



# Support systems

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# Support systems

## Brackets

### KWLL bracket, light duty

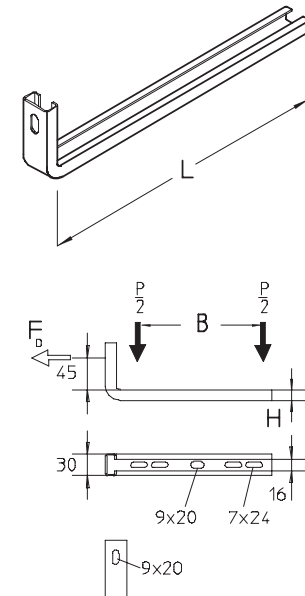
$F_D/P$ : coefficient for calculation of the dowel load  $F_D$  with effective bracket load  $P$  respectively the sum of effective bracket loads. This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).  
For assembly instructions, see the chapter assembly.



article number	H mm	B mm	L mm	$P_{max}$ kN	$F_D/P$	G kg
<b>S</b>						
<b>KWLL 010S</b>	15	100	110	0,3	2,0	0,13
<b>KWLL 020S</b>	15	200	210	0,3	3,0	0,20
<b>KWLL 030S</b>	15	300	310	0,3	4,0	0,28
<b>E</b>						
<b>KWLL 010E</b>	15	100	110	0,3	2,0	0,13
<b>KWLL 020E</b>	15	200	210	0,3	3,0	0,20
<b>KWLL 030E</b>	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
<b>S</b>				
<b>KSLW 010S</b>	20	100	120	0,36
<b>KSLW 020S</b>	20	200	220	0,53
<b>KSLW 030S</b>	20	300	320	0,69
<b>KSLW 040S</b>	20	400	420	0,86
<b>KSLW 050S</b>	20	500	520	1,03
<b>KSLW 060S</b>	20	600	620	1,18

accessories included:

- 1 x **KSL-SP S** spacer (page F16)

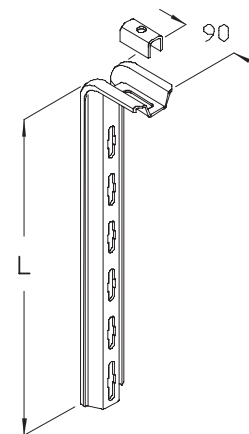
article number	H mm	B mm	L mm	G kg
<b>S</b>				
<b>KSLW 015S</b>	20	150	170	0,45
<b>KSLW 025S</b>	20	250	270	0,61

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.

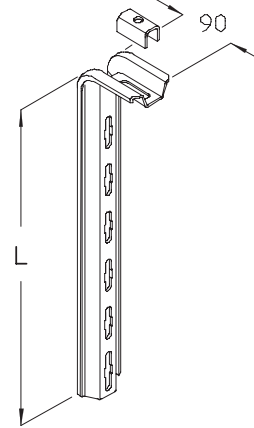
article number	H mm	B mm	L mm	G kg
<b>F</b>				
<b>KSLW 010F</b>	20	100	120	0,38
<b>KSLW 015F</b>	20	150	170	0,47
<b>KSLW 020F</b>	20	200	220	0,56
<b>KSLW 025F</b>	20	250	270	0,65
<b>KSLW 030F</b>	20	300	320	0,73
<b>KSLW 040F</b>	20	400	420	0,92
<b>KSLW 050F</b>	20	500	520	1,10
<b>KSLW 060F</b>	20	600	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.

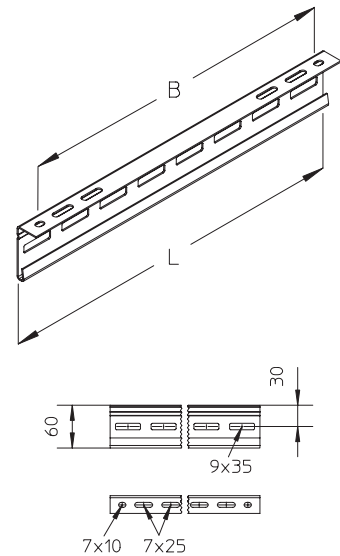
article number	B mm	L mm	G kg
<b>F</b>			
<b>KWW 020F</b>	100	200	0,27
<b>KWW 030F</b>	200	300	0,40
<b>KWW 040F</b>	300	400	0,52
<b>KWW 050F</b>	400	500	0,65
<b>KWW 060F</b>	500	600	0,78
<b>KWW 070F</b>	600	700	0,91

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
<b>S</b>						
<b>KWF 010S</b>	80	100	120	1,2	1,58	0,23
<b>KWF 020S</b>	80	200	220	1,2	2,33	0,30
<b>KWF 030S</b>	80	300	320	1,2	3,15	0,45
<b>KWF 040S</b>	80	400	420	1,2	3,99	0,51

accessories included:

1 x **US 10x30** square washer, DIN 9021 (page H40)

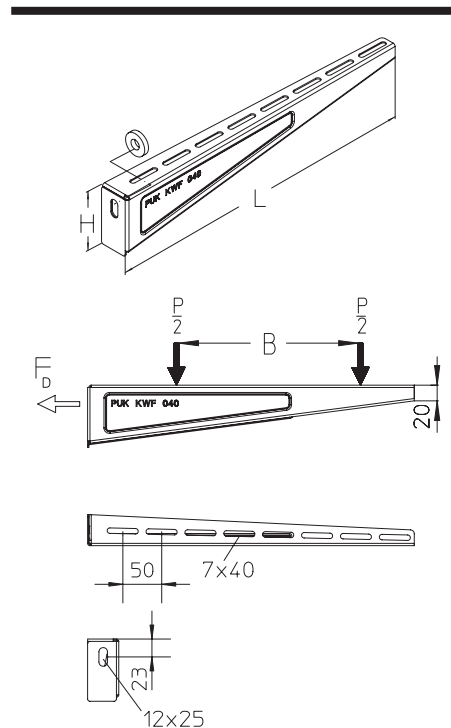
accessories optional:

**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
<b>F</b>						
<b>KW 010F</b>	34	100	120	1,4	3,10	0,13
<b>KW 015F</b>	34	150	170	1,4	4,10	0,16
<b>KW 020F</b>	56	200	220	2,0	3,00	0,35
<b>KW 030F</b>	56	300	320	2,0	4,00	0,50
<b>KW 040F</b>	75	400	420	2,4	3,60	0,80
<b>KW 050F</b>	96	500	520	2,1	3,40	1,40
<b>KW 060F</b>	96	600	620	2,1	4,00	1,60
<b>KW 070F</b>	96	700	720	3,0	5,68	2,27

<b>E</b>						
article number	H mm	B mm	L mm	$P_{max}$ kN	$F_D/P$	G kg
<b>KW 010E</b>	34	100	120	1,5	3,10	0,13
<b>KW 015E</b>	34	150	170	1,5	4,10	0,16
<b>KW 020E</b>	56	200	220	1,5	3,00	0,39
<b>KW 030E</b>	56	300	320	1,5	4,00	0,47
<b>KW 040E</b>	75	400	420	2,2	3,60	0,76
<b>KW 050E</b>	95	500	520	2,2	3,40	1,20
<b>KW 060E</b>	95	600	620	2,2	4,00	1,40

