x75	10	75	17(16)	4,7
SES 10x90	10	90	17(16)	5,6
SES 10x100	10	100	17(16)	6,1
SES 12x20	12	20	19(18)	3,1
SES 12x25	12	25	19(18)	3,4
SES 12x30	12	30	19(18)	3,8
SES 12x40	12	40	19(18)	4,5
SES 12x50	12	50	19(18)	5,2
F				
SES 10x20F	10	20	17(16)	2,1
SES 10x25F	10	25	17(16)	2,4
SES 10x30F	10	30	17(16)	2,6
SES 10x55F	10	55	17(16)	3,9
SES 10x75F	10	75	17(16)	4,9
SES 10x90F	10	90	17(16)	5,6
SES 10x100F	10	100	17(16)	6,1
SES 12x20F	12	20	19(18)	3,1
SES 12x30F	12	30	19(18)	3,8
SES 12x40F	12	40	19(18)	4,5
SES 12x50F	12	50	19(18)	5,2
SES 12x70F	12	70	19(18)	6,6
E				
SES 6x16E	6	16	10	0,5
SES 8x16E	8	16	13	1,1
SES 6x20E	6	20	10	0,6
SES 8x20E	8	20	13	1,2
SES 8x25E	8	25	13	1,4
SES 8x30E	8	30	13	1,5
SES 10x20E	10	20	17	2,1
SES 10x30E	10	30	17	2,6
SES 10x75E	10	75	17(16)	4,9
SES 10x100E	10	100	17(16)	6,1
E4				
SES 8x20E4	8	20	13	1,2
SES 8x30E4	8	30	13	1,5
SES 10x20E4	10	20	17	2,1
SES 10x75E4	10	75	17(16)	4,9
SES 10x100E4	10	100	17(16)	6,1



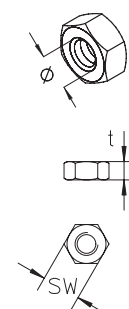
SEMS hexagon nut, self-locking, DIN 6923

article number	Ø mm	D mm	t mm	SW mm	G kg/100
GV					
SEMS 6	6	14	5,5	10	0,3
SEMS 8	8	17	7,5	13	0,7
SEMS 10	10	21	9,5	15	1,6
E					
SEMS 6E	6	14	5,5	10	0,3
SEMS 8E	8	17	7,5	13	0,7
SEMS 10E	10	21	9,5	15	1,6



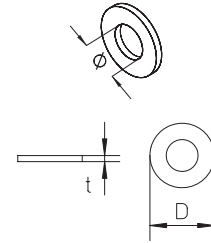
SEM hexagon-nut, DIN 934

article number	Ø mm	t mm	SW mm	G kg/100
GV				
SEM 6	6	5,0	10	0,3
SEM 8	8	6,5	13	0,5
SEM 10	10	8,0	17(15)	1,2
SEM 12	12	10,0	19(18)	1,7
F				
SEM 10F	10	8,0	17(15)	1,2
SEM 12F	12	10,0	19(18)	1,7
E				
SEM 6E	6	5,0	10	0,3
SEM 8E	8	6,5	13	0,5
SEM 10E	10	8,0	17(15)	1,2
SEM 12E	12	10,0	19(18)	1,7
E4				
SEM 6E4	6	5,0	10	0,3
SEM 8E4	8	6,5	13	0,5
SEM 10E4	10	8,0	17(15)	1,2



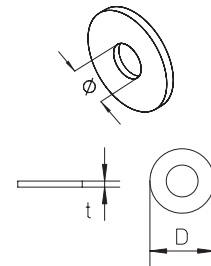
US 125 square washer, DIN 125

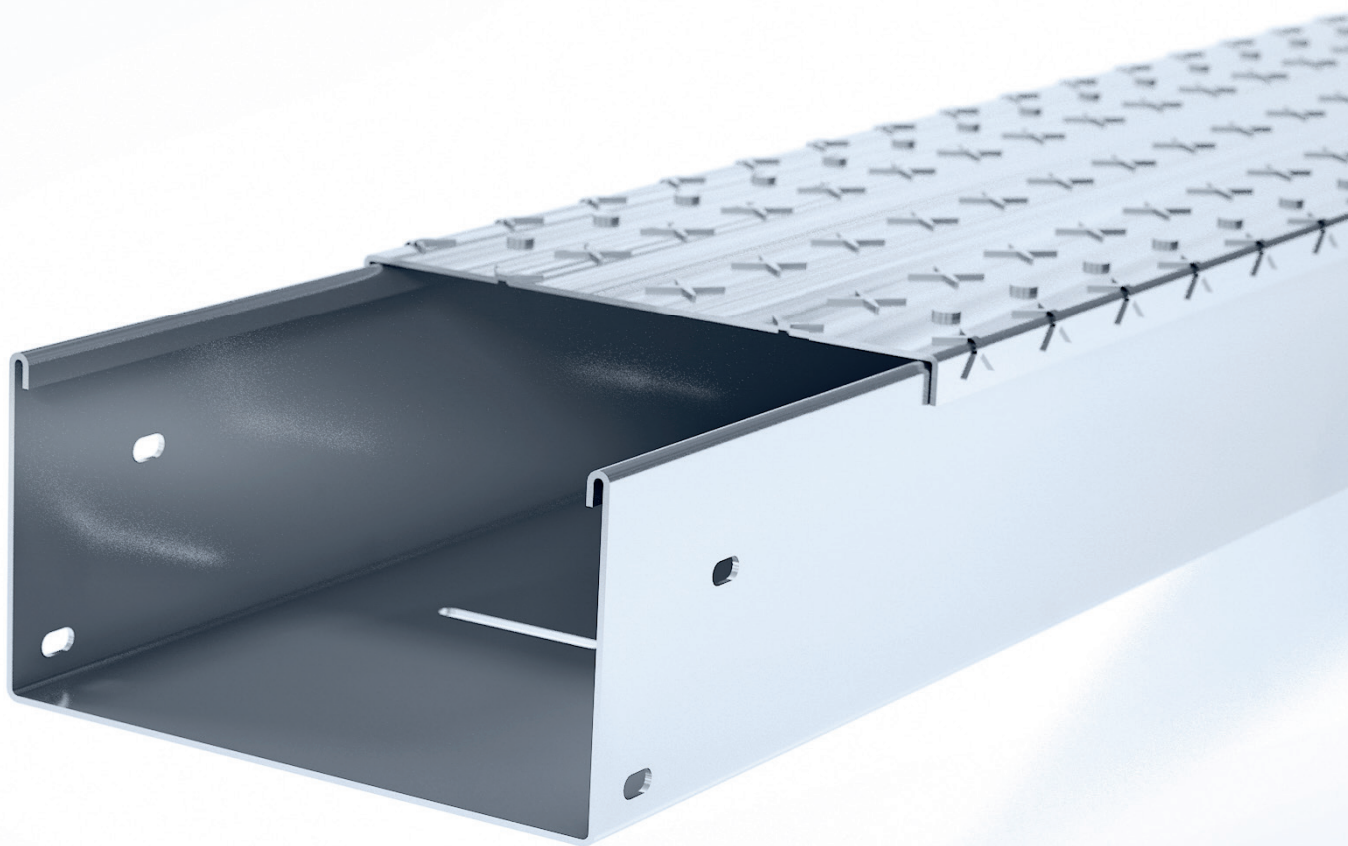
article number	Ø mm	D mm	t mm	G kg/100
GV				
US 6x12	6,4	12,5	1,6	0,1
US 8x17	8,4	17,0	2,0	0,2
US 10x21	10,5	21,0	2,0	0,4
US 13x24	13,0	24,0	2,5	0,6
US 17x30	17,0	30,0	3,0	1,1
F				
US 10x21F	10,5	21,0	2,0	0,4
US 13x24F	13,0	24,0	2,5	0,6
US 17x30F	17,0	30,0	3,0	1,1
E				
US 6x12E	6,4	12,5	1,5	0,1
US 8x17E	8,4	17,0	1,5	0,2
US 10x21E	10,5	21,0	0,0	0,4
US 13x24E	13,0	24,0	2,5	1,2
E4				
US 6x12E4	6,4	12,5	1,5	0,1
US 10x21E4	10,5	21,0	0,0	0,2
US 8x17E4	8,4	17,0	1,5	0,2



US 9021 square washer, DIN 9021

article number	Ø mm	D mm	t mm	G kg/100
GV				
US 6x18	6,4	18	1,6	0,3
US 8x25	8,4	25	2,0	0,7
US 10x30	10,5	30	2,5	1,2
US 13x40	13,0	40	3,0	2,7
F				
US 10x30F	10,5	30	2,5	1,2
US 13x40F	13,0	40	3,0	2,7
E				
US 6x18E	6,4	18	1,6	0,3
US 8x25E	8,4	25	2,0	0,7
US 10x30E	10,5	30	2,5	1,2
E4				
US 10x30E4	10,5	30	2,5	1,2





Cable channels

Overview

M03-M04



M

System overview

Tread-resistant floor ducts

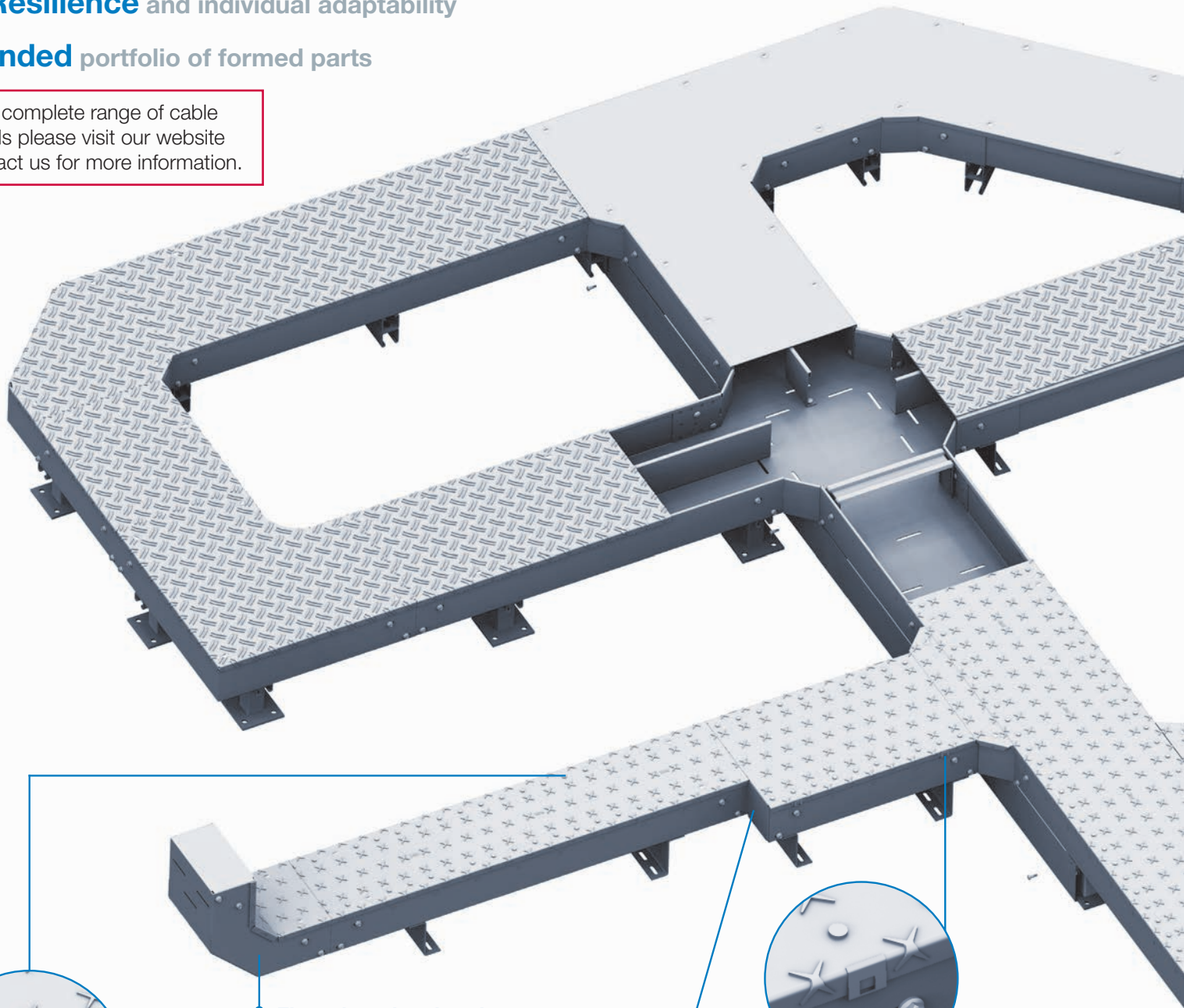
Full assembly **flexibility**

up to **30%** less installation effort

Resilience and individual adaptability

Extended portfolio of formed parts

For our complete range of cable channels please visit our website or contact us for more information.



Floor duct riser bend

Vertical direction changes can be done with the floor duct riser bend (BKS).

Cover clamp

You can also choose a cover clamp (BKDHIK) to attach and to take the cover off faster and simpler in the assembly.

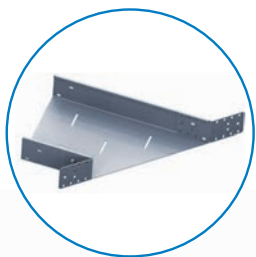
Floor duct with knockouts and steel cover

The revised floor duct (BK) makes an attachment for the equipotential bonding possible by adding additional knockouts.

The extraordinary loadable cover with an anti-slip embossing (BKD-RHP) ensures a verified resilience from 500 kg on (according to DIN EN 5005 2-2), optimal anti-slip properties combined in anti-slip class R12 (according to DIN 51130) as well as knockouts for an individual turning bolt assembly.

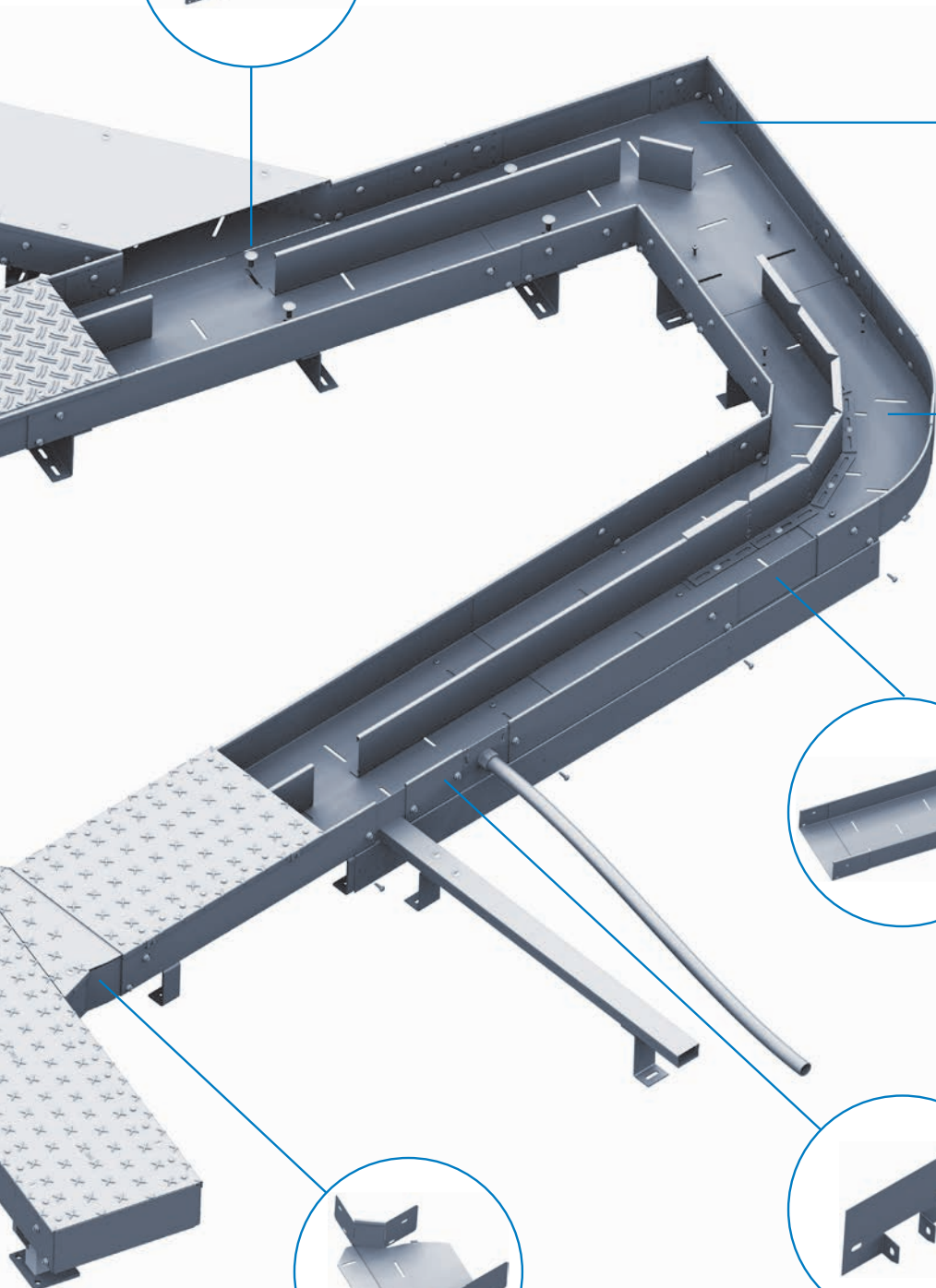
Floor duct reducer

The floor duct reducer (BKEB) can be used to reduce the floor duct and as a finish for the cover edge.



45° attachment branch, right/left

Using prefabricated floor ducts with mitre cut simplifies the assembly of 45°-branches.

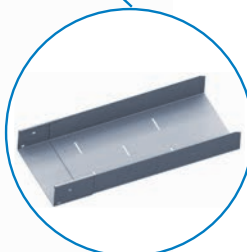


Floor duct bend with mitre cut

For the variety of conditions in every building project, a floor duct bend with mitre cut (BKBG) can be used to create a horizontal direction change.

Variable floor duct bend incl. separating strip

The new variable floor duct bend (BKVB) allows to change the horizontal direction in a constant angle range between 0° and 90°. In the same time, the included separating strip (BKRTV) is an adaptive addition.



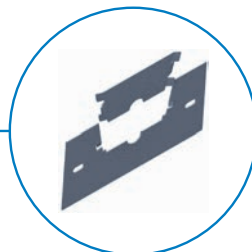
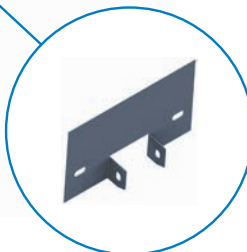
Floor duct telescope insert

A stepless balancing of length is ensured by the floor duct telescope insert (BKTE) connected with 1 m and 1.5 m floor duct short parts. That reduces the necessary cuttings enormously and guarantees the full assembly flexibility. Changes afterwards can be realized with little efforts.



Variable floor duct attachment branch

With the new variable floor duct attachment branch (BKVAA) is a horizontal branch in a constant angle range between 0° and 30° possible for both sides.



Reducer to small ducts and cable protection hose

The PUK portfolio offers also an option to link consumer with small ducts (BKRRKK) and cable protection hoses (BKRRKS) very easily by using the reducer – without much assembly effort.



M



Technical informationen	N02-N13
How to choose the right cable support system?	N14-N17
Wire mesh cable trays	N18
Cable trays	N19-N21
Cable ladders	N22-N23
Wide-span systems	N24-N25
Brackets	N26-N29
Ceiling fixed suspensions	N30-N31
Brackets – KSL system	N32
Brackets/-support KHU system	N33-N35
Brackets/-support KHI system	N36-N37
Brackets/-support KHA system	N38
Anchor-rails	N39-N42
Single-span girder with centric single load	N44

The technical information is provided to

- inform you about protective measures against corrosion
- help you finding the suitable products for your application
- inform you about available, castum-made products.

In order to make the use of this catalogue easier for you we use tokens and symbols. You find the explanations on the inner pocket of the back side page. If you should have any technical questions or requests about available non-standard products we are glad to help you from our headquar-ters in Berlin or our branch offices at any time.

Subject to technical modifications.

Corrosion prevention

Prior to choosing materials for the passing of cables it is recommended to take a look at the corrosive environmental conditions at the construction site and to determine the cor-rosion prevention accordingly.

For installations in regular environment, zinc coatings have proven to be protective for steel against corrosion. However, the protective zinc coat is being reduced by various climatic influences throughout the years. The following table shows the loss of coating per year:

Environmental influence and corrosion risk

Corrosion-category	Loss of thickness μm/year	Typical environment	
		outdoors	indoors
C1 inconsider-able	≥ 0.1	-	Heated buildings like offices, stores, schools, hotels
C2 slight	> 0.1 until 0.7	Little pollution, like rural areas	Not heated buildings with formation of condensate like store houses
C3 moderate	> 0.7 until 2.1	City and industrial environments with moderate pollution	Production plants with high humidity, like laundry, brewery and dairy
C4 strong	> 2.1 until 4.2	Industrial areas and coastlines with moderate salt impact	Chemical plants, swimming pools
C5-I very strong (industrial)	> 4.2 until 8.2	Industrial environment with high humidity and aggressive atmosphere	Buildings or areas with almost permanent con-densation and pollution
C5-M very strong (ocean)	> 4.2 until 8.2	Coastlines and offshore areas with high salt impact	Buildings or areas with almost permanent con-densation and pollution

(Source: EN ISO 12944-2)

The loss of thickness per year multiplied with the expected life span of the construction determines the necessary thick-ness of zinc coating. There are mainly three zinc coatings that differ in thickness of coating, adhesive strength and appearance.

Galvanic zinc (EN ISO 4042)

The small parts are zinced by means of electrolysis bath in which the zinc ions apply very evenly to the metal. The zinc coat is app. 5 μm thick, light glossy, and has an additional protection by succeeding bi chromium conditioning against abrasion.

Nuts and bolts (without further marking) in the catalogue are galvanic zinc coated . They are used for connecting Send-zimir zinc coated construction elements.

Hot galvanized according to the Sendzimir procedure (EN 10346)

The steel strapping (thickness up to 2 mm) is coated in the steel-mill with zinc (flow path procedure). The result is an evenly spread and highly adhesive zinc coat with an average thickness of 19 μm.

Damage to the zinc coat caused by cutting, punching or drill-ing does not result in progressing corrosion because the neighbouring zinc is dissolving under the impact of (air-)humi-dity and builds a protective, brown coating layer of zinc hydroxide over the blanc metal. The „migration“ of zinc ions protects free areas up until app. 2 mm width. These articles are marked with the symbol .

Hot dip galvanized (EN ISO 1461)

The parts are hot dip galvanized after processing in liquid zinc (app. 450 C). Chemical reactions lead to various zinc-iron alloys, which are especially firmly connected to the steel core. These alloys are usually coated with a „pure zinc layer“. Depending on the speed of the reaction, steel composition, time of dipping, cooling process etc., a „growing through“ to the surface of the zinc-iron alloy is possible as well.

Therefore the appearance of the surface varies from dull dark grey to light glossy. This is no indication of thickness of zinc coating or quality of corrosion prevention. Humid environment can also cause a forming of zinc-hydroxide-carbonate (so called white rust). This does not influence the efficiency of the corrosion prevention. Cutting edges need to be protected with cold zinc paint (see catalogue chapter A).

According to EN ISO 1461 the average local thickness of the coating is at least

- 45 µm for material thicknesses up to 1.5 mm
- 55 µm for material thicknesses from 1.5 up to 3 mm
- 70 µm for material thicknesses from 3 up to 6 mm

The EN ISO 1461 complies basically with

BS EN ISO 1461 in Great Britain

EN ISO 1461 in France

NEN EN 1461 in USA

All types of cable trays and medium- heavy/heavy support systems are deliverable conditional of manufacturing in hot dip galvanized. This program is marked with the symbol **F**.

Stainless steel

Considering the aspects of high corrosion resistance, easily cleanable surface, ability of recycling, and fire resistance, stainless steel becomes increasingly the material of first choice. Especially for the chemical, paper, textile and food industry, in sewages, refineries, car tunnels and in off-shore areas it is being commonly used.

Regarding the long lasting life cycle of such constructions, stainless steel is often times the economically most suitable solution in spite of the higher initial investment. In case of insufficient corrosion resistance the investments are accelerated by business interruption, rearrangement of cable loads, exchange of structural components.

Compared to various plastic materials stainless steel features through high firmness, resistance against fire and heat, as well as the emission free manner in case of fire and mechanical processing.

The commonly used material No.: 1.4301 is marked with the short description X5CrNi 18-10 according to EN 10088-3 and has been approved by the German Institute for Construction Engineering in Berlin under the general admittance Z-30.3-6 for construction processes.

Assignment to recent and outdated norms:

EN 10088-3	1.4301 X5CrNi 18-10
AISI	304
UNS	S 30400
BS	304 S31
AFNOR	Z7CN 18-09
DIN 17441	1.4301

PUK offers a complete high-grade steel program made of: bracket supports, brackets, cable trays, ladders, vertical ladders, channels and cable clamps.

Nuts and bolts comply to steel-group A2 (according to ISO 3506). This is indicated with the symbol **E**.

The stainless steel program is available on request in material No. 1.4404 with the short appellation X2CrNiMo 17-12-2 (according to EN 10088-3) and has been also certified by the German Institute for Construction Engineering in Berlin. Nuts and bolts comply to steel-group A4 (according to ISO 3506).

Assignment to recent and outdated norms:

EN 10088-3	1.4404 X2CrNiMo 17-12-2
AISI	316 L
UNS	S 31603
BS	316 S 11
AFNOR	Z3CND17-11-02
DIN 17440	1.4404

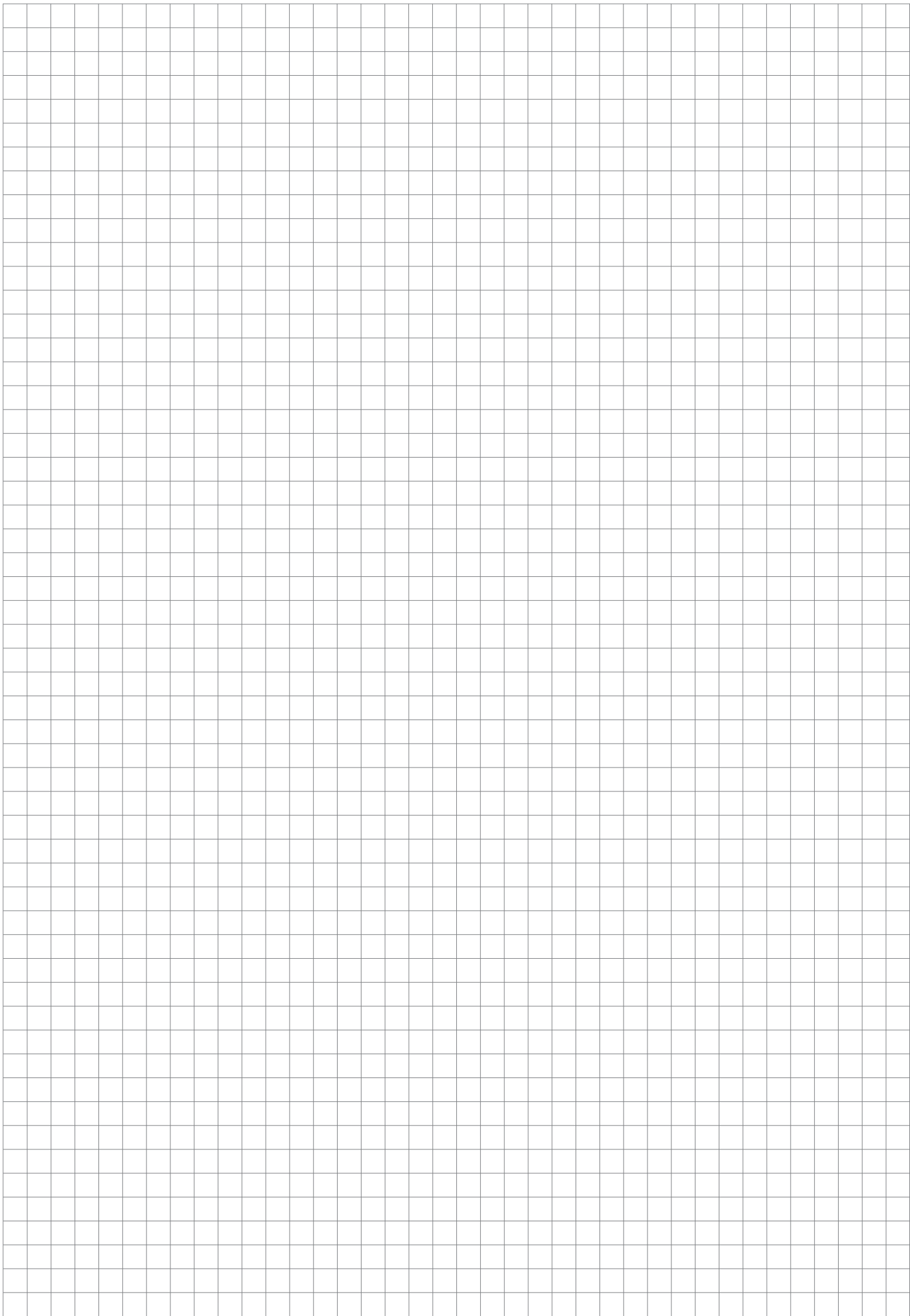
Alternatively available in 1.4571. This steel type is marked with .

Other materials of the same corrosion category available on request.

For special applications (light- and cable support constructions in car tunnels according to ZTV-ING) the high alloyed material No. 1.4529 is available.

Plastic Coating

For the use in zinc aggressive environments (pH index < 6 or > 12.5) or for indication through colours, zinc-coated construction parts can be coated with plastic on request (for example with epoxy or polyester).



N

Cable trays

The choice is made based on:

- 1. the number or volume of cables to be passed in a cable tray (load carrying capacity of the tray)
- 2. the distance between the support points of the tray (type of the tray)
- 3. the distance between the support points of the tray (load carrying capacity of the tray)

Re 1. Cable capacity/usable diameter

If the cable volume (type of cables, size, number) is not known, table 1 can help with the estimation: For cables of any size the volume needed is multiplied with the number of cables in order to determine the total sum. The result is the minimum cross section area of the cable tray needed, which may have to be extended by a standby factor). The regulations of the VDE 0100 regarding the load of cable trays must be observed in all cases.

Table 1: Space requirements for cables type NY

Table with 5 columns: Cable NY, Diameter (mm), Space per cable (app.), Number of cables, and a calculation column. Rows show different cable sizes (4x1.5 to 4x70) and their corresponding space requirements.

(Source: EN ISO 12944-2)

The usable diameter area (A) of each cable tray is specified in the catalogue. If needed, several cable trays must be installed in parallel.

Re 2. Type of cable tray/weight of cable

If the total weight of the cables is unknown, table 2 can help with the estimation: For any cable size, the cable weight is multiplied by the number of cables to determine the total sum. The result is the estimated cable load (Q).



All specifications for carrying capacity listed in this catalogue relate to the respective product. The carrying capacity of the installed system depends on the actual configuration and specifically on the operational discharge of load into the structure.

Table 2: Weight of cables type NY

Table with 4 columns: Cabel NY, Weight of cable (app.), Number of cables, and a calculation column. Rows show different cable sizes (4x1.5 to 4x70) and their corresponding weights.

With regard to security, the highest possible cable load is pivotal. It is calculated by multiplying the usable diameter by the specific cable weight*. The result (Q_{LK}) for each cable tray is listed in this catalogue.

Table with 3 columns: type of cable tray, Cable performance cable (Q_{LK}), and specific cable weight. Rows list cable ladder, cable tray, and wire-mesh cable tray.

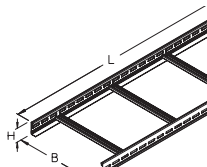
Re 3. Distance between supports (StA)

The recommended distance between supports is 1.5 meters. Nevertheless, the actual possible distance between supports can be considerably higher (up to 10 m), depending on available points of fastening (pillars, supporting structures).

The capacity diagrams of the cable trays list the maximal load capacity (Q_{max}) a cable tray can carry securely with the given support distance.

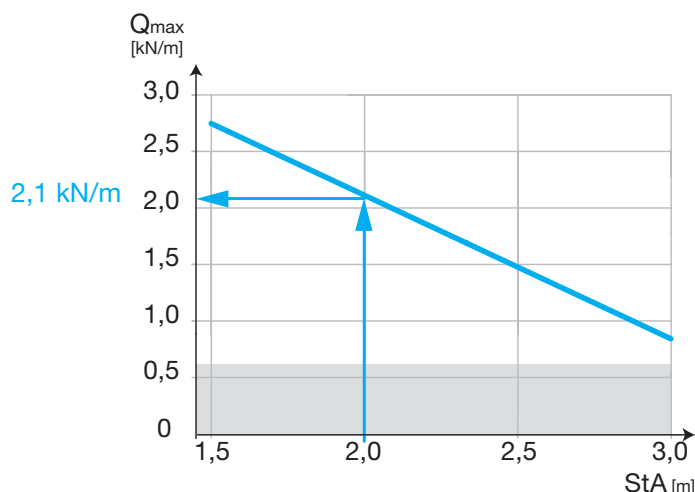
Please observe the following calculation examples!

How to determine the additional load based on the example LGG 60-40 with a support distance StA of 2,0 m



LGG 60 Cable ladder, height = 60 mm

Article number	H mm	B mm	L mm	A cm ²	Q _{sk} kN/m	G kg/m
S F E						
LGG 60-20	60	200	6000	81	0.23	2.64
LGG 60-30	60	300	6000	122	0.34	2.87
LGG 60-40	60	400	6000	162	0.45	3.1
LGG 60-50	60	500	6000	203	0.57	3.33
LGG 60-60	60	600	6000	243	0.68	3.56



The difference between the maximum load capacity and the possible cable load equals the highest permissible additional load:

$$\begin{aligned}
 Q_{\max} &= 2.10 \text{ kN/m} \\
 Q_{Lk} &= -0.45 \text{ kN/m} \\
 \text{add. load} &= 1.65 \text{ kN/m}
 \end{aligned}$$

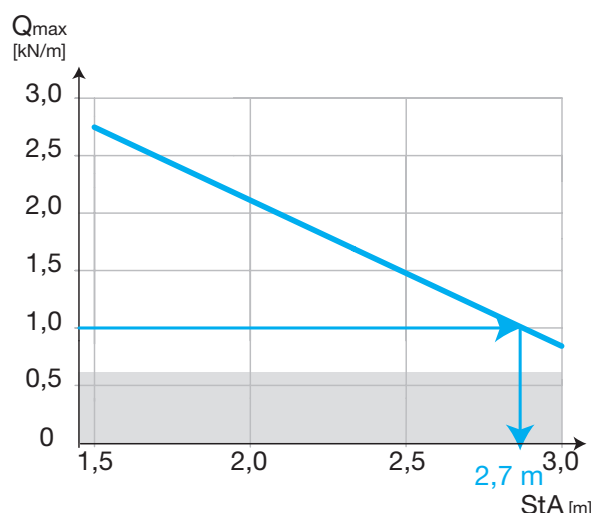
The cable tray load diagrams furthermore provide the maximum permissible support distance figures when the load is known.

How to determine the maximum support distance StA based on the example LGG 60-60:

LGG 60 Cable ladder, height = 60 mm

Article number	H mm	B mm	L mm	A cm ²	Q _{sk} kN/m	G kg/m
S F E						
LGG 60-20	60	200	6000	81	0.23	2.64
LGG 60-30	60	300	6000	122	0.34	2.87
LGG 60-40	60	400	6000	162	0.45	3.10
LGG 60-50	60	500	6000	203	0.57	3.33
LGG 60-60	60	600	6000	243	0.68	3.56

$$\begin{aligned}
 \text{Cable load} &= 0.68 \text{ kN/m} \\
 \text{add. load} &= 0.40 \text{ kN/m} \\
 Q_{\max} &= 1.08 \text{ kN/m}
 \end{aligned}$$



Maximum distance between supports is 2.7 meters.

The load capacity diagrams allow for a security reserve of at least 70% until possible failure (according to DIN EN 61537).

Nevertheless cable trays may not be used for walking!

If the maximum load capacity ($Q_{\max}$) or the maximum distance between supports of the selected cable tray is insufficient, types with a higher load capacity must be considered.

If these do not meet the requirements either, a cable tray type with a higher load capacity must be chosen:

light ⇒ heavy:

Wire-mesh cable tray ⇒ cable tray ⇒ cable ladder ⇒ wide-span cable tray



Wide-span cable trays

are suitable for wide distances between supports. The load carrying capacity of such "cable bridges" primarily depends on the firmness and thus on the height of the side profiles. However, an increased side height also means an increased volume capacity and thus a higher maximum cable load.

This generally leads to the risk of unplanned overloads/overstress; therefore the wide-span cable trays offer the following solutions to said risk:

- an elevated cable tray bottom
- electrically welded connection of side rail and rung
- almost symmetric torsion-free side rail profiles
- at least 70% of security reserve in the load carrying capacity specifications* (see explanations EN 61537)

This information applies to all wide-span cable trays if side rail supports (WPHS) are mounted at the support point (bracket).

Warning icon: Cable trays may not be used for walking or as ladders. Wide-span cable trays may have a higher volume capacity than load carrying capacity depending on the distance between supports. Specifications on load carrying capacity based on the distance between supports need to be complied with.

Supporting structures

As a rule, supporting structures for the trace route contain on ceilings of steel bracket and ceiling bracket support (stem) and on walls of wall bracket or bracket support and stem bracket. In order to select construction pieces of sufficient weight load ability, firstly the load of each cable tray at the support point must be determined:

Bracket load P = (cable load Q + weight of cable tray w + additional load) x distance between supports StA

P = (Q + w) x StA

1. Bracket (extension)

The load carrying capacity of the bracket (P_max) must be higher than the above determined bracket load (P).

Please note that the load carrying capacity of the cable tray depends on the width of the selected cable tray (B_2). The load carrying capacity tables always presume the respective size of cable tray/bracket (L approx B_1 approx B_2).

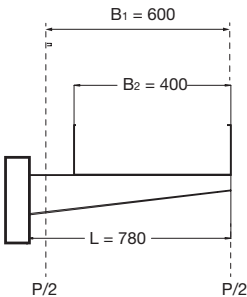
However, if the bracket is considerably longer and the cable tray is laid flush with the bracket tip, the following is valid by approximation: For example Konsole KWS 070 and cable ladder LGG 60-40:

KWS Wall bracket, heavy

Table with 3 columns: Article number, B mm, L mm. Rows include KWS 020 to KWS 070.

LGG 60 Cable ladder

Table with 3 columns: Article number, H mm, B mm. Rows include LGG 60-20 to LGG 60-60.



applies as follows:

Formula for P_zul approx P_max with variables L, B1, B2. Definitions: L = Length of the bracket, B1 = verified width of the cable tray, B2 = selected width of the cable tray.

The load carrying capacity specifications correspond to the values verified and certified according to EN 61537.

2. Ceiling bracket support (stem)

Ceiling bracket supports are stressed mainly by bending forces in case of one sided mounting of cable trays. Each individual bracket causes a so-called bending moment (M_i) in the stem which is determined by the bracket load (P_i) and overhang length (l_i) – ($M = P \times l$). The overhang length depends on the bracket length (L) and on the width of cable tray (B).

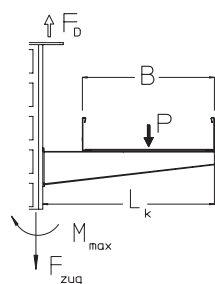
The sum of the individual bending moments (M_i) must not exceed the permissible moment (M_{max}). The M_{max} for every stem is specified in the catalogue.

If cable trays are mounted to both stem sides, the above said must apply to each of the two sides, since a one-sided equipment with cables (during the laying of cables) can usually not be excluded.

In order to simplify the choice of the suitable stem, the maximum bracket load (P_{max}) is specified for every cable tray width (B) with the corresponding bracket length (L_k).

If only one cable tray is to be fastened to the stem on one side (or only cable trays of equal width), the table determines directly whether $P \leq P_{max}$ (resp. $\sum P_i \leq P_{max}$) applies.

Example: KDI



KDI Bracket support, heavy, profile

B mm	L _k mm	P _{max} L > 1000 kN	P _{max} L < 1000 kN	F _d /P
100	120	20.0	14.5	1.3
200	220	13.8	10.0	1.6
300	320	10.5	7.6	1.9
400	420	8.5	6.2	2.3
500	520	7.1	5.2	2.6
600	620	6.1	4.4	3.0

$$L \leq 1000: M_{max} = 1600 \text{ Nm}$$

$$L > 1000: M_{max} = 2200 \text{ Nm} \quad F_{zug} = 20 \text{ kN}$$

Example: LGG 60-40

$$B = 400, \text{ stem length} < 1 \text{ m}$$

$$P_{max} = 6,2 \text{ kN}$$

If cable trays of different widths require a one-sided mounting to the stem, the share of the maximum load must be calculated for each individual cable tray width: $P_B/P_{B_{max}}$.

The sum of all these shares for the selected stem must be ≤ 1.0 :

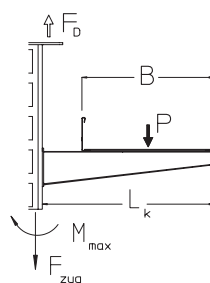
$$\sum \frac{P_B}{P_{B_{max}}} < 1$$

Example: Two cable ladders, type LGG 60, have to be mounted single-sided to brackets on a ceiling bracket support.

The distance between the supports (StA) is 1.5 meters.

LGG 60 Cable ladder, height = 60 mm

Article number	H mm	B mm	L mm	A cm ²	Q _{sk} kN/m	G kg/m
S F E						
LGG 60-20	60	200	6000	81	0.23	2.64
LGG 60-30	60	300	6000	122	0.34	2.87
LGG 60-40	60	400	6000	162	0.45	3.10
LGG 60-50	60	500	6000	203	0.57	3.33
LGG 60-60	60	600	6000	243	0.68	3.56



KDU 60 Bracket support, heavy

B mm	L _k mm	P _{max} L > 1000 kN	P _{max} L < 1000 kN	F _d /P
100	120	19.3	12.5	1.2
200	220	12.9	8.3	1.5
300	320	9.7	6.2	1.9
400	420	7.7	5.0	2.2
500	520	6.4	4.2	2.6
600	620	5.5	3.6	2.9

cable ladder width	B ₁ = 400 mm	B ₂ = 600 mm
bracket length	L ₁ = 420 mm	L ₂ = 620 mm
cable load (based on catalogue):	Q _{LK} = 450 N/m	Q ₂ = 680 N/m
plus weight of cable ladder:	31 N/m	35,6 N/m
equals sum of load:	481 N/m	715,6 N/m

Sum of load	481 N/m	715,6 N/m
multiplied by distance between supports	x 1.5 m	x 1.5 m
equals bracket load:	P ₁ = 721,5 N	P ₂ = 1.073,4 N

For bracket support KDU 60
(based on catalogue): P_{max 400} = 5.0 kN P_{max 600} = 3.6 kN

The sum of shares equals:
$$\sum \frac{P_B}{P_{B \max}} = \frac{721.5 \text{ N}}{5,000 \text{ N}} + \frac{1.073.4 \text{ N}}{3,600 \text{ N}} = 0.44 (< 1)$$



In the process of laying cables, high additional loads can occur. These additional loads may not be discharged into the cable support system.