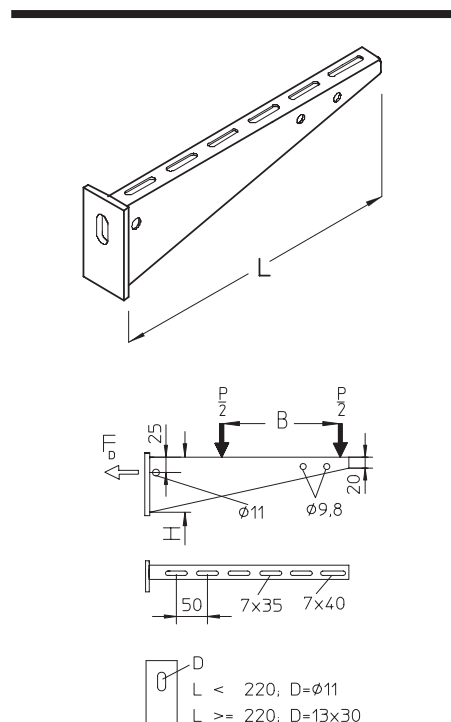
accessories optional:

**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

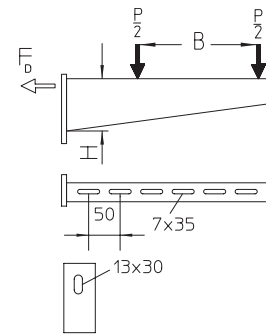
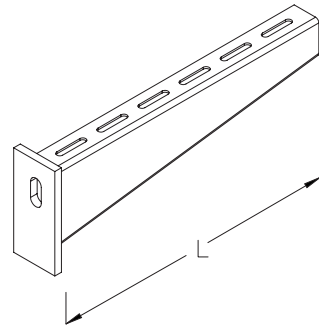
$F_D/P$ : coefficient for calculation of the dowel load  $F_D$  with effective bracket load  $P$  respectively the sum of effective bracket loads.

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	$P_{max}$ kN	$F_D/P$	G kg
<b>F</b>						
<b>KWMS 010F</b>	85	100	120	3,8	1,36	0,53
<b>KWMS 020F</b>	85	200	220	3,8	1,81	0,76
<b>KWMS 030F</b>	85	300	320	3,8	2,32	0,99
<b>KWMS 040F</b>	85	400	420	3,8	2,86	1,21
<b>KWMS 050F</b>	85	400	420	3,8	3,42	1,43
<b>KWMS 060F</b>	85	600	620	3,8	3,99	1,65
<b>KWMS 070F</b>	85	700	720	2,9	5,68	1,88
<b>E</b>						
<b>KWMS 010E</b>	85	100	120	3,8	1,36	0,60
<b>KWMS 020E</b>	85	200	220	3,8	1,81	0,82
<b>KWMS 030E</b>	85	300	320	3,8	2,32	1,03
<b>KWMS 040E</b>	85	400	420	3,8	2,86	1,25
<b>KWMS 050E</b>	85	400	420	3,8	3,42	1,46
<b>KWMS 060E</b>	85	600	620	3,8	3,99	1,68
<b>E4</b>						
<b>KWMS 010E4</b>	85	100	120	3,8	1,36	0,60
<b>KWMS 020E4</b>	85	200	220	3,8	1,81	0,82
<b>KWMS 030E4</b>	85	300	320	3,8	2,32	1,03
<b>KWMS 040E4</b>	85	400	420	3,8	2,86	1,25
<b>KWMS 050E4</b>	85	400	420	3,8	3,42	1,46
<b>KWMS 060E4</b>	85	600	620	3,8	3,99	1,68

accessories optional:

<b>KDU 57</b>	bracket support, 57x30mm	(page F19)
<b>KDU 60</b>	bracket support, heavy, 60x40 mm	(page F21)
<b>KHU 57</b>	bracket support, 57x30mm	(page F24)
<b>KHU 60</b>	bracket support, profile U60	(page F26)
<b>SD</b>	expansion anchor	(page H12)
<b>KLR</b>	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.

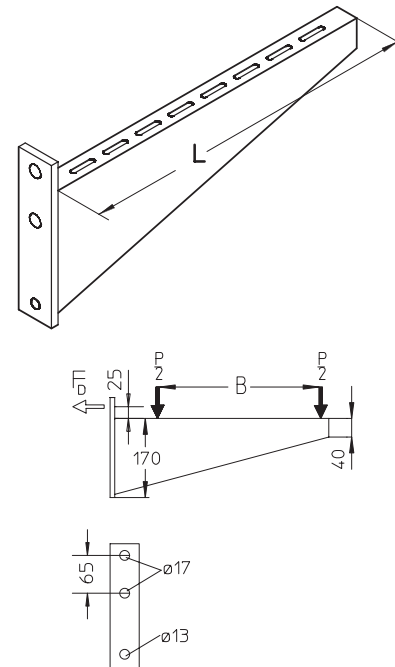
For assembly instructions, see the chapter assembly.



article number	B mm	L mm	$P_{max}$ kN	$F_D/P$	G kg
<b>F</b>					
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
<b>E</b>					
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
<b>E4</b>					
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:

<b>SD</b>	expansion anchor	(page H12)
<b>KDU 57</b>	bracket support, 57x30mm	(page F19)
<b>KLU</b>	fixing set	(page H07)
<b>WPF-B</b>	flange mounting clamp (brackets)	(page D34)





# Support systems

## Brackets

### 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.

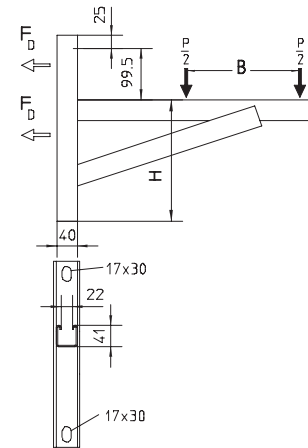
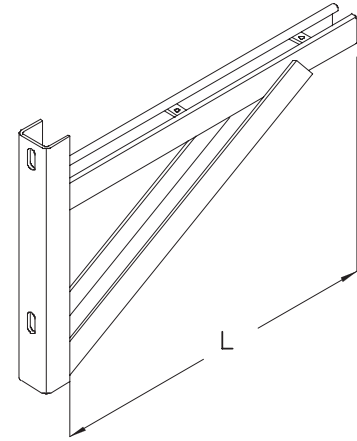
For assembly instructions, see the chapter assembly.



article number	H mm	B mm	L mm	$P_{max}$ kN	$F_D/P$	G kg
<b>F</b>						
<b>KWSS 020F</b>	166	200	280	10	0,76	2,59
<b>KWSS 030F</b>	196	300	380	10	0,86	3,37
<b>KWSS 040F</b>	236	400	480	10	0,91	4,18
<b>KWSS 050F</b>	266	500	580	10	0,97	4,96
<b>KWSS 060F</b>	236	600	680	10	1,26	5,51
<b>KWSS 070F</b>	266	600	780	10	1,44	6,28
<b>KWSS 080F</b>	301	600	880	10	1,56	7,08
<b>KWSS 090F</b>	331	600	980	10	1,66	7,85
<b>KWSS 100F</b>	366	600	1080	10	1,72	8,65

accessories optional:

<b>SD</b>	expansion anchor	(page H12)
<b>WPF-C</b>	flange mounting clamp (C-profiles)	(page D35)
<b>VAB-HB</b>	shear connector rod, concrete	(page H14)
<b>VAS-AS</b>	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.

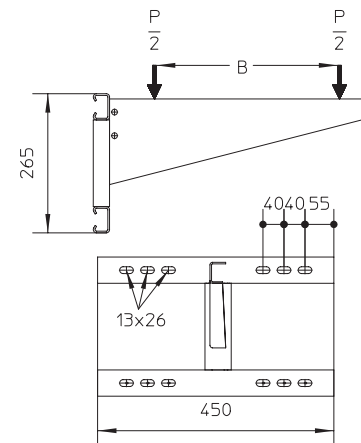
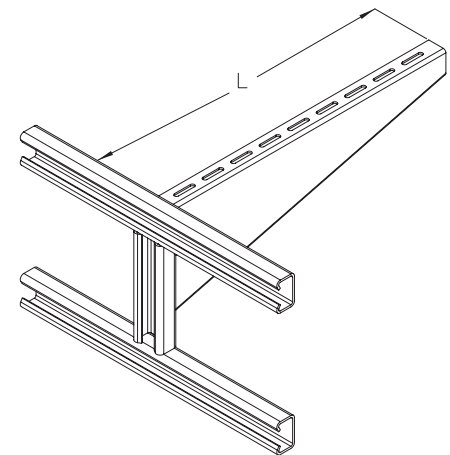
For assembly instructions, see the chapter assembly.



article number	B mm	L mm	$P_{max}$ kN	$F_D/P$	G kg
<b>F</b>					
<b>KIS 020F</b>	200	280	7,0	0,66	4,32
<b>KIS 030F</b>	300	380	6,7	0,76	4,65
<b>KIS 040F</b>	400	480	6,5	0,86	5,00
<b>KIS 050F</b>	500	580	6,3	0,97	5,34
<b>KIS 060F</b>	600	680	6,1	1,09	5,68
<b>KIS 070F</b>	600	780	5,2	1,33	6,02
<b>KIS 080F</b>	600	880	4,4	1,57	6,36
<b>KIS 090F</b>	600	980	3,6	1,83	6,70
<b>KIS 100F</b>	600	1080	2,8	2,08	7,04

accessories optional:

**SKS H** beam clamp set (page H03)



# Support systems

## Brackets

### 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.

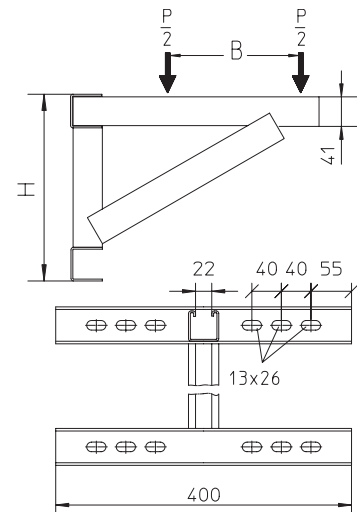
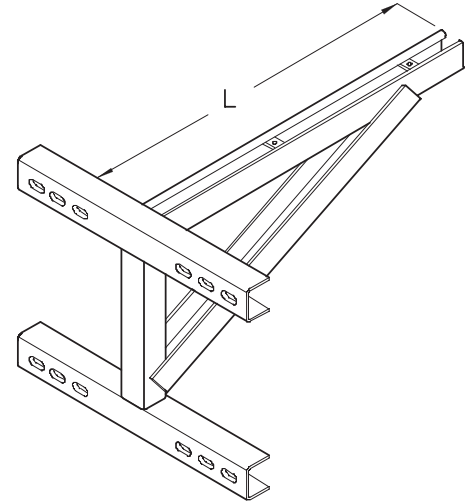


article number	H mm	B mm	L mm	$P_{max}$ kN	$F_D/P$	G kg
<b>F</b>						
<b>KISS 020F</b>	150	200	280	10	0,93	4,66
<b>KISS 030F</b>	185	300	380	10	0,91	5,42
<b>KISS 040F</b>	215	400	480	10	0,92	6,17
<b>KISS 050F</b>	250	500	580	10	0,92	6,93
<b>KISS 060F</b>	280	600	680	10	0,92	7,70
<b>KISS 070F</b>	315	600	780	10	0,99	8,44
<b>KISS 080F</b>	345	600	880	10	1,06	9,21
<b>KISS 090F</b>	380	600	980	10	1,10	9,96
<b>KISS 100F</b>	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

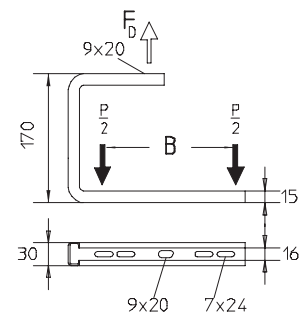
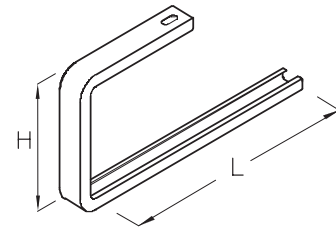
### DB ceiling fixed bracket

$F_D/P$ : 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
<b>S</b>						
<b>DB 10S</b>	170	100	110	0,60	1,2	0,25
<b>DB 20S</b>	170	200	210	0,40	1,1	0,36
<b>DB 30S</b>	170	300	310	0,28	1,1	0,47
<b>E</b>						
<b>DB 10E</b>	170	100	110	0,50	1,2	0,30
<b>DB 20E</b>	170	200	210	0,35	1,1	0,44
<b>DB 30E</b>	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
<b>S</b>					
<b>GBAR 10S</b>	100	60	0,7	1	0,62
<b>GBAR 20S</b>	200	160	0,7	1	0,75
<b>GBAR 30S</b>	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)

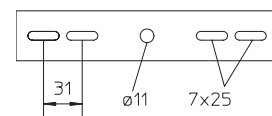
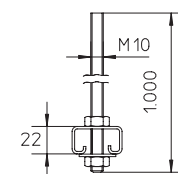
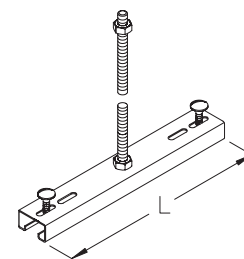
article number	B mm	L mm	$P_{max}$ kN	$F_D/P$	G kg
<b>E</b>					
<b>GBAR 10E</b>	100	60	0,7	1	0,62
<b>GBAR 20E</b>	200	160	0,7	1	0,75
<b>GBAR 30E</b>	300	260	0,7	1	0,88

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

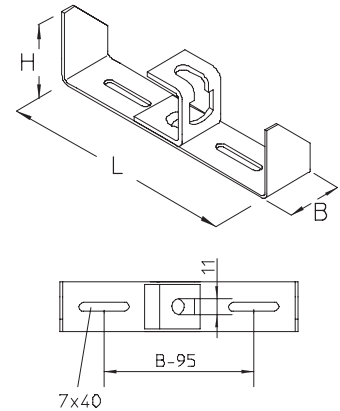
## Ceiling fixed suspensions

### MA 60 central hanger

article number	H mm	B mm	L mm	G kg
<b>S</b>				
<b>MA 60-10S</b>	56	40	90	0,26
<b>MA 60-20S</b>	56	40	190	0,36
<b>MA 60-30S</b>	56	40	290	0,45

accessories optional:

**KLR** fixing set (page H33)



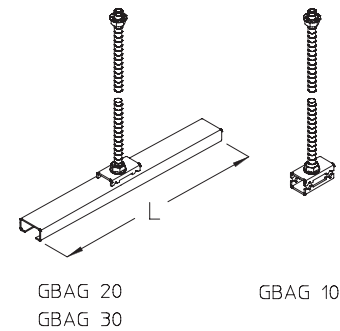
### GBAG central hanger

$F_D/P$ : 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
<b>S</b>					
<b>GBAG 10S</b>	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
<b>S</b>					
<b>GBAG 20S</b>	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)

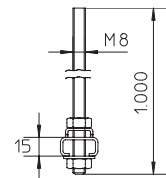
article number	B mm	L mm	$P_{max}$ kN	$F_D/P$	G kg
<b>S</b>					
<b>GBAG 30S</b>	300	280	0,5	1	0,57

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
<b>E</b>					
<b>GBAG 10E</b>	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)