According to the above calculation, the selected bracket support may be used. However, if

$$\sum \frac{P_B}{P_{B \max}} > 1$$

either a bracket support with a higher load capacity must be used or the support distance must be reduced.

The load capacity specifications correspond to the values verified and certified according to DIN EN 61537.

Discharge of load into the construction piece

Technical information



All specifications for carrying capacity listed in this catalogue relate to the respective product. The carrying capacity of the installed system depends on the actual configuration and specifically on the operational discharge of load into the construction piece. In the process of laying cables, high additional loads can occur. These additional loads may not be discharged into the cable support system.

The following illustration can merely serve as additional support when applying dowel approvals; the approval specifications alone are binding.

Permissible dowel load F_{zul}

The vectorial overlay of various strength components effective at the anchorage point (e.g. shear force and vertical extraction force) yields the dowel load that must be lower /equal compared to the allowable dowel load listed in the approval (generally applies to all diagonal pull directions). The allowable dowel load depends on the anchorage ground material (concrete grade, brickwork stone type, etc.) as well as on its voltage load:

- cracked concrete tension zone
- verified concrete compression zone (e.g. concrete wall, support, the upper concrete beam half).

In cases of doubt, consult the responsible structural engineer.

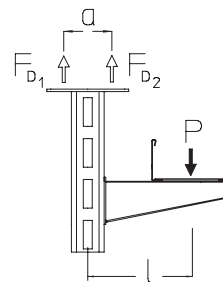
Reduction

The allowable dowel load must be reduced,

- if several dowels have a smaller distance between each other than measure a (centre to centre distance).
- if the distance between the dowel and a structure edge or corner is smaller than measure a_r (edge distance).

The factor for the calculation of the dowel load F_D is listed in the catalogue (applies to anchors with heavier loads).

Example: Ceiling bracket support



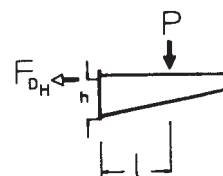
$$F_{D1} = \frac{P}{2} - P \cdot \frac{l}{a}$$

$$F_{D2} = \frac{P}{2} + P \cdot \frac{l}{a}$$

$$\rightarrow \frac{F_D}{P} = \frac{1}{2} + \frac{l}{a}$$

By a double-sided equipment of the bracket support the higher dowel load is always reduced.

Example: Wall bracket



$$F_{DV} = P$$

$$F_{DH} = P \cdot \frac{l}{h}$$

$$\rightarrow \frac{F_D}{P} = \sqrt{1 + \left(\frac{l}{h}\right)^2}$$

When planning the route, please generally observe that the filling volume of the cable trays may exceed the carrying capacity of the cable trays. A sufficient extent of reserves must be included; if needed multi-layer reserves should be allowed for.

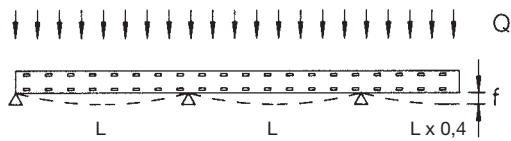
See the two examples from practice on the following pages!

Cable support systems

Among other things, the DIN EN 61537 regulates the following. The procedure in which mechanical characteristics of cable support elements are to be tested.

To be tested are:

- a) Cable trays including connectors in specific configurations (end field, (without connector), middle field)



L = delivery length

The conditions do not correspond to those of the most advantageous continuous support applications.

- b) Brackets as single construction components, i. e. without the stiffening effect of mounted cable trays.

The load bearing capacity specifications are based on the measured loads at a still permissible level of deformation (f_{zul}) of the test samples. Cable support elements in the particular standard version (Sendzimir/hot dip galvanized) were tested.

Cable trays

were tested under a specially developed testing condition ensuring that components which bend elastically under loads are strained evenly across the surface.

f_{zul} (longitudinal direction) = 0.01 x support spacing

f_{zul} (transverse direction) = 0.05 x cable tray width,

Arms/brackets

Under a vertical load the tips of the arms may lower by:

$f_{zul} = 0.05 \times \text{arm length (however } \leq 30 \text{ mm)}$

Studs (bracket holders)

- a) Studs are bent by the effects of sideway forces; the permitted offset is:

$$f_{zul} = 0.05 \times \text{stud length}$$

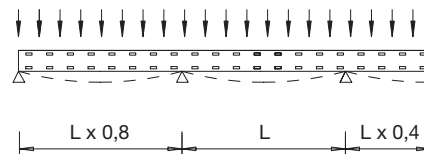
- b) tested in combination with beams under force effect,
- c) pulled by a centric load.

In each case the highest stud length was tested.

Safety

The tested elements must withstand a load that exceeds its permissible level by at least 70%. Possible failures are not equivalent to the breakage of the component (total failure) but rather consist of a deformation, significant enough that no further increase of load bearing capacity can be registered (hammock). Consequentially, cable support elements made of metal that indicates its load condition (including overloading) by deformation are preferable to spontaneously breaking support systems made of plastic.

Wide-span systems are tested differently as follows:



according to IEC 61537 (DIN EN 61537) 10.3.2 testing method II

DIN EN 61537 | Equipotential Bonding

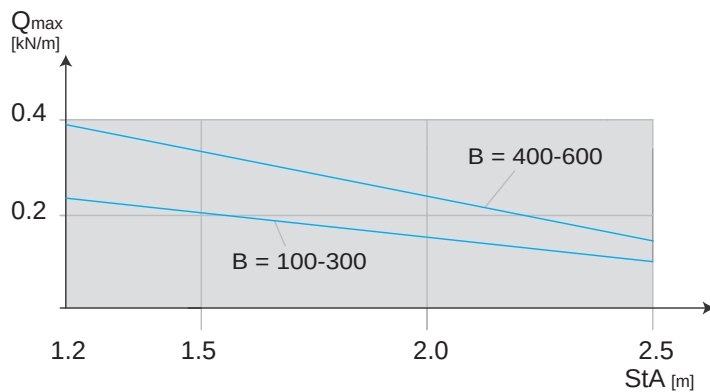
Technical information

When planning the route, please generally observe that the filling volume of the cable trays may exceed the carrying capacity of the cable trays. A sufficient extent of reserves must be included; if needed multi-layer reserves should be allowed for.

Equipotential bonding

Cable ladders and cable trays are mounted with screw connections. The equipotential bonding is certified according to DIN EN 61537.

Example wire tray G 50:

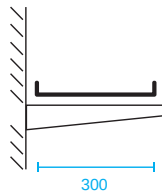


Q_{sk} Cable load based on filling volume A at maximum width B

Example wall bracket

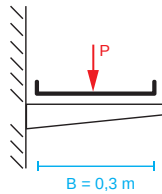
How to choose the right cable support system?

How to choose the right cable support system?



From the tender: cable tray perforated **B** = 300 mm, **H** = 60 mm, doweled to a concrete wall with a support distance **StA** = 1.5 m.

1. Selecting the cable tray



Specification: Cable tray with a height of 60 mm and a width of 300 mm, resulting in: **RG 60-30S**. In order to calculate the bracket load **P**, the cable load **Q_{sk}** = ? must be determined first.

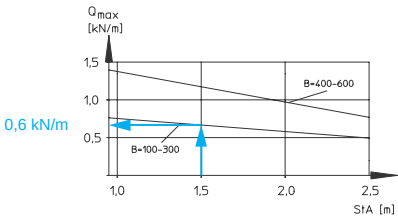
2. Determining the cable load Q_{sk}

RG 60 Cable tray, height = 60 mm

Article number	H mm	B mm	A cm ²	Q _{sk} kN/m	G kg/m
S					
RG 60-10	60	100	56	0.09	1.5
RG 60-20	60	200	113	0.17	1.93
RG 60-30	60	300	171	0.26	2.5
RG 60-40	60	400	228	0.34	3.57

The maximum cable load with regard to the loading capacity of cable trays is **Q_{sk}** = 0.26 kN/m.

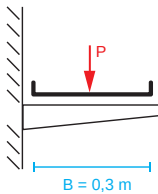
3. Determining the bearing capacity



With its 0.6 kN/m, the verified bearing capacity is significantly above the possible loading capacity of 0.26 kN/m.

$Q_{\max}$ 0,6 kN/m > Q_{sk} 0,26 kN/m

4. Determining the bracket load P



The bracket load **P** is determined by the cable load **Q_{sk}** multiplied by the support distance **StA** (1.5 m from price list)

$P = Q_{sk} \times StA$
 $P = 0.26 \text{ (kN/m)} \times 1.50 \text{ (m)} = 0.39 \text{ kN}$

5. Dimensioning the wall bracket

KW Wall bracket, standard

Article number	H mm	B mm	L mm	P _{max} kN	F _v /P	G kg
F						
KW 010	34	100	120	1.4	3.1	0.13
KW 015	34	150	170	1.4	4.1	0.16
KW 020	56	200	220	2.0	3.0	0.35
KW 030	56	300	320	2.0	4.0	0.50
KW 040	75	400	420	2.4	3.6	0.80

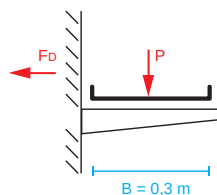
Calculated bracket load **P** = 0,39 kN, verified bracket load **P_{max}** for **KW 030F** = 2,0 kN.

$P_{\max}$ = 2,0 kN > P = 0,39 kN

Example wall bracket

How to choose the right cable support system?

6. Determining the dowel extraction force



The dowel extraction force F_d is determined based on statics and dowel approval for $B = 300$ mm.

7. Ratio dowel extraction force F_d to bracket load P

KW Wall bracket, standard

Article number	H mm	B mm	L mm	P_{max} kN	F_d/P	G kg
F						
KW 010	34	100	120	1.4	3.1	0.13
KW 015	34	150	170	1.4	4.1	0.16
KW 020	56	200	220	2.0	3.0	0.35
KW 030	56	300	320	2.0	4.0	0.50
KW 040	75	400	420	2.4	3.6	0.80

With bracket load $P = 0.39$ kN, the dowel extraction force F_d is calculated as follows:

$$F_d/P = 4.0 \Rightarrow F_d = P \times 4.0$$

$$F_d = 0.39 \text{ (kN)} \times 4.0 = 1.56 \text{ kN}$$

8. Choice of dowel

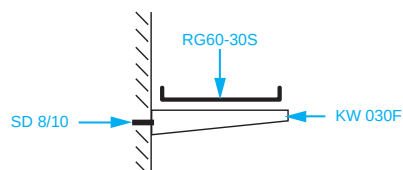
SD Straddling dowel

Article number	Ø mm	D mm	t mm	P_{zul} kN	L_{min} mm	G kg/100
GV						
SD 8/10	8	8	0 - 10	2.4	55	3.5
SD 8/30	8	8	0 - 30	2.4	55	4.4
SD 10/10	10	10	0 - 10	4.3	75	6.2

For **SD 8/10**, the dowel approval results in a permissible dowel extraction force in cracked concrete of **2.4 kN**. The calculated dowel extraction force is **1.56 kN**.

$$P_{zul} 2,40 \text{ kN} > F_d 1,56 \text{ kN} \checkmark$$

Result of the dimensioned support system



From the tender:

perforated cable tray $B = 300$ mm, $H = 60$ mm, support distance $StA = 1.5$ m

Result

- cable tray type **RG 60-30S**
- wall bracket type **KW 030F**
- dowel type **SD 8/10**

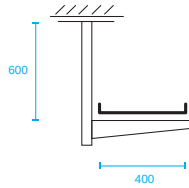


N

Example stem bracket

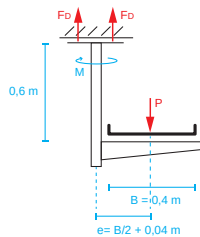
How to choose the right cable support system?

How to choose the right cable support system



From the tender: cable tray perforated **B** = 400 mm, **H** = 60 mm, doweled 600 mm below concrete ceiling with a support distance **StA** = 1.5 m.

1. Selecting the cable tray



Specification: Cable tray with a height of 60 mm and a width of 400 mm, resulting in: **RG 60-40S**

In order to calculate **P**, the cable load **Q_{sk}** = ? must be determined first.

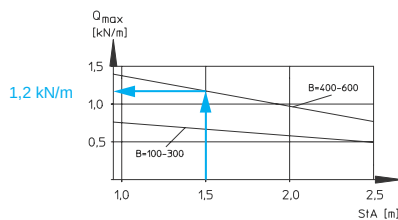
2. Determining the cable load Q_{sk}

RG 60 Cable tray, height= 60 mm

Article number	H mm	B mm	A cm ²	Q _{sk} kN/m	G kg/m
S					
RG 60-10	60	100	56	0.09	1.5
RG 60-20	60	200	113	0.17	1.93
RG 60-30	60	300	171	0.26	2.5
RG 60-40	60	400	228	0.34	3.57

The maximum cable load with regard to the loading capacity of cable trays is **Q_{sk}** = 0.34 kN/m.

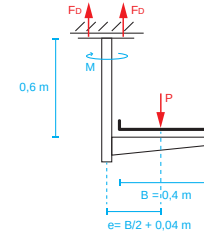
3. Determining the bearing capacity



At 1.2 kN/m, the verified bearing capacity with **StA** = 1.5 m is significantly above the possible loading capacity of 0.34 kN/m.

$$Q_{\max} 1,2 \text{ kN/m} > Q_{\text{sk}} 0,34 \text{ kN/m} \checkmark$$

4. Determining the bracket load P



The bracket load **P** is determined by the cable load **Q_{sk}** multiplied by the support distance **StA** (1.5 m from price list)

$$P = Q_{\text{sk}} \times \text{StA}$$

$$P = 0.34 \text{ (kN/m)} \times 1.50 \text{ (m)} = 0.51 \text{ kN}$$

5. Dimensioning the stem bracket

KW Bracket, standard

Article number	H mm	B mm	L mm	P _{max} kN	F _D /P	G kg
F						
KW 010	34	100	120	1.4	3.1	0.13
KW 015	34	150	170	1.4	4.1	0.16
KW 020	56	200	220	2.0	3.0	0.35
KW 030	56	300	320	2.0	4.0	0.50
KW 040	75	400	420	2.4	3.6	0.80
KW 050	96	500	520	2.1	3.4	1.40
KW 060	96	600	620	2.1	4.0	1.60

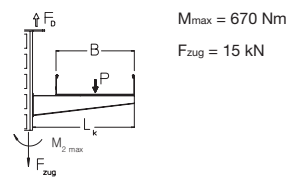
Calculated bracket load **P** = 0.51 kN, verified bracket load **P_{max}** for **KW 040 F** = 2.4 kN

$$P_{\max} = 2,4 \text{ kN} > P = 0,51 \text{ kN} \checkmark$$

6. Dimensioning the ceiling stem

KDU 57 Bracket support, 57 x30 mm

B mm	L _K mm	P _{max} kN	F _D /P
100	120	6.9	1.4
200	220	4.5	1.9
300	320	3.4	2.3
400	420	2.7	2.8
500	520	2.2	3.2
600	620	1.9	3.7

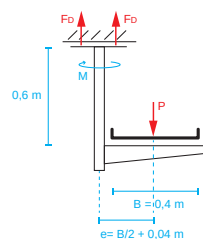


$$P_{\max} = 2,7 \text{ kN} > P = 0,51 \text{ kN} \checkmark$$

Example stem bracket

How to choose the right cable support system?

7. Determining the dowel extraction force



The dowel extraction force F_d is determined based on statics and dowel approval for $B = 400$ mm.

8. Dowel calculation

KDU 57 Bracket support, 57 x 30 mm

B mm	L _k mm	P _{max} kN	F _d /P
100	120	6.9	1.4
200	220	4.5	1.9
300	320	3.4	2.3
400	420	2.7	2.8
500	520	2.2	3.2
600	620	1.9	3.7

Using bracket load $P = 0.51$ kN, the dowel extraction force F_d is calculated as follows:

$$F_d/P = 2.8 \Rightarrow F_d = P \times 2.8$$

$$F_d = 0.51 \text{ (kN)} \times 2.8 = 1.428 \text{ kN}$$

9. Choice of dowel

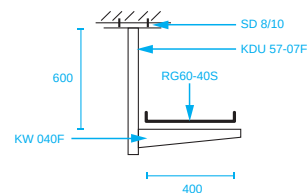
SD Straddling dowel

Article number	Ø mm	D mm	t mm	P _{zul} kN	L _{min} mm	G kg/100
GV						
SD 8/10	8	8	0 - 10	2.4	55	3.5
SD 8/30	8	8	0 - 30	2.4	55	4.4
SD 10/10	10	10	0 - 10	4.3	75	6.2

For **SD 8/10**, the dowel approval results in a permissible dowel extraction force in cracked concrete of **2.4 kN**.

2,40 kN > 1,428 kN ✓

Result of the dimensioned support system



From the tender

Perforated cable tray $B = 400$ mm, $H = 60$ mm, doweled 600 mm below concrete ceiling, support distance $StA = 1.5$ m

- cable tray type **RG 60-40S**
- stem bracket type **KW 040F**
- ceiling stem type **KDU 57-07F**
- dowel type **SD 8/10**



N

Wire-mesh cable trays

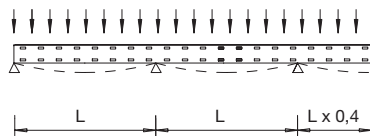
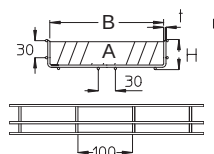
Load diagrams | Technical informationen

G 50 Wire-mesh cable tray, height = 53 mm

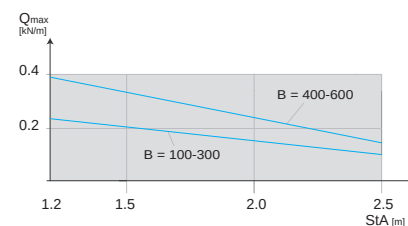
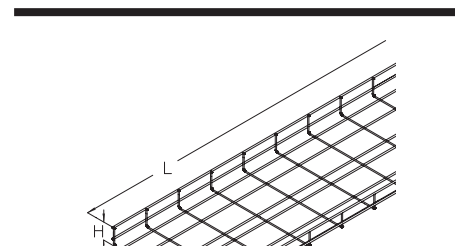
Article number	H mm	B mm	A cm ²	Q _{sk} kN/m	G kg/m
S F E					
G 50-10	53	100	45	0.07	0.77
G 50-20	53	200	90	0.14	1.07
G 50-30	53	300	135	0.20	1.37
G 50-40	53	400	176	0.26	2.10
G 50-50	53	500	220	0.33	2.47
G 50-60	53	600	264	0.40	2.83



according to
DIN EN 61537



Q_{sk} Cable load based on filling volume A at maximum width B

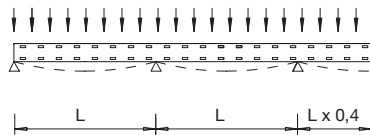
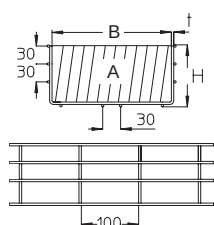


G 100 Wire-mesh cable tray, height = 103 mm

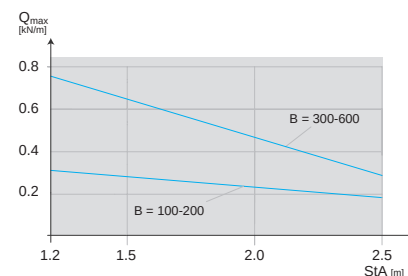
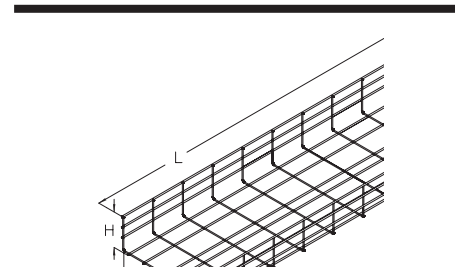
Article number	H mm	B mm	A cm ²	Q _{sk} kN/m	G kg/m
S F E					
G 100-10	103	100	95	0.14	1.07
G 100-20	103	200	190	0.29	1.37
G 100-30	103	300	282	0.42	2.10
G 100-40	103	400	376	0.56	2.47
G 100-50	103	500	470	0.71	2.83
G 100-60	103	600	564	0.85	3.20



according to
DIN EN 61537



Q_{sk} Cable load based on filling volume A at maximum width B

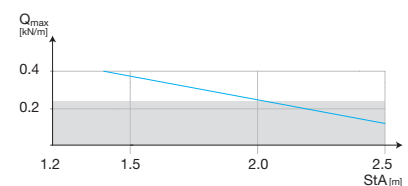
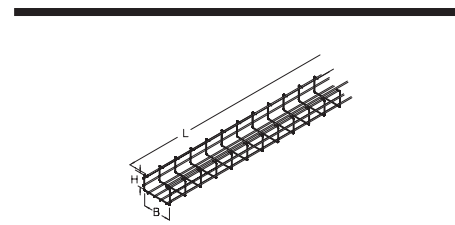
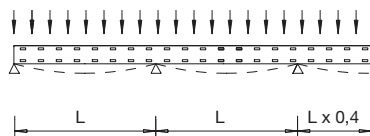
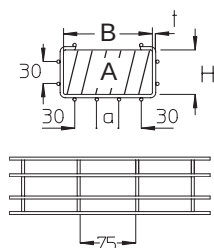


GI Wire-mesh cable tray, height = 60 mm

Article number	H mm	B mm	A cm ²	Q _{sk} kN/m	G kg/m
S F E					
GI 06	60	60	33	0.05	1.37
GI 12	60	120	67	0.10	1.73
GI 20	60	200	113	0.17	1.87
GI 30	60	300	165	0.25	2.27



according to DIN EN
61537

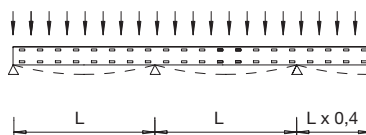
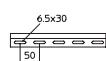
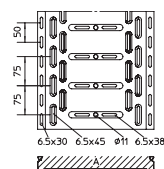


R/RG 35 Cable tray, height = 35 mm

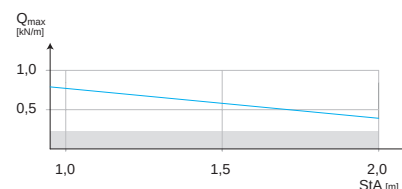
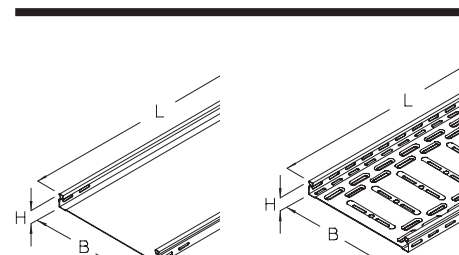
Article number not perforated	perforated	H mm	B mm	A cm ²	Q _{SK} kN/m	G kg/m
S F						
R 35-10	RG 35-10	35	100	31	0.05	1.10
R 35-20	RG 35-20	35	200	63	0.10	1.70
R 35-30	RG 35-30	35	300	96	0.15	2.23



according to
DIN EN 61537



Q_{SK} Cable load based on filling volume A at maximum width B

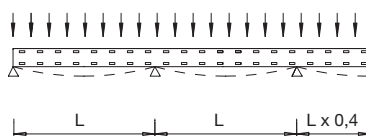
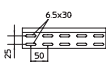
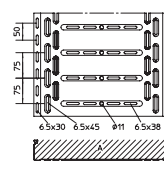


R/RG 60 Cable tray, height = 60 mm

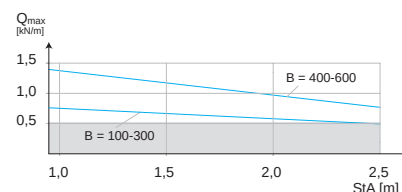
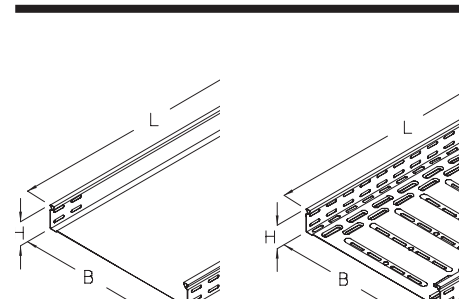
Article number not perforated	perforated	H mm	B mm	A cm ²	Q _{SK} kN/m	G kg/m
S F E						
R 60-10	RG 60-10	60	100	56	0.09	1.50
R 60-20	RG 60-20	60	200	113	0.17	1.93
R 60-30	RG 60-30	60	300	171	0.26	2.50
R 60-40	RG 60-40	60	400	228	0.34	3.57
R 60-50	RG 60-50	60	500	286	0.43	4.77
R 60-60	RG 60-60	60	600	343	0.52	5.50



according to
DIN EN 61537



Q_{SK} Cable load based on filling volume A at maximum width B

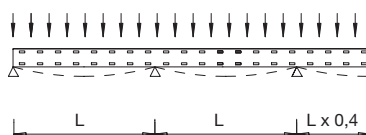
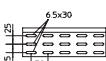
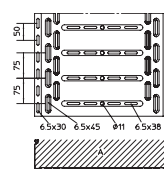


R/RG 85 Cable tray, height = 85 mm

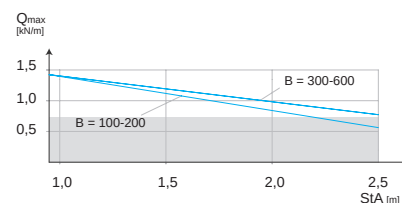
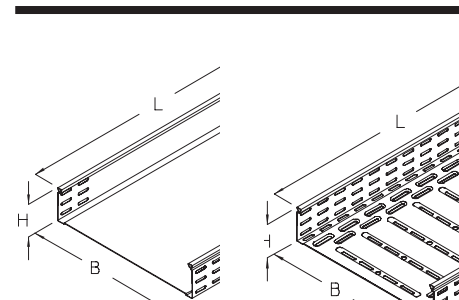
Article number not perforated	perforated	H mm	B mm	A cm ²	Q _{SK} kN/m	G kg/m
S F						
R 85-10	RG 85-10	85	100	81	0.12	1.60
R 85-20	RG 85-20	85	200	163	0.25	2.20
R 85-30	RG 85-30	85	300	246	0.37	3.20
R 85-40	RG 85-40	85	400	328	0.49	3.87
R 85-50	RG 85-50	85	500	411	0.62	5.10
R 85-60	RG 85-60	85	600	493	0.74	5.83



according to
DIN EN 61537



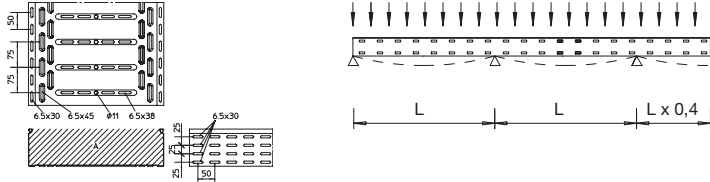
Q_{SK} Cable load based on filling volume A at maximum width B



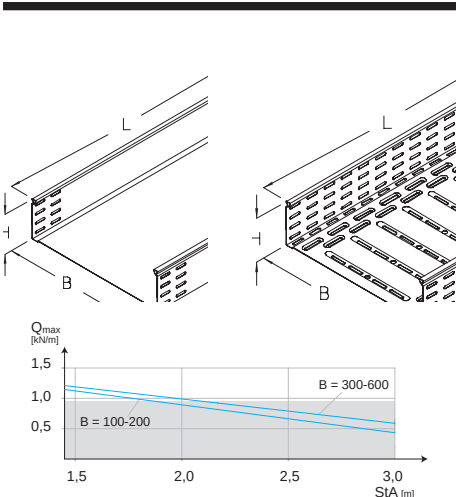
R/RG 110 Cable tray, height = 110 mm

Table with 7 columns: Article number (not perforated, perforated), H (mm), B (mm), A (cm²), Qsk (kN/m), G (kg/m). Rows include R 110-10 to R 110-60 and their corresponding RG versions.

according to DIN EN 61537



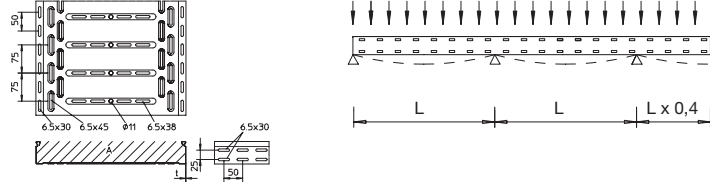
Qsk Cable load based on filling volume A at maximum width B



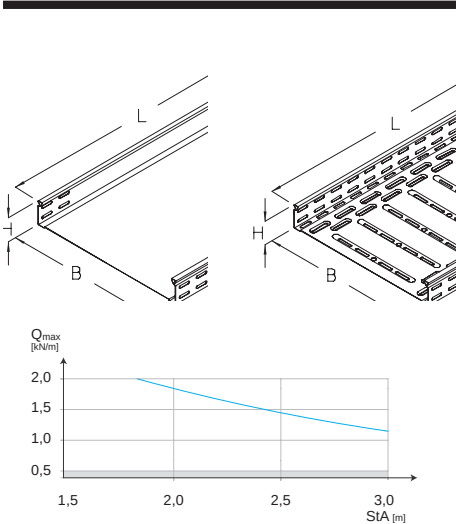
RS/RGS 60 Cable tray, height = 60 mm

Table with 7 columns: Article number (not perforated, perforated), H (mm), B (mm), A (cm²), Qsk (kN/m), G (kg/m). Rows include RS 60-10 to RS 60-60 and their corresponding RGS versions.

according to DIN EN 61537



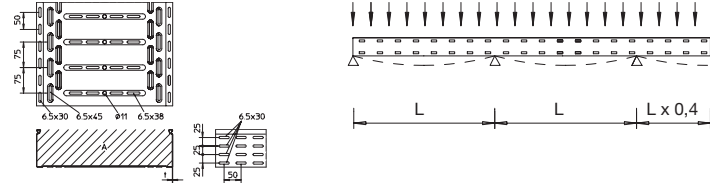
Qsk Cable load based on filling volume A at maximum width B



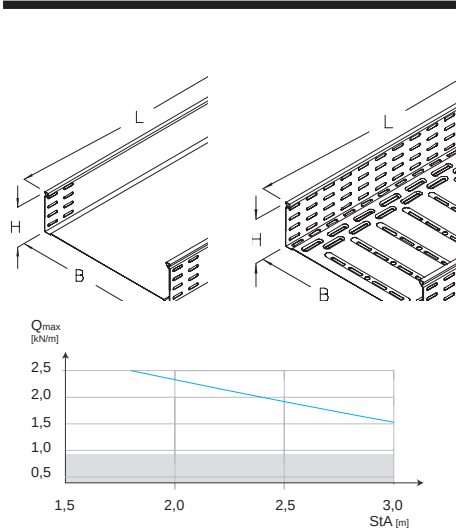
RS/RGS 110 Cable tray, height = 110 mm

Table with 7 columns: Article number (not perforated, perforated), H (mm), B (mm), A (cm²), Qsk (kN/m), G (kg/m). Rows include RS 110-10 to RS 110-60 and their corresponding RGS versions.

according to DIN EN 61537



Qsk Cable load based on filling volume A at maximum width B



Cable trays

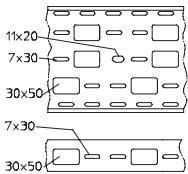
Load diagrams | Technical informationen

RI Installation tray, height = 58 mm

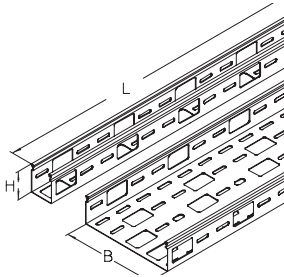
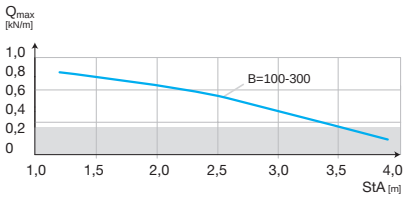
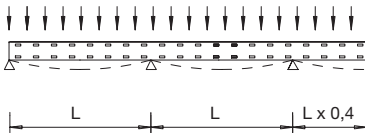
Article number	H mm	B mm	A cm ²	Q _{sk} kN/m	G kg/m
RI 60-05	58	48	26	0.04	1.17
RI 60-10	58	98	55	0.08	1.50
RI 60-15	58	148	84	0.13	1.90
RI 60-20	58	198	113	0.17	2.10
RI 60-30	58	298	171	0.26	2.67



according to
DIN EN 61537



Q_{sk} Cable load based on filling volume A at maximum width B



Cable ladders

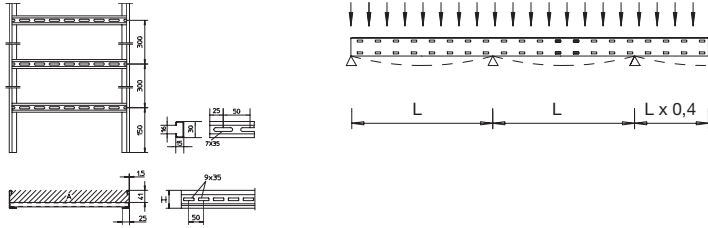
load diagrams | Technical informationen

LGG 60 Cable ladder, height = 60 mm

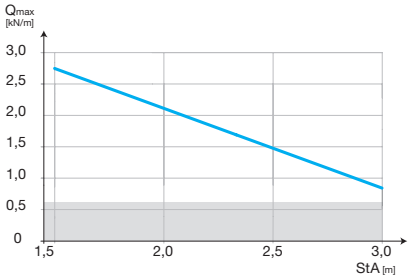
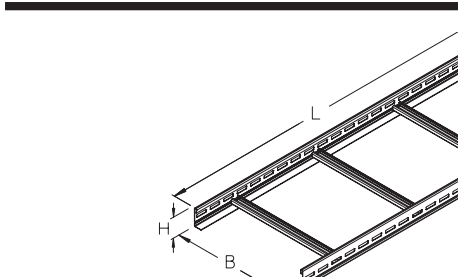
Article number	H mm	B mm	L mm	A cm ²	Q _{LK} kN/m	G kg/m
S F E						
LGG 60-20	60	200	6000	81	0.23	2.64
LGG 60-30	60	300	6000	122	0.34	2.87
LGG 60-40	60	400	6000	162	0.45	3.10
LGG 60-50	60	500	6000	203	0.57	3.33
LGG 60-60	60	600	6000	243	0.68	3.56



according to
DIN EN 61537



Q_{LK} Cable load based on filling volume A at maximum width B

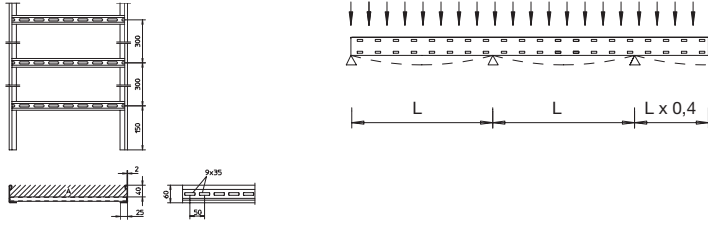


LGGS 60 Cable ladder, height = 60 mm

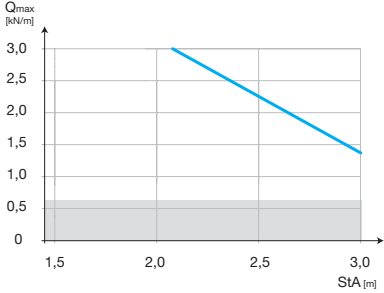
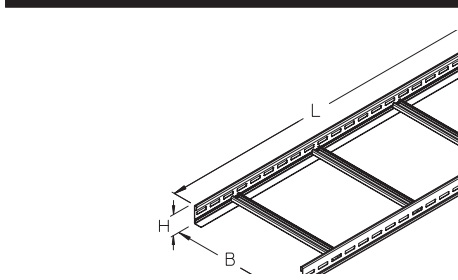
Article number	H mm	B mm	A cm ²	Q _{LK} kN/m	G kg/m
S F					
LGGS 60-20	60	200	81	0.23	3.47
LGGS 60-30	60	300	122	0.34	3.76
LGGS 60-40	60	400	162	0.45	4.06
LGGS 60-50	60	500	203	0.57	4.35
LGGS 60-60	60	600	243	0.68	4.65



according to
DIN EN 61537



Q_{LK} Cable load based on filling volume A at maximum width B

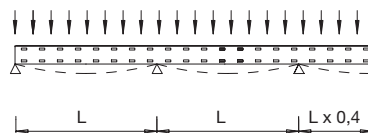
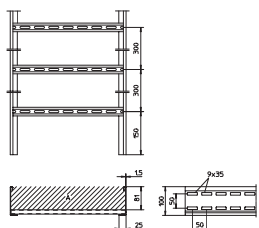


LGG 100 Cable ladder, height = 100 mm

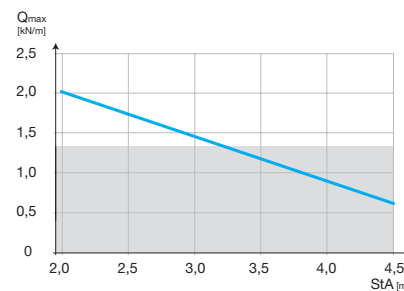
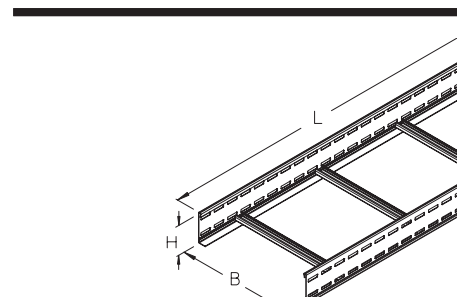
Article number	H mm	B mm	A cm ²	Q _{LK} kN/m	G kg/m
S F E					
LGG 100-20	100	200	161	0.45	3.46
LGG 100-30	100	300	242	0.68	3.69
LGG 100-40	100	400	322	0.9	3.92
LGG 100-50	100	500	403	1.13	4.15
LGG 100-60	100	600	483	1.35	4.37



according to
DIN EN 61537



Q_{LK} Cable load based on filling volume A at maximum width B

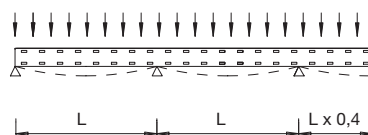
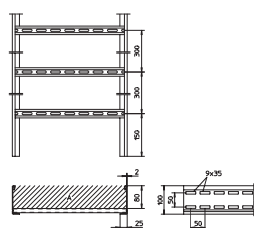


LGGS 100 Cable ladder, height = 100 mm

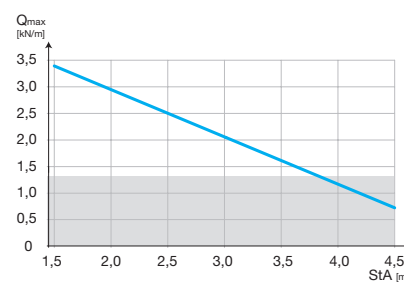
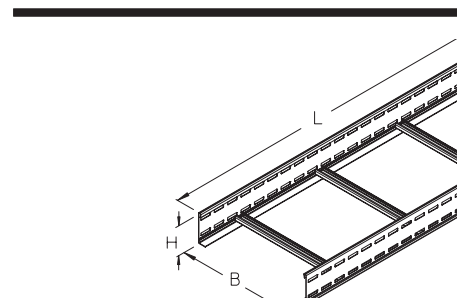
Article number	H mm	B mm	A cm ²	Q _{LK} kN/m	G kg/m
S F					
LGGS 100-20	100	200	161	0.45	4.53
LGGS 100-30	100	300	242	0.68	4.82
LGGS 100-40	100	400	322	0.9	5.12
LGGS 100-50	100	500	403	1.13	5.41
LGGS 100-60	100	600	483	1.35	5.71



according to
DIN EN 61537



Q_{LK} Cable load based on filling volume A at maximum width B

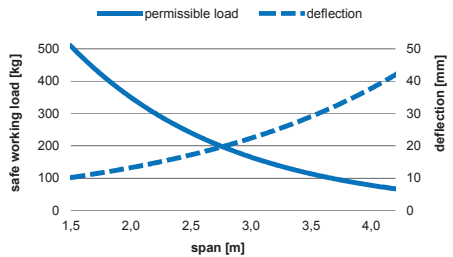
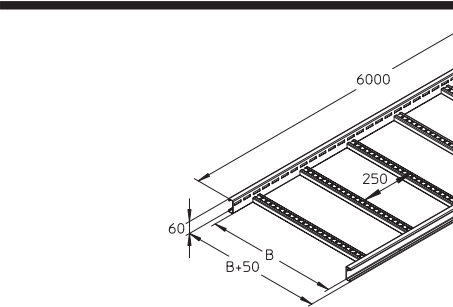
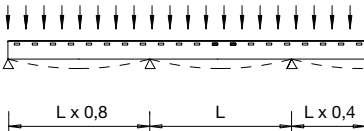


WP 60

wide-span cable ladder, height=60 mm

With unknown cable weight the possible cable load for a WP 60 can be estimated as follows: 11 kg/m per 100 mm cable ladder width

Article number	H mm	B mm	L mm	A cm ²	SpA mm	G kg
F						
WP06-15-HDG	60	150	6000	57	250	20.9
WP06-20-HDG	60	200	6000	76	250	23.1
WP06-30-HDG	60	300	6000	114	250	26.0
WP06-40-HDG	60	400	6000	152	250	28.8
WP06-60-HDG	60	600	6000	228	250	34.6

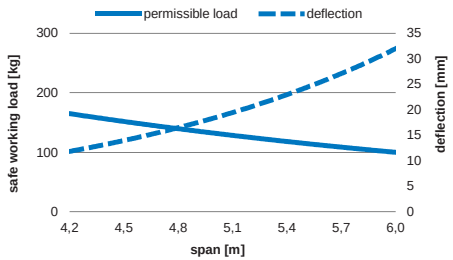
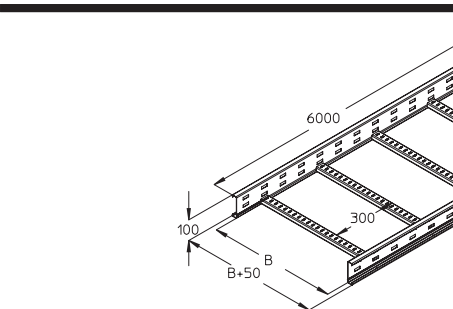
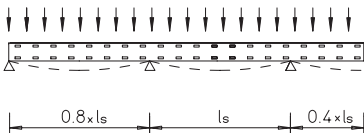


WP 100

wide-span cable ladder, height=100 mm

With unknown cable weight the possible cable load for a WP 100 can be estimated as follows: 18 kg/m per 100 mm cable ladder width

Article number	H mm	B mm	L mm	A cm ²	SpA mm	G kg
F						
WP10-20-HDG	100	200	6000	156	300	27.6
WP10-30-HDG	100	300	6000	234	300	29.9
WP10-40-HDG	100	400	6000	312	300	32.2
WP10-45-HDG	100	450	6000	351	300	33.4
WP10-50-HDG	100	500	6000	390	300	34.5
WP10-60-HDG	100	600	6000	468	300	36.8
WP10-70-HDG	100	700	6000	546	300	39.2
WP10-75-HDG	100	750	6000	585	300	40.3
WP10-80-HDG	100	800	6000	624	300	41.5
WP10-90-HDG	100	900	6000	702	300	43.8
WP10-100-HDG	100	1000	6000	780	300	46.1



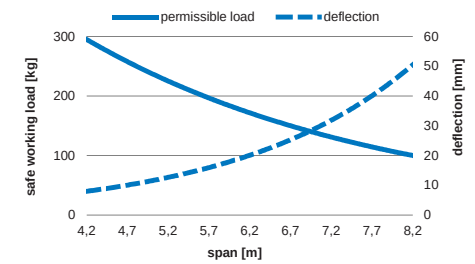
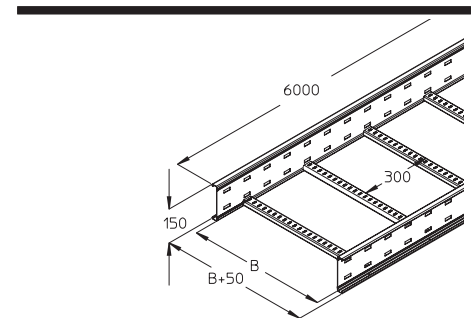
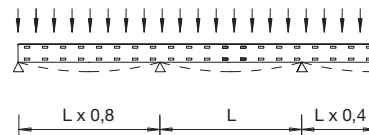
Wide-span systems

Load diagrams | Technical informationen

WP 150 wide-span cable ladder, height=150 mm

With unknown cable weight the possible cable load for a WP 150 can be estimated as follows: 24 kg/m per 100 mm cable ladder width

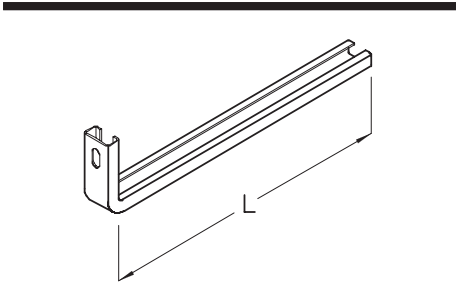
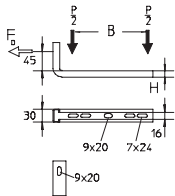
Article number	H mm	B mm	L mm	A cm ²	SpA mm	G kg
F						
WP15-20-HDG	150	200	6000	256	300	42.4
WP15-30-HDG	150	300	6000	384	300	42.8
WP15-40-HDG	150	400	6000	512	300	45.2
WP15-45-HDG	150	450	6000	576	300	46.4
WP15-50-HDG	150	500	6000	640	300	47.6
WP15-60-HDG	150	600	6000	768	300	50.0
WP15-70-HDG	150	700	6000	896	300	52.4
WP15-75-HDG	150	750	6000	960	300	53.6
WP15-80-HDG	150	800	6000	1024	300	54.8
WP15-90-HDG	150	900	6000	1152	300	57.2
WP15-100-HDG	150	1000	6000	1280	300	59.6



KWLL

Wall bracket, light

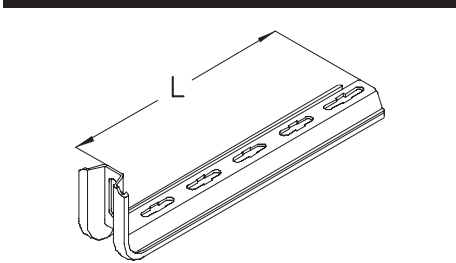
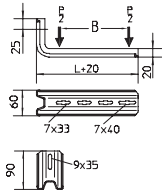
Article number	H mm	B mm	L mm	P _{max} kN	F ₀ /P	G kg
S F						
KWLL 010	15	100	110	0.3	2	0.13
KWLL 020	15	200	210	0.3	3	0.20
KWLL 030	15	300	310	0.3	4	0.28



KSLW

Wall bracket, light

Article number	H mm	B mm	L mm	P _{max} kN	F ₀ /P	G kg
S F						
KSLW 010	20	100	120	3.0	2.6	0.36
KSLW 015	20	150	170	2.4	3.3	0.45
KSLW 020	20	200	220	1.9	4.0	0.53
KSLW 025	20	250	270	1.4	4.7	0.61
KSLW 030	20	300	320	1.1	5.4	0.69
KSLW 040	20	400	420	0.8	6.9	0.86

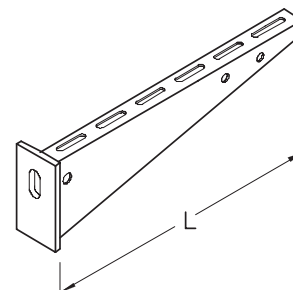
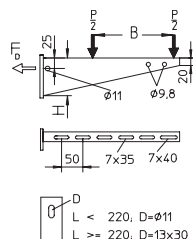
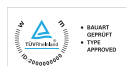


Brackets

Load diagrams | Technical informationen

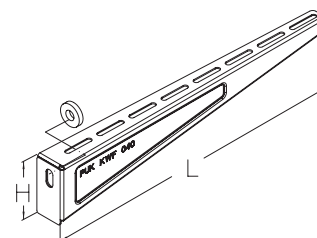
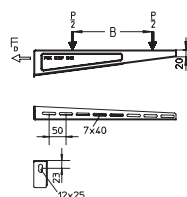
KW Wall bracket, standard

Article number	H mm	B mm	L mm	P _{max} kN	F _b /P	G kg
F						
KW 010	34	100	120	1.4	3.1	0.13
KW 015	34	150	170	1.4	4.1	0.16
KW 020	56	200	220	2.0	3.0	0.35
KW 030	56	300	320	2.0	4.0	0.50
KW 040	75	400	420	2.4	3.6	0.80
KW 050	96	500	520	2.1	3.4	1.40
KW 060	96	600	620	2.1	4.0	1.60
E						
KW 010	34	100	120	1.5	3.1	0.13
KW 015	34	150	170	1.5	4.1	0.16
KW 020	56	200	220	1.5	3.0	0.39
KW 030	56	300	320	1.5	4.0	0.47
KW 040	75	400	420	2.2	3.6	0.76
KW 050	95	500	520	2.2	3.4	1.20
KW 060	95	600	620	2.2	4.0	1.40



KWF Bracket, light

Article number	H mm	B mm	L mm	P _{max} kN	F _b /P	G kg
S						
KWF 010	80	100	120	1.2	1.58	0.23
KWF 020	80	200	220	1.2	2.33	0.30
KWF 030	80	300	320	1.2	3.15	0.45
KWF 040	80	400	420	1.2	3.99	0.51

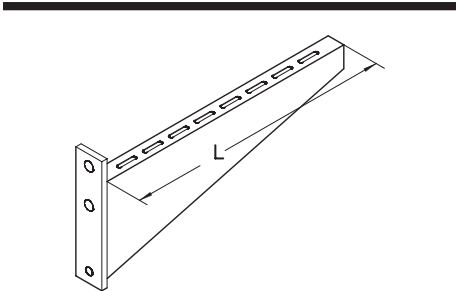
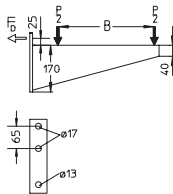


N

KWS

Wall bracket, heavy

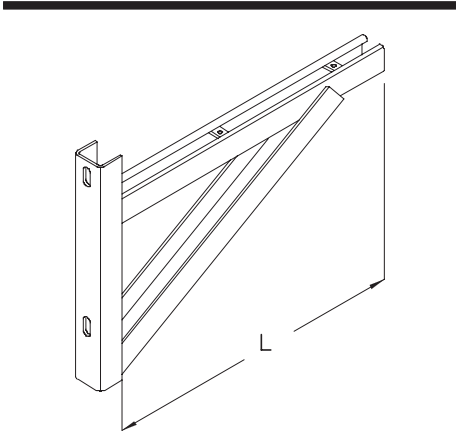
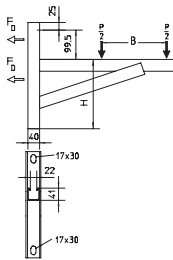
Article number	B mm	L mm	P _{max} kN	F ₀ /P	G kg
F					
KWS 020	200	280	7.0	1.31	2.04
KWS 030	300	380	6.7	1.49	2.40
KWS 040	400	480	6.5	1.69	2.78
KWS 050	500	580	6.3	1.91	3.32
KWS 060	600	680	6.1	2.13	3.68
KWS 070	600	780	5.2	2.60	4.04
KWS 080	600	880	4.4	3.07	4.41
KWS 090	600	980	3.6	3.56	4.77
KWS 100	600	1080	2.8	4.06	5.14



KWSS

Wall bracket, very heavy

Article number	H mm	B mm	L mm	P _{max} kN	F ₀ /P	G kg
F						
KWSS 020	166	200	280	10	0.91	2.59
KWSS 030	196	300	380	10	0.99	3.37
KWSS 040	236	400	480	10	1.04	4.18
KWSS 020	266	500	580	10	1.09	4.96
KWSS 060	236	600	680	10	1.36	5.51
KWSS 070	266	600	780	10	1.39	6.28
KWSS 080	301	600	880	10	1.39	7.08
KWSS 090	331	600	980	10	1.39	7.85
KWSS 100	366	600	1080	10	1.38	8.65

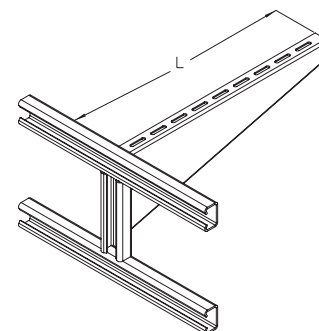
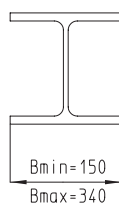
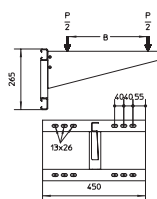


Brackets

Load diagrams | Technical information

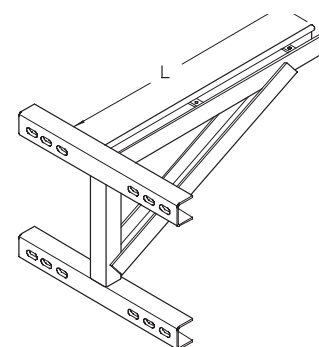
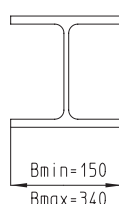
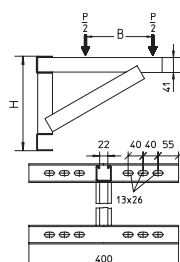
KIS Bracket

Article number	B mm	L mm	P _{max} kN	F _d /P	G kg
F					
KIS 020	200	280	7.0	0.66	4.32
KIS 030	300	380	6.7	0.76	4.65
KIS 040	400	480	6.5	0.86	5.00
KIS 050	500	580	6.3	0.97	5.34
KIS 060	600	680	6.1	1.09	5.68
KIS 070	600	780	5.2	1.33	6.02
KIS 080	600	880	4.4	1.57	6.36
KIS 090	600	980	3.6	1.83	6.70
KIS 100	600	1080	2.8	2.08	7.04



KISS Wall bracket, very heavy

Article number	H mm	B mm	L mm	P _{max} kN	F _d /P	G kg
F						
KISS 020	150	200	280	10	0.93	4.66
KISS 030	185	300	380	10	0.91	5.42
KISS 040	215	400	480	10	0.92	6.17
KISS 050	250	500	580	10	0.92	6.93
KISS 060	280	600	680	10	0.92	7.70
KISS 070	315	600	780	10	0.99	8.44
KISS 080	345	600	880	10	1.06	9.21
KISS 090	380	600	980	10	1.10	9.96
KISS 100	410	600	1080	10	1.15	10.71



N

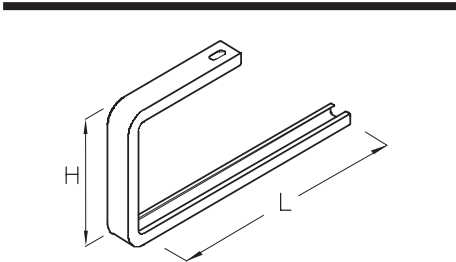
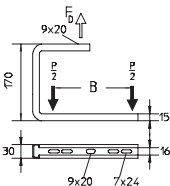
Ceiling fixed suspensions

Load diagrams | Technical informationen

DB

Ceiling-fixed bracket

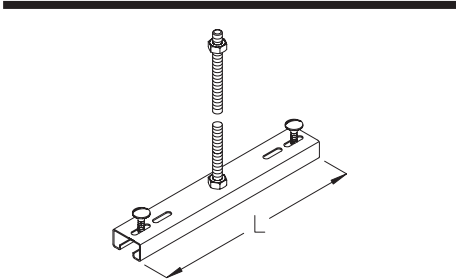
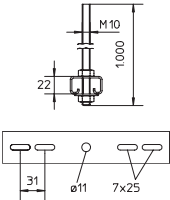
Article number	H mm	B mm	L mm	P _{max} kN	F ₀ /P	G kg
S						
DB 10	170	100	120	0.60	1.2	0.25
DB 20	170	200	220	0.40	1.1	0.36
DB 30	170	300	320	0.28	1.1	0.47
E						
DB 10	170	100	120	0.50	1.2	0.30
DB 20	170	200	220	0.35	1.1	0.44
DB 30	170	300	320	0.25	1.1	0.58



GBAR

Central hanger

Article number	B mm	L mm	P _{max} kN	F ₀ /P	G kg
S E					
GBAR 10	100	60	0.7	1	0.62
GBAR 20	200	160	0.7	1	0.75
GBAR 30	300	260	0.7	1	0.88

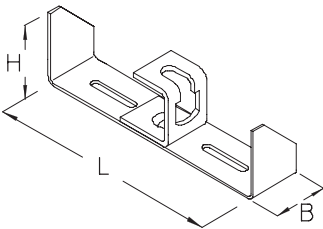
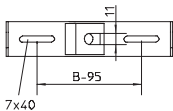


Ceiling fixed suspensions

Load diagrams | Technical informationen

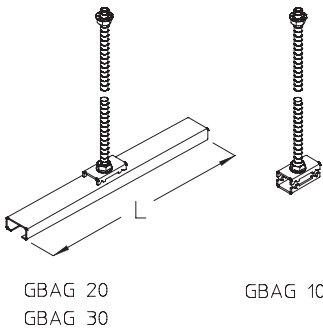
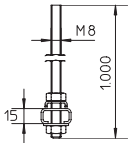
MA 60 Middle hanger

Article number	H mm	B mm	L mm	G kg
S				
MA 60-10	56	40	90	0.26
MA 60-20	56	40	190	0.36
MA 60-30	56	40	290	0.45



GBAG Central hanger

Article number	B mm	L mm	P _{max} kN	F _G /P	G kg
S E					
GBAG 10	100	80	0.5	1	0.42
GBAG 20	200	180	0.5	1	0.50
GBAG 30	300	280	0.5	1	0.57

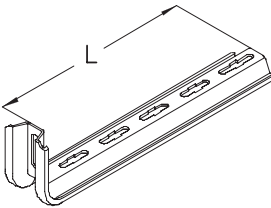
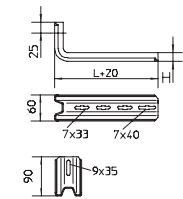


Brackets – KSL system

Load diagrams | Technical informationen

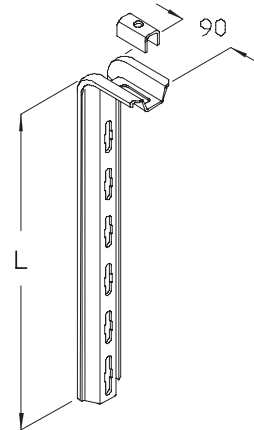
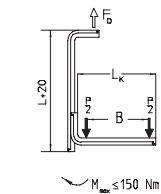
KSL Bracket, light

Article number	B mm	L mm	P _{max} kN	G kg
S F				
KSL 010	100	120	3.0	0.36
KSL 015	150	170	2.4	0.45
KSL 020	200	220	1.9	0.53
KSL 025	250	270	1.5	0.61
KSL 030	300	320	1.1	0.69
KSL 040	400	420	0.8	0.86



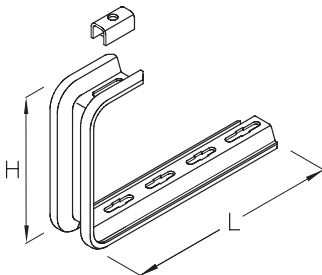
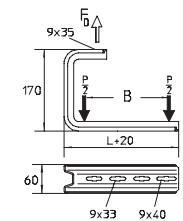
KSLW Bracket, light

Article number	B mm	L _K mm	P _{max} kN	G kg
S F				
KSL 010	100	120	0.9	3.1
KSL 015	150	170	0.7	3.8
KSL 025	250	270	0.5	4.5
KSL 030	300	320	0.4	5.9
KSL 040	400	420	0.3	7.4



DKSL Ceiling-fixed bracket, light

Article number	H mm	B mm	L mm	P _{max} kN	F _D /P	G kg
S						
DKSL 010	170	100	120	0.9	3.1	0.59
DKSL 020	170	200	220	0.5	2.1	0.76
DKSL 030	170	300	320	0.4	2.7	0.91
DKSL 040	170	400	420	0.3	3.3	1.08

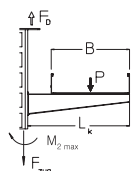


Bracket support – KHU system

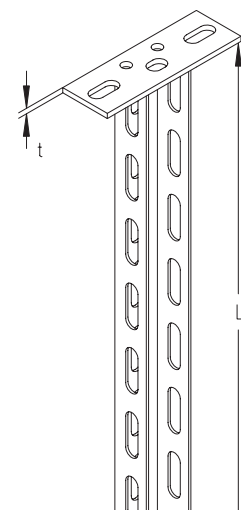
Load diagrams | Technical informationen

KDU 40 Bracket support, 40 x 30 mm

B mm	L _K mm	P _{max} kN	F _D /P
100	120	4.3	1.6
200	220	2.7	2.1
300	320	2.0	2.7
400	420	1.5	3.3

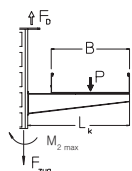


$M_{2 \max} = 380 \text{ Nm}$
 $F_{\text{zug}} = 10 \text{ kN}$

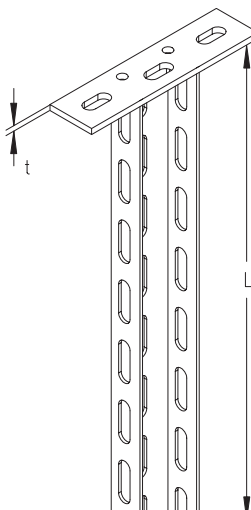


KDU 57 Bracket support, 57 x 30 mm

B mm	L _K mm	P _{max} kN	F _D /P
100	120	6.9	1.4
200	220	4.5	1.9
300	320	3.4	2.3
400	420	2.7	2.8
500	520	2.2	3.2
600	620	1.9	3.7

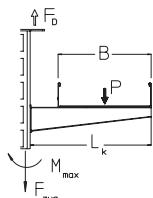


$M_{2 \max} = 670 \text{ Nm}$
 $F_{\text{zug}} = 15 \text{ kN}$

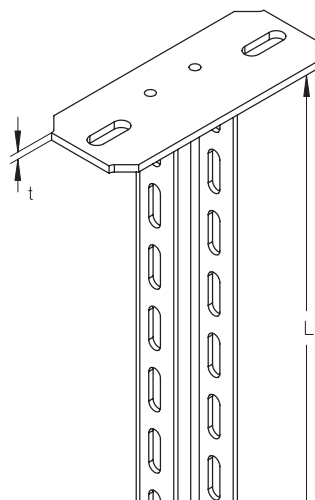


KDU 60 Bracket support, heavy

B mm	L _K mm	P _{max} L > 1000 kN	P _{max} L < 1000 kN	F _D /P
100	120	19.3	12.5	1.2
200	220	12.9	8.3	1.5
300	320	9.7	6.2	1.9
400	420	7.7	5	2.2
500	520	6.4	4.2	2.6
600	620	5.5	3.6	2.9



$L \leq 1000: M_{\max} = 1000 \text{ Nm}$
 $L > 1000: M_{\max} = 1250 \text{ Nm}$
 $F_{\text{zug}} = 16 \text{ kN}$

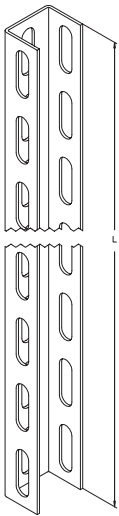
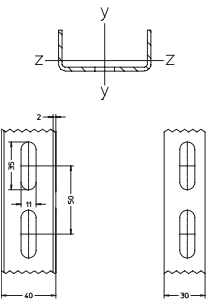


Bracket support – KHU system

Load diagrams | Technical informationen

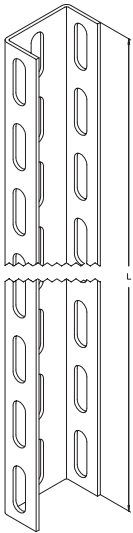
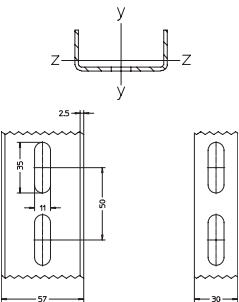
KHU 40 Bracket support, 40 x 30 mm

H mm	B mm	A cm ²	W _y cm ³	W _z cm ³	I _y cm ⁴	I _z cm ⁴	G kg/m
40	30	1.22	1.68	0.62	3.33	1.30	1.34



KHU 57 Bracket support, 57 x 30 mm

H mm	B mm	A cm ²	W _y cm ³	W _z cm ³	I _y cm ⁴	I _z cm ⁴	G kg/m
57	30	1.92	3.33	0.79	9.50	1.79	2.04

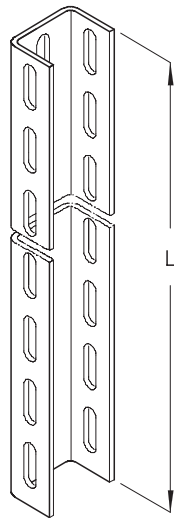


Bracket support – KHU system

Load diagrams | Technical informationen

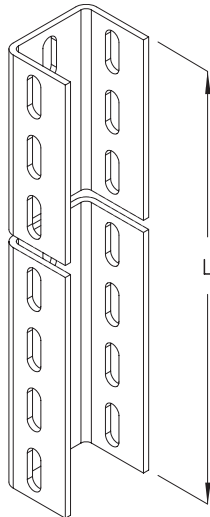
KHU 60 Bracket support

H mm	B mm	A cm ²	W _y cm ³	W _z cm ³	I _y cm ⁴	I _z cm ⁴	G kg/m
60	40	3.75	7.03	2.47	21.1	6.73	3.52



KHU 80 Bracket support

Article number	H mm	B mm	A cm ²	W _y cm ³	W _z cm ³	I _y cm ⁴	I _z cm ⁴	G kg/m
F								
KHU 80	80	60	7.23	18.87	7.61	75.48	30.12	6.65

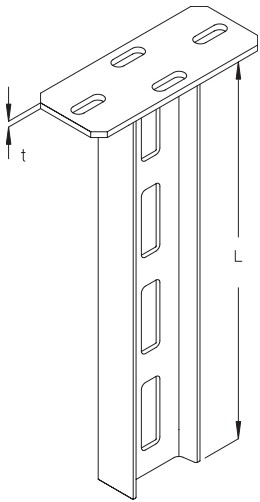
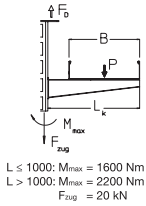


Bracket support – KHI system

Load diagrams | Technical informationen

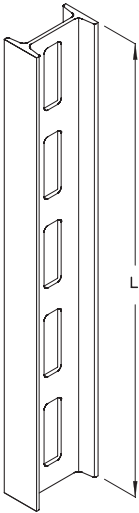
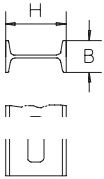
KDI Bracket support, heavy, profile I00

B mm	L _K mm	P _{max} L>1000 kN	P _{max} L<1000 kN	F _D /P
100	120	20.0	14.5	1.3
200	220	13.8	10.0	1.6
300	320	10.5	7.6	1.9
400	420	8.5	6.2	2.3
500	520	7.1	5.2	2.6
600	620	6.1	4.4	3.0



KHI Bracket support, Type KT

H mm	B mm	A cm ²	W _y cm ³	W _z cm ³	I _y cm ⁴	I _z cm ⁴	G kg/m
80	42	6.71	19.5	3.0	77.8	6.29	5.85

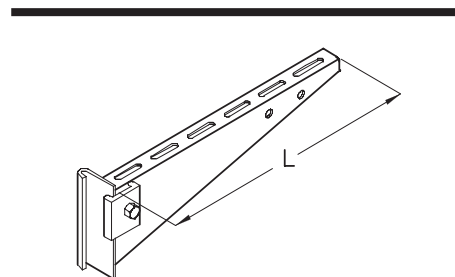
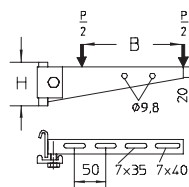
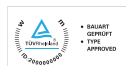


Bracket support – KHI system

Load diagrams | Technical informationen

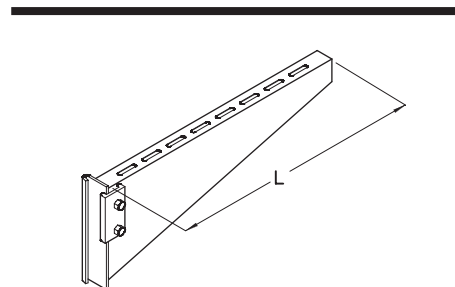
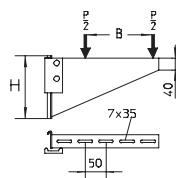
KT Bracket, standard, profil I80

Article number	H mm	B mm	L mm	P _{max} kN	G kg
F					
KT 010	50	100	120	2.00	0.24
KT 020	70	200	220	2.00	0.56
KT 030	70	300	320	2.00	0.77
KT 040	90	400	420	2.00	0.87
KT 050	110	500	520	2.00	1.40
KT 060	110	600	620	2.00	1.55



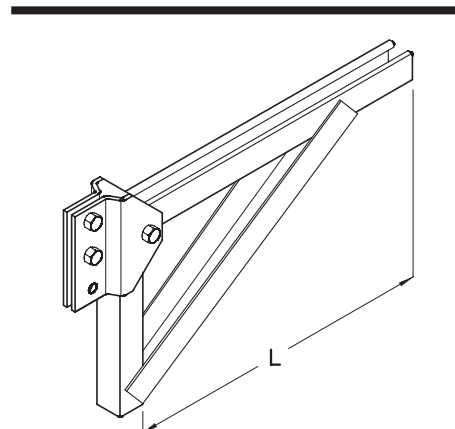
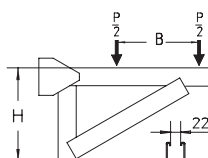
KTS Bracket, heavy, for ceiling-fixed bracket support systems, profile I80

Article number	H mm	B mm	L mm	P _{max} kN	G kg
F					
KTS 020	180	200	280	7.0	1.64
KTS 030	180	300	380	6.3	2.00
KTS 040	180	400	480	5.5	2.38
KTS 050	180	500	580	4.9	2.74
KTS 060	180	600	680	4.3	3.10
KTS 070	180	600	780	3.6	3.47
KTS 080	180	600	880	3.0	3.83
KTS 090	180	600	980	2.3	4.19
KTS 100	180	600	1080	1.7	4.56



KTSS Bracket, very heavy

Article number	H mm	B mm	L mm	P _{max} kN	G kg
F					
KTSS 020	100	200	280	12	2.94
KTSS 030	135	300	380	12	3.53
KTSS 040	165	400	480	12	4.12
KTSS 050	200	500	580	12	4.71
KTSS 060	230	600	680	12	6.34



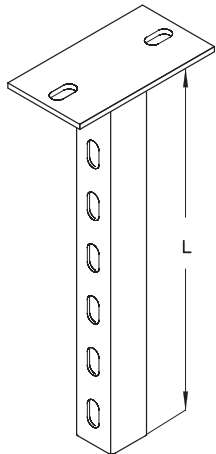
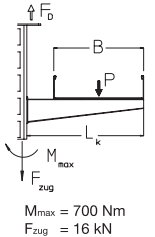
N

Bracket support – KHA system

Load diagrams | Technical informationen

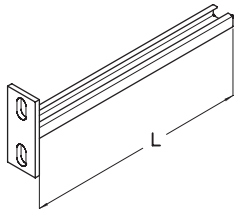
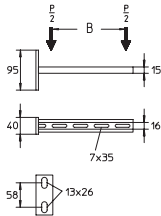
KDAG 41 Ceiling fixed bracket, profile 41

Article number	B mm	L _K mm	P _{max} kN	F _D /P
F				
KDAG 41	100	125	4.2	1.4
KDAG 41	200	225	2.7	1.9
KDAG 41	300	325	2.0	2.3
KDAG 41	400	425	1.6	2.8
KDAG 41	500	525	1.4	3.3
KDAG 41	600	625	1.2	3.8



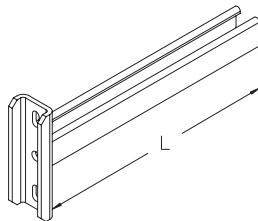
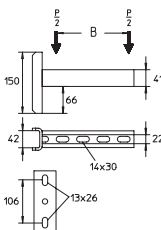
KA 30 Bracket, light for ceiling-fixed bracket support systems, profile 41

Article number	B mm	L mm	P _{max} kN	G kg
F				
KA 30-010	100	125	0.5	0.2
KA 30-015	150	175	0.5	0.3
KA 30-020	200	225	0.5	0.3
KA 30-025	250	275	0.5	0.4
KA 30-030	300	325	0.5	0.4
KA 30-040	400	425	0.5	0.5



KA 41 Bracket, standard, for ceiling-fixed bracket support systems, profile 41

Article number	B mm	L mm	P _{max} kN	G kg
F				
KA 41-010	100	125	3.7	1.0
KA 41-015	150	175	3.7	1.1
KA 41-020	200	225	3.7	1.2
KA 41-025	250	275	3.7	1.4
KA 41-030	300	325	3.7	1.5
KA 41-040	400	425	3.7	1.6
KA 41-050	500	525	3.7	1.8
KA 41-060	600	625	3.7	1.9

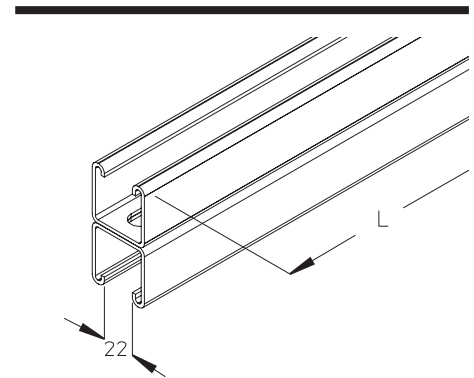
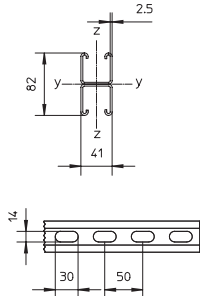


Anchor rails

Load diagrams | Technical informationen

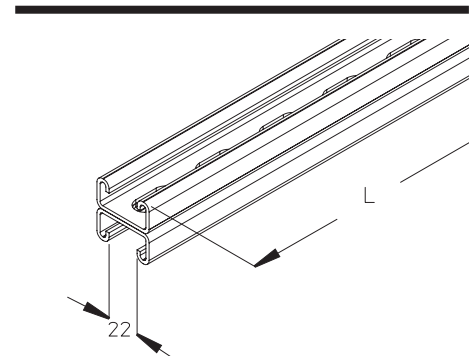
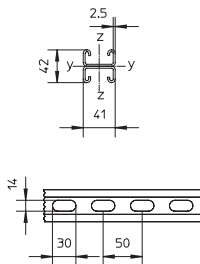
KHA 82 C-rail as mounting profile 41 x 82 mm, perforated

Article number	H mm	A cm ²	W _y cm ³	W _z cm ³	I _y cm ⁴	I _z cm ⁴	G kg/m
F							
KHA 82	82	5.98	8.64	8.76	35.41	18	5.22



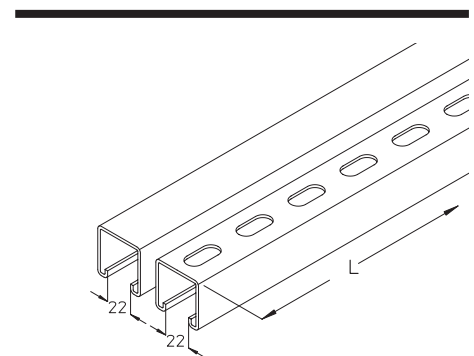
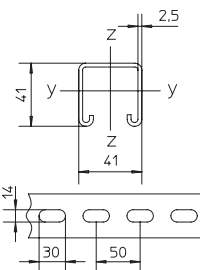
KHA 42 C-rail as mounting profile 41 x 42 mm, perforated

Article number	H mm	A cm ²	W _y cm ³	W _z cm ³	I _y cm ⁴	I _z cm ⁴	G kg/m
F							
KHA 42	42	3.9	2.8	5.1	5.9	10.5	4.96



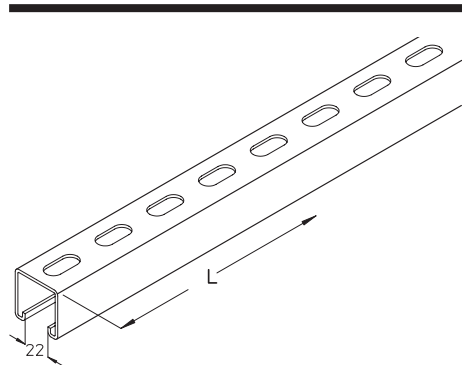
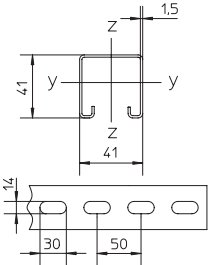
A 41/KHA 41 C-rail as profile 41 x 41 mm, perforated

Article number	H mm	A cm ²	W _y cm ³	W _z cm ³	I _y cm ⁴	I _z cm ⁴	G kg/m
B F							
A 41	41	2.95	2.8	4.4	6	9	2.76
F							
KHA 41	41	2.95	2.8	4.4	6	9	2.48



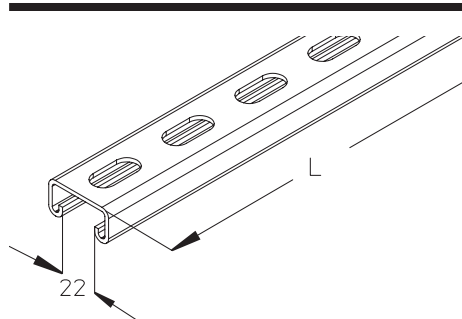
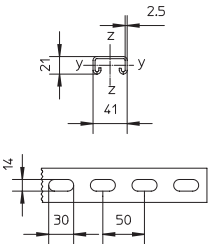
KHAL 41 C-rail, 41 x 41 mm, perforated

Article number	H mm	A cm ²	W _y cm ³	W _z cm ³	I _y cm ⁴	I _z cm ⁴	G kg/m
S F							
KHAL 41	41	1.89	2	2.9	4.2	6	1.56



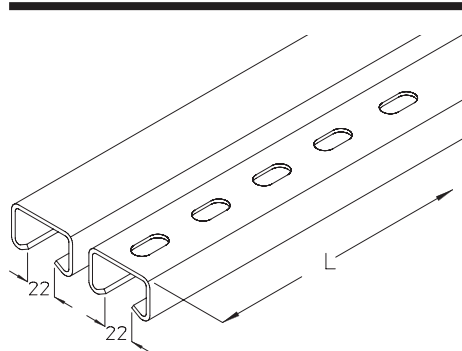
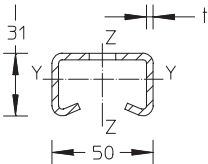
KHA 21 C-rail 41 x 21 mm, perforated

Article number	H mm	A cm ²	W _y cm ³	W _z cm ³	I _y cm ⁴	I _z cm ⁴	G kg/m
F E4							
KHA 21	21	1.95	0.9	2.6	1	5.3	2.48



A 2/KHA 2 C-rail, 50 x 31 mm, not perforated/perforated

Article number	H mm	A cm ²	W _y cm ³	W _z cm ³	I _y cm ⁴	I _z cm ⁴	G kg/m
B F							
A 2	31	3.4	2.4	5.1	4.4	12.9	3.13
F							
KHA 2	31	3.4	2.3	5.1	3.8	12.9	3.02

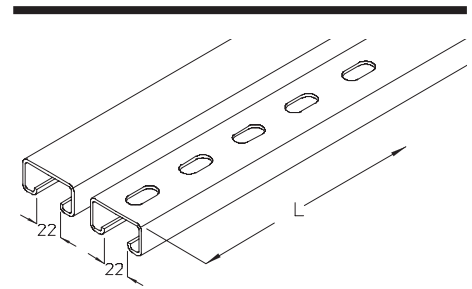
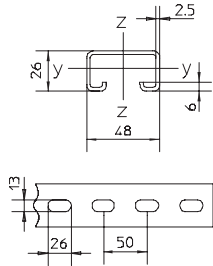


Anchor rails

Load diagrams | Technical informationen

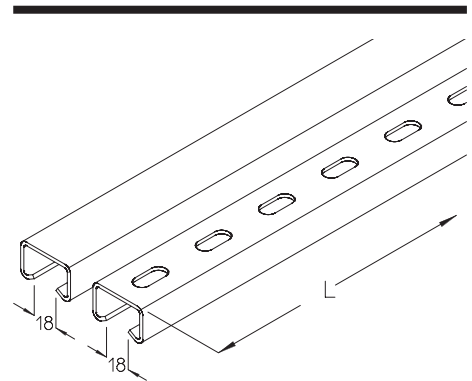
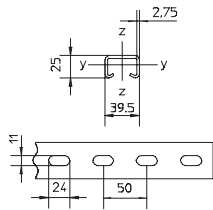
A 4/KHA 4 C-rail, 48x26 mm, not perforated/perforated

Article number	H mm	A cm ²	W _y cm ³	W _z cm ³	I _y cm ⁴	I _z cm ⁴	G kg/m
B F							
A 4	26	2.85	1.7	3.8	2.6	9.2	2.40
F							
KHA 4	26	2.85	1.81	3.9	2.7	9.36	2.24



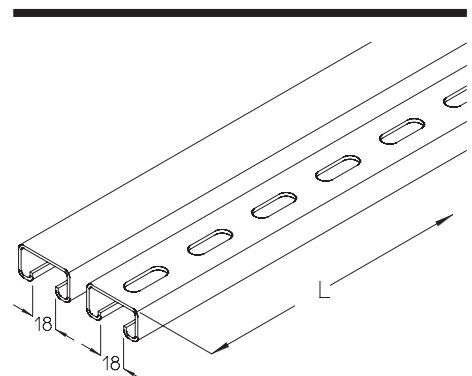
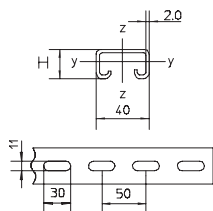
A 9/KHA 9 C-profile 40x25 mm, not perforated/perforated

Article number	H mm	A cm ²	W _y cm ³	W _z cm ³	I _y cm ⁴	I _z cm ⁴	G kg/m
B F							
A 9	25	2.56	1.3	2.7	1.90	5.40	2.15
F							
KHA 9	25	2.56	1.33	2.86	1.97	5.65	2.04



A 8/KHA 8 C-profile, 40x22 mm, not perforated/perforated

Article number	H mm	A cm ²	W _y cm ³	W _z cm ³	I _y cm ⁴	I _z cm ⁴	G kg/m
B F							
A 8	22	1.74	1	2.2	1.3	4.40	1.65
F							
KHA 8	22	1.74	1	2.2	1.2	4.48	1.35

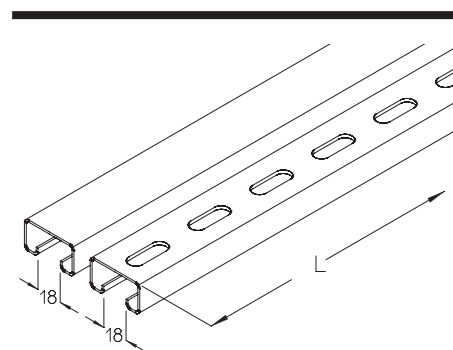
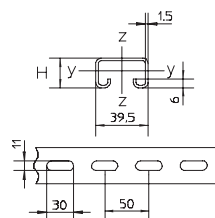


Anchor rails

Load diagrams | Technical informationen

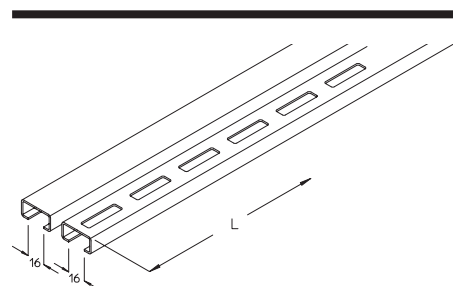
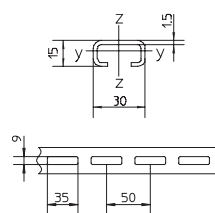
A 7/KHA 7 C-profile, 40 x 22 mm, not perforated/perforated

Article number	H mm	A cm ²	W _y cm ³	W _z cm ³	I _y cm ⁴	I _z cm ⁴	G kg/m
S E							
A 7	22	1.34	0.9	1.7	1.1	3.50	1.30
KHA 7	22	1.34	0.8	1.7	0.9	3.34	1.05



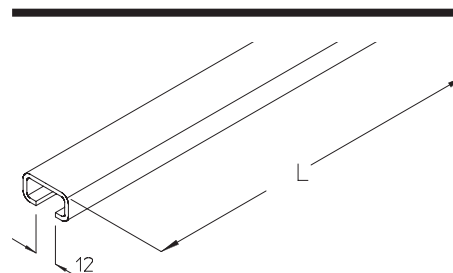
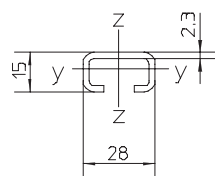
B 7/KHB 7 C-profile, 30 x 15 mm, not perforated/perforated

Article number	H mm	A cm ²	W _y cm ³	W _z cm ³	I _y cm ⁴	I _z cm ⁴	G kg/m
S F E B							
B 7	15	0.88	0.3	0.8	0.30	1.30	0.75
S F E							
KHB 7	15	0.88	0.3	0.8	0.30	1.30	0.69



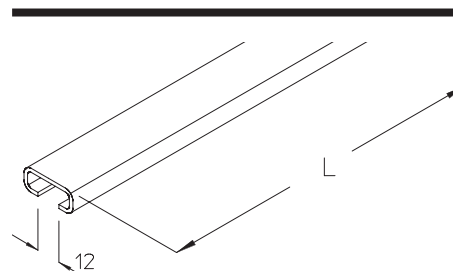
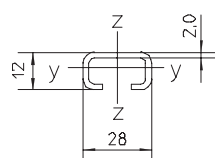
B 6 Profile-rail, 28 x 15 mm, not perforated

Article number	H mm	W _y cm ³	W _z cm ³	I _y cm ⁴	I _z cm ⁴	G kg/m
F E E4 B						
B 6	15	0.5	1.1	0.40	1.50	1.12



B 3 Profile-rail, 28 x 12 mm, not perforated

Article number	H mm	G kg	W _y cm ³	W _z cm ³	I _y cm ⁴	I _z cm ⁴	G kg/m
F E4 B							
B 3	12	5.3	0.3	0.8	0.2	1.1	0.88

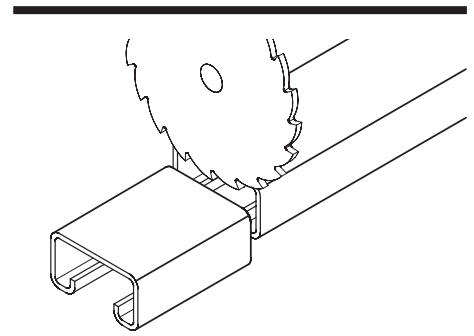


Anchor rails

Load diagrams | Technical informationen

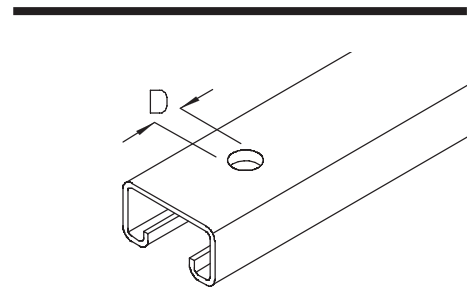
PRS Cut

Article number	A 2 A 4 A 41	A 7 A 8 A 9	B 3 B 6 B 7	B 12 B 15
PRS A	•	•		
PRS B			•	•



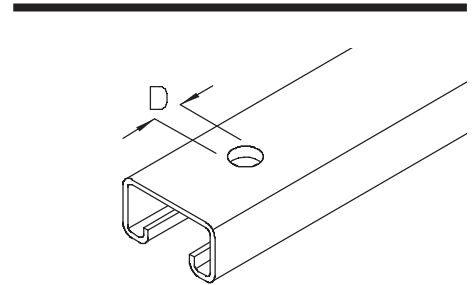
RL Round hole

Article number	D mm	L mm	A 2 A 4 A 41	A 7 A 8 A 9	B 3 B 6 B 7	B 12 B 15
RL 7	7		•	•	•	•
RL 9	9		•	•	•	
RL 11	11		•	•		
RL 13	13		•	•		



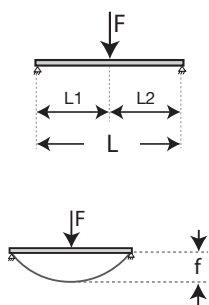
LGL Elongated hole

Article number	D mm	L mm	A 2 A 4 A 41	A 7 A 8 A 9	B 3 B 6 B 7	B 12 B 15
LGL 7x10	7	10	•	•	•	•
LGL 9x20	9	20	•	•	•	
LGL 11x24	11	24	•	•		
LGL 13x26	13	26	•	•		



Single-spam girder with centric single load

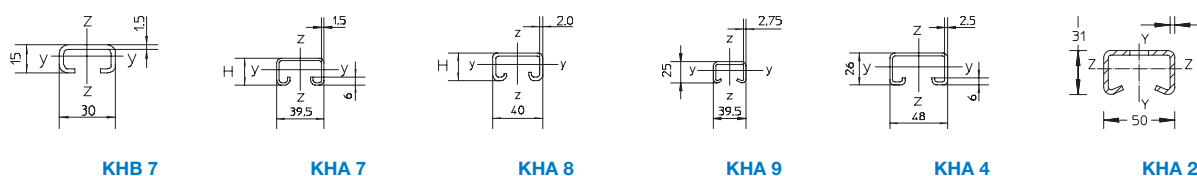
Technical information



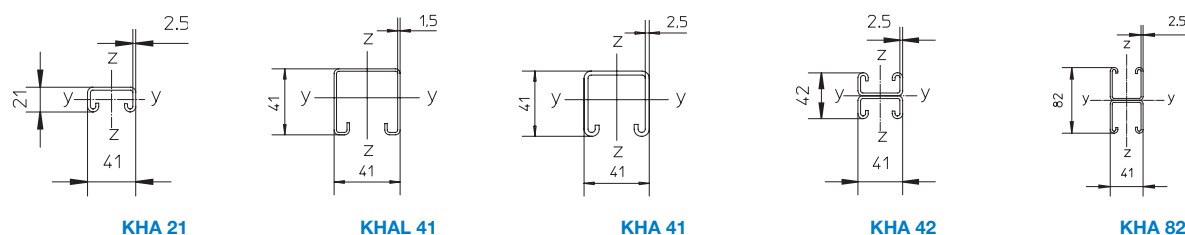
The values in the table are valid for hot-dip galvanised profiles with a centric force application F , allowing for the maximum permissible tension σ_{zul} , respectively the maximum permissible deflection f ($L/100$).