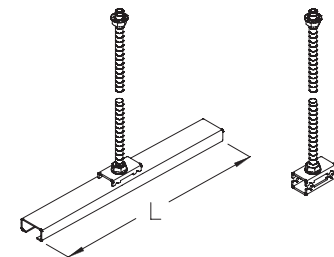
article number	B mm	L mm	$P_{max}$ kN	$F_D/P$	G kg
<b>E</b>					
<b>GBAG 20E</b>	200	180	0,5	1	0,50
<b>GBAG 30E</b>	300	280	0,5	1	0,57

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:

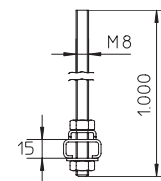
- SAZ** anchor (page H12)



GBAG 20

GBAG 10

GBAG 30



# Support systems

## KSL-system

### KSL bracket, light duty

For an application example, see the chapter assembly.

article number	B mm	L mm	P <sub>max</sub> kN	G kg
<b>S</b>				
<b>KSL 010S</b>	100	120	3,0	0,36
<b>KSL 015S</b>	150	170	2,4	0,45
<b>KSL 020S</b>	200	220	1,9	0,53
<b>KSL 025S</b>	250	270	1,5	0,61
<b>KSL 030S</b>	300	320	1,1	0,69
<b>KSL 040S</b>	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 <sub>max</sub> kN	G kg
<b>F</b>				
<b>KSL 010F</b>	100	120	3,0	0,38
<b>KSL 015F</b>	150	170	2,4	0,47
<b>KSL 020F</b>	200	220	1,9	0,56
<b>KSL 025F</b>	250	270	1,5	0,65
<b>KSL 030F</b>	300	320	1,1	0,73
<b>KSL 040F</b>	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
<b>S</b>				
<b>KSLW 010S</b>	20	100	120	0,36
<b>KSLW 020S</b>	20	200	220	0,53
<b>KSLW 030S</b>	20	300	320	0,69
<b>KSLW 040S</b>	20	400	420	0,86
<b>KSLW 050S</b>	20	500	520	1,03
<b>KSLW 060S</b>	20	600	620	1,18

accessories included:

1 x **KSL-SP S** spacer (page F16)

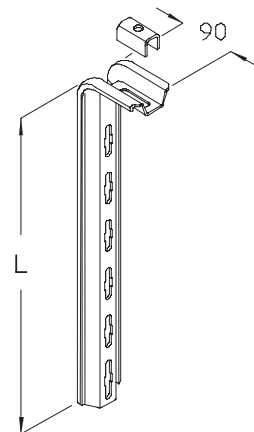
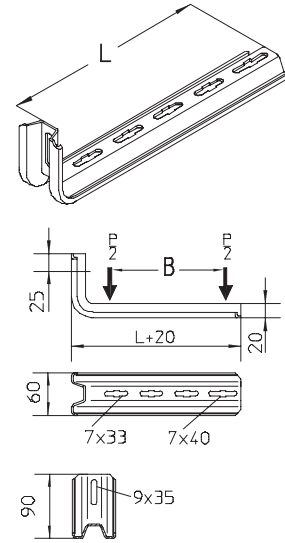
article number	H mm	B mm	L mm	G kg
<b>S</b>				
<b>KSLW 015S</b>	20	150	170	0,45
<b>KSLW 025S</b>	20	250	270	0,61

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
<b>F</b>				
<b>KSLW 010F</b>	20	100	120	0,38
<b>KSLW 015F</b>	20	150	170	0,47
<b>KSLW 020F</b>	20	200	220	0,56
<b>KSLW 025F</b>	20	250	270	0,65
<b>KSLW 030F</b>	20	300	320	0,73
<b>KSLW 040F</b>	20	400	420	0,92
<b>KSLW 050F</b>	20	500	520	1,10
<b>KSLW 060F</b>	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
<b>S</b>						
<b>DKSL 010S</b>	170	100	120	0,9	3,1	0,59
<b>DKSL 020S</b>	170	200	220	0,5	2,1	0,76
<b>DKSL 030S</b>	170	300	320	0,4	2,7	0,91
<b>DKSL 040S</b>	170	400	420	0,3	3,3	1,08

<b>F</b>						
<b>DKSL 010F</b>	170	100	120	0,9	3,1	0,63
<b>DKSL 020F</b>	170	200	220	0,5	2,1	0,81
<b>DKSL 030F</b>	170	300	320	0,4	2,7	0,97
<b>DKSL 040F</b>	170	400	420	0,3	3,3	1,15

accessories included:

1 x **KSL-SP F** spacer (page F16)

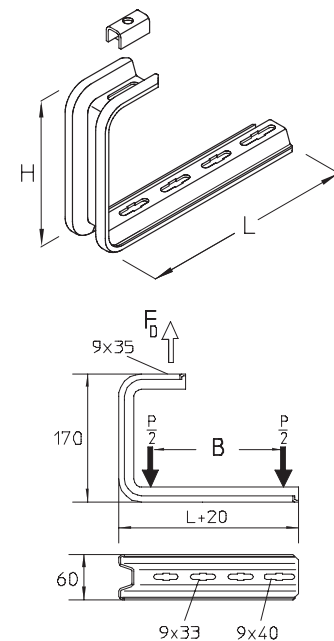
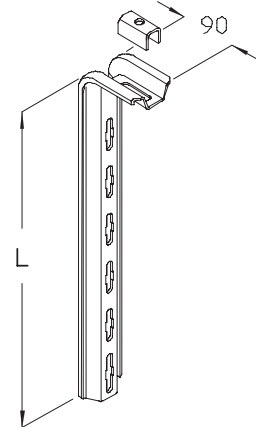
accessories optional:

**SD** expansion anchor (page H12)

**SAZ** anchor (page H12)

**KLRL** clamping assembly (page H36)

**KLU** fixing set (page H07)





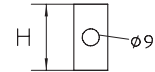
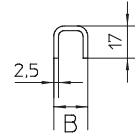
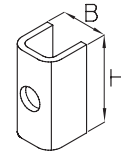
# Support systems

## KSL-system

### KSL-SP spacer

For an application example, see the chapter assembly.

article number	H mm	B mm	G kg
<b>S</b>			
<b>KSL-SP S</b>	35	18	0,28
<b>F</b>			
<b>KSL-SP F</b>	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.

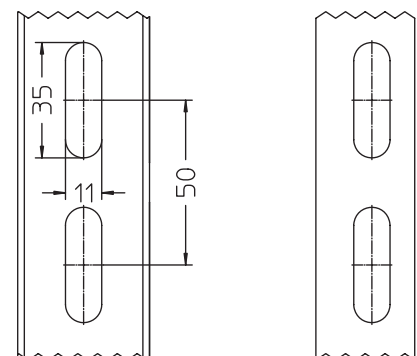
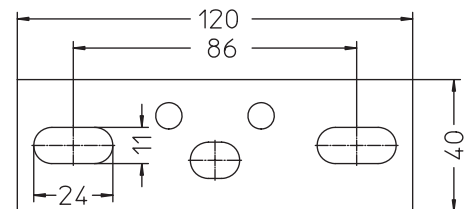
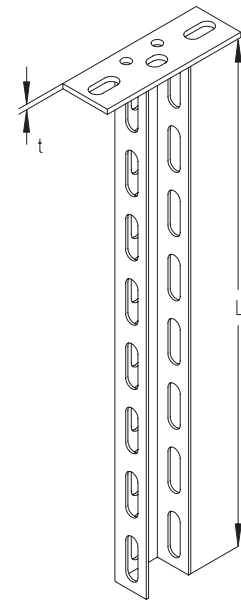
For assembly instructions, see the chapter assembly.

article number	L mm	G kg
<b>F</b>		
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

<b>E</b>		
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:

<b>KWF</b>	bracket, light duty	(page F05)
<b>KW</b>	bracket, standard	(page F05)
<b>KHU 40</b>	bracket support, 40x30mm	(page F22)
<b>KHUV 40</b>	coupler	(page F32)
<b>KHUSS 40</b>	support piece	(page F33)
<b>SU 40</b>	protection end cap	(page F37)



# 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.

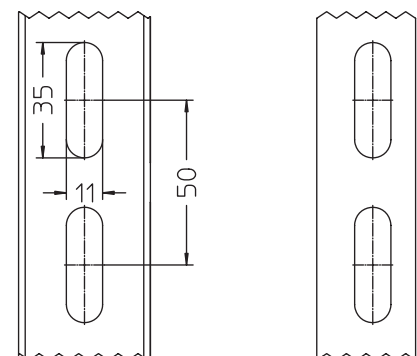
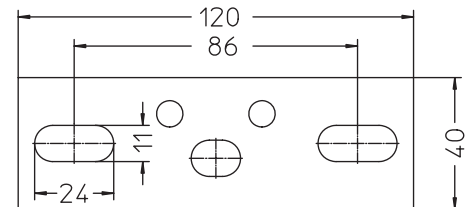
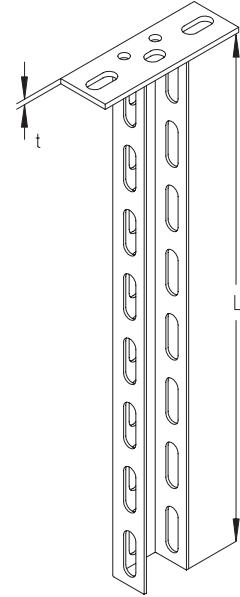
Load figures  $P_{max}$  when using a support piece with the hot-dip galvanized Bracket support according to DIN EN 61537 (test No. 10.8.2.3). It is recommended to apply the support piece from a bracket width of 400mm or if the bracket is installed at the end of the ceiling fixed bracket.

For assembly instructions, see the chapter assembly.

article number	L mm	G kg
<b>E4</b>		
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:

<b>KWF</b>	bracket, light duty	(page F05)
<b>KW</b>	bracket, standard	(page F05)
<b>KHU 40</b>	bracket support, 40x30mm	(page F22)
<b>KHUV 40</b>	coupler	(page F32)
<b>KHUSS 40</b>	support piece	(page F33)
<b>SU 40</b>	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.

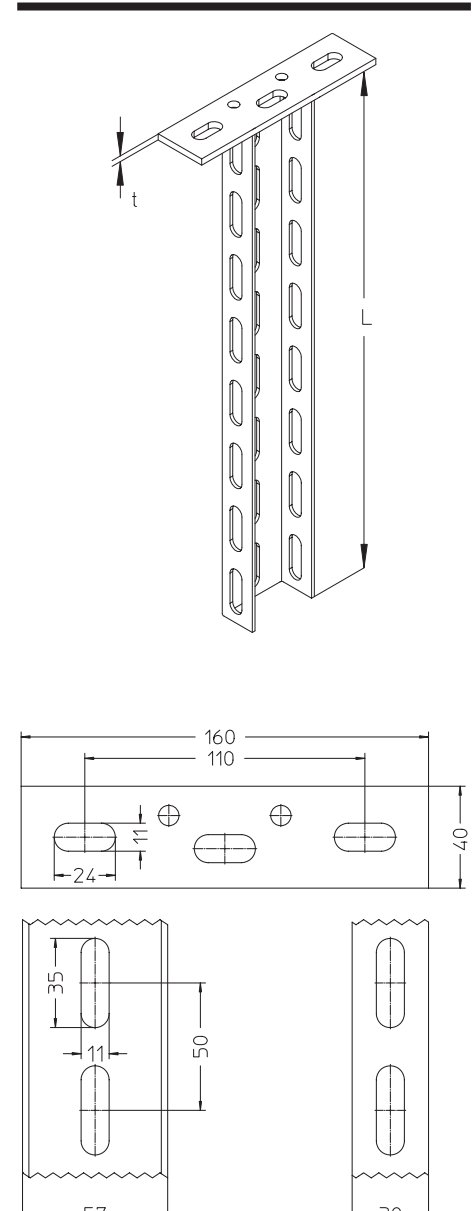
For assembly instructions, see the chapter assembly.

article number	L mm	G kg
<b>F</b>		
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

<b>E</b>		
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:

<b>KWF</b>	bracket, light duty	(page F05)
<b>KW</b>	bracket, standard	(page F05)
<b>KWMS</b>	wall bracket, medium duty	(page F06)
<b>KHU 57</b>	bracket support, 57x30mm	(page F24)
<b>KHUV 57</b>	coupler	(page F32)
<b>KHUSS 57</b>	support piece	(page F34)
<b>KHUSS 60</b>	support piece	(page F35)
<b>SU 57</b>	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.

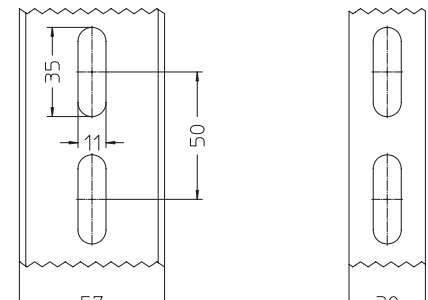
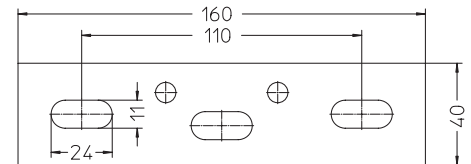
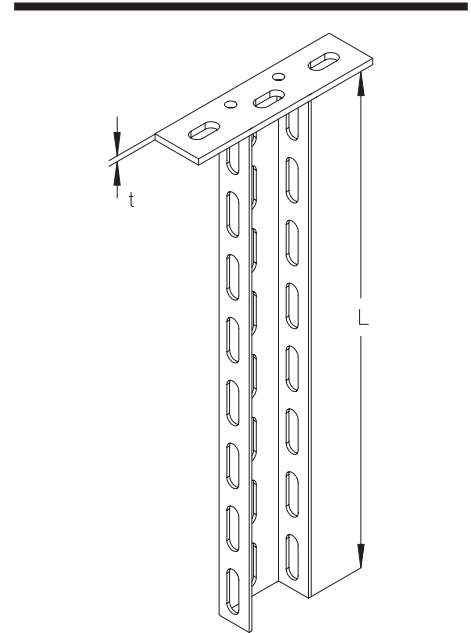
Load figures  $P_{max}$  when using a support piece with the hot-dip galvanized Bracket support according to DIN EN 61537 (test No. 10.8.2.3). It is recommended to apply the support piece from a bracket width of 400mm or if the bracket is installed at the end of the ceiling fixed bracket. For the system-tested circuit integrity maintenance the support piece KHUSS 60 must be used.

For assembly instructions, see the chapter assembly.

article number	L mm	G kg
<b>E4</b>		
<b>KDU 57-02E4</b>	200	0,57
<b>KDU 57-03E4</b>	300	0,74
<b>KDU 57-04E4</b>	400	0,91
<b>KDU 57-05E4</b>	500	1,08
<b>KDU 57-06E4</b>	600	1,25
<b>KDU 57-07E4</b>	700	1,42
<b>KDU 57-08E4</b>	800	1,59
<b>KDU 57-09E4</b>	900	1,76
<b>KDU 57-10E4</b>	1000	1,93
<b>KDU 57-11E4</b>	1100	2,10
<b>KDU 57-12E4</b>	1200	2,27
<b>KDU 57-13E4</b>	1300	2,44
<b>KDU 57-14E4</b>	1400	2,61
<b>KDU 57-15E4</b>	1500	2,78

accessories optional:

<b>KWF</b>	bracket, light duty	(page F05)
<b>KW</b>	bracket, standard	(page F05)
<b>KWMS</b>	wall bracket, medium duty	(page F06)
<b>KHU 57</b>	bracket support, 57x30mm	(page F24)
<b>KHUV 57</b>	coupler	(page F32)
<b>KHUSS 57</b>	support piece	(page F34)
<b>KHUSS 60</b>	support piece	(page F35)
<b>SU 57</b>	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.