The values include a safety factor of 1.35 against failure load.

Maximum load F_{max} [N] and the corresponding deflection f [mm]



Span L cm	F_{max} N	f mm	F_{max} N	f mm	F_{max} N	f mm	F_{max} N	f mm	F_{max} N	f mm	F_{max} N	f mm
25	757	0.4	2023	0.3	2528	0.3	3362	0.2	4577	0.2	5816	0.2
50	376	1.5	1007	1.3	1259	1.3	1673	1.0	2280	1.0	2896	0.9
75	248	3.4	667	3.1	834	2.9	1107	2.3	1511	2.3	1918	2.1
100	183	6.0	496	5.4	619	5.1	822	4.1	1123	4.1	1426	3.7
125	143	9.2	392	8.4	489	7.9	648	6.3	889	6.3	1127	5.7
150	116	12.9	322	11.9	402	11.2	531	9.0	730	9.1	926	8.1
175	96	17.1	271	16.0	338	15.0	446	12.0	616	12.1	780	10.9
200	75	20.0	227	20.0	290	19.1	381	15.3	528	15.5	668	13.9
225	60	22.5	179	22.5	239	22.5	329	18.9	459	19.2	580	17.2
275	40	27.5	120	27.5	160	27.5	251	26.3	356	27.2	447	24.3
300	34	30.0	101	30.0	134	30.0	220	30.0	302	30.0	396	27.9



Span L cm	F_{max} N	f mm	F_{max} N	f mm	F_{max} N	f mm	F_{max} N	f mm	F_{max} N	f mm
25	2272	0.3	5060	0.2	7083	0.2	7077	0.2	21863	0.1
50	1127	1.3	2524	0.7	3532	0.7	3525	0.7	10912	0.4
75	741	3.1	1676	1.7	2344	1.6	2326	1.7	7253	0.9
100	545	5.4	1250	3.0	1748	2.9	1723	3.0	5417	1.5
125	425	8.2	993	4.6	1387	4.5	1357	4.5	4311	2.4
150	343	11.4	821	6.5	1145	6.4	1108	8.4	3569	3.4
175	282	15.0	696	8.8	970	8.6	927	8.4	3035	4.6
200	236	18.7	602	11.3	837	11.1	788	10.6	2632	5.9
225	198	22.4	528	14.2	732	13.8	678	13.0	2315	7.4
275	133	27.5	418	20.5	577	19.9	510	17.9	1847	10.8
300	112	30.0	376	24.0	517	23.1	444	20.2	1669	12.6

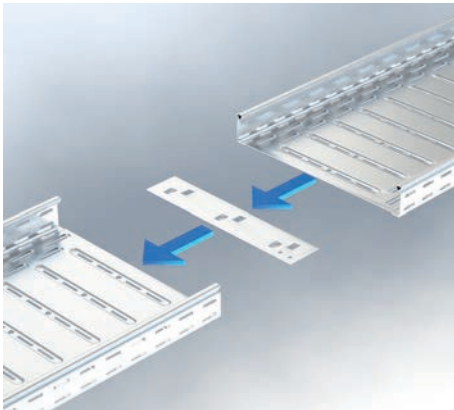
Cable trays Assembling instruction	O02-O07
Wide-span cable ladders WPL/WP Assembly Instruction	O08-O13
Wide-span cable trays WPR Assembly instruction	O14-O19
Corner attachment for wide-span systems Assembly instruction	O20-O25
Support systems Assembly instruction	O26-O24
Wire-mesh cable trays Application examples	O35-O38
Cable ladders Application examples	O39-O41
Vertical Ladders Application examples	O42-O45
Cable support trough Application examples	O46
Line of protection tubes Application examples	O47
Light channel system Application examples	O48-O49

Cable trays

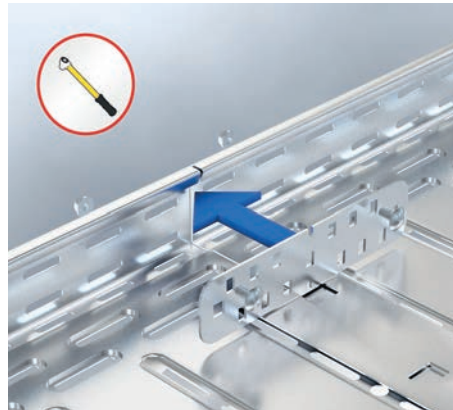
Assembling instruction



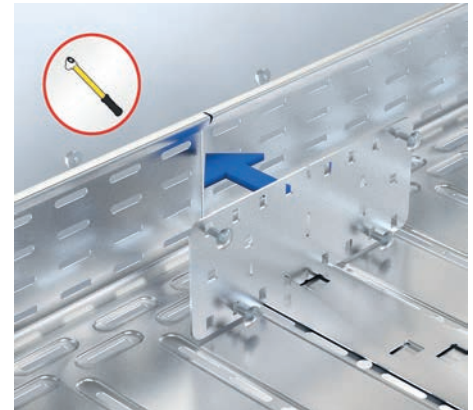
Cable trays serve the bridging of medium-size fitting distances. The support structures must be planned by engineering experts and observing the permissible torque of all screw connections.



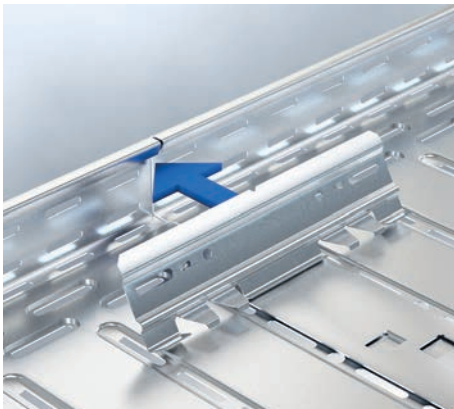
1 | Floor connector
From 100 mm nominal width attach floor connector (VB) to the cable tray bottom.



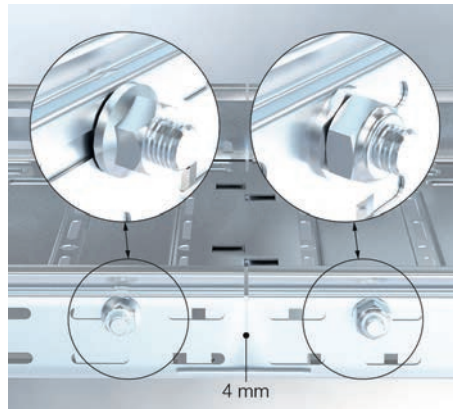
2 | Side connector
Push the side connector (RGV) into the cable tray side rail, screw each side rail tight using a clamping screw (KLR), then push in the connecting tray and screw to the side connector (RGV).



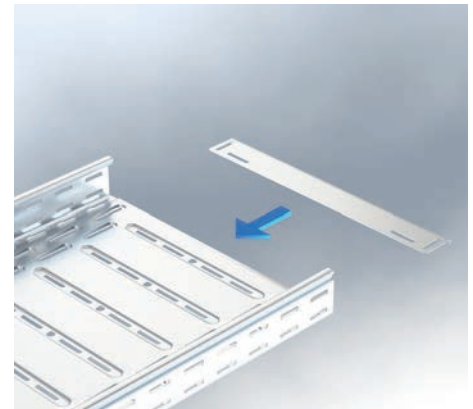
3 | Side connector
Type R 35, RG 35, R 60, RG 60, and RI 60 cable trays are to be screwed using one clamping screw (KLR) per side rail. Type R 85, RG 85, R 110, and RG 110 cable trays are to be screwed with two clamping screws per side rail (top and bottom).



4 | Snap-lock connectors
Alternatively, the cable tray RG 60 can be latched on the inside below the head of the side rail using the snap-lock connector (RGVS 60) without tools. Push the snap-lock connector against the tray bottom by hand until a positive locking into place in the tray bottom occurs.



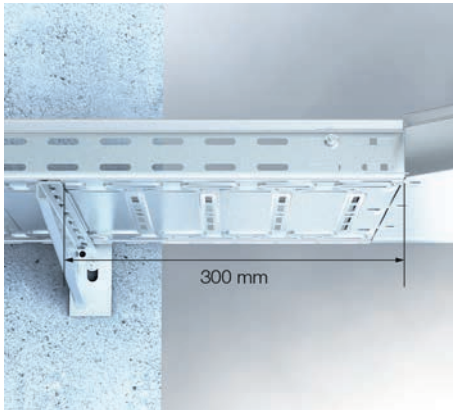
5 | Fixed and floating bearings
In case of extreme variations in temperature, a fixed and free bearing in the joint must be allowed for.
Left view: Fixed bearing (with pre-stamped washer, FRSV+SEMS)
Right view: floating bearing (with free washer FRSV+-SEMSS+US) and a clearance of 4 mm.



6 | End plate
In case of open support ends and a horizontal change in direction by $< 30^\circ$ open tray bottom.
For cable tray ends or open changes in direction, push tray end plate (REB) into the bottom of the cable tray and screw together.

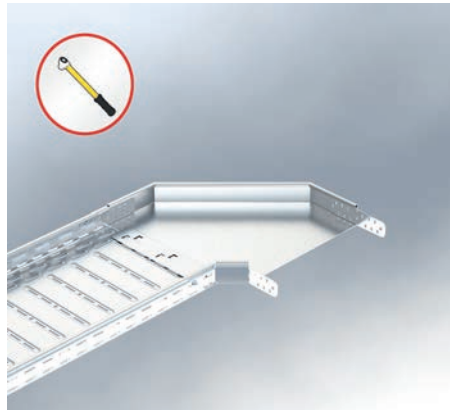
Cable trays

Assembling instruction



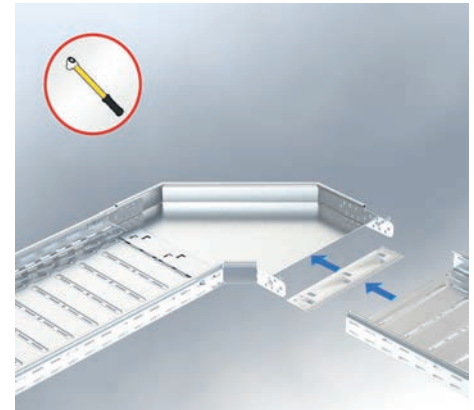
7 | Support distance to formed part end

Applies to all formed parts or changes in direction or open ends: The maximum distance of 300 mm with regard to the formed part end and the support must be observed.



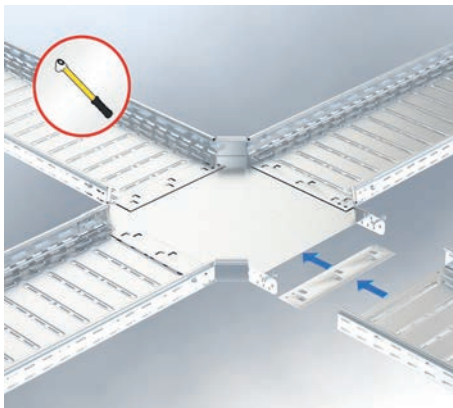
8 | Horizontal curve

Insert the horizontal curve (RB) and the floor connector (VB) into the cable tray and screw together in one place per side rail. For type R 85, RG 85, R 110 and RG 110 cable trays, screw in two places per side rail as described for RB.



9 | Horizontal curve

Insert connecting tray and floor connector (VB) into horizontal curve (RB) and screw together in one place per side rail. For type R 85, RG 85, R 110 and RG 110 cable trays, screw in two places per side rail as described for RB.



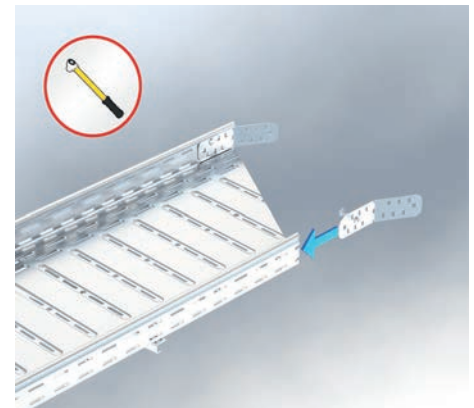
10 | Junction

Insert cable tray junction (RK) and floor connector (VB) into cable tray and screw together in one place per side rail. For type R 85, RG 85, R 110 and RG 110 cable trays, screw in two places per side rail as described for RB.



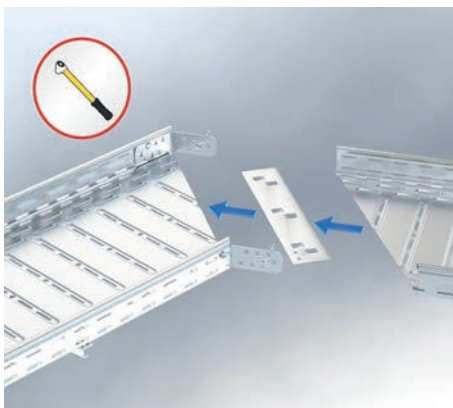
11 | Horizontal change in direction

For a horizontal change in direction without normed formed components, mitre the cable tray as required, deburr and cold-galvanise it.



12 | Horizontal change in direction

Bend both side connectors (RGV) to the necessary angle, insert into the side rails of the cable tray and screw together as described for RGV (see image 3).



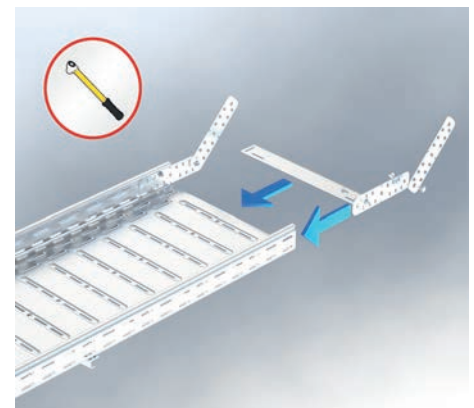
13 | Horizontal change in direction

Place floor connector (VB) of corresponding length inside the cable tray bottom, push connecting cable tray into side connectors (RGV) and screw together as described for RGV (see image 3).



14 | Curve

Push flexible cable tray curve (RVB) into cable trays and screw together as described for RGV (see image 3). Insert the cable tray end plates at the ends of cable trays, push into the bottom of the cable trays and screw together as described for RGV (see image 6).



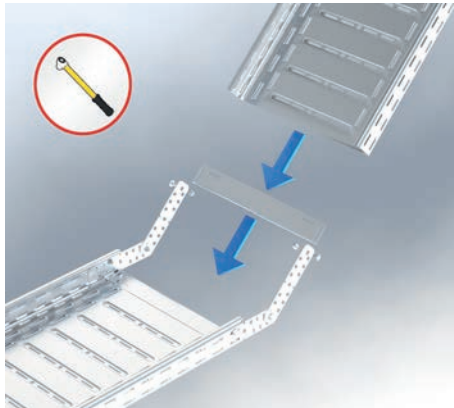
15 | Vertical change in direction

Vertical change in direction without formed component: Push tray end plate (REB) into the bottom of the cable tray and screw together as described for RGV (see image 3). Screw one RGV to each side rail with projection.



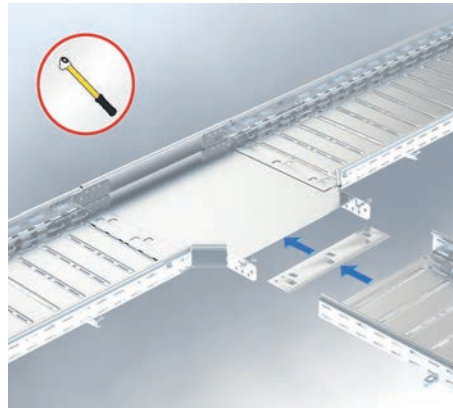
Cable trays

Assembling instruction



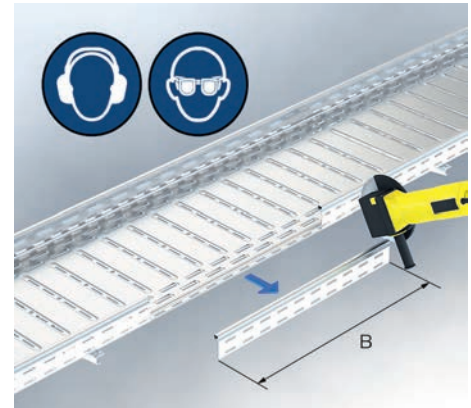
16 | Vertical change in direction

Insert connecting cable tray into the side connectors (RGV) and screw together (see image 3). At the cable tray ends, push cable tray end plates (REB) into the bottom of the cable tray and screw together (see image 6).



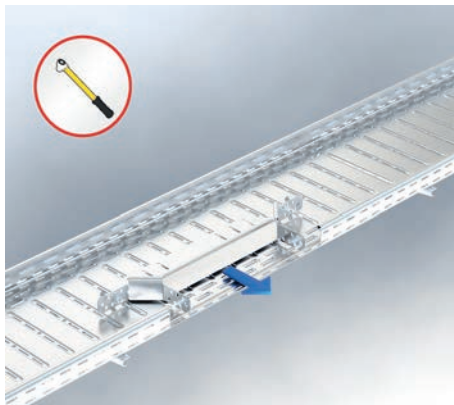
17 | Joint

Push joint (RA) and floor connector (VB) into the cable tray and screw together as described for RGV (see image 3). For type R 85, RG 85, R 110 and RG 110 cable trays, screw in two places as described for RB (see image 8).



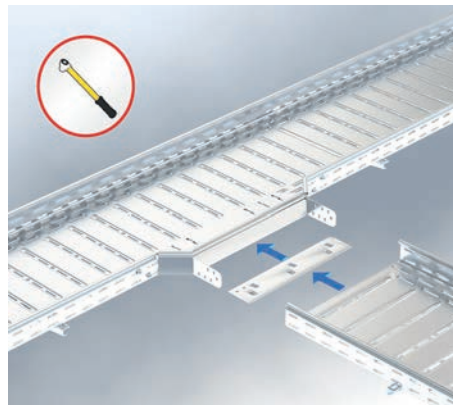
18 | Extension joint

Installation of extension joints manufactured on site (RAA). Cut out the side rail of the cable tray flush with the bottom in width B = the connecting cable tray width + 120 mm, deburr and cold-galvanise.



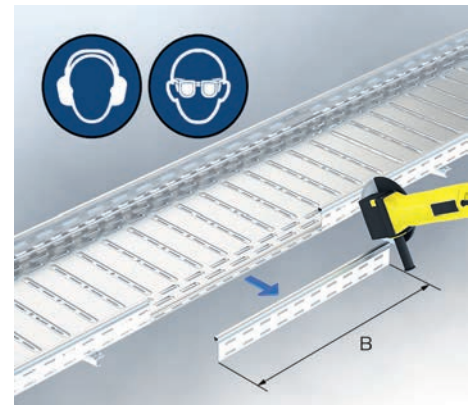
19 | Extension joint

Attach extension joint (RAA) and screw in one place per side rail. For type R 85, RG 85, R 110 and RG 110 cable trays screw together in two places as described for RB (see image 8).



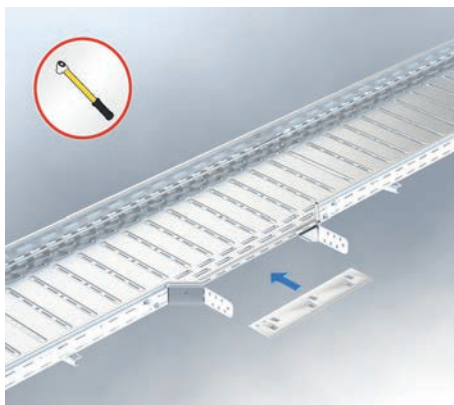
20 | Extension joint

Insert connecting cable tray and floor connector (VB) into the extension joint (RAA) and screw together as described for RGV (see image 3).



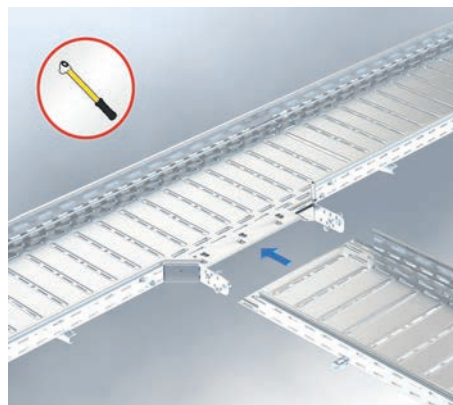
21 | Extension angle

Installation of tray extension angles (RAE). Cut out the side rail of the cable tray flush to the bottom in width B = the extension cable tray width + 120 mm.



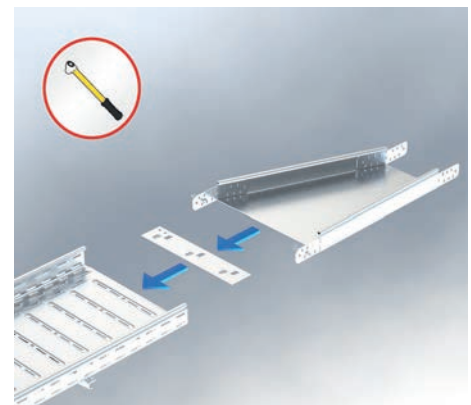
22 | Extension angle

Insert tray extension angles (RAE) into the cable trays and screw to the bottom in one place per side rail. Attach floor connector (VB).



23 | Extension angle

Trim extension trays by 60 mm per side rail, push onto the extension angles and screw together in one place per side rail.

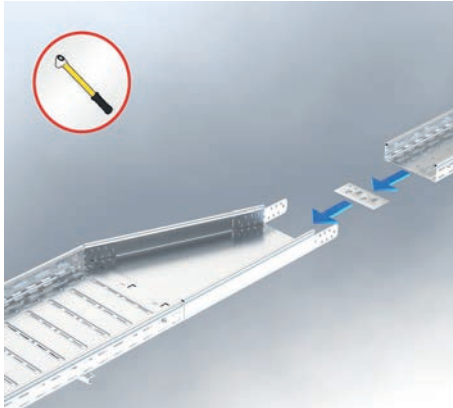


24 | Reduction

Insert cable tray reduction (RR) and floor connector (VB) into the cable tray and screw together in one place per side rail. For type R 85, RG 85, R 110 and RG 110 cable trays screw together in two places as described for RB (see image 8).

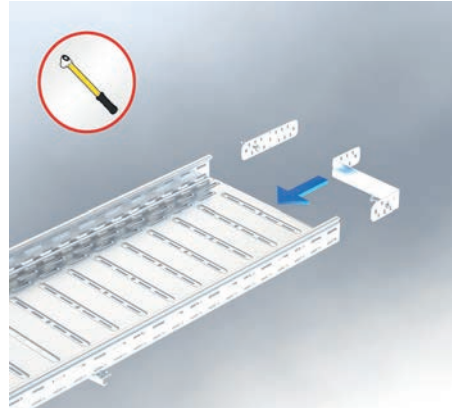
Cable trays

Assembling instruction



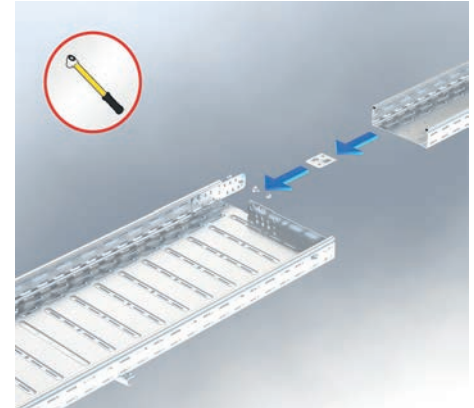
25 | Reduction

Insert extension cable tray and floor connector (VB) into cable tray reduction (RR) and screw together as described for RGV (see image 3).



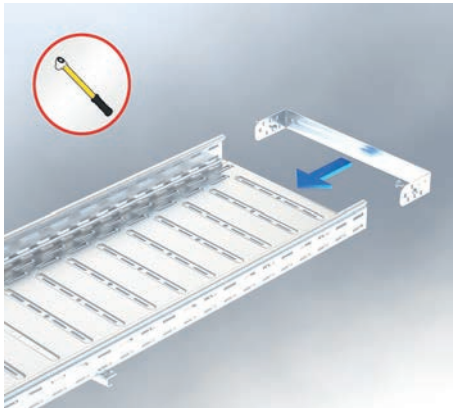
26 | Reduction using a closing plate

Cable tray reduction using a tray closing plate (RAB) and a side connector (RGV). Bend tray closing plate (RAB) into a z-shape and screw side connector (RGV) and tray end plate (RAB) as described for RGV (see image 3).



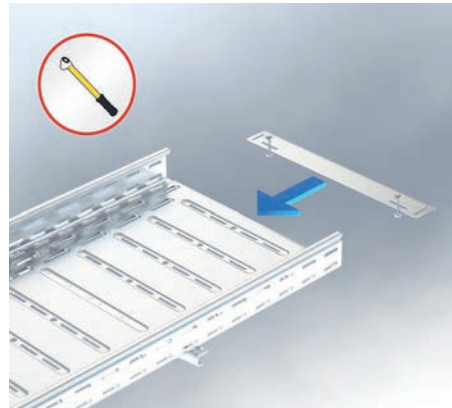
27 | Reduction using a closing plate

Insert extension cable tray and floor connector (VB) into the cable tray reduction (RAB) and screw together as described for RGV (see image 3).



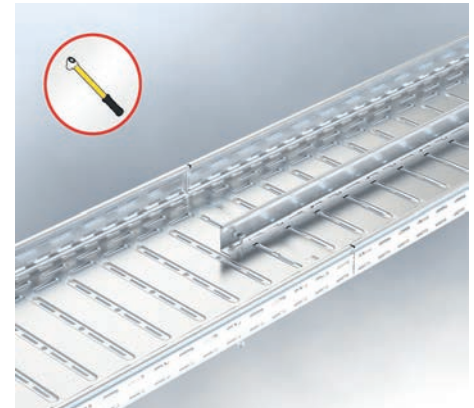
28 | Closing plate

Closing of a cable tray using a tray closing plate (RAB). Bend tray closing plate into a u-shape and push into the cable tray. Screw together as described for RGV (see image 3).



29 | End plate

Mounting of the tray end plate for the protection of the inbound or outbound cables. Push tray end plate (REB) onto cable tray and screw to the bottom in two places if the width is at least 200 mm.



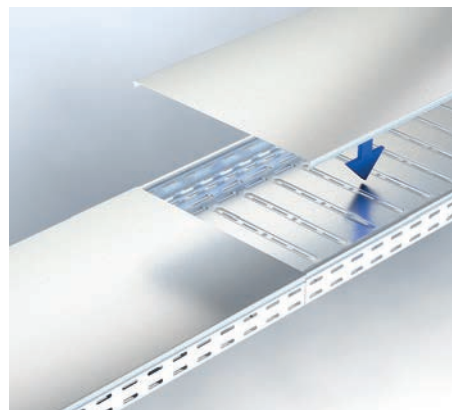
30 | Barrier strip

Screw barrier strip in three places (approx. 100 mm from both barrier strip ends as well as in the middle).



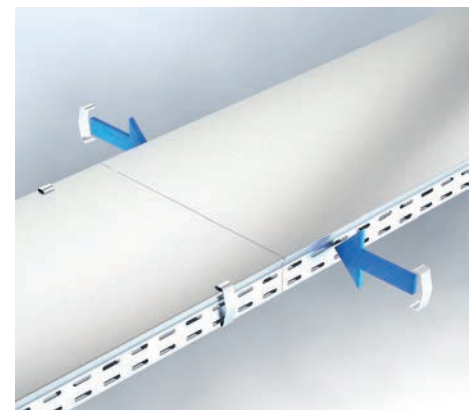
31 | Assembly plate

Screw the assembly plate (MP-RG) for electric components to the side rail of the cable tray in two places.



32 | Cover

Place the tray cover (RD) onto the cable tray and push against the side rail until a positive locking into place in the side rail occurs. For indoor use only!



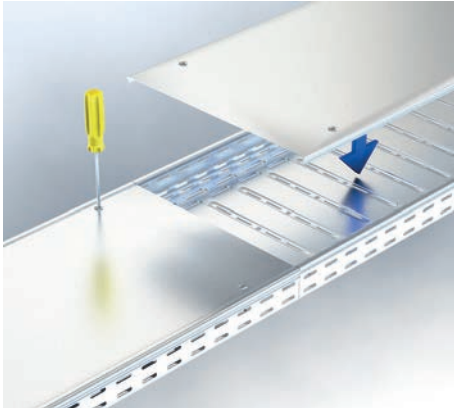
33 | Brackets

Place the cover brackets (RDKL) sideways onto the tray cover (RD) and push against the cover bracket (RDKL) until a positive locking into place with the cable tray bottom occurs. For indoor use only! 6 pieces / 3 metres



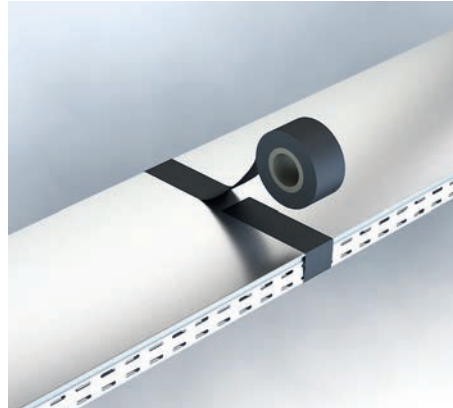
Cable trays

Assembling instruction



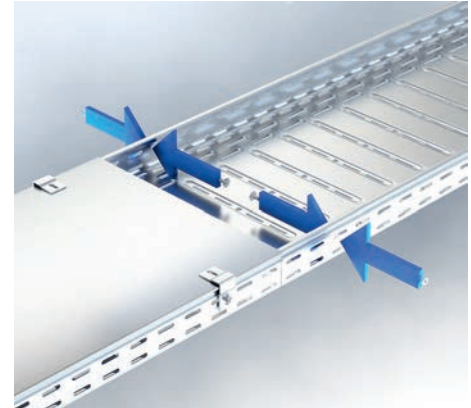
34 | Turning bolt

The tray cover with a turning bolt (RDR) should be mounted as described for RD (see image 32). In addition, turn the turning bolt using a screwdriver until the slit in the screw head points lengthwise towards the cable tray. For indoor use only!



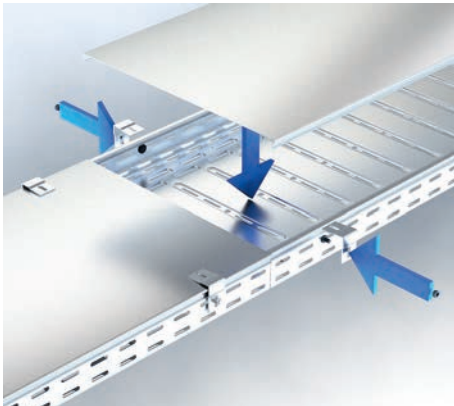
35 | Adhesive metal strip

Place the tray cover (RD) onto the cable tray (see image 32), then remove the separating foil of the adhesive metal strip (MKB) and wrap the strip around the cover and around the cable tray. For indoor use only!



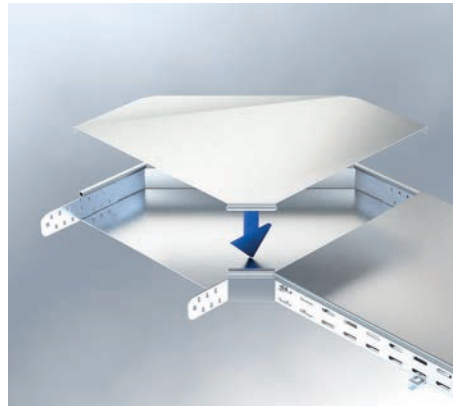
36 | Storm safety angle

Lead the screw (KLR) of the storm safety angle (RD-SW) on the inside through the cable tray. Push the anti-loss washer (UVS M6) on the screw.



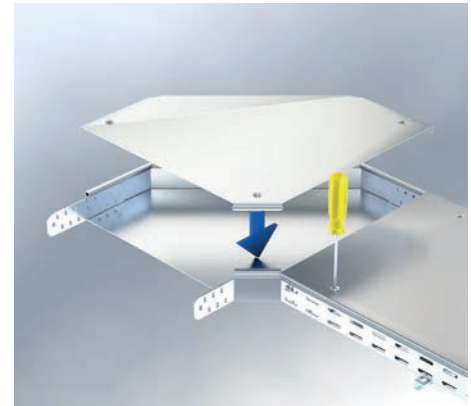
37 | Storm safety angle

Fasten the tray cover (RD) to the cable tray (see image 32), place the storm safety angle (RD-SW) from the outside onto the cover and screw using the screw nut SEMS M6. Suitable for outdoor use! 6 pieces / 3 metres



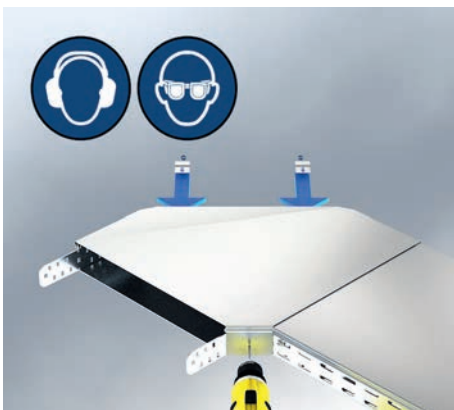
38 | Curve cover

As described for the cable tray covers (RD) (see image 32), the formed components, e.g. the curve cover (RBD), should be placed on the cable tray curve, pushing against the side rail until a positive locking into place in the side rail occurs. For indoor use only!



39 | Curve cover

The formed component covers with turning bolt, e.g. the tray curve cover (RDBR), are mounted with a turning bolt (RDR) as described for the tray cover (see image 34).



40 | Storm safety angle

Storm safety angles (RD-SW-L) for formed components covers are mounted as described for the tray cover (RD) (see image 38). In addition, the through holes should be made using an RD-SW-L as a drilling template. RAA 2 pieces, RB 3 pieces and RA and RK 4 pieces



41 | Cutting and sectioning work

Perform cutting and sectioning work with greatest care and observe the occupational safety.



42 | Galvanising

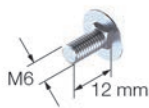
All cutting and sectioning points must be galvanised with cold zinc paint (KZF) or cold zinc spray (KZS) by the customer after the deburring.

Cable trays

Assembling instruction

Legend Accessories

FRSV 6x12



US 6x12



SEMS M6



SEMSS M6



SEM M6



KLR



Symbols



Wear protection glasses



Wear ear protection



Observe tightening torque for fasteners

S

Sendzimir-hot-dip galvanised according to DIN EN 10346

F

Hot-dip galvanised according to DIN EN ISO 1461

E

High-grade steel material No. 1.4301 (V 2A)

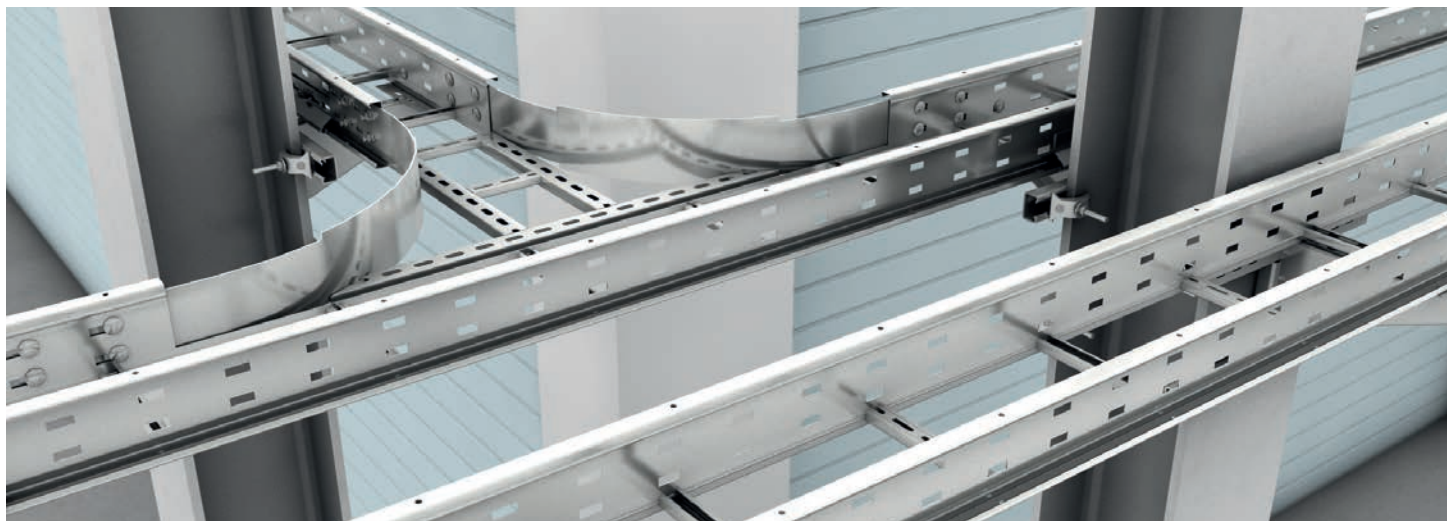
Screw tightening torques (recommended)

Bolt diameter	Strength category screw (DIN 267 part 3)	Strength category nut (DIN 267 part 4)	Screw tightening torque (Nm) acc. VDI 2230
M6	4.6	5	4
M6 E	4.6	A2 50	4



Wide-span cable ladders WPL / WP

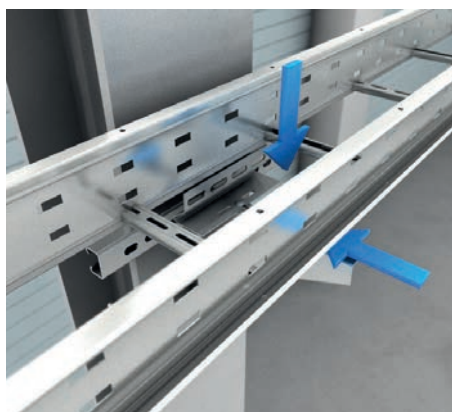
Assembly Instruction



Wide-span cable ladders bridge large fastening gaps. The support structures must be planned according to engineering practice and it is a must to use side rail bearers with the brackets. All bolted connections must be tightened correctly.



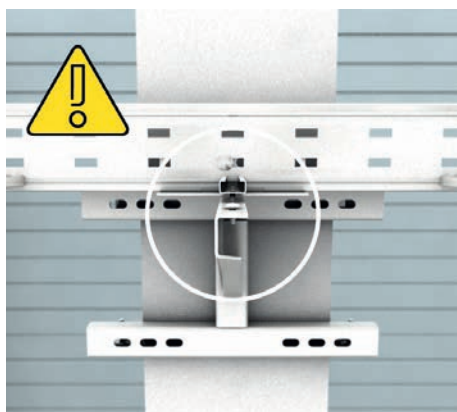
1 | Flange mounting clamp
Bolt the rear flange mounting clamp (WPHS) to the bracket.



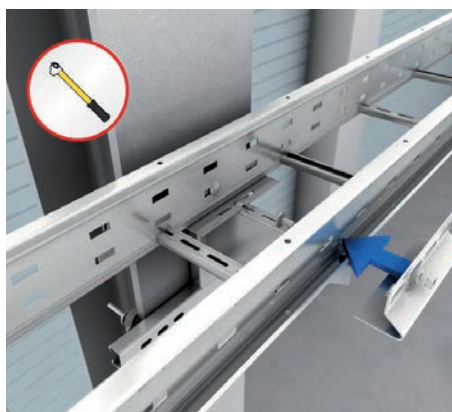
2 | Carefully position
Carefully position the wide-span cable ladder and push it against the fixed flange mounting clamp. Make sure the wide-span cable ladder is in the correct position!



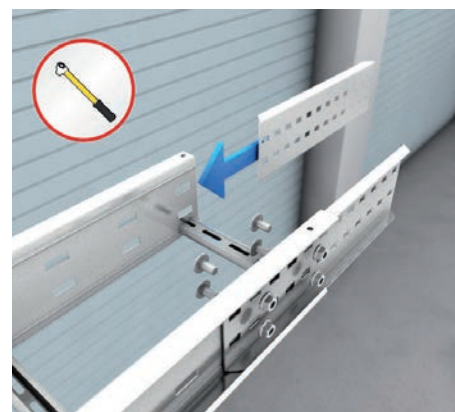
3 | Correctly positioned
Correct: Make sure the bracket is correctly positioned between the rungs of the wide-span cable ladder.



4 | Wide-span cable ladder's
Attention: The mounting clamp (WPHS) has to be bolted to the bracket, even if a rung is positioned directly above the bracket.



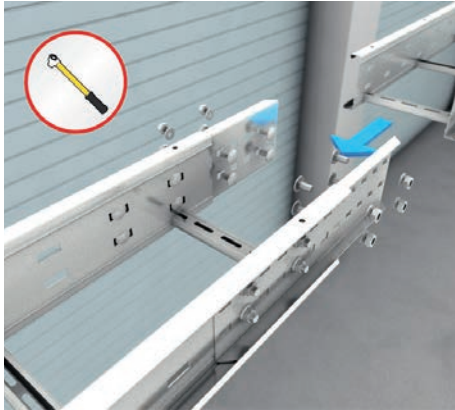
5 | Side rail bearer
Push the front flange mounting clamp (WPHS) onto the bracket and bolt the wide-span cable ladder, bracket, and WPHS together.



6 | Wide-span coupler
Insert edge connectors (WPV) into the wide-span cable ladder's side rails and secure them with four clamping screws (KLS 10x20) per side rail.

Wide-span cable ladders WPL / WP

Assembly Instruction



7 | Connecting ladder

Insert the connecting ladder into the wide-span coupler (WPV), leaving a gap of 4 mm between the ends of the two ladders. Then, secure the second ladder to the coupler (WPV), tightening the self-locking hexagon nuts (SEMSS 10 or SEMB 10) with a torque of 3 Nm.



8 | Fixed bearing

Left: fixed bearing (with integral washer). Center: the 4 mm gap between the ends of the two ladders. Right: floating bearing (with unmounted washer). (Connector accessories see table on page 6)



9 | Horizontal bend

Insert a horizontal bend (WPLB) into the wide-span cable ladder and fix it in place with two bolts per side rail.



10 | Connecting ladder

Insert the next connecting ladder into the horizontal bend (WPLB) and secure it with two bolts per side rail.



11 | Wide-span branch piece

Insert a wide-span branch piece (WPLA) into the wide-span cable ladder and attach it with two bolts per side rail.



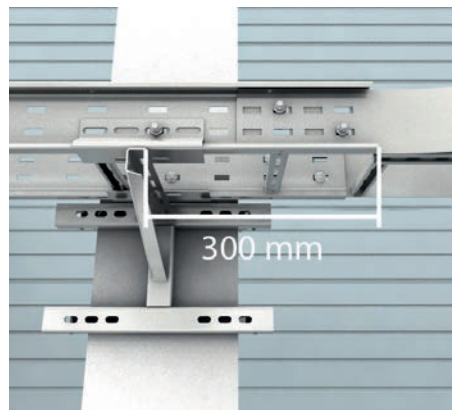
12 | Outside riser

Insert an outside riser (WPLF) into the wide-span cable ladder and bolt it in two places per side rail. Then, insert a connecting ladder into the outside riser (WPLF) and secure it with two bolts per side rail.



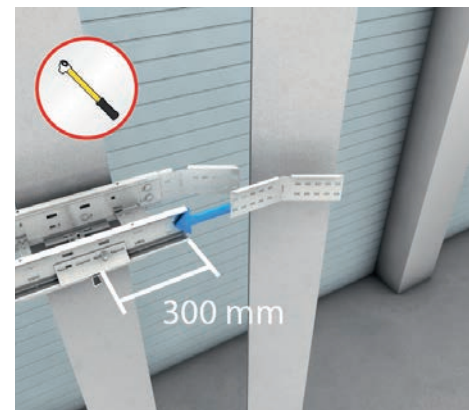
13 | Inside riser

Insert an inside riser (WPLS) into the wide-span cable ladder and fix it in place with two bolts per side rail. Then, insert a connecting ladder into the inside riser (WPLS) and bolt it in two places per side rail.



14 | Fittings

For all fitting parts to make directional changes, please make sure, that the distance between the end of the wide-span ladder and the bracket cannot exceed 300 mm.



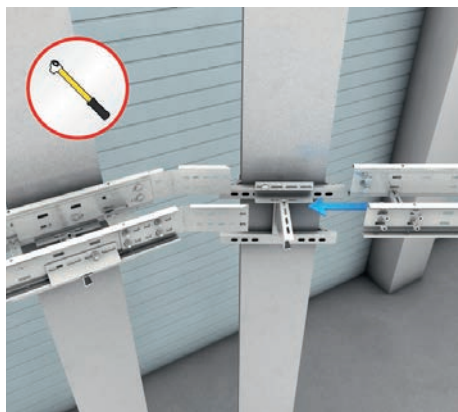
15 | Horizontal directional changes

For horizontal directional changes of less than 30° note: First, bend both couplers (WPVH) to the required angle on site. Then, insert them into the wide-span cable ladder and secure them with four bolts per side rail.



Wide-span cable ladders WPL / WP

Assembly Instruction



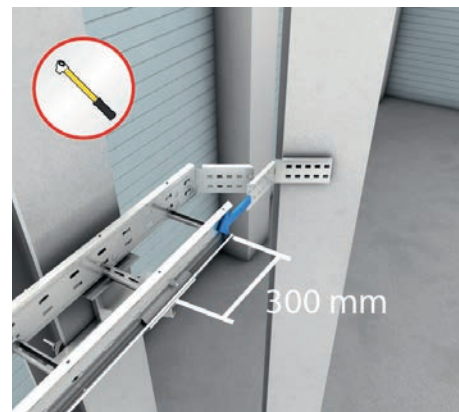
16 | Wide-span coupler

Now, insert a connecting cable ladder into the coupler (WPVH) and fix it in place with four bolts per side rail.



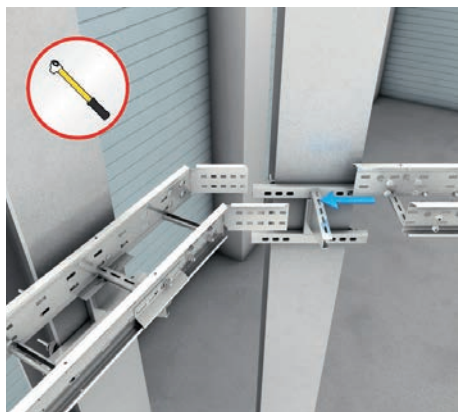
17 | Horizontal directional changes

For horizontal directional changes of more than 30° note, that you have to create a mitre joint for the wide-span cable ladder at the required angle, then, as necessary, remove any extra rungs. Afterwards deburr and cold-galvanise.



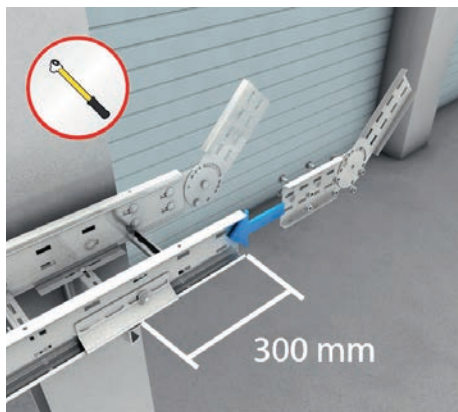
18 | Wide-span couplers

First, bend both wide-span couplers (WPVH) to the required angle on site. Then, insert them into the wide-span cable ladder and secure them with four bolts per side rail. The distance between the end of the wide-span ladder and the bracket cannot exceed 300 mm.



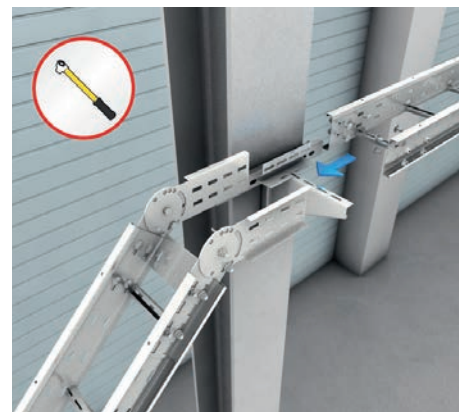
19 | Connecting cable

Insert a connecting cable ladder into the coupler (WPVH) and fix it in place with four bolts per side rail.



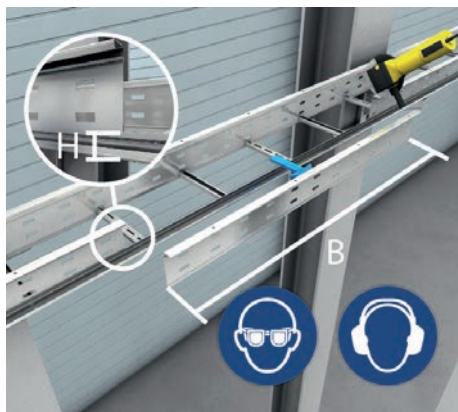
20 | Vertical directional changes

For vertical directional changes note, that you have to first adjust both vertical couplers (WPVV) to the required angle and fix them in place with bolts. Then insert the couplers into the wide-span cable ladder and bolt them in four places per side rail. The distance between the end of the wide-span ladder and the bracket cannot exceed 300 mm.



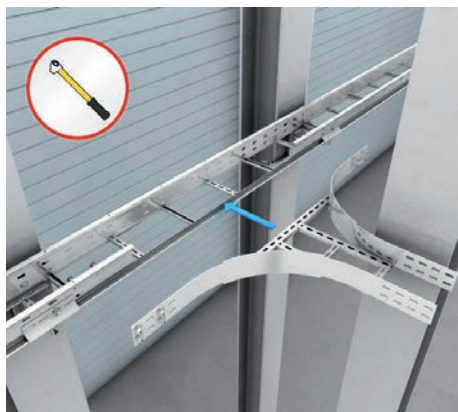
21 | Vertical wide-span couplers

Insert a connecting cable ladder into the couplers (WPVV) and attach it with four bolts per side rail.



22 | Attachment branch-piece

To fit an attachment branch-piece (WPLAA), a portion of the connecting side rail must be removed. Cut a length of 900 mm + the width of the connecting cable tray from the side rail of the wide-span cable ladder ("B" in the photo). Don't cut through the whole height of the side rail: H=23 mm must be left at the base of the side rail to support the branch-piece.



23 | Attachment branch-piece

Attach a branch-piece (WPLAA) with four bolts per side rail.

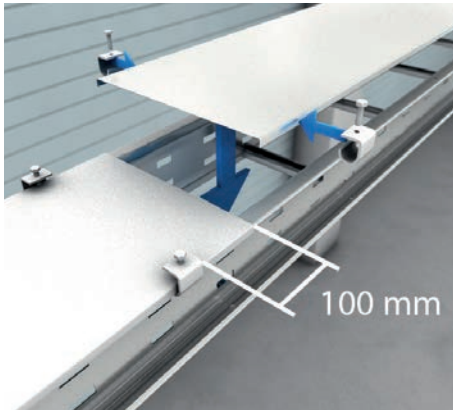


24 | Attachment branch-piece

Insert a connecting ladder into the branch-piece (WPLAA) and fix it in place with four bolts per side rail.

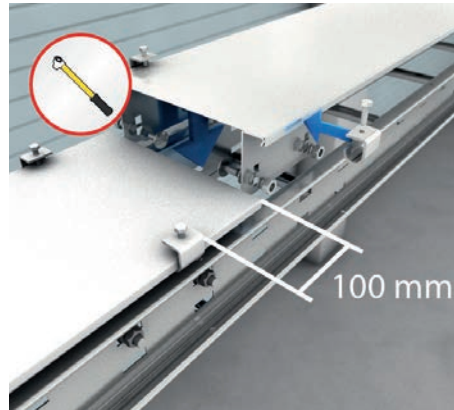
Wide-span cable ladders WPL / WP

Assembly Instruction



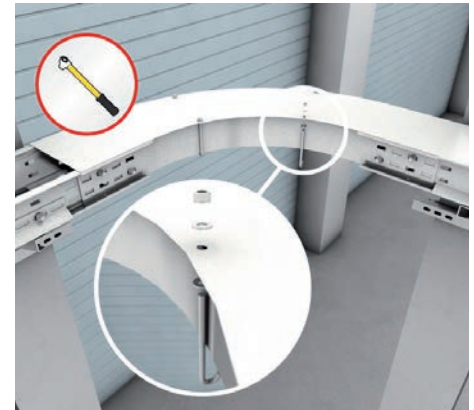
25 | Cover clamps

Secure covers (WPD) with cover clamps (WPD-K) at 100 mm from each end of the cover and in the middle. (6 pieces / 3m)
For wind-exposed areas, the number of cover clamps must be increased to at least 10 pcs.



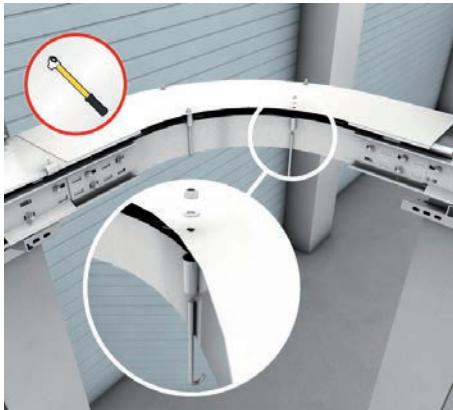
26 | Secure elevated covers

Secure elevated covers (WPD) with cover clamps (WPD-K and WPD-A) at 100 mm from each end of the cover and in the middle. (6 pieces / 3m)
For wind-exposed areas, the number of cover clamps must be increased to at least 10 pcs.



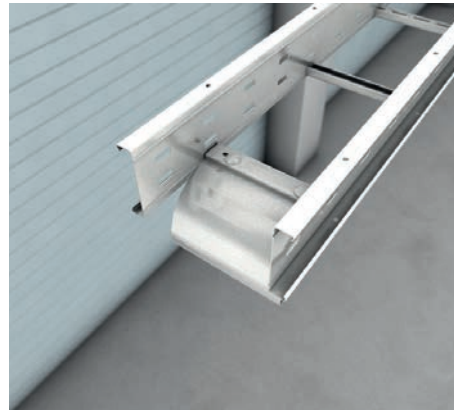
27 | Cover clamps

Attach covers to wide-span cable ladder fittings (WPBD, WPAD or WPKD) with cover clamps (WPFDK) at every hole.



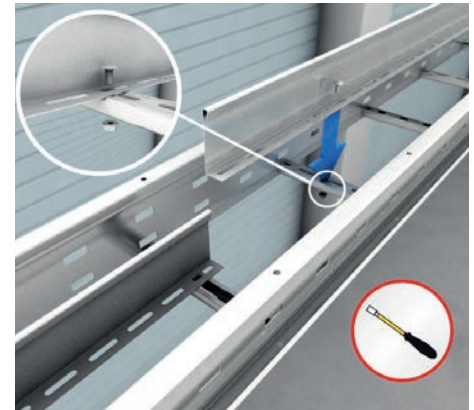
28 | Fittings

Bolt elevated covers to wide-span cable ladder fittings (WPBD, WPAD or WPKD) with cover clamps (WPFDKA) at every hole.



29 | End plate

Attach the end plate (WPKAB) to the desired rung of the cable ladder by bolting it with the provided channel nut AM16 in two places.



30 | Barrier strip

Using a socket wrench, secure the barrier strip (WPTR) in the front, middle, and back.



31 | Cutting

Cutting must be performed with the greatest care, complying to all industrial safety regulations.



32 | Galvanised

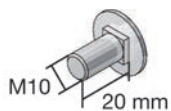
After the deburring, all cut areas must be galvanised with cold zinc paint (KZF) or cold zinc spray (KZS) on site.

Wide-span cable ladders WPL / WP

Assembly Instruction

Legend Accessories

FRSV 10x20



SEMS 10



SEMB 10



SEM 10



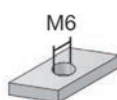
US 10x21



SEMSS 10



AM16



Underline Symbols



Wear protection glasses



Wear ear protection



Correct



Wrong



Observe tightening torque for fasteners



Attention!

S

Sendzimir-hot-dip galvanised according to DIN EN 10346

F

Hot-dip galvanised according to DIN EN ISO 1461

E

High-grade steel material No. 1.4301 (V 2A)

Screw tightening torques (recommended)

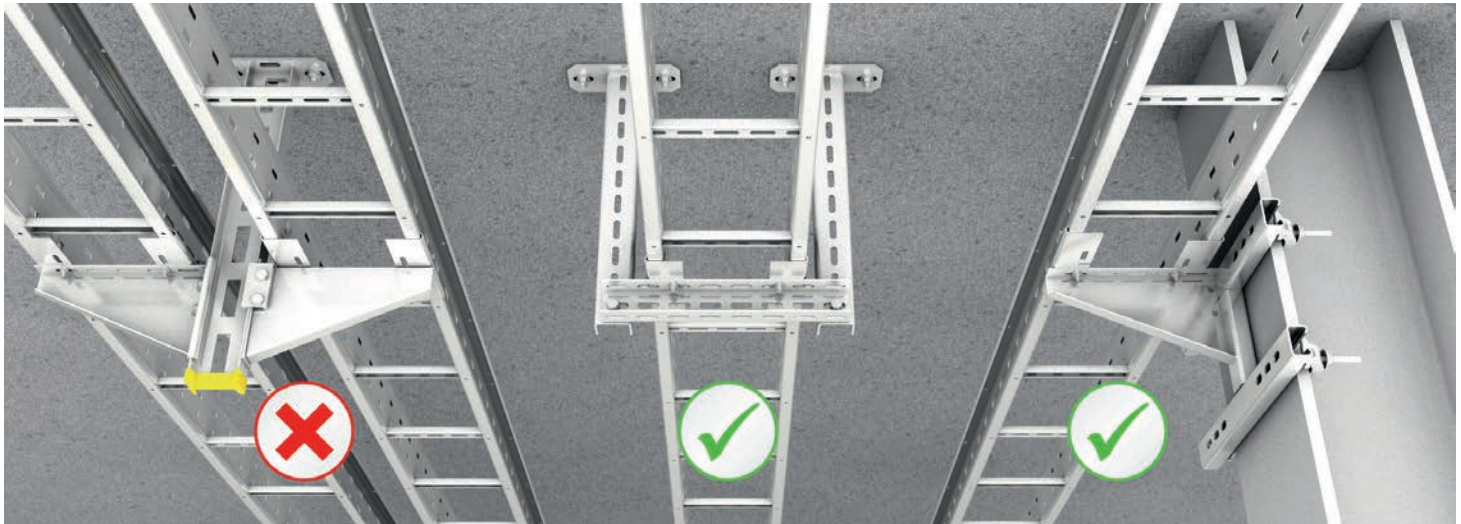
Bolt diameter	Strength category screw (DIN 267 part 3)	Strength category nut (DIN 267 part 4)	Screw tightening torque (Nm) acc. VDI 2230
M6	4.6	5	4
M8	4.6	5	8
M10	4.6	5	16
M12	4.6	5	32
M16	4.6	5	76
M6	8.8	8	14
M8	8.8	8	34
M10	8.8	8	68
M12	8.8	8	117
M16	8.8	8	291

connector accessories

fixed bearing (16 Nm)			floating bearing (3 Nm)		
S	FRSV 10x20	SEMS 10	FRSV 10x20	SEMSS 10	US 10x21
F	FRSV 10x20F	SEM 10F	FRSV 10x20F	SEMB 10F	US 10x21
E	FRSV 10x20E	SEM 10E	FRSV 10x20E	SEMSS 10E	US 10x21E

Wide-span cable ladders WPL / WP

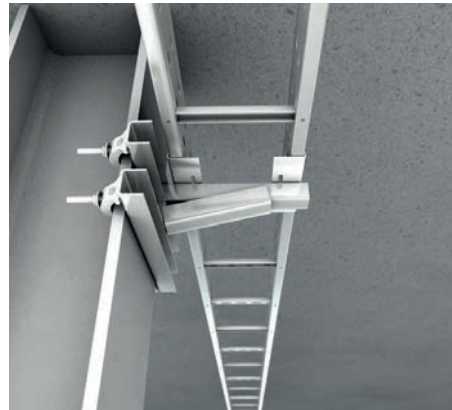
Assembly Instruction



Supporting structures must be torsion free! Wide-span cable ladders must not be attached to ceiling profiles (single- or double-sided). Only installation with (wall) brackets or pendant suspension is acceptable.



1 | Heavy-duty wall bracket
Heavy-duty wall bracket (KIS) are clamped to steel support with side-rail support (WPHS-K) and clamping claws (SKS H).



2 | Heavy-duty wall bracket
Heavy-duty wall bracket (KISS) are clamped to steel support with side-rail support (WPHS-A) and clamping claws (SKS M).



3 | Heavy-duty wall bracket
Heavy-duty wall bracket (KWS) are mounted on concrete wall with bracket rail support (WPHS-K).



4 | Heavy-duty wall bracket
Heavy-duty wall bracket (KWSS) are mounted on concrete wall with bracket rail support (WPHS-A).



5 | Horizontal
Heavy-duty corner installation (EBW) for horizontal 90° bends with side rail support (WPHS-K) has to be mounted on a concrete support.
L = width of wide-span cable ladder + 560 mm

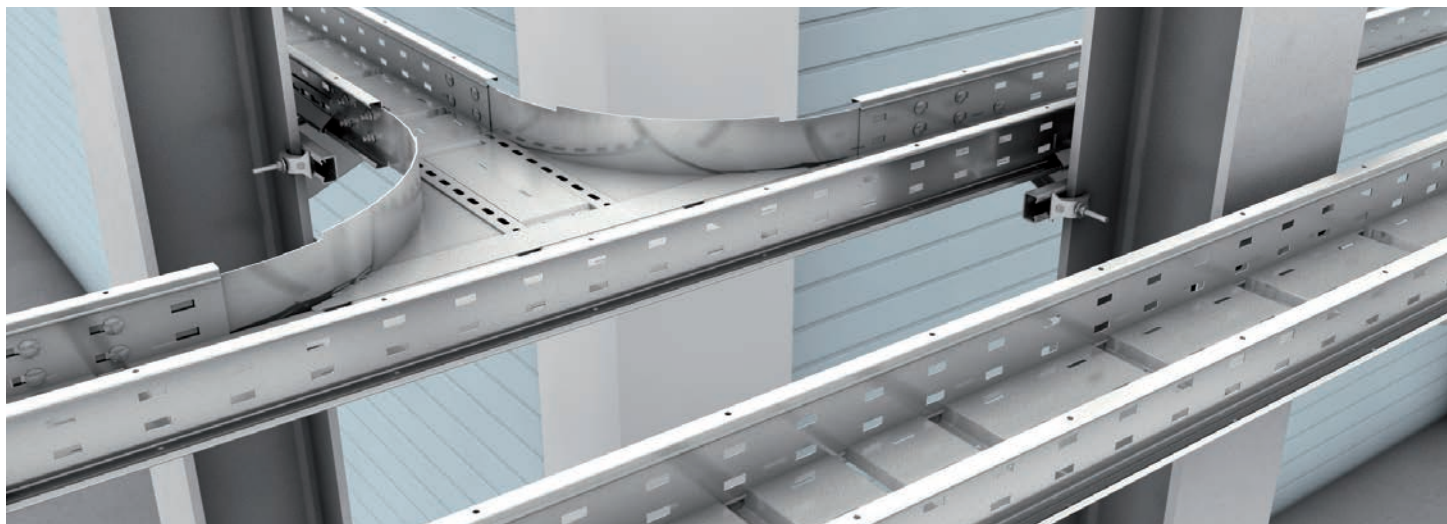


6 | Profiles
Pendant suspension from profiles (e.g. KHU 60) with crossbeam and side-rail support (WPHS-K) are anchored to concrete ceiling.



Wide-span cable trays WPR

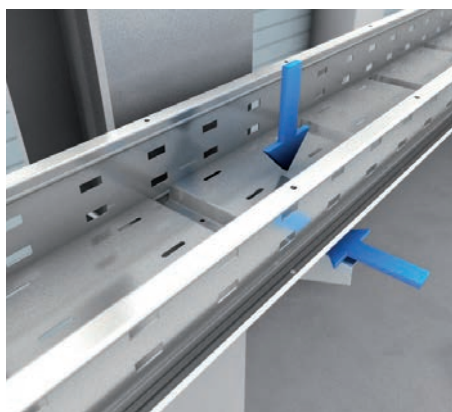
Assembly instruction



Wide-span cable trays are for bridging large fastening gaps. The fastening constructions must be planned by engineer and the use of side rail bearers on the brackets must be strictly kept. The permissible torque must be comply with in all screw connections.



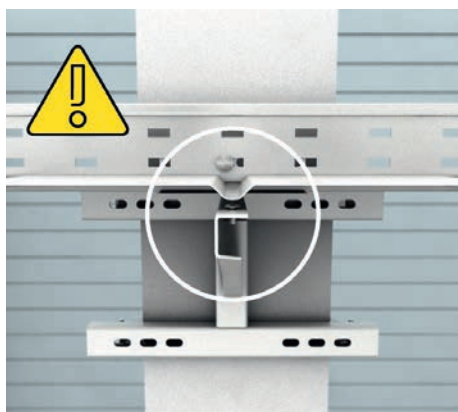
1 | Flange mounting clamp
Screw backside flange mounting clamp (WPHS) on the bracket.



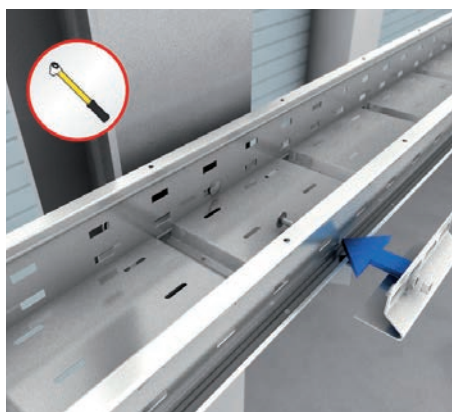
2 | Flange mounting clamp
Place wide-span cable tray in position and push against screwed flange mounting clamp (WPHS). Make sure the wide-span cable tray is in the correct position!



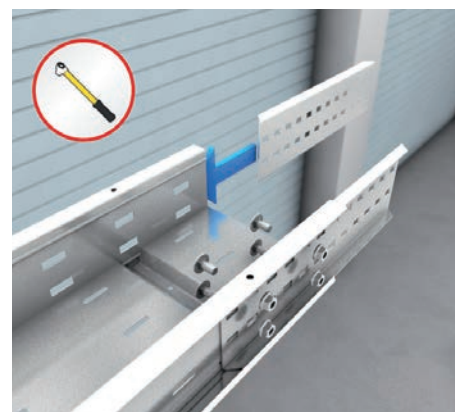
3 | Correctly positioned
Make sure the bracket is positioned correctly between the seams of the wide-span cable tray.



4 | Wide-span cable ladder's
Attention: The mounting clamp (WPHS) has to be bolted to the bracket, even if a rung is positioned directly above the bracket.



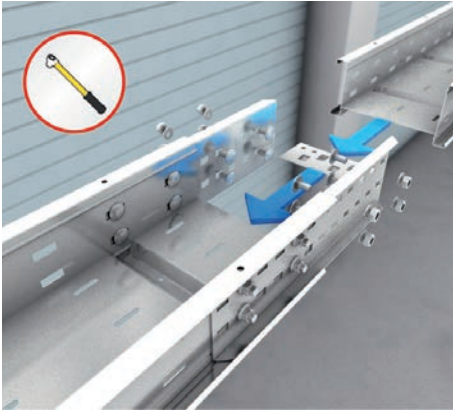
5 | Flange mounting clamp
Push flange mounting clamp (WPHS) onto the bracket and screw together with the wide-span cable tray and the bracket.



6 | Wide-span coupler
Push wide-span coupler (WPV) into the side rail of the wide-span cable tray and screw four times per side rail with clamping screw (KLS 10x20).

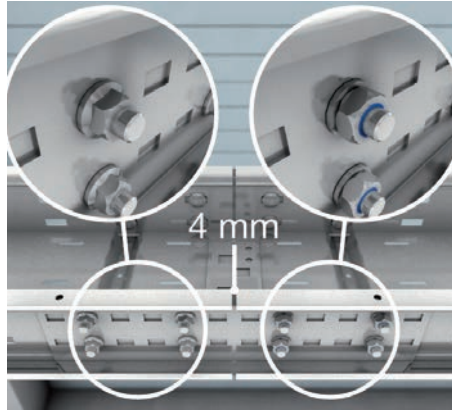
Wide-span cable trays WPR

Assembly instruction



7 | Connection plate

Insert connection plate (VB) on the bottom of the wide-span cable tray, push in connecting tray with a space of 4 mm and screw to coupler (WPV) using self-securing screw nuts (SEMSS 10 or SEMB 10). Permissible torque: 3 Nm.



8 | Fixed and floating bearing

View: left fixed bearing (with integral washer), right loose bearing (with loose washer) and a 4 mm clearance. Connector accessories see page 6.



9 | Horizontal bend

Insert horizontal bend (WPRB) with connection plate (VB) into wide-span cable tray and screw two times per side rail.



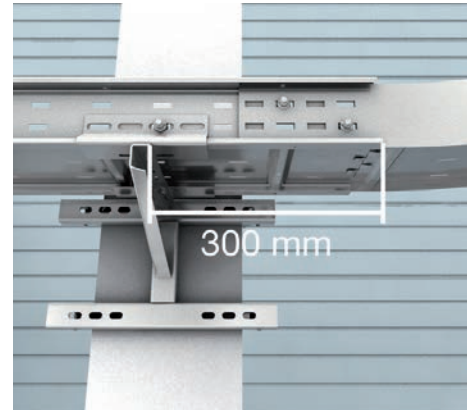
10 | Connecting tray

Insert connecting tray with connection plate (VB) into horizontal bend (WPRB) and screw two times per side rail.



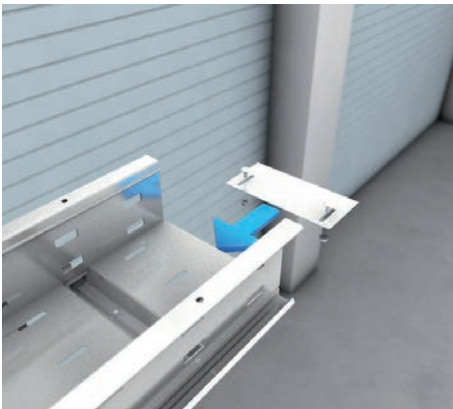
11 | Branch-piece

Insert branch-piece (WPRA) with connection plate (VB) into wide-span cable tray and screw two times per side rail.



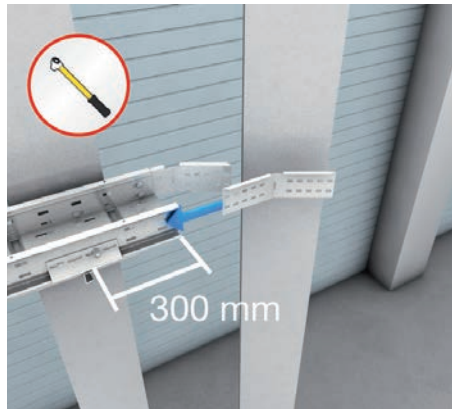
12 | Maximum space

It applies to all formed components or turnarounds: The maximum space of 300 mm with regard to formed component end and bracket must be complied to.



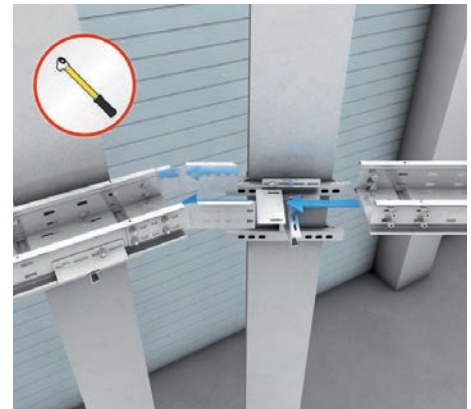
13 | Horizontal directional changes

Horizontal turnaround < 30 degrees – open tray bottom. Insert wide-span tray end plate (WPRES) into wide-span cable tray bottom at the wide-span cable tray ends or at open turnarounds and screw together.



14 | Horizontal directional changes

Bend both side connectors (WPVH) into the angle required for the construction. Insert into the side rails of the wide-span cable tray and screw four times per side rail. The maximum space of 300 mm must be kept with regard to the wide-span tray end and bracket.



15 | Horizontal directional changes

Push connector cable tray into the coupler (WPVH) and screw four times per side rail.



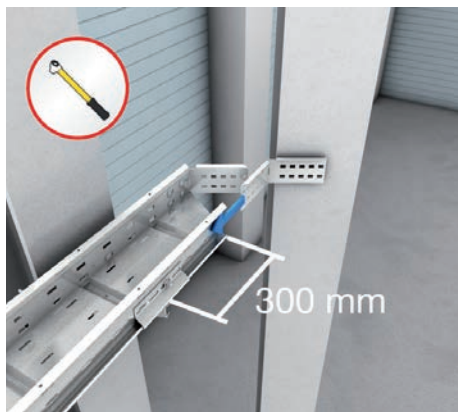
Wide-span cable trays WPR

Assembly instruction



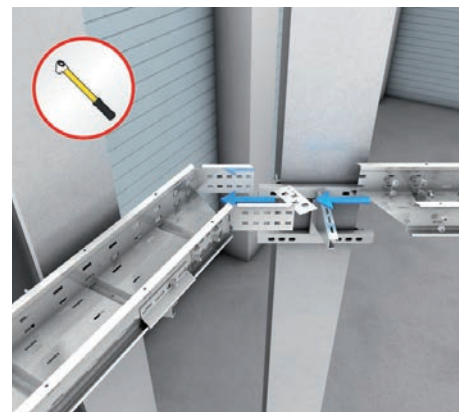
16 | Horizontal directional change

Horizontal turnaround > 30 degrees – closed tray bottom. Mitre wide-span cable tray as required, deflash and



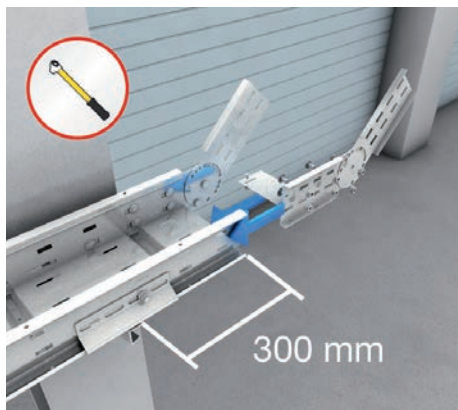
17 | Wide-span coupler

Bend both wide-span coupler (WPVH) into the angle required for the construction. Insert into the side rails of the wide-span cable tray and screw four times per side rail. The maximum space of 300 mm must be kept with respect to the wide-span tray end and the bracket.



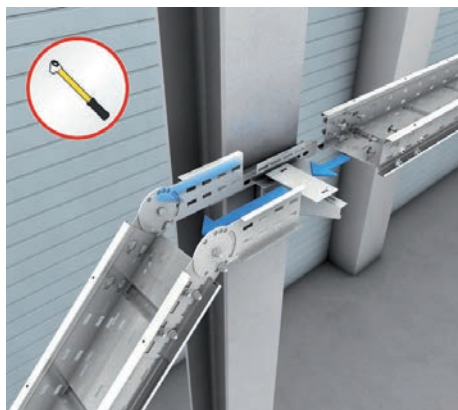
18 | Connection plate

Insert connection plate (VB) into bottom of the wide-span cable tray, push connecting cable tray into coupler (WPVH) and screw four times per side rail.



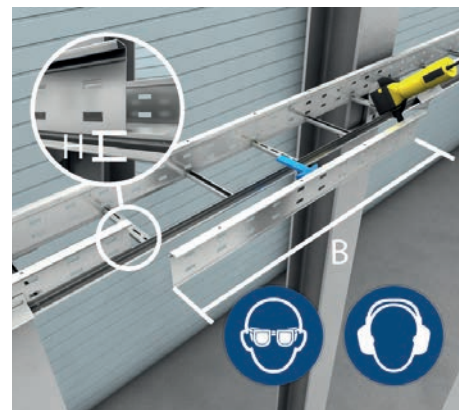
19 | Vertical directional change

To install a vertical turnaround, adjust and screw both couplers (WPVV) to the angle required for the construction, push into the side rails of the wide-span cable tray and screw four times per side rail. The maximum space of 300 mm must be kept with respect to the wide-span cable tray end and the bracket.



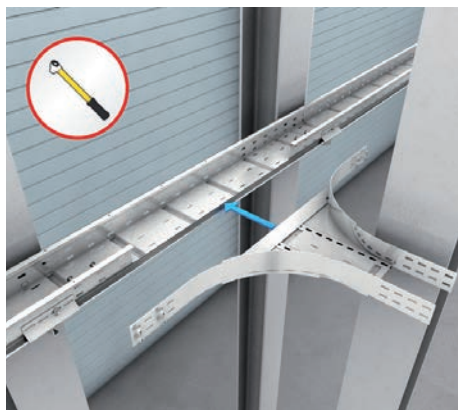
20 | Vertical directional change

Insert connecting tray into coupler (WPVV) and screw four times per side rail. Insert wide-span tray end plate (WPVEB) into wide-span cable tray bottom at the wide-span cable tray ends or at open turnarounds and screw together.



21 | Branch-piece

To install branch-piece (WPRAA) cut out the side rail of the wide-span cable tray in a width B = connecting cable tray width + 900 mm flush with the floor (H = 23 mm).



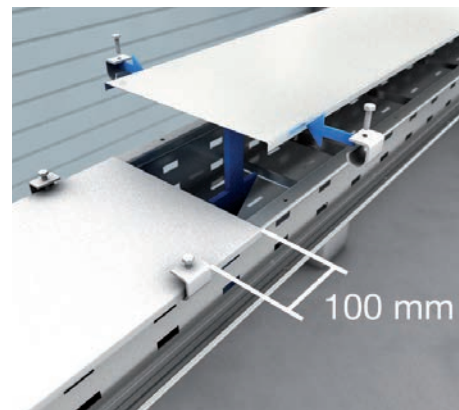
22 | Branch-piece

Attach branch-piece (WPRAA) and screw four times per side rail side.



23 | Branch-piece

Insert connecting tray with connection plate (VB) into extension branch-piece (WPRAA) and screw four times per side rail.

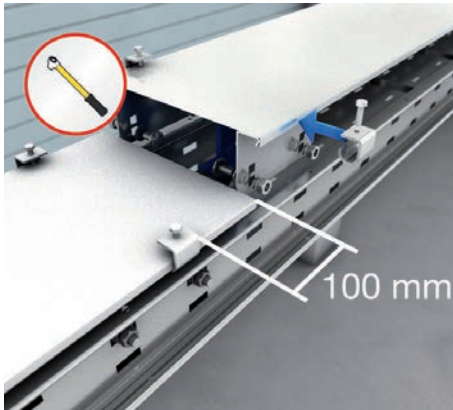


24 | Cover clamps

Secure covers (WPD) with cover clamps (WPD-K) at 100 mm from each end of the cover and in the middle. (6 pieces / 3m)
For wind-exposed areas, the number of cover clamps must be increased to at least 10 pcs.

Wide-span cable trays WPR

Assembly instruction



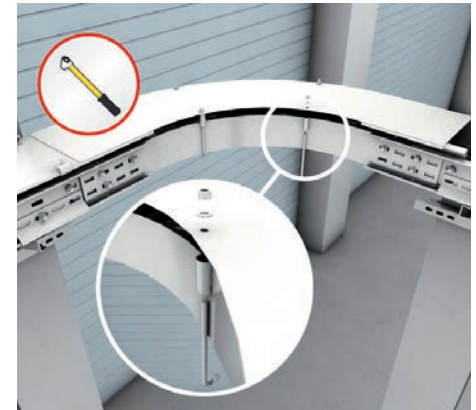
25 | Secure elevated covers

Secure elevated covers (WPD) with cover clamps (WPD-K and WPDA) at 100 mm from each end of the cover and in the middle. (6 pieces / 3m)
For wind-exposed areas, the number of cover clamps must be increased to at least 10 pcs.



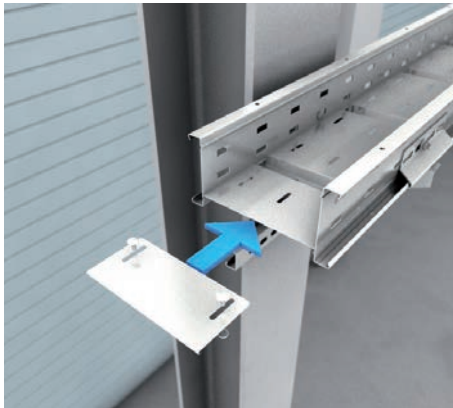
26 | Cover clamps

Screw covers onto the wide-span cable tray form parts (WPBD, WPAD or WPKD) with cover clamps (WPFDK) into all drill holes of the covers.



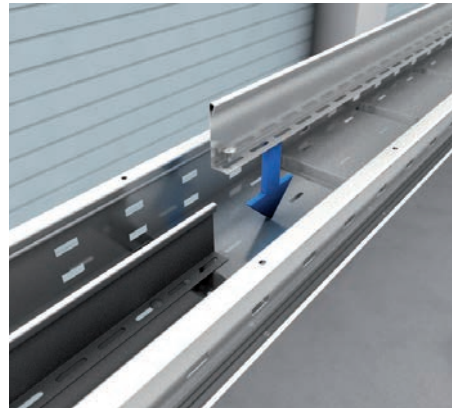
27 | Cover clamps

Screw elevated covers onto the wide-span cable tray form parts (WPBD, SPAD or WPKD) with cover clamps (WPFDKA) into all drill holes of the covers.



28 | Wide-span cable tray end plate

Push wide-span cable tray panel sheet (WPRED) up against tray bottom and screw tight.



29 | Barrier strip

Screw barrier strip (WPTR) three times (front, middle, back).



30 | Cutting and severing work

Cutting and severing work must be done with greatest care complying to all industrial safety regulations.