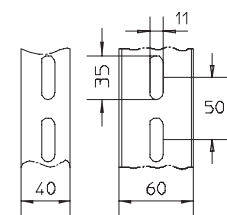
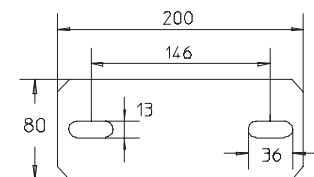
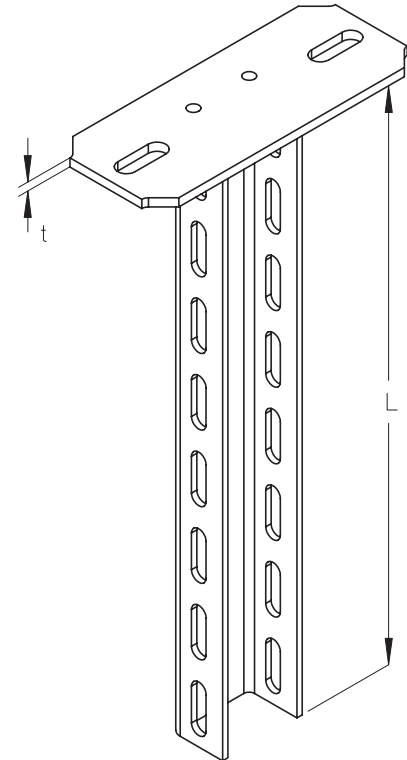
For assembly instructions, see the chapter assembly.



article number	L mm	t mm	G kg
<b>F</b>			
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
<b>E</b>			
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:

<b>KW</b>	bracket, standard	(page F05)
<b>KWMS</b>	wall bracket, medium duty	(page F06)
<b>KWS</b>	bracket, heavy	(page F07)
<b>SD</b>	expansion anchor	(page H12)
<b>SU 60</b>	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.

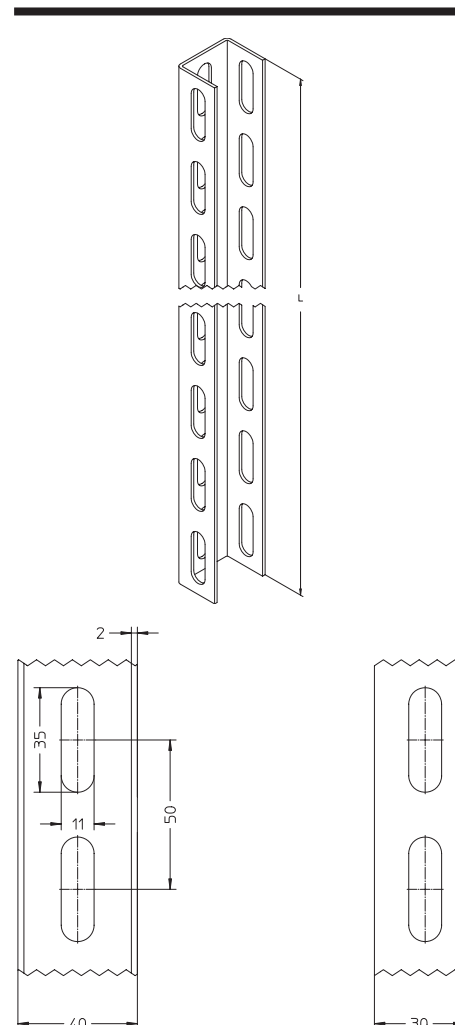
It is recommended to apply the support piece from a bracket width of 400mm or if the bracket is installed at the end of the ceiling fixed bracket.

For assembly instructions, see the chapter assembly.

article number	L mm	G kg
<b>S</b>		
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
<b>F</b>		
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:

<b>KDU 40</b>	bracket support, 40x30mm	(page F17)
<b>BGU 40</b>	head plate, profile U40	(page F28)
<b>KWF</b>	bracket, light duty	(page F05)
<b>KW</b>	bracket, standard	(page F05)
<b>KHUV 40</b>	coupler	(page F32)
<b>KHUSS 40</b>	support piece	(page F33)
<b>SU 40</b>	protection end cap	(page F37)
<b>BGUD</b>	head plate, profile U40/ U57/ U60	(page F31)
<b>BGUDW</b>	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.

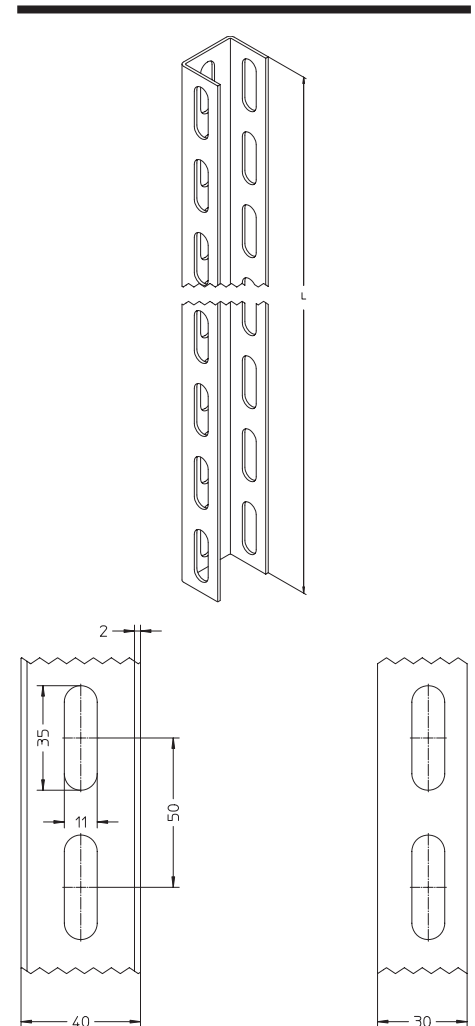
It is recommended to apply the support piece from a bracket width of 400mm or if the bracket is installed at the end of the ceiling fixed bracket.

For assembly instructions, see the chapter assembly.

article number	L mm	G kg
<b>E</b>		
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
<b>E4</b>		
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:

<b>KDU 40</b>	bracket support, 40x30mm	(page F17)
<b>BGU 40</b>	head plate, profile U40	(page F28)
<b>KWF</b>	bracket, light duty	(page F05)
<b>KW</b>	bracket, standard	(page F05)
<b>KHUV 40</b>	coupler	(page F32)
<b>KHUSS 40</b>	support piece	(page F33)
<b>SU 40</b>	protection end cap	(page F37)
<b>BGUD</b>	head plate, profile U40/ U57/ U60	(page F31)
<b>BGUDW</b>	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.