31 | Galvanize

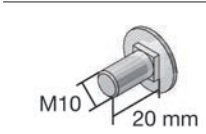
All cutting and partition areas must be galvanised by customers with cold zinc paint (KZF) or cold zinc spray (KZS) after the deburring on site.

Wide-span cable trays WPR

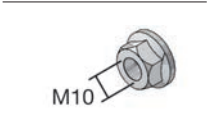
Assembly instruction

Legend Accessories

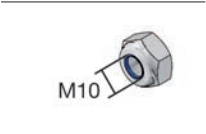
FRS 10x20



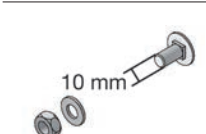
SEMS 10



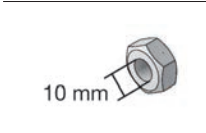
SEMSS 10



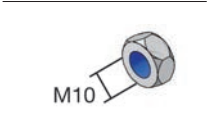
KLS 10x20



SEM 10



SEMB 10



US 10x21



Underline Symbols



Wear protection glasses



Wear ear protection



Correct



Wrong



Observe tightening torque for fasteners



Attention!

S

Sendzimir-hot-dip galvanised according to DIN EN 10346

F

Hot-dip galvanised according to DIN EN ISO 1461

E

High-grade steel material No. 1.4301 (V 2A)

Screw tightening torques

Bolt diameter	Strength category screw (DIN 267 part 3)	Strength category nut (DIN 267 part 4)	Screw tightening torque (Nm) acc. VDI 2230
M10	4.6	5	16
M10	8.8	8	68

connector accessories

fixed bearing (16 Nm)			floating bearing (3 Nm)		
S	FRSV 10x20	SEMS 10	FRSV 10x20	SEMSS 10	US 10x21
F	FRSV 10x20F	SEM 10F	FRSV 10x20F	SEMB 10F	US 10x21
E	FRSV 10x20E	SEM 10E	FRSV 10x20E	SEMSS 10E	US 10x21E

Wide-span cable trays WPR

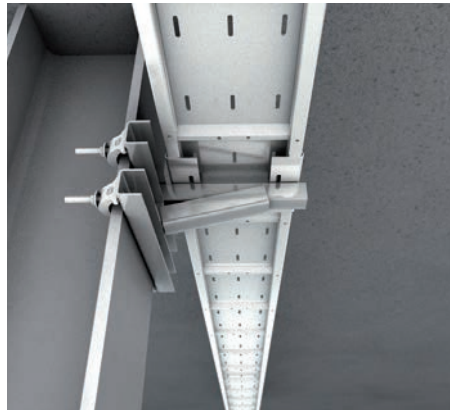
Assembly instruction



Supporting structures must be assemble torsion-free! The assembly to ceiling profiles (one- or double-sided) is prohibited. Solely the assembly to (wall) brackets or pendant suspensions is allowed.



1 | Heavy wall bracket KIS
Heavy wall bracket (KIS) are to be clamped to steel support with side-rail support (WPHS-K) and clamping claws (SKS H).



2 | Heavy wall bracket KISS
Heavy wall bracket (KISS) are to be clamped to steel support with side-rail support (WPHS-A) and clamping claws (SKS M).



3 | Heavy wall bracket KWS
Heavy wall bracket (KWS) are to be plugged to concrete wall with bracket rail support (WPHS-A).



4 | Heavy wall bracket KWSS
Heavy wall bracket (KWSS) are to be plugged to concrete wall with bracket rail support (WPHS-A).



5 | Heavy corner installation EBW
Heavy corner installation (EBW) for horizontal 90-degree turnarounds with side rail support (WPHS-K) are to be plugged to concrete support.
L = width of wide-span cable tray + 560 mm

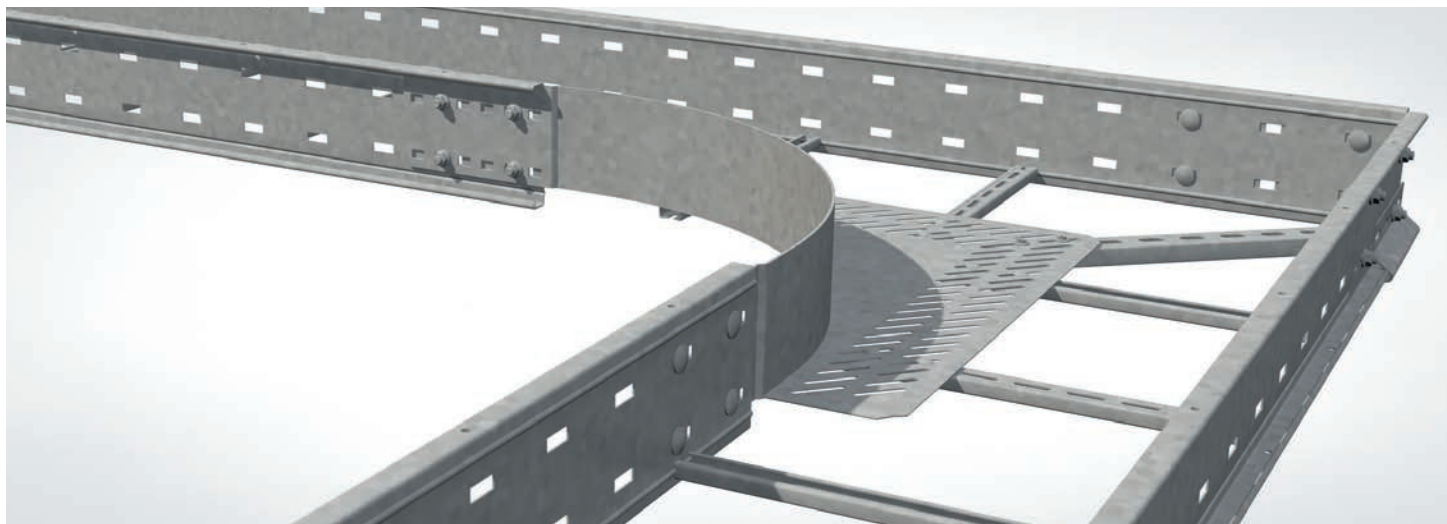


6 | Pendant suspension
Pendant suspension from profiles (e.g. KHU 60) with equaliser bar and side-rail support (WPHS-K) are to be plugged to concrete ceiling.

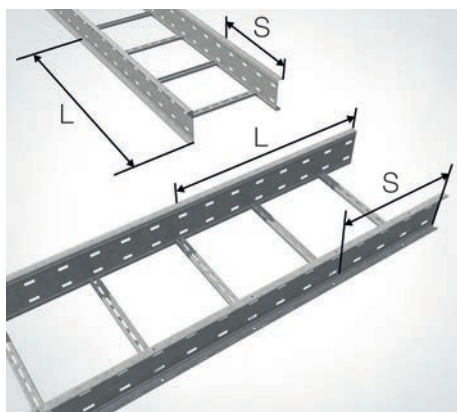


Corner attachment for wide-span systems

Assembly instruction

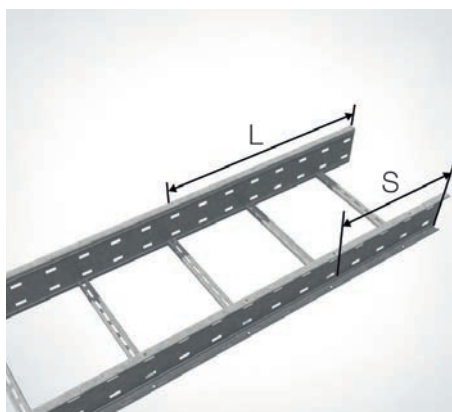


Wide-span cable ladders: The corner attachment element (WPLEAB) is used for a horizontal 90 degrees change of the rotation direction.



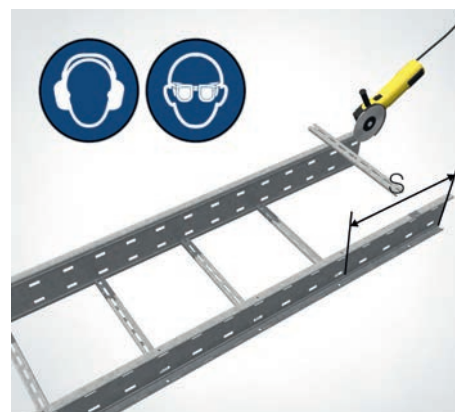
1 | Mark the separating cuts

Select the inner side beams of the direction change for marking the separating cuts. The inner side beams are removed in area L.



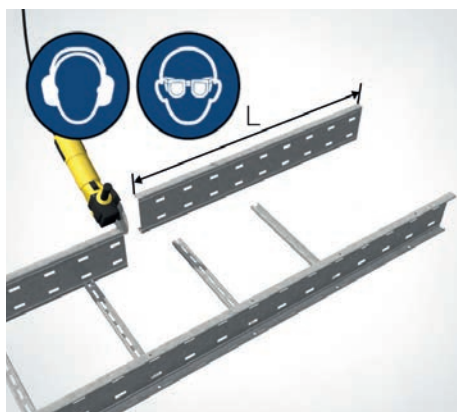
2 | Separating cut ranges

Add 150 mm to the ladder width to get the area of the removable rungs (S). Add 520 mm to the ladder width to get the area of the removable side beams (L).



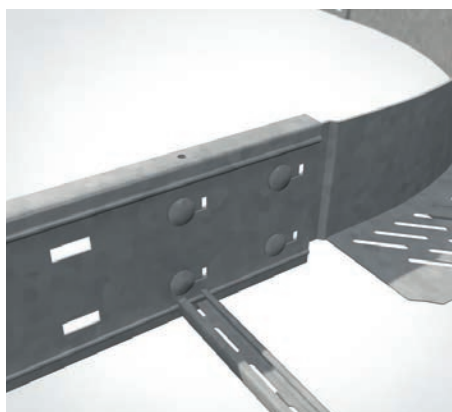
3 | Separat the rungs

Remove completely all frames from both tracks in area S.



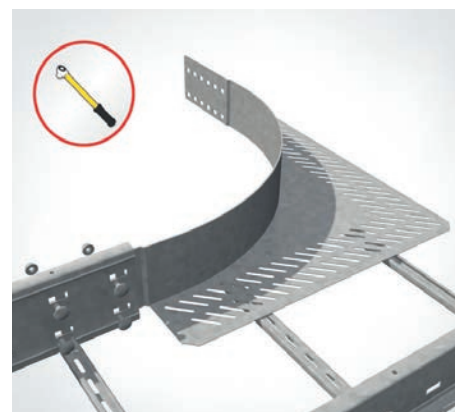
4 | Separat the side beams

Remove completely the side beams from the rungs of both wide-span cable ladders.



5 | Position of the screw heads

Align the screw heads on the inside of the wide-span cable ladders to protect the cables.

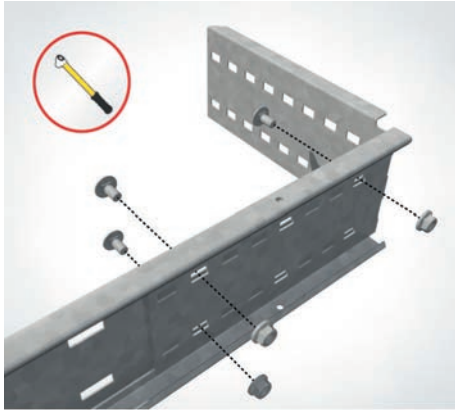


6 | Assemble the corner

Screw the connector of the corner connector with the outside of the side beams by using four screws (KLS 10x20).

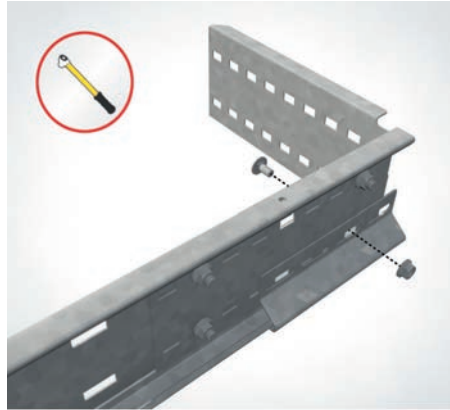
Corner attachment for wide-span systems

Assembly instruction



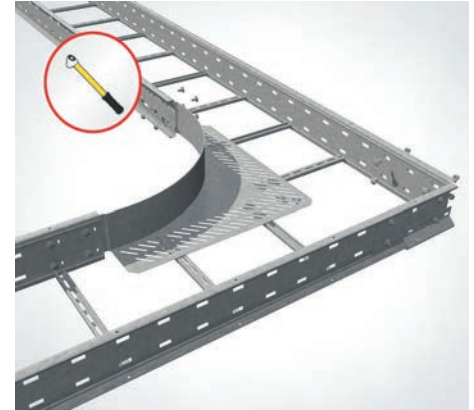
7 | Bend the corner connector

Bend the corner connector centrally up to 90 degrees and screw it with the outside of the side beam using three screws (KLS 10x20).



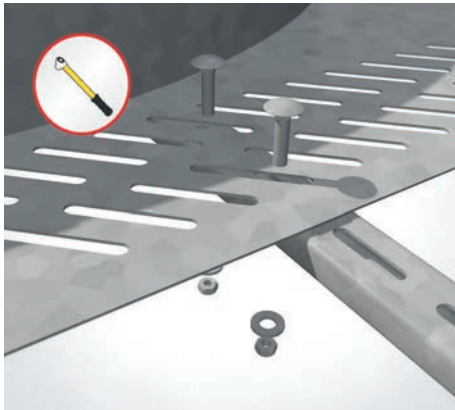
8 | Complete the corner connector

Position the side beam support close to the corner and screw it with the side beam by using the connector (WPVH) and one screw (KLS 10x20).



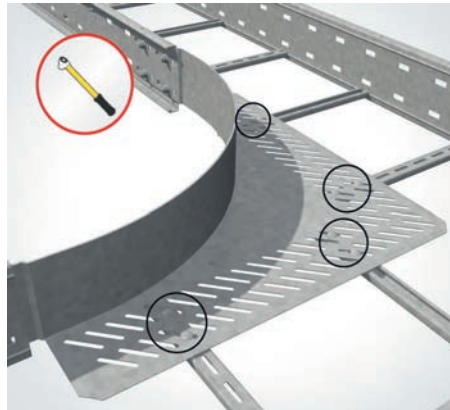
9 | Assemble the attachment tray

Screw the attachment ladder with the corner attachment through the corner connector by using four screws (KLS 10x20) per crossover.



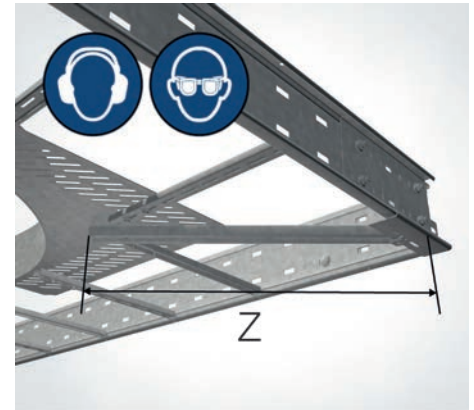
10 | Screw the rungs

Lead the screws from top to down and screw them from the bottom with washer (US 8x17) and nut (SEM 6).



11 | Screw the rungs

Screw all four rungs with the corner attachment by using two screws (FRS 6x25) per rung.



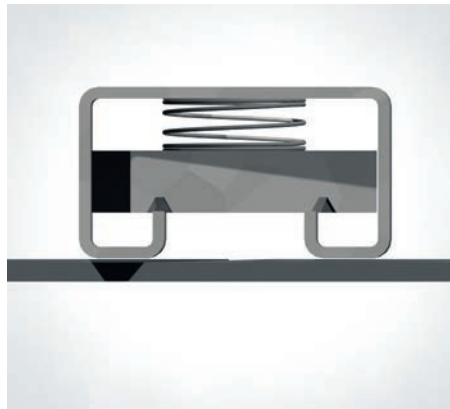
12 | Create an additional rung

Cut the profile (KHA) to the required dimensions: ladder width added with 200 mm.



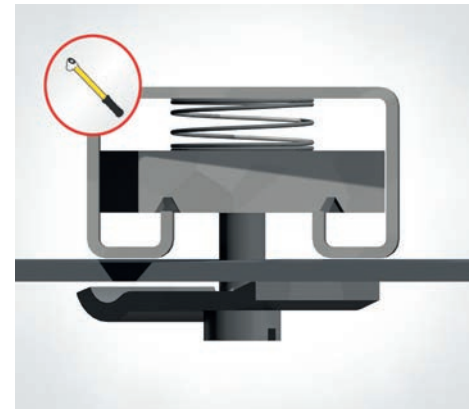
13 | Additional rung

After aligning the additional rung, find the right fixing point for the first screwing.



14 | Complete an additional rung

Position the channel nut (AMF 18 M6) in the end of a rung and lay it on the beam support (WHPS) with the open profile side.

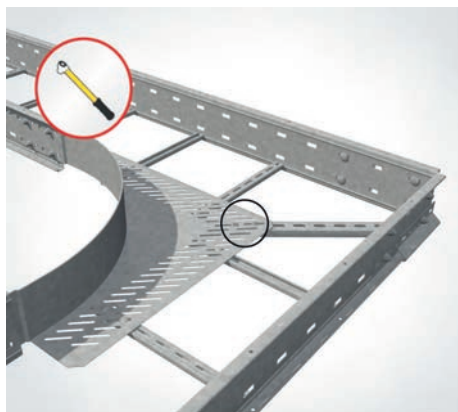


15 | Assemble the additional rung

Screw the screw (FKS 6x20) and its clamping piece (KLU) with the beam support (WHPS) and the channel nut (AMF18 M6).

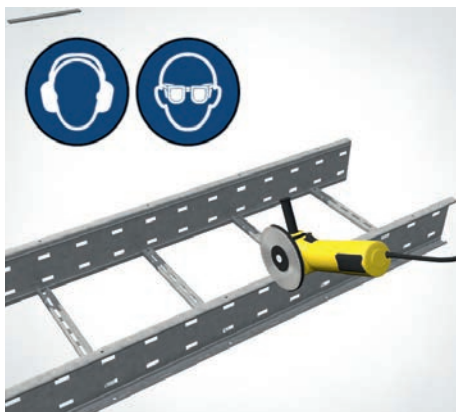
Corner attachment for wide-span systems

Assembly instruction



16 | Additional rung to corner attachment

Screw the additional rung with the corner attachment by using screws (FKS 6x20) and channel nuts (AMA 18 M6).



17 | Separate and cut

If cutting or separating is needed, pay attention to the health and safety protection at the workplace.

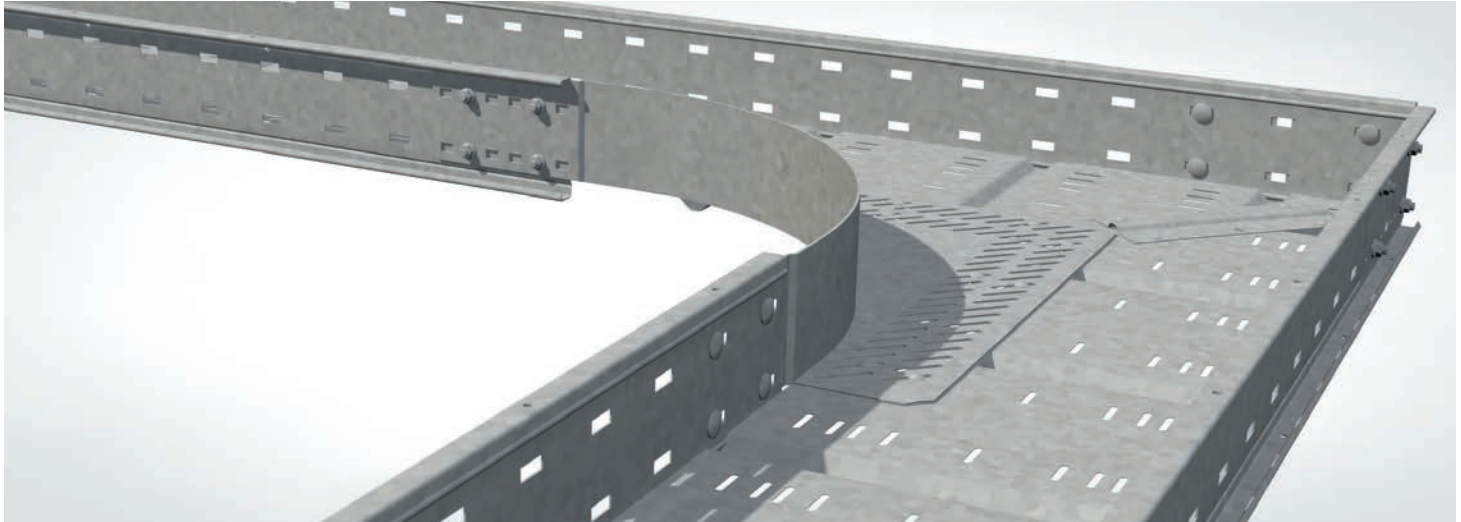


18 | Cold-galvanise

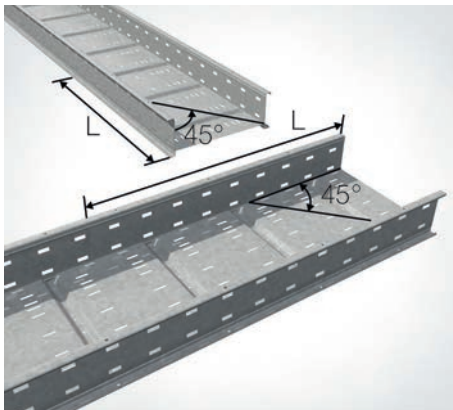
After deburring, coat all cutting and separating areas with cold zinc paint (KZF) or cold zinc spray (KZS).

Corner attachment for wide-span systems

Assembly instruction

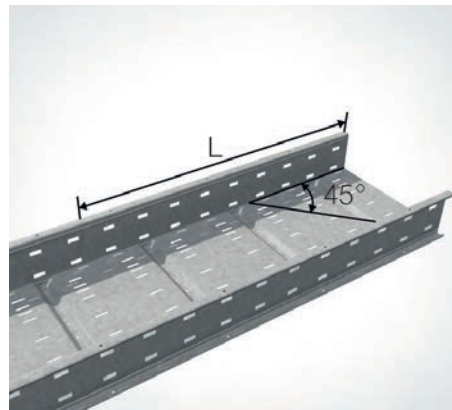


For wide-span cable trays: The corner attachment element (WPLEAB) is used for a horizontal 90 degrees change of the rotation direction.



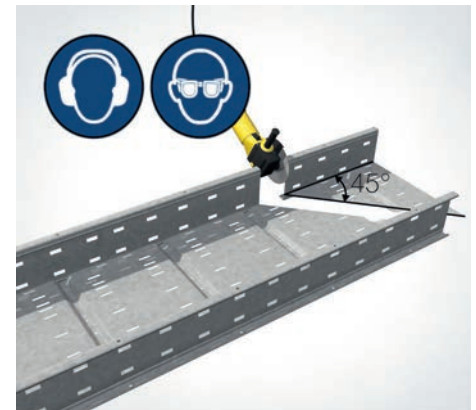
1 | Mark the separating cuts

Select the inner side beams of the direction change for marking the separating cuts. The inner side beams are removed in area L.



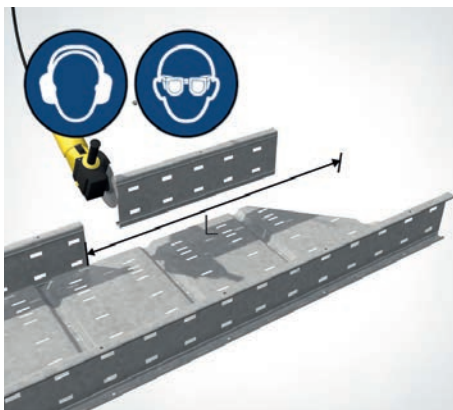
2 | Separating cut ranges

Add 520 mm to the ladder width to get the area of the removable side beams (L). Use mitre cuts of the track ends.



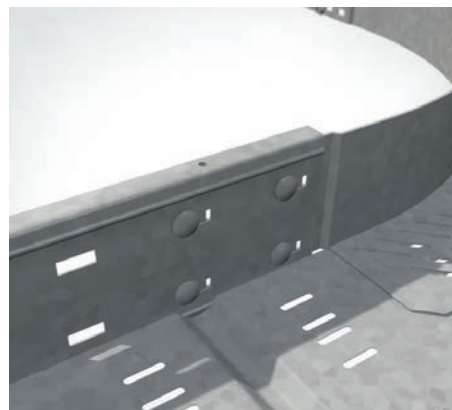
3 | Mitre cut in floor plate

Use mitre cuts in 45 degrees at the end of the wide-span cable trays and the floor plate.



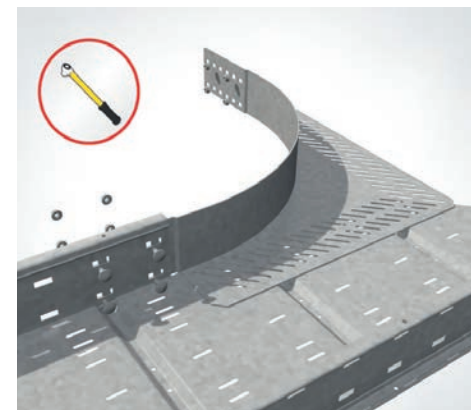
4 | Separat beams and floor plates

Separat the side beams from the remaining floor plate shown in area L and remove them completely.



5 | Position of the screw heads

Align the screw heads on the inside of the wide-span cable ladders to protect the cables.

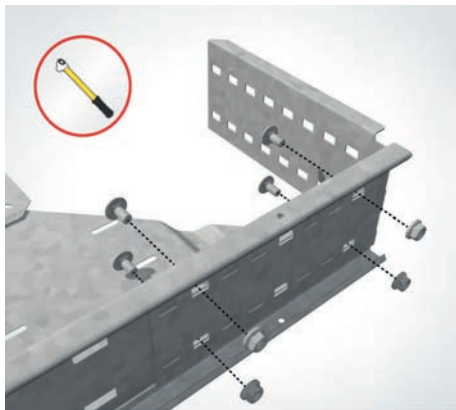


6 | Assemble the corner attachment

Screw the connector of the corner attachment with the outside of the side beams by using four screws (KLS 10x20).

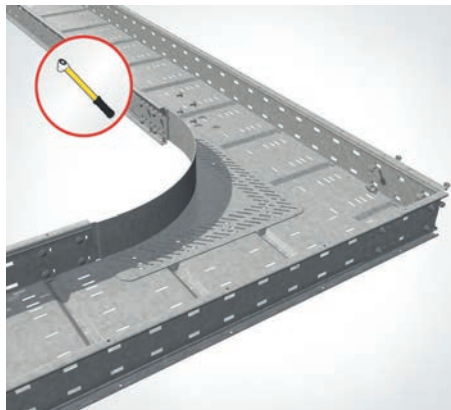
Corner attachment for wide-span systems

Assembly instruction



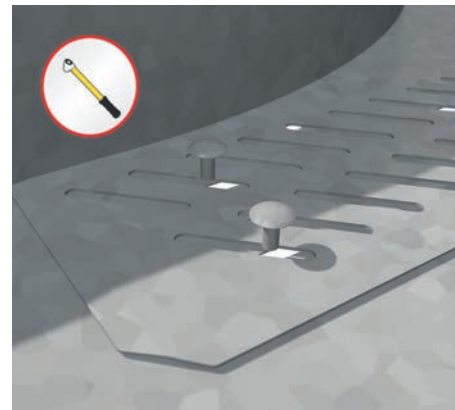
7 | Bend the corner connector

Bend the corner connector centrally up to 90 degrees and screw it with the outside of the side beam using three screws (KLS 10x20).



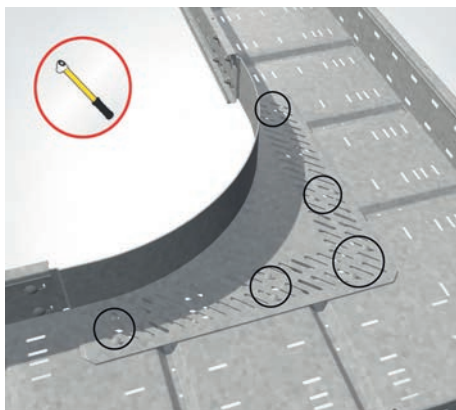
8 | Complete the corner connector

Position the side beam support (WHPS) close to the corner and screw it with the side beam by using the connector (WPVH) and a screw (KLS 10x20).



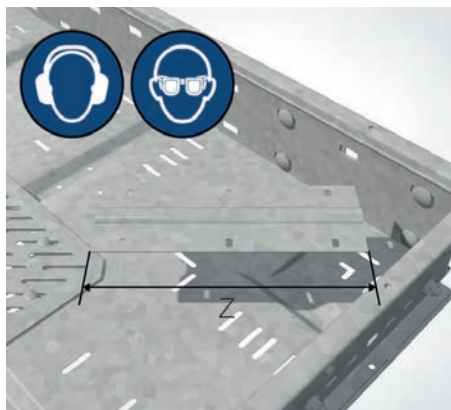
9 | Assemble the corner attachment

Lead the screws from top to down and screw them from the bottom with a nut (SEMS M6).



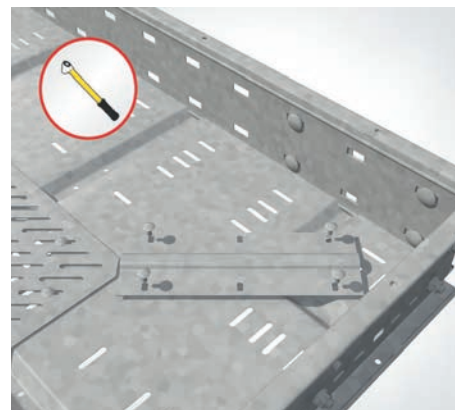
10 | Screw the corner attachment

Screw the corner attachment with five screws (FRSV 6x16) per hole series (in total ten screws).



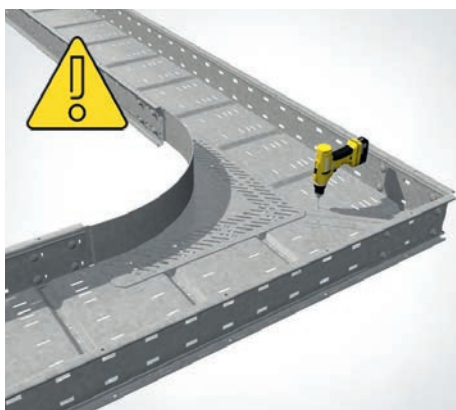
11 | Separate the connection plate

Cut the connection panel (VB-BS) to the required length Z (tray width less 100 mm).



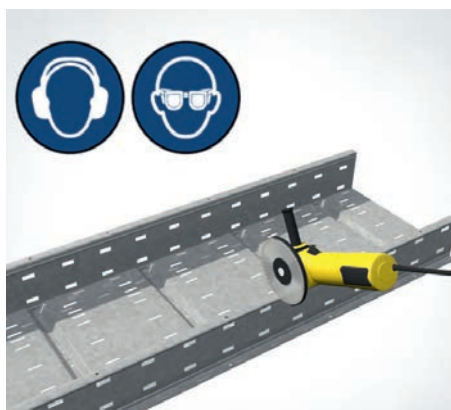
12 | Assemble the connection plate

In the mitre cut area, screw the connection plate (VB-BS) with the cable tray bottom using four screws (FRSV 6x16) and nuts (SEMS M6).



13 | Assemble the connection plate

If needed, drill missing holes with $\varnothing = 7$ mm in the cable tray according to the connection plate.



14 | Separate and cut

If cutting or separating is needed, pay attention to the health and safety protection at the workplace.



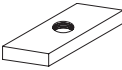
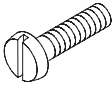
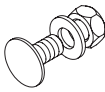
15 | Cold-galvanise

After deburring, coat all cutting and separating areas with cold zinc paint (KZF) or cold zinc spray (KZS).

Corner attachment for wide-span systems

Assembly instruction

Legend Accessories

AMA 18	FKS 6x20	FRS 6x25	FRSV 6x16	FRSV 10x20	KLS 10x20
					
SEM 6	SEM 10	SEMS 6	SEMS 10	US 8x17	US 10x21
					

Legend Symbols



Wear protective goggles



Wear hearing protection



Note screw tightening torque for fastening elements



Attention

Screw tightening torque

Bolt diameter	Strength class screw (DIN 267-3)	Strength class nut (DIN 267-4)	Screw tightening torque [Nm] as per VDI 2230
M6	4.6	5	4
M6	8.8	8	14
M10	4.6	5	16
M10	8.8	8	68

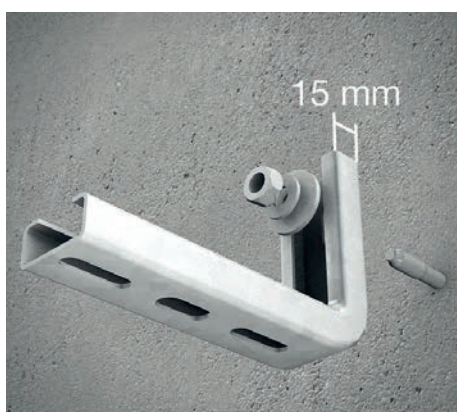


Support systems | Light-duty

Assembling instruction



Installation instruction for support systems of wire-mesh cable trays and cable trays attached directly to concrete.



1 | Wall mounting with bracket KWLL

To install the bracket KWLL use a dowel such as e.g. SD 8/30*. Please make sure to use the small washer of the dowel between the anchor nut and the large washer US 8x25*.



2 | Wall mounting with bracket KSLW

To install the bracket KSLW use a dowel such as e.g. SD 8/30*. The spacer KSL-SP must be positioned before the dowel.



3 | Wall mounting with bracket KWF

To install the bracket KWF use a dowel such as e.g. SD 10/10*.



4 | Wall mounting with bracket KWW

To install the bracket KWW use a dowel such as e.g. SD 8/10*. Please use the outer slots of the profile to fixate the bracket.



5 | Central suspension for wire-mesh cable tray of up to 100 mm width

Connect the central hanger GBAG 10 to the dowel using a hexagonal connector VM M8*. Mount the connectors GV 30 with the wire-mesh cable tray inbetween.



6 | Central suspension for wire mesh cable tray of up to 300 mm width

Connect the central hanger GBAG 20/30 to the dowel using a hexagonal connector VM M8*. Mount the connector GV 30 as well as the profile rails with the wire-mesh cable tray inbetween both.

* The article is not included in the scope of delivery and must be ordered separately.

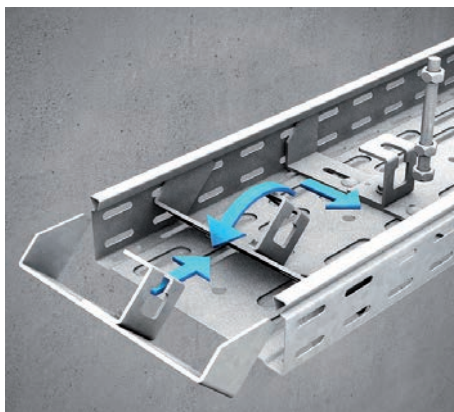
Support systems | Light-duty

Assembling instruction



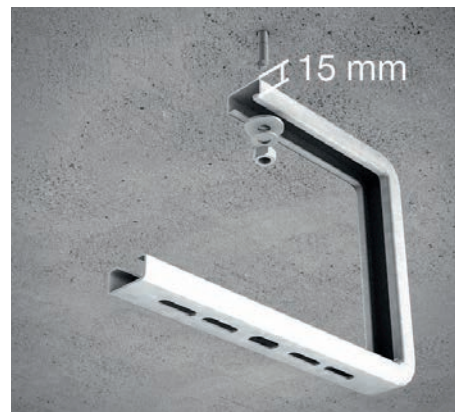
7 | Central suspension for cable trays of up to 300 mm width

Connect the central hanger GBAR to the dowel using a hexagonal connector VM M10*. Dismount the profile rails and remount together with the cable trays.



8 | Central suspension for cable trays of up to 300 mm width

Insert the central hanger MA into the cable tray in a tilted position and clip together by turning the MA. Insert the pre-mounted threaded rod GB M10* sideways into the central hanger MA and secure using a hexagonal nut SEM 10*.



9 | Ceiling mounting with ceiling-fixed bracket DB

To install the bracket DB use dowels such as e.g. SD 8/30*. Please make sure to use the small washer of the dowel between the anchor nut and the large washer US 8x25*.



10 | Ceiling mounting with bracket support KDU 40

To install the KDU 40 use two dowels such as e.g. SD 8/10*. Secure the bracket KWF using KHUSS 40 support piece set. The protection cap SU 40* is fitted to the bracket bottom, if needed.



11 | Ceiling mounting with head plate BGU 40 and U-profile KHU 40

To install the BGU 40 use two dowels such as e.g. SD 8/10*. Mount the U-profile KHU 40 to the head plate BGU 40 using head screw set KLS 10x20*. Secure the bracket KWF using KHUSS 40 support piece set. The protection cap SU 40* is fitted to the bracket bottom, if needed.



12 | Ceiling mounting with bracket support KDU 40 at reduced load – without supporting piece KHUSS 40

To install the KDU 40 use two dowels such as e.g. SD 8/10*. The bracket KWF is mounted with full thread hexagonal head screw 10x20* and two washers US 10x21* onto bracket support. The protection cap SU 40* is fitted to the bracket bottom, if needed.



13 | Ceiling mounting with bracket support KSLW

To install the KSLW use dowels such as e.g. SD 8/30*. The spacer KSL-SP must be positioned before the bracket support. Mount the bracket KSL using head screw FRS 8x20 and hexagonal nut SEMS 8.



14 | Ceiling mounting with ceiling-fixed bracket KDAG 41

To install the KDAG 41 use two dowels such as e.g. SD 8/10*. Install the bracket KA 30 using full thread hexagonal head screw set SES 10x20*, channel spring nut AMF22 M10*. The protection cap SA* is fitted to the bracket bottom, if needed.



15 | Ceiling mounting with head plate BGA 41 and C-profile KHA 41

To install the BGA 41 together with the KHA 41 use two dowels such as e.g. SD 8/10*. Attach the C-profile to the KHA 41 by using head screw set KLS 10x20*. Fasten the bracket KA using full thread hexagonal head screw set SES 10x20* and channel nut spring AMF22 M10*. The protection cap SA* is fitted to the bracket bottom, if needed.

* The article is not included in the scope of delivery and must be ordered separately.



Support systems | Light-duty

Assembling instruction



16 | Ceiling mounting with trapezoid-sheet hanger TBS

Fold out the trapezoid-sheet, then attach the hanger using full thread hexagonal head screw set SES 8x110 and hexagonal nuts SEM 8. Then it is possible to connect various types of accessories such as threaded rods or hexagonal nuts for mounting trays and other light-duty systems.



17 | Ceiling suspension with pendulum suspension

Connect threaded rods GB M8 to dowel using hexagonal connector VM M8, then mount C-profile KHA 8 onto the rods from the bottom.

Support systems | Light-duty

Assembling instruction

Legend Accessories

GB-M8



FRS 8x20



SEMS 8



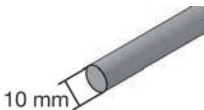
US 8x25



SD 8/10



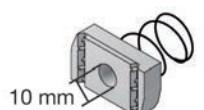
GB-M10



KLS 10x20



AMF22 M10



US 8x17



SD 8/30



SES 8x110



SEM 8



VM M8



SD 10/10



SES 10x20



SEM 10



VM M10



US 10x21



Legend of Symbols



Correct



Wrong



Observe tightening torque for fasteners

Screw tightening torques (recommended)

Bolt diameter	relative strength marking for screws (acc. to DIN 267 part 3)	relative strength marking for nuts (acc. to DIN 267 part 4)	property class (Nm) acc. to VDI 2230
M8	4.6	5	8
M10	4.6	5	16
M12	4.6	5	32
M8	8.8	8	34
M10	8.8	8	68
M12	8.8	8	117



Support systems | Medium-duty

Assembling instruction



Installation instruction for support systems of wire-mesh cable trays, cable trays and cable ladders attached directly to concrete.



1 | Wall mounting with bracket KW

To install the bracket KW use dowels such as e.g. SD 10/10*.



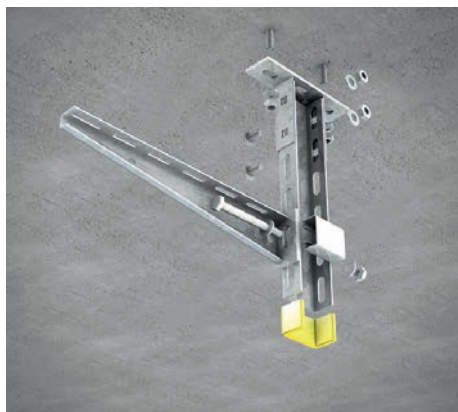
2 | Ceiling mounting with ceiling-fixed bracket DKSL

To install DKSL use dowels such as e.g. SD 8/30*. The spacer KSL-SP must be positioned between the dowel and the bracket.



3 | Ceiling mounting with bracket support KDU 57

To install KDU 57 use two dowels such as e.g. SD 10/10*. Secure the bracket KW using KHUSS 57 support piece set. The protection cap SU 57* is fitted to the bracket bottom, if needed.



4 | Ceiling mounting with head plate BGU 57 and U-profile KHU 57

To install the BGU 57 use two dowels such as e.g. SD 10/10*. Mount the U-profile KHU 57 to the head plate BGU 57 using head screw set KLS 10x20*. Secure the bracket KW using KHUSS 57 support piece set. The protection cap SU 57* is fitted to the bracket bottom, if needed.



5 | Ceiling mounting with ceiling-fixed bracket KDAG 41

To install KDAG 41 use two dowels such as e.g. SD 10/10*. Then attach the bracket KA 41 using full thread hexagonal head screw set SES 10x20* and channel spring nut AMF22 M10*. The protection cap SU 57* is fitted to the bracket bottom, if needed.



6 | Ceiling mounting with heavy bracket support KDU 60

To install KDU 60 use two dowels such as e.g. SD 10/10*. Then attach the bracket KW using head screw set KLS 10x20*. If the bracket is longer than 500 mm, screw the support piece KHUSS together with the bracket. The protection cap SU 60* is fitted to the bracket bottom, if needed.

* The article is not included in the scope of delivery and must be ordered separately.

Support systems | Medium-duty

Assembling instruction



7 | Ceiling mounting with head plate BGU 60 and U-profile KHU 60

To install BGU 60 use two dowels such as e.g. SD 10/10*. Secure the U-profile with full thread hexagonal head screw set SES 10x20, hexagonal nut SEM 10 and washer US 10x21. Mounting the bracket KW is done as with KDU 60. The protective cap SU 60* is fitted to the bracket bottom, if needed.



8 | Ceiling mounting with heavy bracket support KDI

To install KDI use two dowels such as e.g. SD 10/10*. Fasten the bracket KT using the enclosed spacer. The protection cap SI* is fitted to the bracket bottom, if needed.



9 | Ceiling mounting with heavy bracket support KDI

To install KDI use two dowels such as e.g. SD 10/10*. Fasten the bracket KTS using the enclosed spacer. The protection cap SI* is fitted to the bracket bottom, if needed.



10 | Ceiling mounting with head plate BGI with I-profile KHI

To install BGI use two dowels such as e.g. SD 10/10*. Attach the I-profile using head screw FRS 10x30 and hexagonal nut SEM 10. Mounting KHI is done as with KDI. The protection cap SI* is fitted to the bracket bottom, if needed.



11 | Ceiling suspension with pendulum suspension

Connect threaded rods GB M10 to dowel using hexagonal connector VM M10, then mount C-profile KHA 41 onto the rods from the bottom.



12 | Ceiling suspension with pendulum suspension

Connect threaded rods GB M10 to dowel using hexagonal connector VM M10, then mount U-profile KHU 57 onto the rods from the bottom.

* The article is not included in the scope of delivery and must be ordered separately.

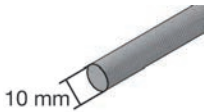


Support systems | Medium-duty

Assembling instruction

Legend Accessories

GB-M10



FRS 10x30



SEM 10



VM M10



SD 8/30



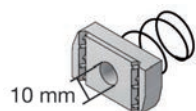
SES 10x20



KLS 10x20



AMF22 M10



US 10x21



SD 10/10



Legend of Symbols



Correct



Wrong



Observe tightening torque for fasteners

Screw tightening torques (recommended)

Bolt diameter	relative strength marking for screws (acc. to DIN 267 part 3)	relative strength marking for nut (acc. to DIN 267 part 4)	property class (Nm) acc. to VDI 2230
M8	4.6	5	8
M10	4.6	5	16
M12	4.6	5	32
M8	8.8	8	34
M10	8.8	8	68
M12	8.8	8	117

Support systems | Heavy-duty

Assembling instruction



Installation instruction for support systems of wire-mesh cable trays, cable trays, cable ladders and wide-span cable ladders attached directly to concrete.



1 | Wall mounting with heavy bracket KWS

To install KWS use dowels such as e.g. SD 12/10*. Please make sure to use the top drill hole to fixate the bracket.



2 | Wall mounting with heavy bracket KWSS

To install KWSS use dowels such as e.g. SD 12/10*. Please make sure to use the top and bottom drill holes to fixate the bracket.



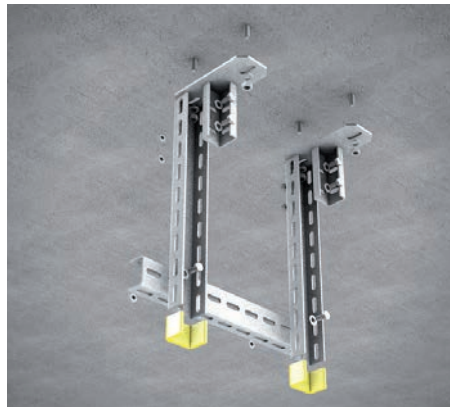
3 | Mounting to steel beam using heavy bracket KIS

To install KIS use four beam clamps SKS H*.



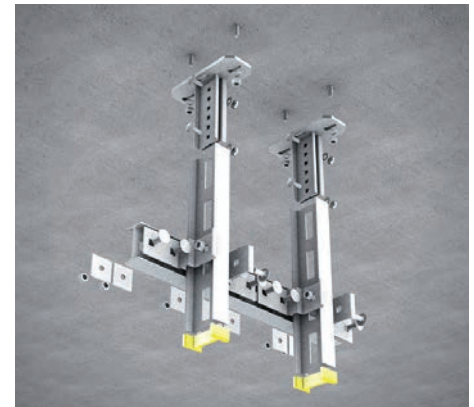
4 | Mounting to steel beam using heavy bracket KISS

To install KISS use four beam clamps SKS M*.



5 | Ceiling suspension with pendulum suspension

Fasten head plates BGI 60 with two dowels each, e.g. SD 12/10*. Secure the U-profile using the full thread hexagonal head screw set SES 10x20, hexagonal nut SEM 10 and washer US 10x21, both horizontally and vertically.



6 | Ceiling suspension with pendulum suspension

Fasten head plates BGI with two dowels each, e.g. SD 12/10*. Secure the I-profiles horizontally to the head plates using head screw FRS 10x30 and hexagonal nut SEM 10. Screw the profile that is vertically to the support connector HKIQ.

* The article is not included in the scope of delivery and must be ordered separately.

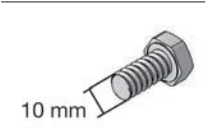


Support systems | Heavy-duty

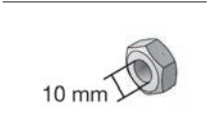
Assembling instruction

Legend Accessories

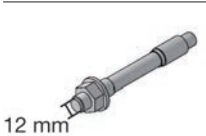
SES 10x20



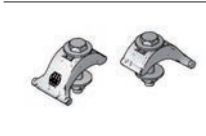
SEM 10



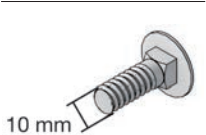
SD 12/10



SKS M



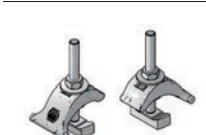
FRS 10x30



US 10x21



SKS H



Legend of Symbols



Correct



Wrong



Observe tightening torque for fasteners

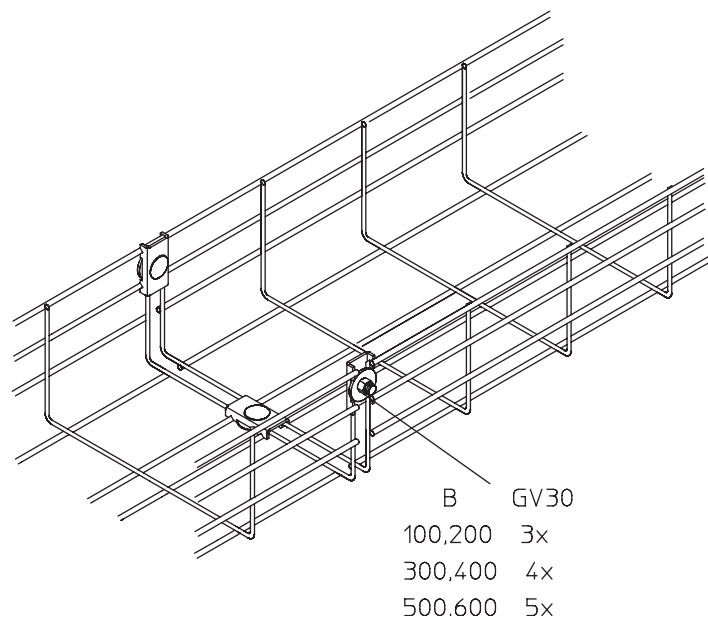
Screw tightening torques (recommended)

Bolt diameter	relative strength marking for screws (acc. to DIN 267 part 3)	relative strength marking for nuts (acc. to DIN 267 part 4)	property class (Nm) acc. to VDI 2230
M8	4.6	5	8
M10	4.6	5	16
M12	4.6	5	32
M8	8.8	8	34
M10	8.8	8	68
M12	8.8	8	117

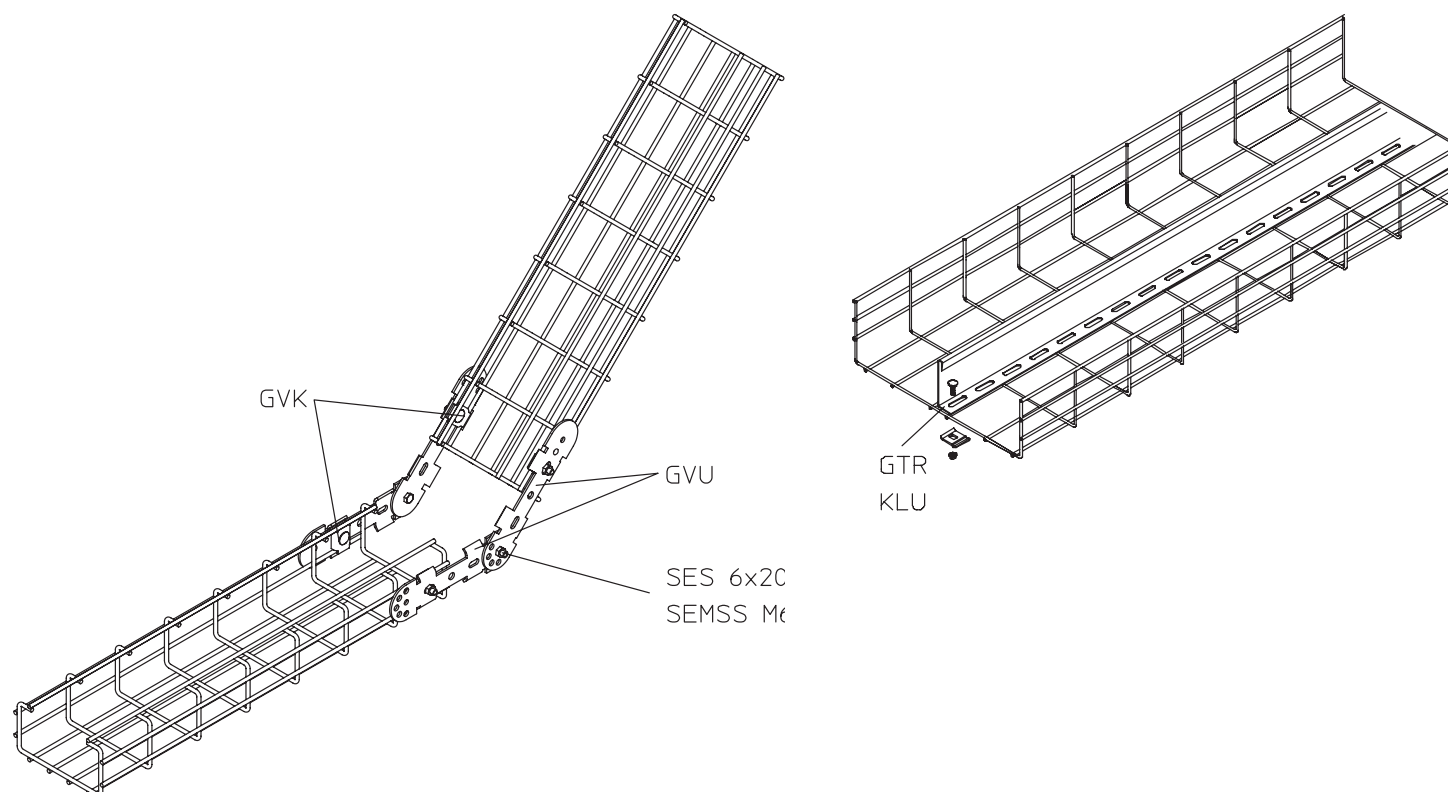
Wire-mesh cable trays

Application examples

End-to-end assembly



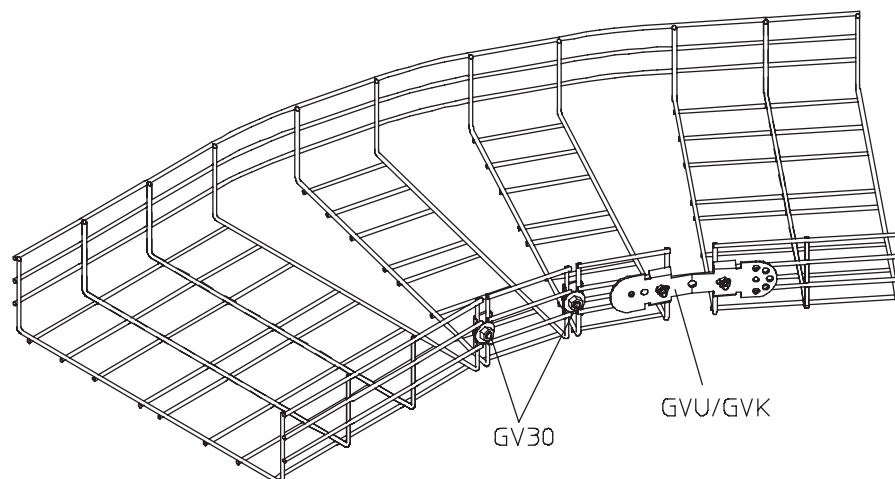
Upstream and assembly of separating strip



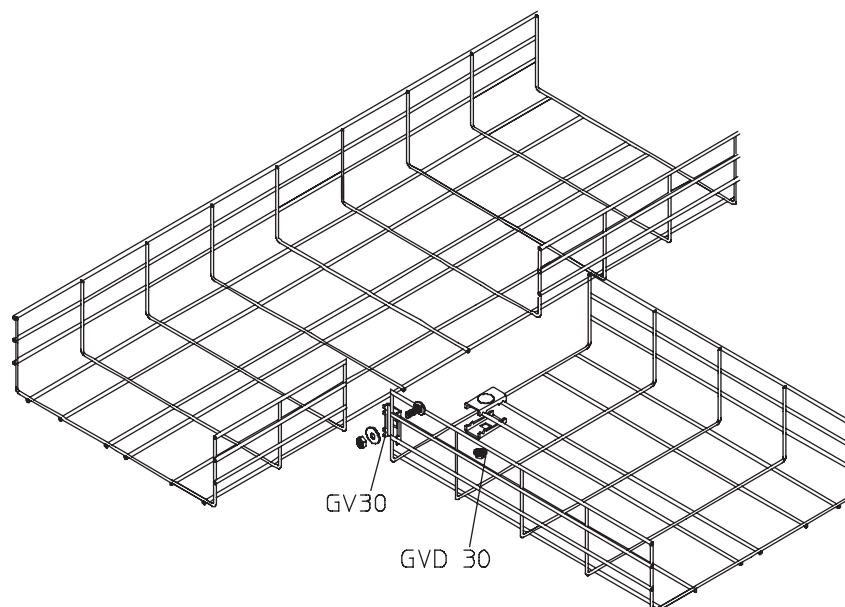
Wire-mesh cable trays

Application examples

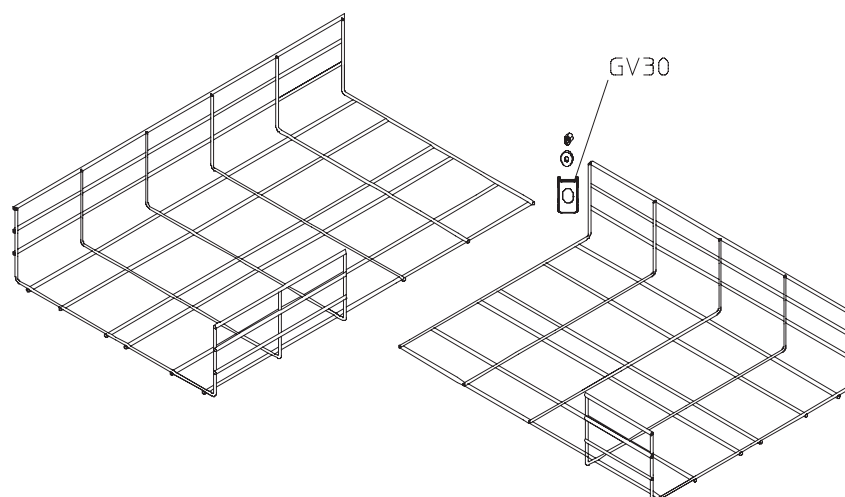
Horizontal elbow



T-piece



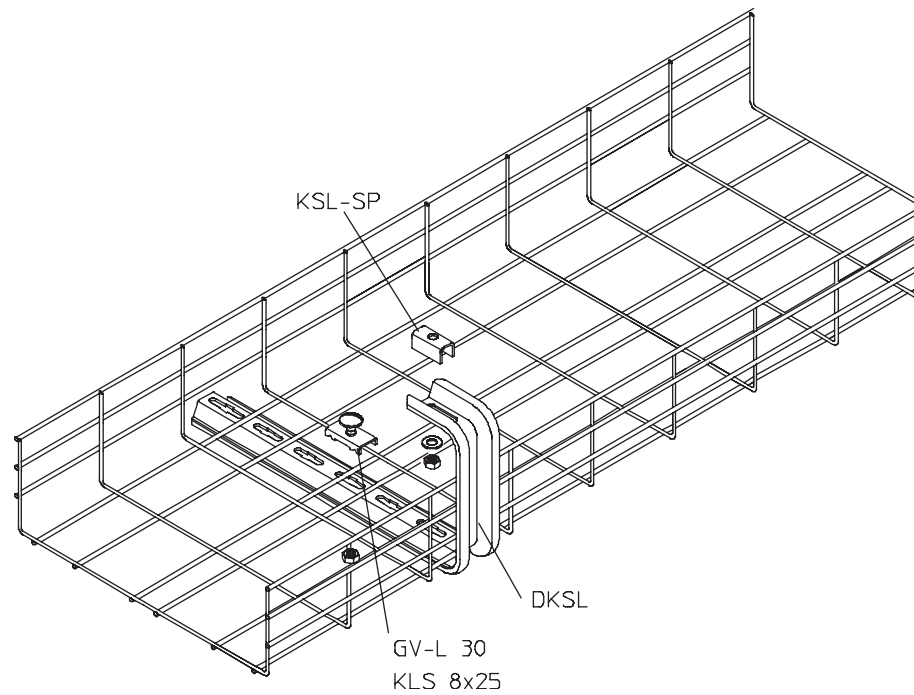
90°-elbow



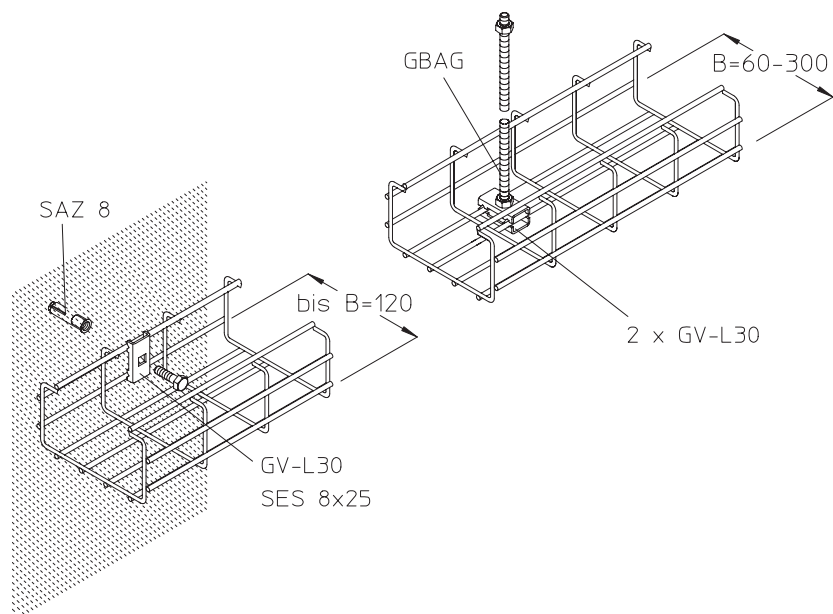
Wire-mesh cable trays

Application examples

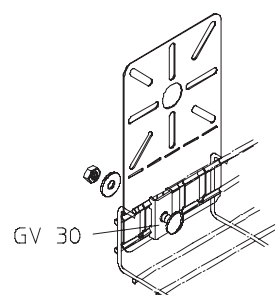
Assembly with ceiling bracket



Wall and ceiling assembly with central suspension



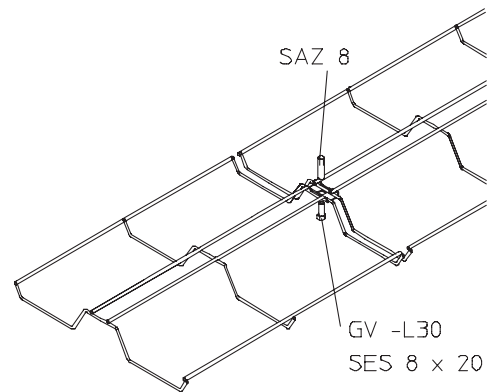
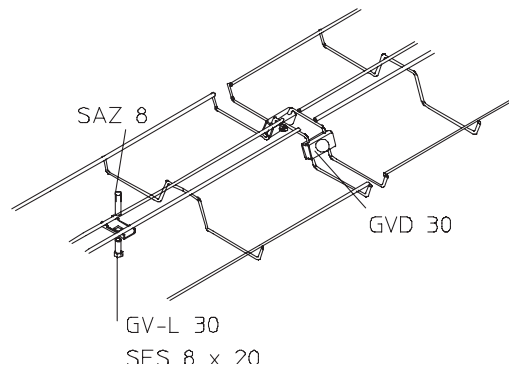
Mounting plate installation



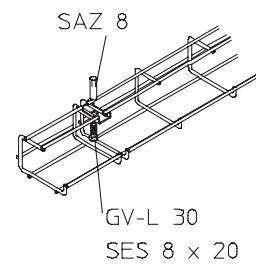
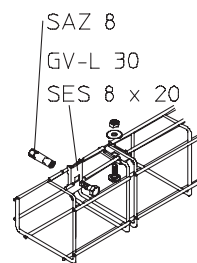
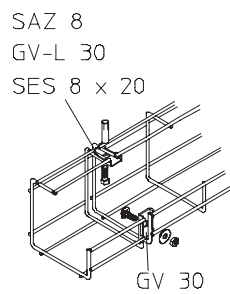
Wire-mesh cable trays

Application examples

End-to-end assembly and direct ceiling assembly



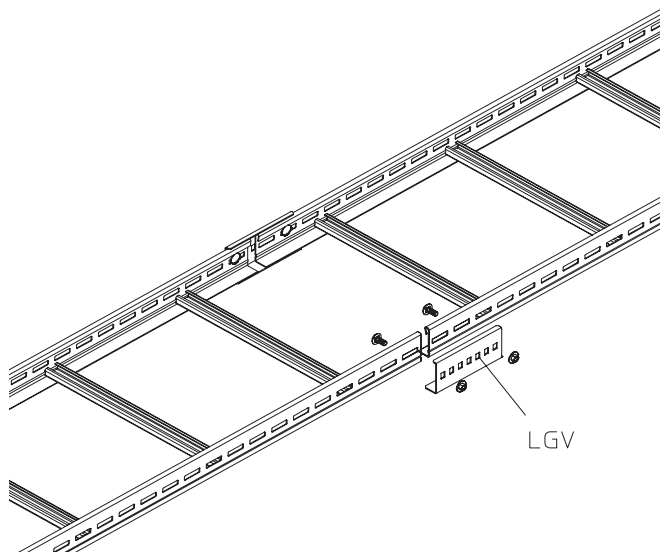
Wall-mounting and direct ceiling assembly



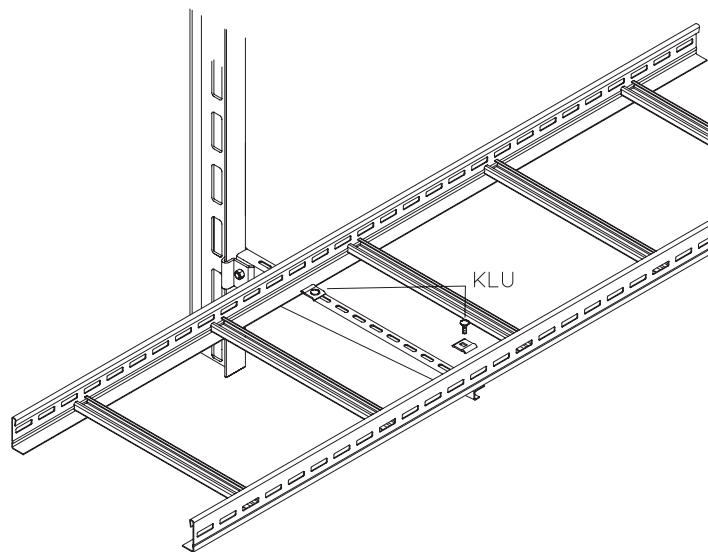
Cable ladders

Application examples

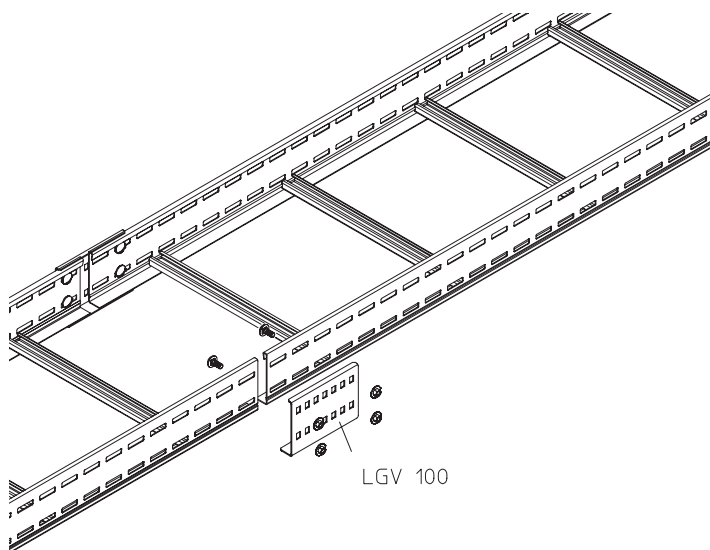
End-to-end assembly with LGG 60



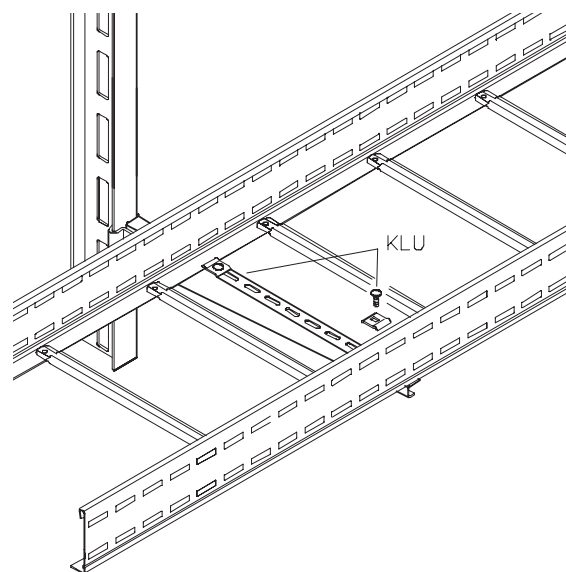
Bracket mounting



End-to-end assembly with LGG 100



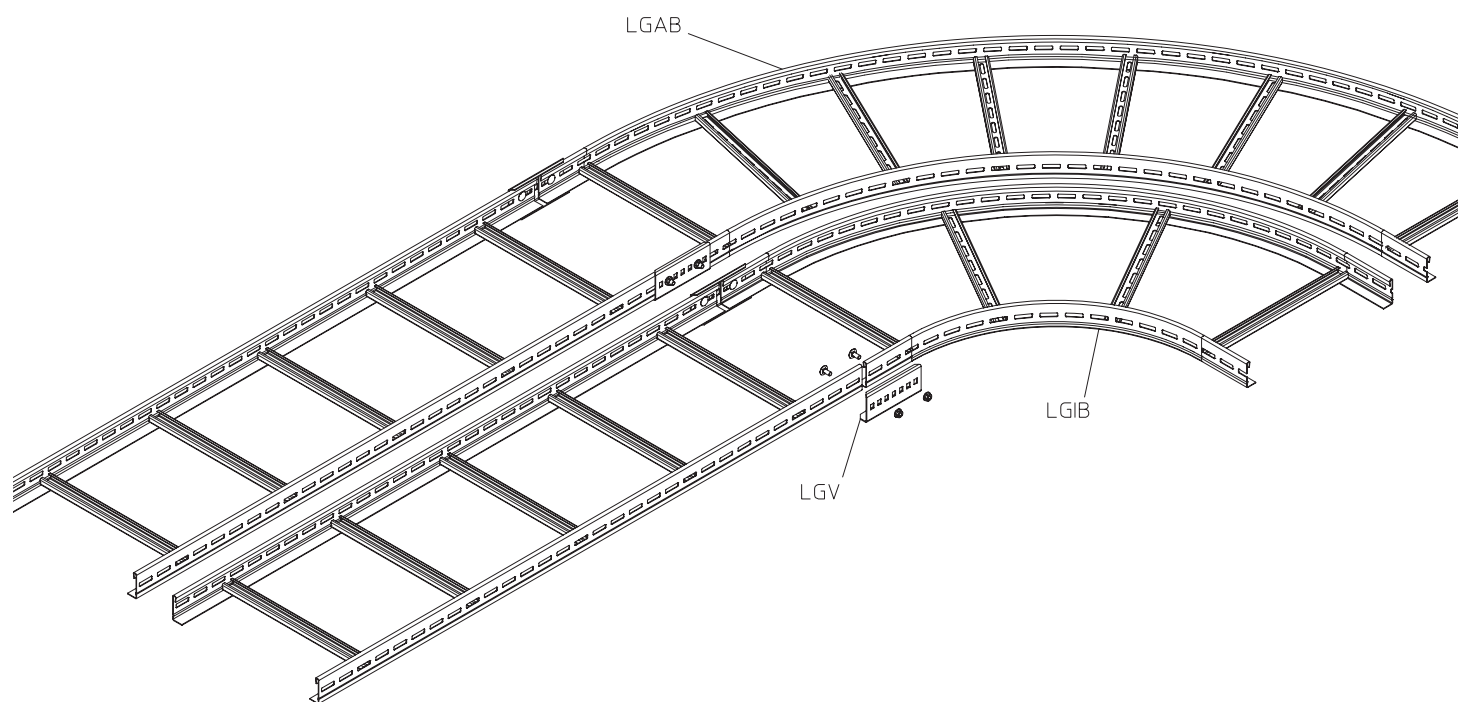
Bracket mounting



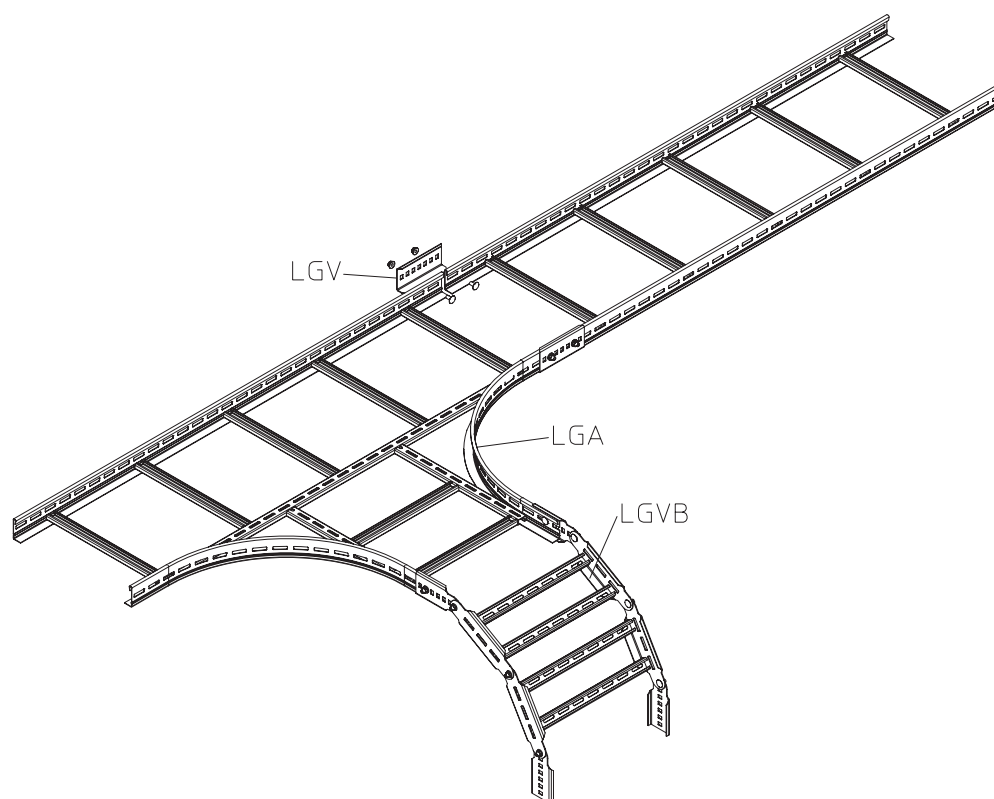
Cable ladders

Application examples

Inner elbow and outer elbow



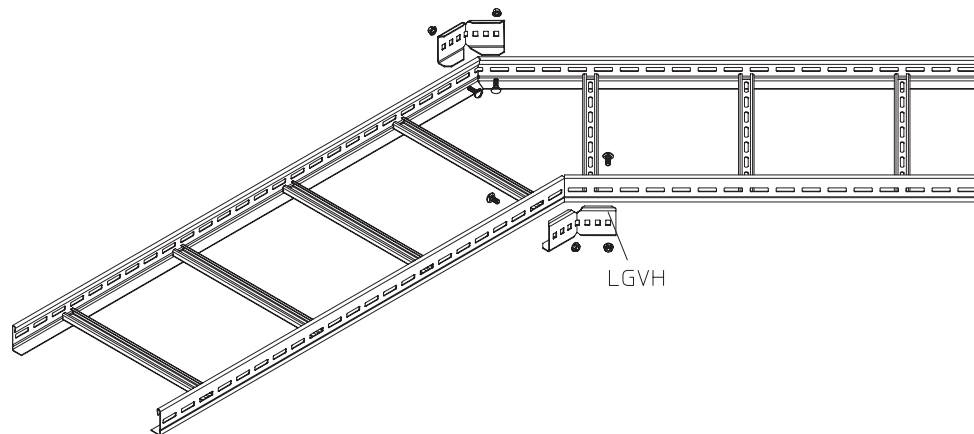
T-piece and downstream



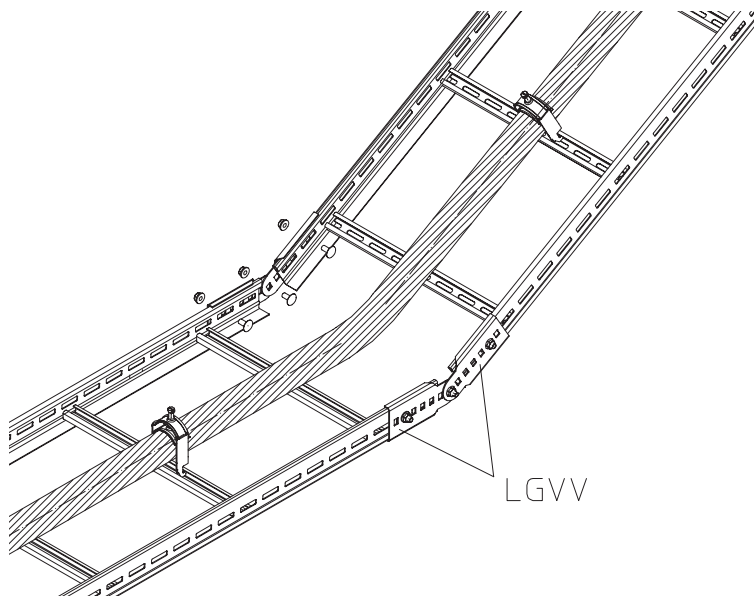
Cable ladders

Application examples

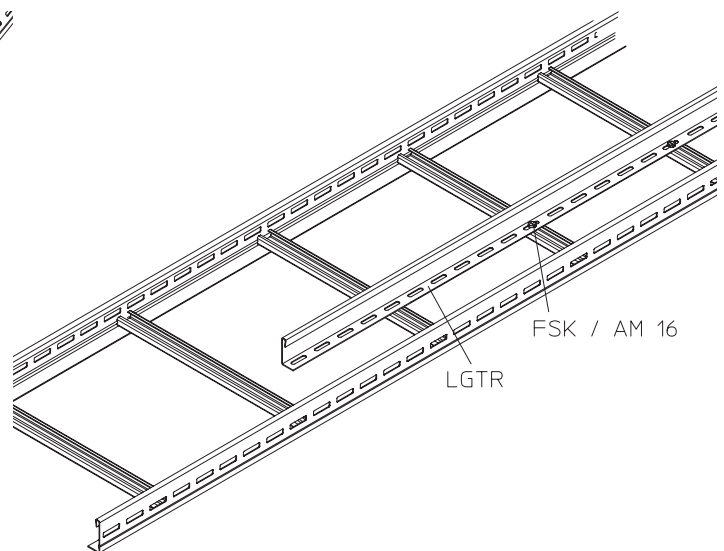
Flexible horizontal elbow assembly



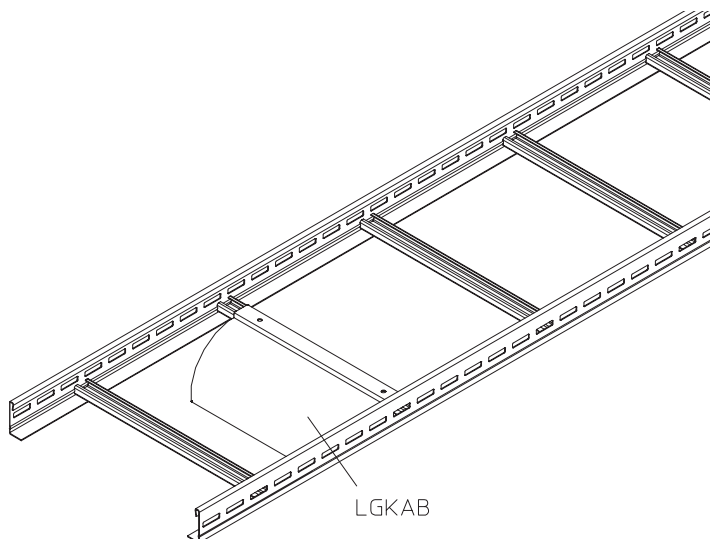
Upstream



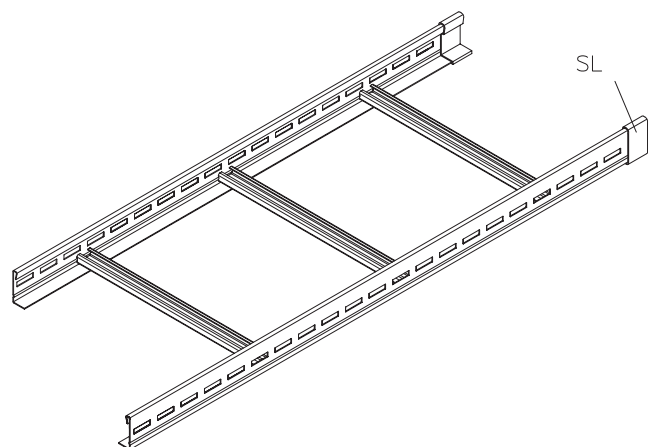
Assembly of separating strip



End plate



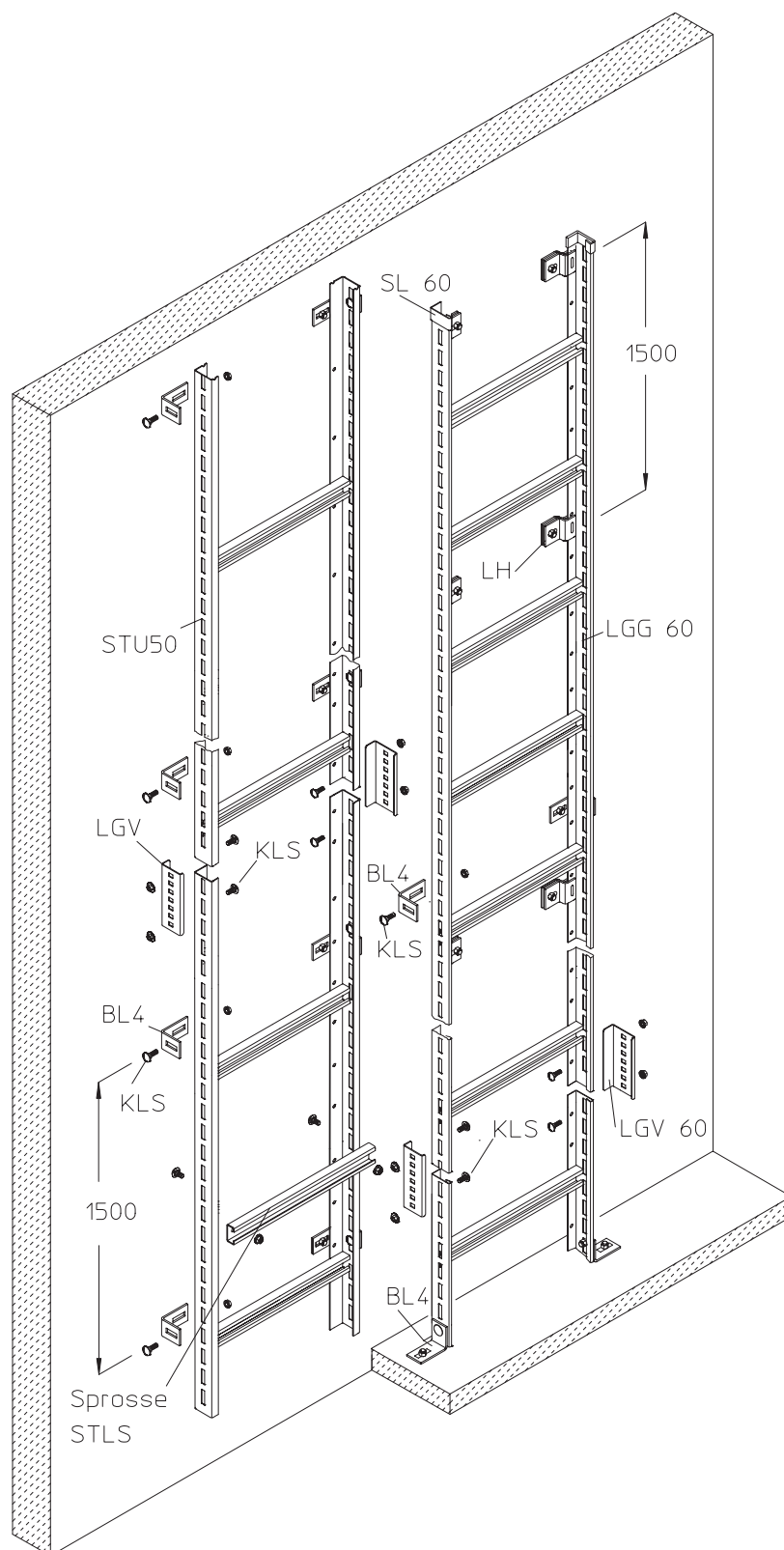
Protecting cap



Vertical ladders

Application examples

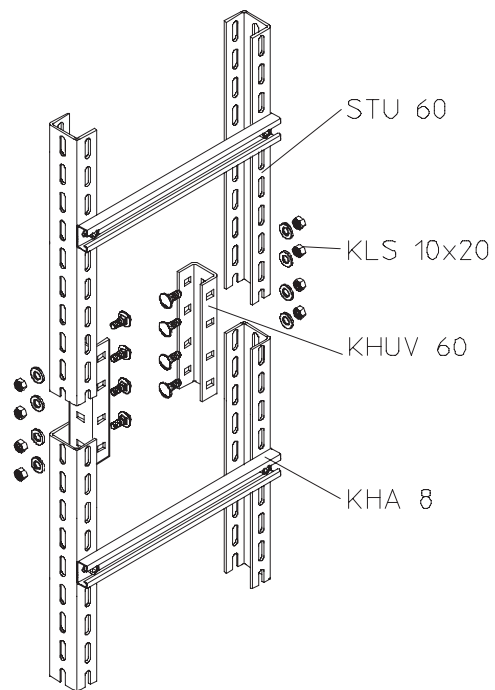
Direct wall-mounting / Assembly with foot plate