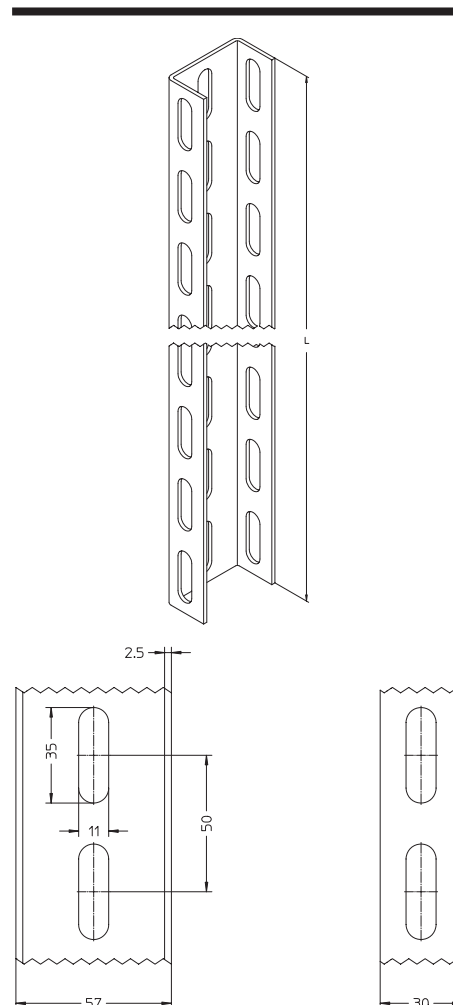
For assembly instructions, see the chapter assembly.

article number	L mm	G kg
<b>S</b>		
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

<b>F</b>		
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:

<b>BGU 57</b>	head plate, profile U57	(page F28)
<b>KWF</b>	bracket, light duty	(page F05)
<b>KW</b>	bracket, standard	(page F05)
<b>KWMS</b>	wall bracket, medium duty	(page F06)
<b>KDU 57</b>	bracket support, 57x30mm	(page F19)
<b>KHUV 57</b>	coupler	(page F32)
<b>KHUSS 57</b>	support piece	(page F34)
<b>SU 57</b>	protection end cap	(page F37)
<b>BGUD</b>	head plate, profile U40/ U57/ U60	(page F31)
<b>BGUDW</b>	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.

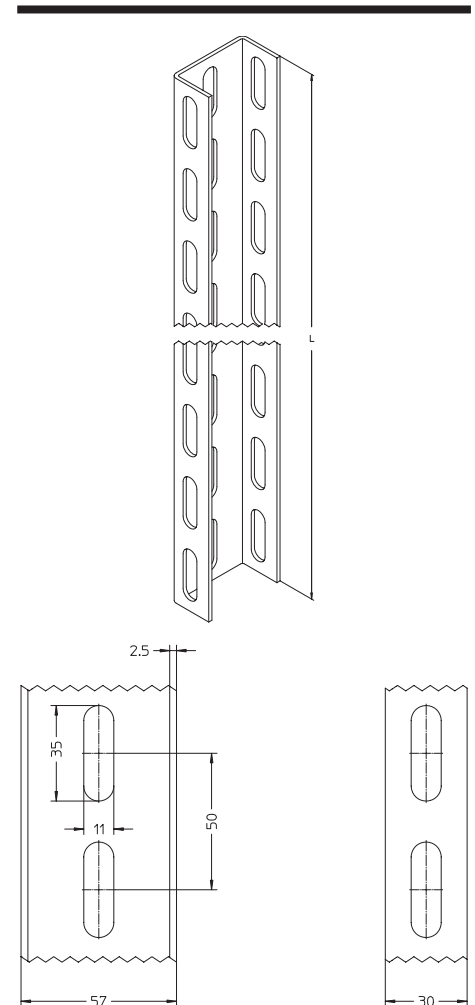
For assembly instructions, see the chapter assembly.

article number	L mm	G kg
<b>E</b>		
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

<b>E4</b>		
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:

<b>BGU 57</b>	head plate, profile U57	(page F28)
<b>KWF</b>	bracket, light duty	(page F05)
<b>KW</b>	bracket, standard	(page F05)
<b>KWMS</b>	wall bracket, medium duty	(page F06)
<b>KDU 57</b>	bracket support, 57x30mm	(page F19)
<b>KHUV 57</b>	coupler	(page F32)
<b>KHUSS 57</b>	support piece	(page F34)
<b>SU 57</b>	protection end cap	(page F37)
<b>BGUD</b>	head plate, profile U40/ U57/ U60	(page F31)
<b>BGUDW</b>	head plate, profile U40/ U57/ U60	(page F31)



# Support systems

## KHU-system

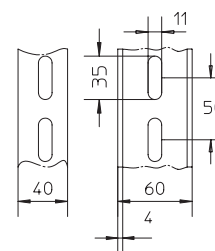
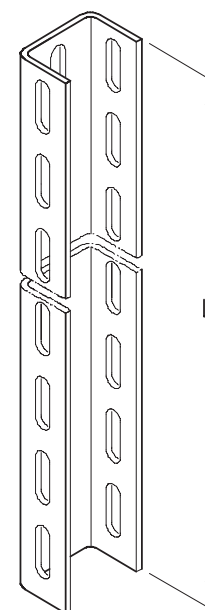
### KHU 60 bracket support, profile U60

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
<b>F</b>				
<b>KHU 60-02F</b>	40	60	200	0,70
<b>KHU 60-03F</b>	40	60	300	1,10
<b>KHU 60-04F</b>	40	60	400	1,40
<b>KHU 60-05F</b>	40	60	500	1,80
<b>KHU 60-06F</b>	40	60	600	2,10
<b>KHU 60-07F</b>	40	60	700	2,50
<b>KHU 60-08F</b>	40	60	800	2,80
<b>KHU 60-09F</b>	40	60	900	3,20
<b>KHU 60-10F</b>	40	60	1000	3,50
<b>KHU 60-11F</b>	40	60	1100	3,90
<b>KHU 60-12F</b>	40	60	1200	4,20
<b>KHU 60-13F</b>	40	60	1300	4,60
<b>KHU 60-14F</b>	40	60	1400	4,90
<b>KHU 60-15F</b>	40	60	1500	5,30
<b>KHU 60-20F</b>	40	60	2000	7,00
<b>KHU 60-30F</b>	40	60	3000	10,50
<b>KHU 60-60F</b>	40	60	6000	21,10
<b>E</b>				
<b>KHU 60-30E</b>	40	60	3000	10,50

accessories optional:

<b>BGU 60</b>	head plate, profile U60	(page F29)
<b>SU 60</b>	protection end cap, profile U60	(page F37)
<b>KW</b>	bracket, standard	(page F05)
<b>WPF-B</b>	flange mounting clamp (brackets)	(page D34)
<b>KLS</b>	fixing set	(page H33)