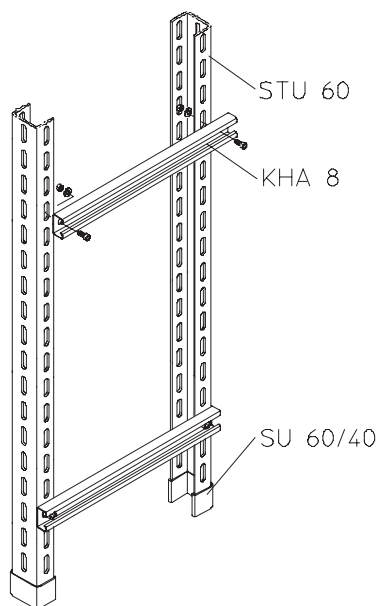
Vertical ladders

Application examples

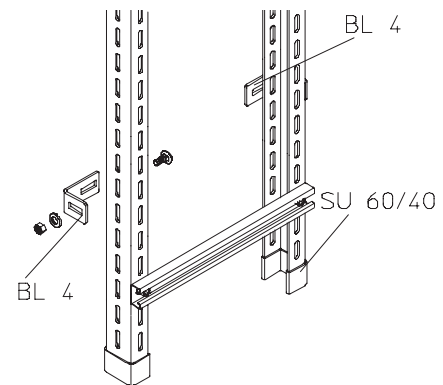
Vertical ladder extension



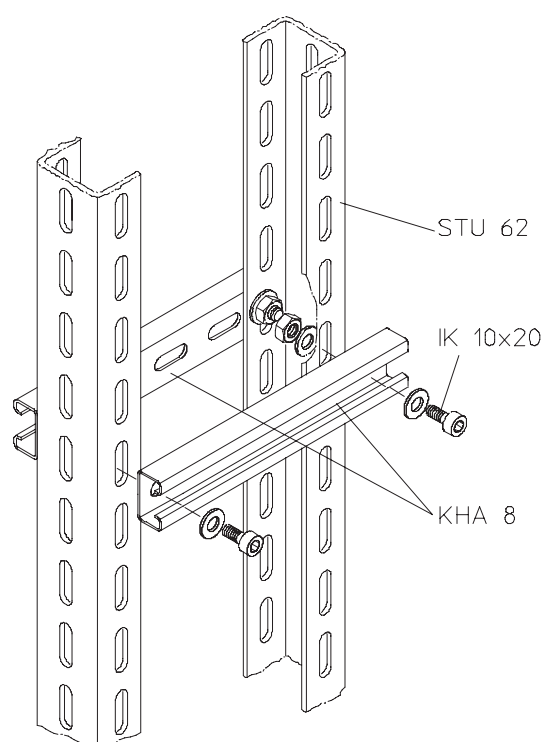
STU 60



Direct wall-mounting



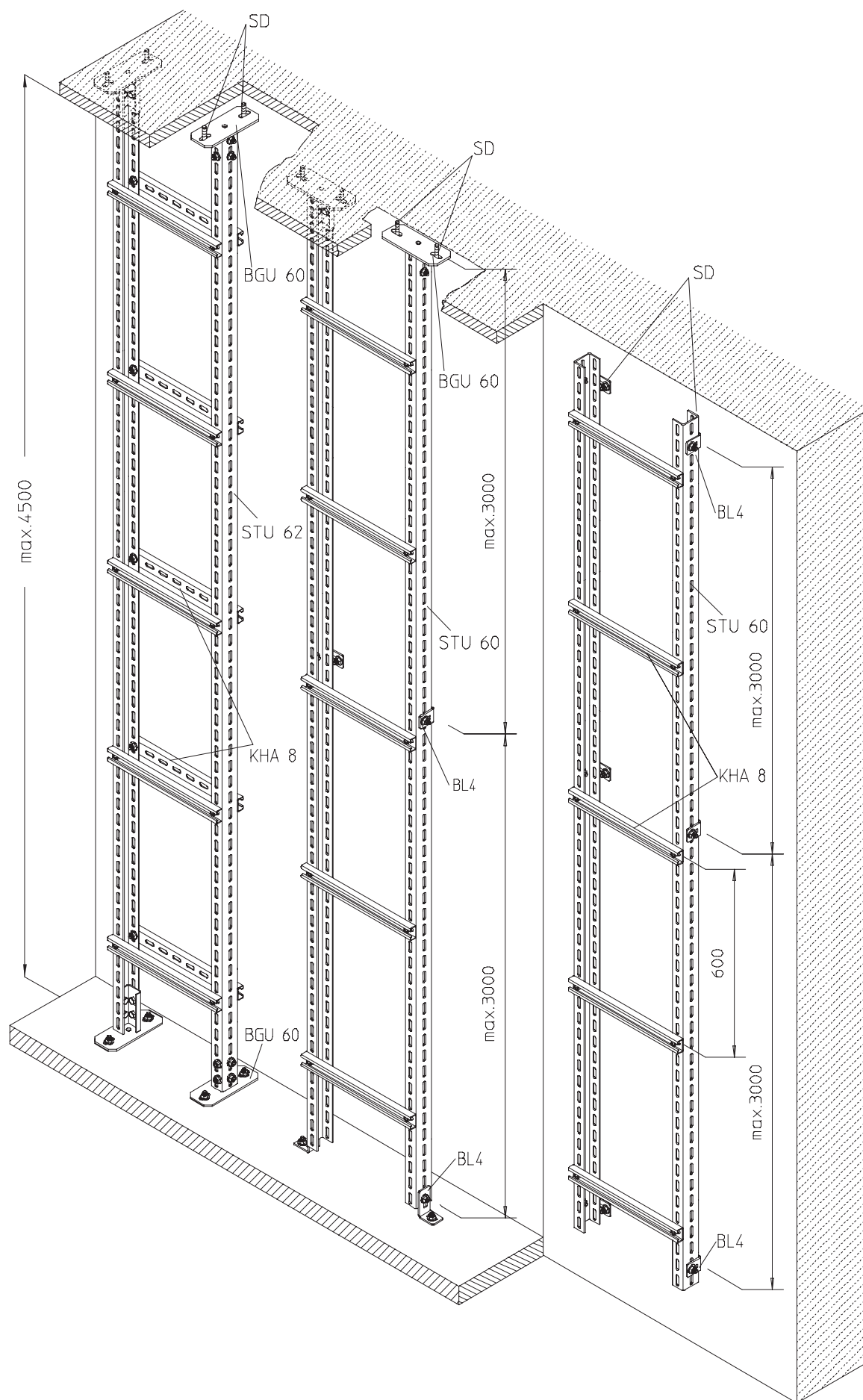
STU 62



Vertical ladders

Application examples

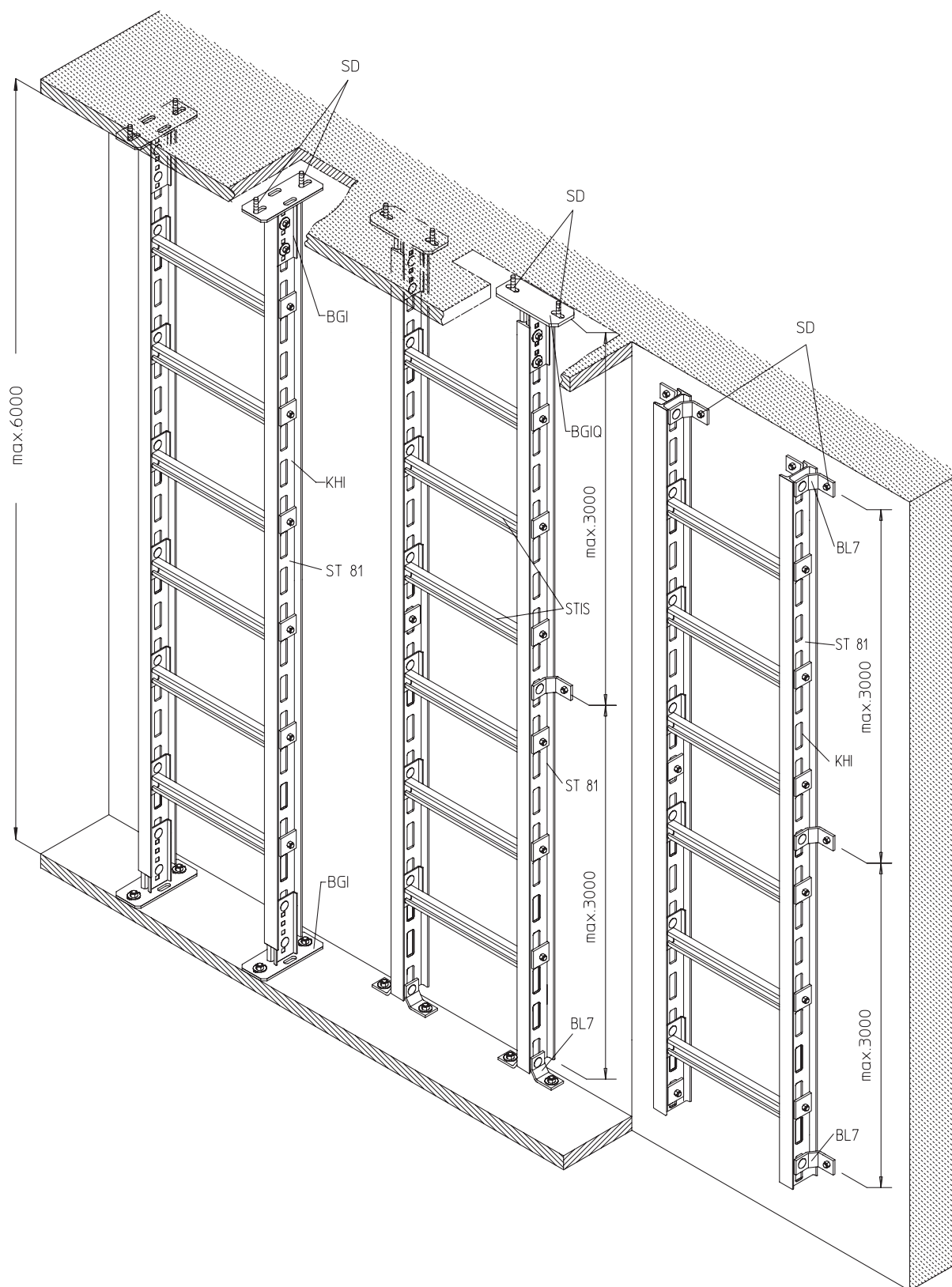
Direct wall-mounting / Assembly with foot plate and head plate



Vertical ladders

Application examples

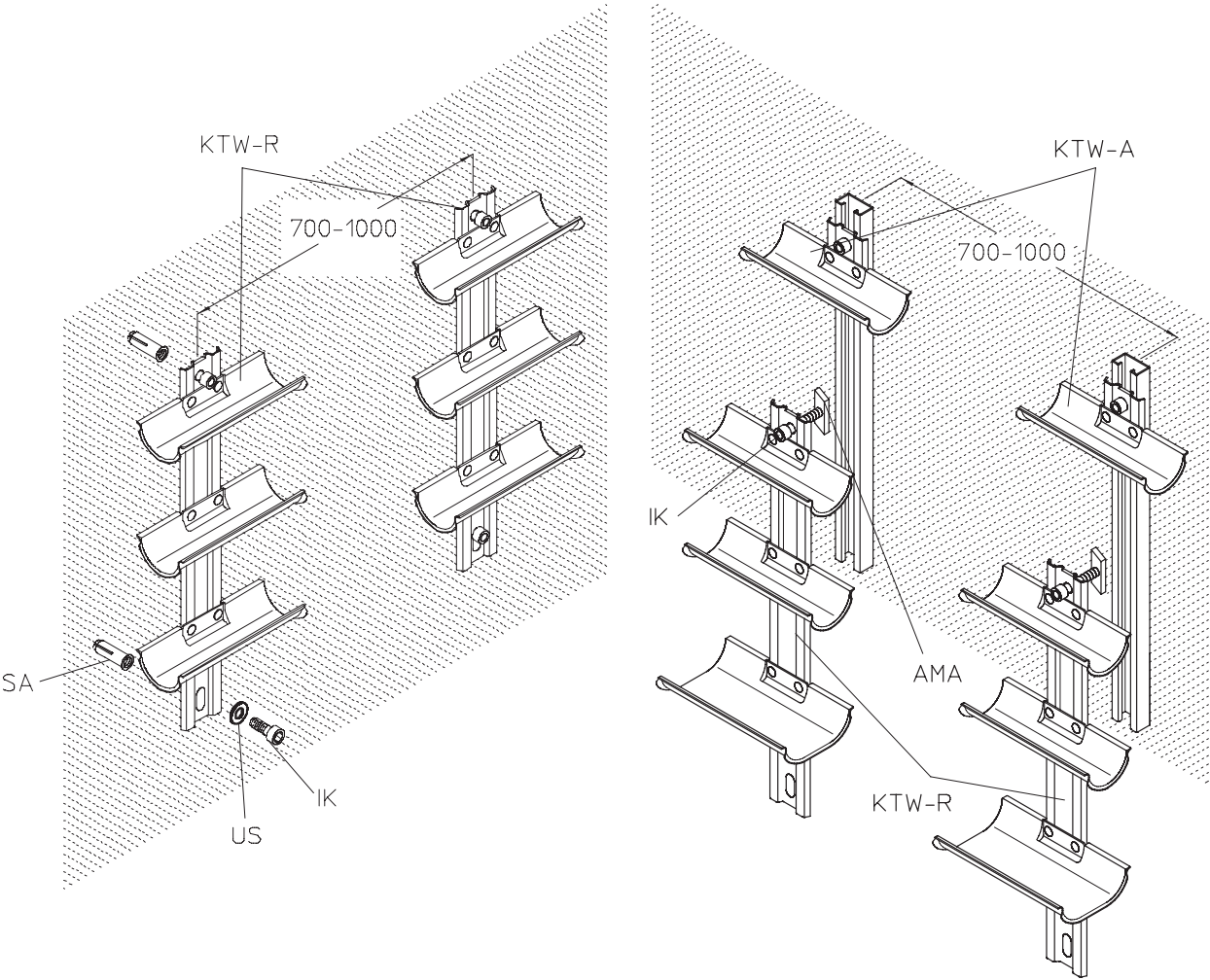
Direct wall-mounting / Assembly with foot plate and head plate



Cable support trough

Application examples

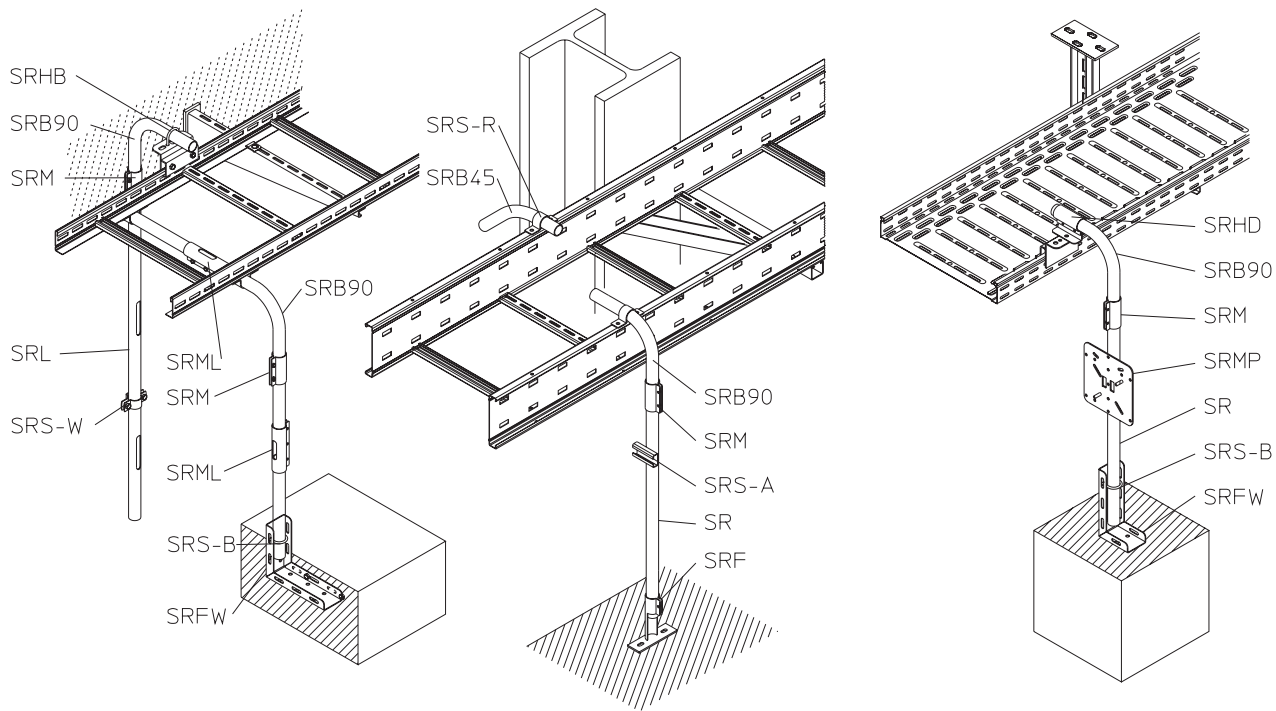
Cable support trough



Line of protection tubes

Application examples

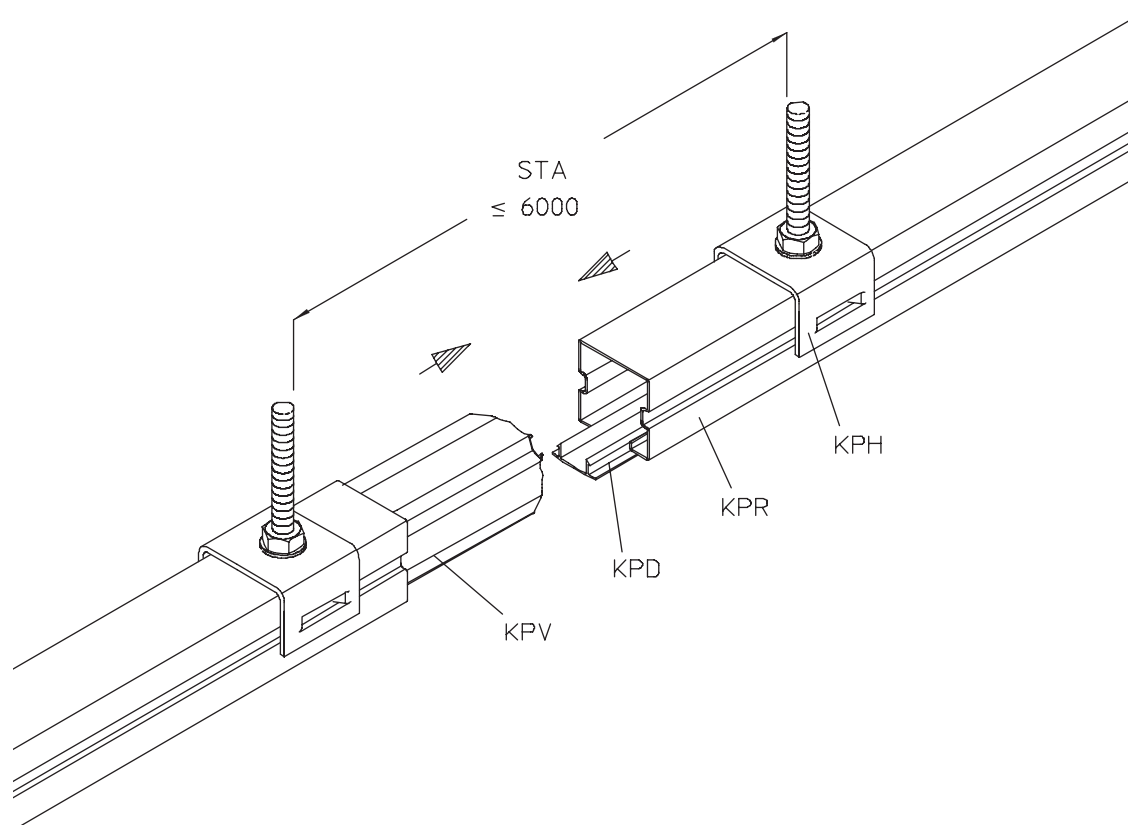
Protective tube assembly



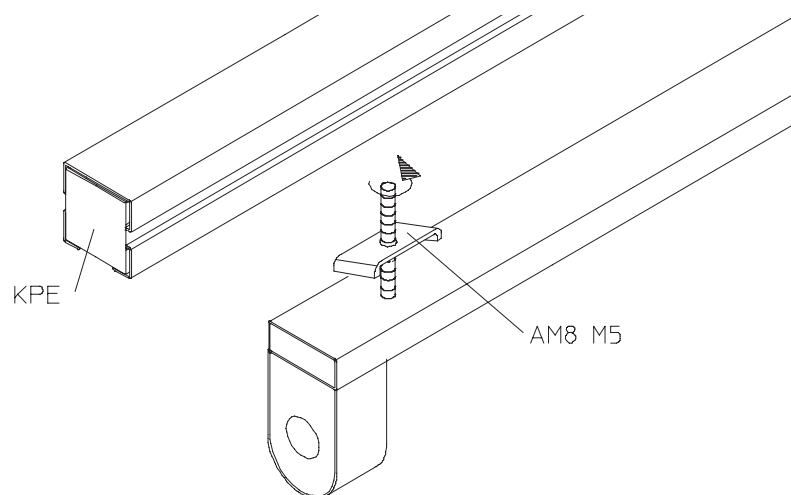
Lighting channel system

Application examples

Lighting channel system



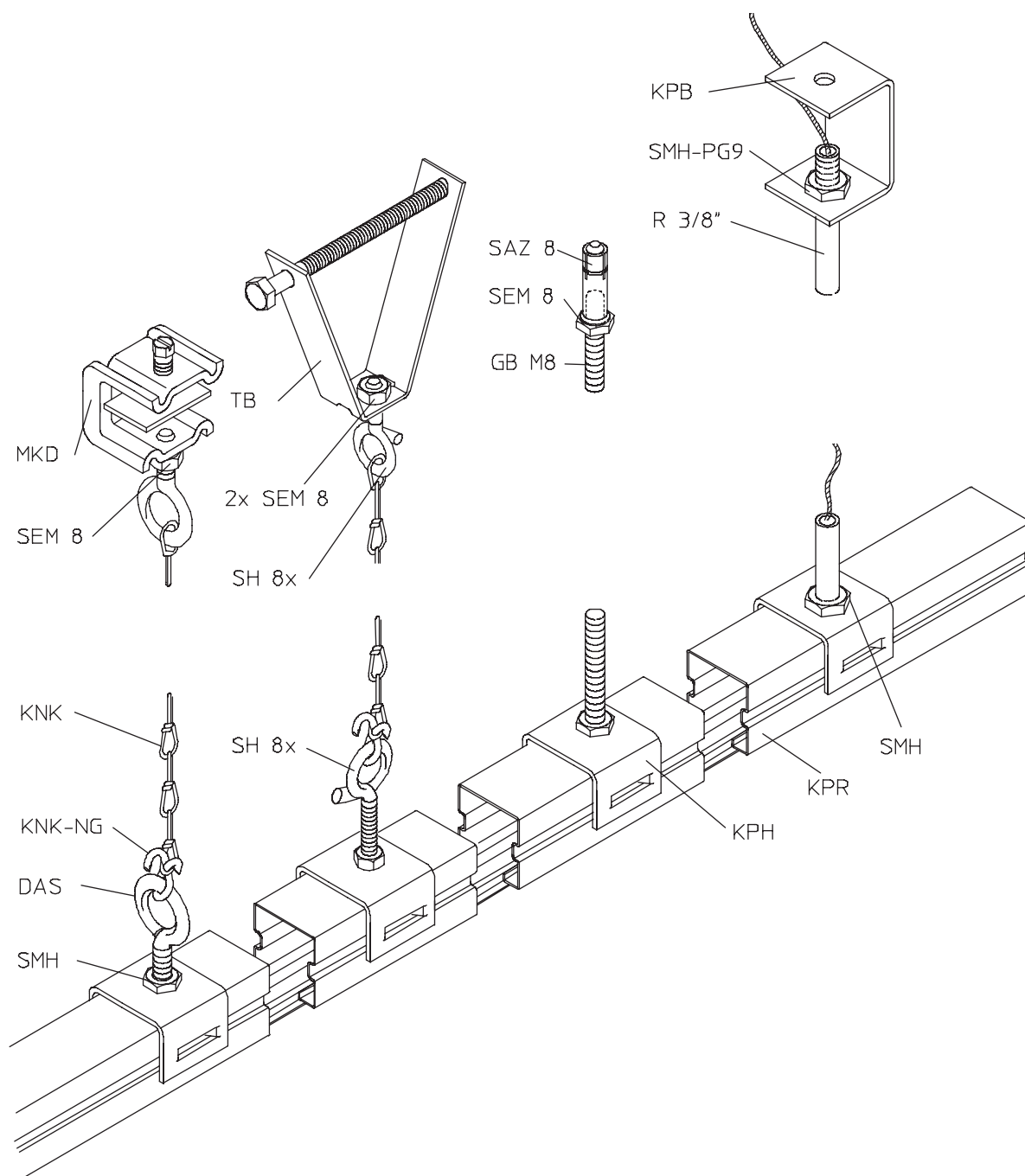
Lamp mounting on lighting channel system



Lighting channel system

Application examples

Ceiling assembly of lighting channel system



Numeric index

A

A 2 [F56](#)
A 4 [F57](#)
A 41 [F62](#), [G05](#)
A 7 [F58](#)
A 8 [F60](#)
A 9 [F61](#)
AHB [B52](#)
AKB [H47](#)
AKL [F51](#), [G12](#)
AM 8 [K04](#)
AM12 [H46](#)
AM16 [H45](#)
AM18 [D48](#), [H44](#)
AM22 [D49](#), [G31](#), [H43](#)
AMA18 [H44](#)
AMF18 [H45](#)
AMF22 [G31](#), [H43](#)
AMP 22 [G25](#)
AN [H11](#)
ASK 4 [F56](#)
ASK 8 [F56](#)
AV [F51](#)
AV 41 [G13](#)
AVA [F53](#), [G16](#)
AVAW [F54](#), [G18](#)
AVB [F53](#)
AVB 21 [G16](#)
AVB 41 [G16](#)
AVB 82 [G17](#)
AVBD 41 [G20](#)
AVBL 21 [G20](#)
AVBL 41 [G21](#)
AVBL 82 [G21](#)
AVBLA 41 [G21](#)
AVE [F52](#), [G14](#)
AVE-L [G15](#)
AVE-R [G15](#)
AVL [F52](#), [G14](#)
AVL 60 [G18](#)
AVLI-1 [G19](#)
AVLK [G12](#)
AVLW [F54](#), [G17](#)
AVLWB1-2 [G11](#)
AVLWBF2-2 [G11](#)
AVLWBL1-2 [G12](#)
AVRS [G24](#)
AVSK 21 [G22](#)
AVSK 41 [G22](#)
AVSK 82 [G22](#)
AVSKA [G23](#)
AVSKGB [G24](#)
AVSKH [G24](#)
AVSKP [G25](#)
AVSKT [G25](#)
AVT [G13](#)

B

B 3 [F65](#)
B 6 [F66](#)
B 7 [F66](#)
BBS [A16](#)
BFS K [H50](#)
BFS ND K [H50](#)
BGA 41 [F50](#), [G09](#)
BGA 41/2 [F50](#)
BGA 82 [G10](#)
BGF 41 [G10](#)
BGF 82 [G10](#)
BGI [E22](#), [F41](#)
BGID [F43](#)
BGIQ [E23](#), [F42](#)
BGU 40 [F28](#)
BGU 57 [F28](#)
BGU 60 [F29](#)
BGU 80 [F30](#)
BGUD [F31](#)
BGUDW [F31](#)
BGUQ [F30](#)
BKST [A14](#)
BKWT [A15](#)
BL 3 [F44](#)

BL 4 [E20](#), [F35](#)
BL 5 [F51](#), [G12](#)
BL 7 [E23](#), [F45](#)
BL 8 [F45](#)
BLD [F36](#), [G11](#)
BLI [F45](#)

D

DAS [H17](#)
DB [F11](#)
DKO-COM [A17](#)
DKSL [F15](#)

EL [C23](#)

FKS [D43](#), [H35](#)
FR [H39](#)
FRS [D43](#), [H35](#)
FRSV [D43](#), [H34](#), [L14](#)
FS [D47](#), [H39](#)

G

G 100 [A04](#)
G 50 [A03](#)
GB [H16](#)
GBAG [F12](#)
GBAR [F11](#)
GBH 30 [A15](#)
GBH 50 [A16](#)
GCB [H31](#)
GD [A07](#)
GDR [A08](#)
GD-SW [A09](#)
GH [A16](#)
GI [A05](#)
GKAB [A14](#)
GRIPADAP [H30](#)
GRIPCLE 1 [H32](#)
GRIPCLE 2 [H32](#)
GRIPM [H31](#)
GRIPPING [H32](#)
GRIPTRAP [H30](#)
GRIPTRAPP [H31](#)
GRIPTWIS [H32](#)
GTD 30 [A06](#)
GTDW [A05](#)
GTR 100 [A13](#)
GTR 50 [A12](#)
GTR 60 [A13](#)
GV 30 [A10](#)
GVD 30 [A11](#)
GVK [A12](#)
GV-L 30 [A11](#)
GVU [A12](#)

H

HFEC 3 [H18](#)
HFCEXP 1 [H18](#)
HFCEXP 2 [H18](#)
HFEF10 3 [H21](#)
HFEF10 4 [H21](#)
HFEF10EXP 2 [H20](#)
HFEF6 2 [H19](#)
HFEF6 3 [H19](#)
HFEF6EXP 1 [H19](#)
HFEF6EXP 2 [H19](#)
HFEF8 2 [H20](#)
HFEF8 3 [H20](#)
HFEF8EXP 2 [H20](#)
HFEM 2 [H21](#)
HFEM 3 [H21](#)
HFEO 3 [H22](#)
HFEOEXP 2 [H22](#)
HFET6EXP 1 [H22](#)
HFET6EXP 2 [H22](#)
HFET8EXP 2 [H23](#)
HFFR 2 [H23](#)

HFFR 3 [H24](#)
HFFR 4 [H24](#)
HFFR 5 [H24](#)
HFFREXP 1 [H23](#)
HFFREXP 2 [H23](#)
HFSP 2 [H25](#)
HFSP 3 [H25](#)
HFSPEXP 1 [H24](#)
HFSPEXP 2 [H24](#)
HFTHEXP 1 [H25](#)
HFTHEXP 2 [H25](#)
HKI [E22](#), [F43](#)
HKIQ [F44](#)
HKIW [F44](#)
HS12 [H46](#)
HS16 [H46](#)
HS18 [H45](#)
HS22 [H43](#)

I

IK [H36](#)

K

KA 30 [F49](#)
KA 41 [F49](#)
KB [F36](#)
KD [H13](#)
KDAG 41 [F47](#)
KDI [F38](#)
KDU 40 [F17](#)
KDU 57 [F19](#)
KDU 60 [F21](#)
KHA 2 [F57](#)
KHA 21 [F62](#), [G03](#)
KHA 4 [F58](#)
KHA 41 [F48](#), [F63](#), [G04](#)
KHA 42 [F65](#), [G06](#)
KHA 7 [F59](#)
KHA 8 [F60](#)
KHA 82 [F64](#), [G06](#)
KHA 82-3 [G08](#)
KHA 82-4 [G08](#)
KHA 82-C [G07](#)
KHA 82-V [G07](#)
KHA 9 [F61](#)
KHAD 22 [G09](#)
KHAL 41 [F64](#), [G05](#)
KHAR 21 [G03](#)
KHAR 41 [G04](#)
KHAV 90 [G19](#)
KHB 7 [F67](#)
KHI [F39](#)
KHU 40 [F22](#)
KHU 57 [F24](#)
KHU 60 [F26](#)
KHU 80 [F27](#)
KHUSS 40 [F33](#)
KHUSS 57 [F34](#)
KHUSS 60 [F35](#)
KHUV 40 [F32](#)
KHUV 57 [F32](#)
KHUV 60 [F33](#)
KHUV 80 [F33](#)
KIS [F09](#)
KISS [F10](#)
KLR [D42](#), [H33](#)
KLRL [H36](#)
KLS [D42](#), [H33](#), [L14](#)
KLU [H07](#)
KLUS [H08](#)
KLUT [H09](#)
KNK [H17](#), [K05](#)
KNK-NG [H17](#), [K05](#)
KOT K [H50](#)
KPAB [D40](#)
KPB [K04](#)
KPD [K03](#)
KPE [K04](#)
KPH [K05](#)
KPR 40 [K03](#)

KPV [K03](#)
KSB [B50](#)
KSD [H51](#)
KSL [F14](#)
KSL-SP [F16](#)
KSLW [F03](#), [F14](#)
KSR [B52](#)
KT [F40](#)
KTS [F40](#)
KTSS [F41](#)
KTW-A 4-12 [I05](#)
KTW-R 10/2-10 [I03](#)
KTW-R 4-12/2-10 [I04](#)
KW [F05](#)
KWF [F05](#)
KWLL [F03](#)
KWMS [F06](#)
KWS [F07](#)
KWSS [F08](#)
KWW [F04](#)
KZF [A17](#), [B50](#), [C24](#), [D49](#), [E23](#), [F37](#), [F46](#)
KZS [A17](#), [B50](#), [C24](#), [D49](#), [E24](#), [F37](#), [F46](#)

L

LAD [C14](#)
LADR [C14](#)
LD [C13](#)
LDR [C13](#)
LD-SW [C17](#)
LGA 100 [C10](#)
LGA 60 [C10](#)
LGAB 100 [C08](#)
LGAB 60 [C08](#)
LGG 100 [C05](#)
LGG 60 [C03](#), [E03](#)
LGGS 100 [C04](#)
LGGS 60 [C06](#)
LGHS-P [C21](#)
LGIB 100 [C07](#)
LGIB 60 [C07](#)
LGK 100 [C12](#)
LGK 60 [C11](#)
LGKAB [C22](#)
LGL [F68](#)
LGTR 100 [C21](#)
LGTR 60 [C20](#)
LGV 100 [C18](#)
LGV 50 [E17](#)
LGV 60 [C18](#)
LGVH 100 [C19](#)
LGVH 50 [E17](#)
LGVH 60 [C18](#)
LGW 100 [C20](#)
LGW 50 [E18](#)
LGW 60 [C19](#)
LH [E18](#)
LIBD [C15](#)
LIBDR [C15](#)
LK K [H49](#)
LK ND K [H50](#)
LKD [C16](#)
LKDR [C16](#)

M

MA 60 [F12](#)
MKB [B64](#)
MKD [G26](#), [H09](#)
MP-G [A10](#)
MP-G90 [A09](#)
MP-L [C23](#)
MP-RG [B50](#)

P

PKPEC [D41](#)
PRS [F67](#)
PSS [G27](#)

R

R 110 [B11](#)
R 35 [B03](#)
R 60 [B04](#)
R 85 [B09](#)
RA 110 [B31](#)
RA 35 [B30](#)
RA 60 [B29](#)
RA 85 [B30](#)
RAA 110 [B28](#)
RAA 35 [B27](#)
RAA 60 [B27](#)
RAA 85 [B28](#)
RAAD [B60](#)
RAADR [B60](#)
RAB 110 [B43](#)
RAB 35 [B41](#)
RAB 60 [B41](#)
RAB 85 [B42](#)
RAD [B61](#)
RADR [B61](#)
RAE 110 [B26](#)
RAE 60 [B26](#)
RAED [B58](#)
RB 110 [B20](#)
RB 35 [B17](#)
RB 60 [B18](#)
RB 85 [B19](#)
RB45 110 [B25](#)
RB45 60 [B24](#)
RB45 85 [B25](#)
RBD [B57](#)
RBD45 [B59](#)
RBDR [B58](#)
RBDR45 [B59](#)
RBV 35 [B21](#)
RBV 60 [B22](#)
RBV 85 [B22](#)
RD [B54](#)
RDKL 110 [B57](#)
RDKL 60 [B56](#)
RDR [B55](#)
RDS [B56](#)
RDSR [B56](#)
RD-SW [B57](#)
REB [B44](#)
RG 110 [B13](#)
RG 35 [B03](#)
RG 60 [B07](#)
RG 85 [B09](#)
RGL 60 [B06](#)
RGS 110 [B14](#)
RGS 60 [B08](#)
RGS 85 [B10](#)
RGV 110 [B46](#)
RGV 35 [B45](#)
RGV 60 [B45](#)
RGV 85 [B46](#)
RGVS [B46](#)
RGVST [B47](#)
RGW [H11](#)
RI 60 [B15](#)
RIA 60 [B32](#)
RIADS [B32](#)
RIB 60 [B32](#)
RIBDS [B33](#)
RID [B51](#)
RIDR [B52](#)
RIS 60 [B16](#)
RIV 60 [B51](#)
RK 110 [B35](#)
RK 35 [B33](#)
RK 60 [B34](#)
RK 85 [B34](#)
RKD [B62](#)
RKDR [B62](#)
RL [F67](#)

RR 110 [B39](#)
RR 35 [B38](#)
RR 60 [B38](#)
RR 85 [B39](#)
RRD [B63](#)
RRDR [B63](#)
RS 110 [B12](#)
RS 60 [B05](#)
RTR 110 [B49](#)
RTR 35 [B48](#)
RTR 60 [B48](#)
RTR 85 [B49](#)
RU [D41](#)
RUS 41 [G30](#), [H41](#)
RUS 50 [G31](#), [H42](#)
RVB 110 [B37](#)
RVB 35 [B36](#)
RVB 60 [B36](#)
RVB 85 [B37](#)

S

SA [H13](#)
SA 1 [F54](#)
SA 2 [F55](#)
SA-D [H13](#)
SAI 21 [F55](#), [G09](#)
SAI 41 [F55](#), [G09](#)
SAZ [H12](#)
SAZ-B [H12](#)
SAZ-D [H13](#)
SD [G27](#), [H12](#)
SD-BS [H51](#)
SEH [G28](#), [H38](#)
SEM [D46](#), [G29](#), [H41](#), [L16](#)
SEMB [D46](#)
SEMS [D46](#), [H41](#), [L16](#)
SEMSS [D47](#), [H42](#)
SES [D45](#), [G28](#), [H37](#), [L15](#)
SESMS [G29](#)
SH K [H48](#)
SH ND K [H48](#)
SH QS [H48](#)
SHH [H18](#)
SHK K [H49](#)
SHK ND K [H49](#)
SHS [H17](#)
SI [F46](#)
SK [H10](#)
SKL [L03](#)
SKL A [H07](#)
SKLC M [H06](#)
SKLL [D49](#)
SKLTR [L04](#)
SKS A [H04](#)
SKS H [H03](#)
SKS M [H05](#)
SL 100 [C23](#)
SL 60 [C23](#)
SLA [L08](#)
SLAA [L09](#)
SLB [L05](#)
SLF [L13](#)
SLS [L06](#)
SLV [L11](#)
SLW [L11](#)
SLW [L12](#)
SMH [K05](#)
SN [H51](#)
SN G [H10](#)
SPRINGCLIP [H31](#)
SR [J03](#)
SRB 45 [J04](#)
SRB 90 [J03](#)
SRF [J08](#)
SRFW [J08](#)
SRHB [J05](#)
SRHD [J05](#)
SRI 60 [B53](#)
SRK-G [J09](#)
SRK-O [J08](#)
SRL [J03](#)
SRM [J04](#)

SRML [J04](#)
SRMP-A [J07](#)
SRMP-B [J07](#)
SRMP-C [J07](#)
SRS-A [J06](#)
SRSB [J05](#)
SRS-B [J06](#)
SRS-R [J06](#)
SRS-W [J06](#)
SSK [H42](#)
ST 81 [E13](#)
ST 82 [E15](#)
STIS [E21](#)
STISD [E21](#)
STLS [E19](#)
STR 50 [E17](#)
STU 50 [E04](#)
STU 50-3E [E05](#)
STU 60 [E07](#)
STU 62 [E10](#)
STUS [E19](#)
SU 40 [F36](#)
SU 50/36 [E17](#)
SU 57 [F37](#)
SU 60 [F37](#)
SU 80 [F37](#)

T

TBS [H16](#)
TIGERCLIP [H31](#)
TPZPEC 2 [H26](#)
TPZPEC 3 [H26](#)
TPZPEF10 2 [H27](#)
TPZPEF10 3 [H27](#)
TPZPEF10 4 [H27](#)
TPZPEF8 2 [H26](#)
TPZPEF8 3 [H27](#)
TPZPFR 2 [H28](#)
TPZPFR 3 [H28](#)
TPZPFR 4 [H28](#)
TPZPSP 2 [H28](#)
TPZPSP 3 [H29](#)
TPZPTH 2 [H29](#)
TS [D41](#)

U

US 125 [D47](#), [G30](#), [H39](#),
[L17](#)
US 9021 [D48](#), [G30](#), [H40](#),
[L17](#)
UVS [D48](#), [H40](#)

V

VA-AP [H14](#)
VAB-HB [H14](#)
VAB-HB B [H14](#)
VAB-HB M [H14](#)
VAS-AS [H15](#)
VAS-BS [H15](#)
VAS-M [H15](#)
VAS-SH [H15](#)
VB [B47](#)
VM [H16](#)

W

WP 100 [D04](#)
WP 150 [D05](#)
WP 60 [D03](#)
WPBP 100 [D18](#)
WPBP 150 [D19](#)
WPC 100 [D30](#)
WPC 150 [D30](#)
WPC 60 [D31](#)
WPCH 100 [D31](#)
WPCH 150 [D32](#)
WPCH 60 [D32](#)
WPCHV 100 [D37](#)
WPCHV 150 [D38](#)
WPCHV 60 [D38](#)
WPCO [D22](#)

WPCP 100 [D20](#)
WPCP 150 [D21](#)
WPCPCO [D28](#)
WPCV 100 [D33](#)
WPCV 150 [D33](#)
WPCV 60 [D32](#)
WPD-E [D23](#)
WPDUK [D23](#)
WPF-B [D34](#)
WPF-B 60 [D34](#)
WPF-C [D35](#)
WPF-C 60 [D35](#)
WPFCOH [D25](#)
WPFCOHE [D25](#)
WPF-IS [D36](#)
WPF-P [D36](#)
WPF-P 60 [D37](#)
WPHB 100 [D07](#)
WPHB 150 [D08](#)
WPHB 60 [D06](#)
WPHBCO [D24](#)
WPIR 100 [D10](#)
WPIR 150 [D11](#)
WPIR 60 [D09](#)
WPIRCO [D26](#)
WPLEAB 150 [D09](#)
WPOR 100 [D13](#)
WPOR 150 [D14](#)
WPOR 60 [D12](#)
WPORCO [D27](#)
WPR [D40](#)
WPS 100 [D39](#)
WPS 150 [D39](#)
WPS 60 [D39](#)
WPTP 100 [D16](#)
WPTP 150 [D17](#)
WPTP 60 [D15](#)
WPTPCO [D29](#)

Y

YAJCT 2 Y-Fit [H30](#)
YAJEC 1 Y-Fit [H29](#)
YAJEC 2 Y-Fit [H29](#)
YAJEC 3 Y-Fit [H30](#)



PohlCon Benelux Cable Support B.V.

Meerheide 212

5521 DW Eersel

The Netherlands

Phone +31 497 799 700

Headquarters and plant Berlin

Nobelstr. 45-55

12057 Berlin

Germany

Phone +49 30 68283-01

info@pohlconbenelux.com

www.pohlconbenelux.com