# Support systems

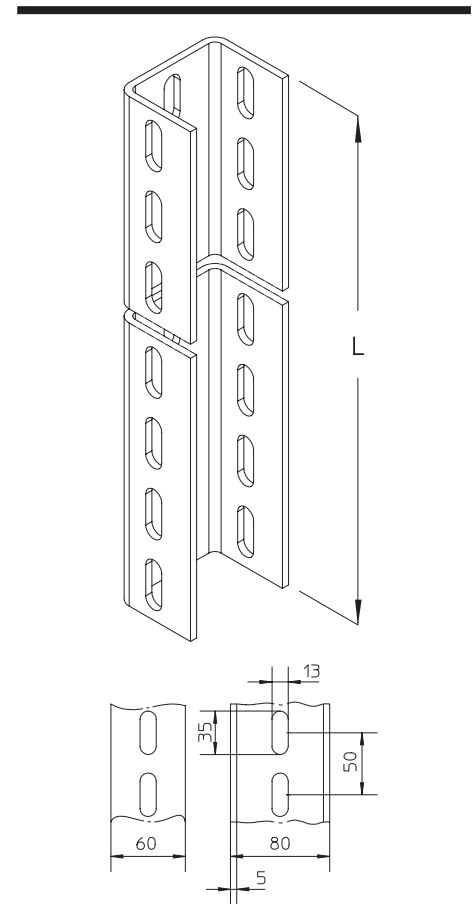
## KHU-system

### KHU 80 bracket support, profile U80

article number	H mm	B mm	L mm	G kg
<b>F</b>				
<b>KHU 80-02F</b>	80	60	200	1,33
<b>KHU 80-03F</b>	80	60	300	2,00
<b>KHU 80-04F</b>	80	60	400	2,66
<b>KHU 80-05F</b>	80	60	500	3,33
<b>KHU 80-06F</b>	80	60	600	3,99
<b>KHU 80-07F</b>	80	60	700	4,66
<b>KHU 80-08F</b>	80	60	800	5,32
<b>KHU 80-09F</b>	80	60	900	5,99
<b>KHU 80-10F</b>	80	60	1000	6,65
<b>KHU 80-11F</b>	80	60	1100	7,32
<b>KHU 80-12F</b>	80	60	1200	7,98
<b>KHU 80-13F</b>	80	60	1300	8,65
<b>KHU 80-14F</b>	80	60	1400	9,32
<b>KHU 80-15F</b>	80	60	1500	9,98
<b>KHU 80-16F</b>	80	60	1600	10,65
<b>KHU 80-17F</b>	80	60	1700	11,31
<b>KHU 80-18F</b>	80	60	1800	11,98
<b>KHU 80-19F</b>	80	60	1900	12,64
<b>KHU 80-20F</b>	80	60	2000	13,31
<b>KHU 80-30F</b>	80	60	3000	19,96
<b>KHU 80-60F</b>	80	60	6000	39,92

accessories optional:

<b>KW</b>	bracket, standard	(page F05)
<b>WPF-B</b>	flange mounting clamp (brackets)	(page D34)
<b>KLS</b>	fixing set	(page H33)



# Support systems

## KHU-system

### 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
<b>F</b>					
<b>BGU 40F</b>	100	40	120	4	0,37

accessories included:

2 x <b>FRSV 10x20F</b>	round-head screw with short square	(page H34)
2 x <b>US 10x21F</b>	square washer, DIN 125	(page H39)
2 x <b>SEM 10F</b>	hexagon-nut, DIN 934	(page H41)

article number	H mm	B mm	L mm	t mm	G kg
<b>E</b>					
<b>BGU 40E</b>	100	40	120	4	0,35

accessories included:

2 x <b>FRSV 10x20E</b>	round-head screw with short square	(page H35)
2 x <b>US 10x21E</b>	square washer, DIN 125	(page H40)
2 x <b>SEM 10E</b>	hexagon-nut, DIN 934	(page H41)

article number	H mm	B mm	L mm	t mm	G kg
<b>E4</b>					
<b>BGU 40E4</b>	100	40	120	4	0,35

accessories included:

2 x <b>FRSV 10x20E4</b>	round-head screw with short square	(page H35)
2 x <b>US 10x21E4</b>	square washer, DIN 125	(page H40)
2 x <b>SEM 10E4</b>	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
<b>F</b>					
<b>BGU 57F</b>	100	40	160	5	0,54

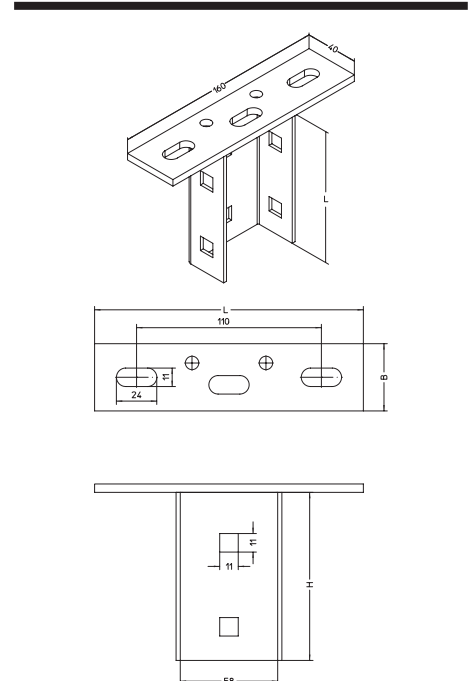
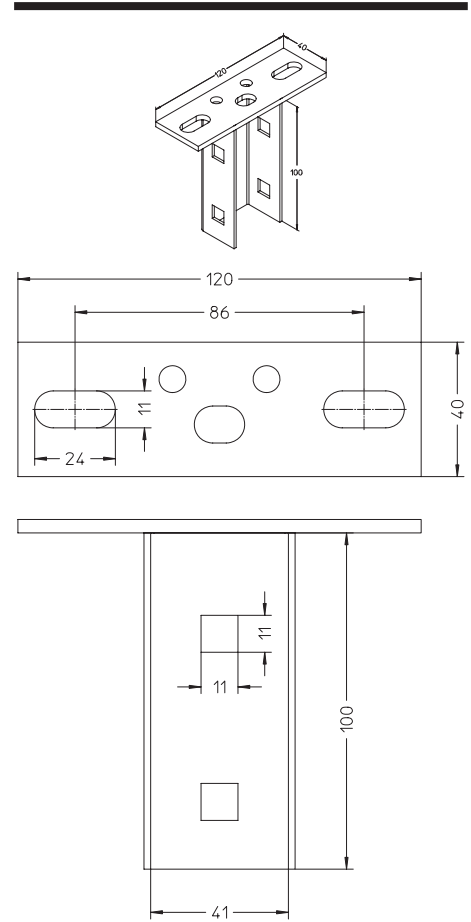
accessories included:

2 x <b>FRSV 10x20F</b>	round-head screw with short square	(page H34)
2 x <b>US 10x21F</b>	square washer, DIN 125	(page H39)
2 x <b>SEM 10F</b>	hexagon-nut, DIN 934	(page H41)

article number	H mm	B mm	L mm	t mm	G kg
<b>E</b>					
<b>BGU 57E</b>	100	40	160	5	0,52

accessories included:

2 x <b>FRSV 10x20E</b>	round-head screw with short square	(page H35)
2 x <b>US 10x21E</b>	square washer, DIN 125	(page H40)
2 x <b>SEM 10E</b>	hexagon-nut, DIN 934	(page H41)



# Support systems

## KHU-system

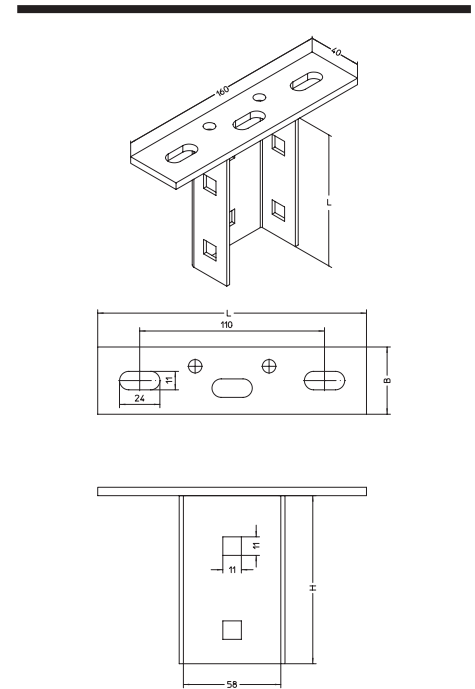
### BGU 57 head plate, profile U57

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
<b>E4</b>					
<b>BGU 57E4</b>	100	40	160	5	0,52

accessories included:

2 x <b>FRSV 10x20E4</b>	round-head screw with short square	(page H35)
2 x <b>US 10x21E4</b>	square washer, DIN 125	(page H40)
2 x <b>SEM 10E4</b>	hexagon-nut, DIN 934	(page H41)



### BGU 60 head plate, profile U60

This article is also available 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
<b>F</b>				
<b>BGU 60F</b>	120	80	200	1,28

accessories included:

4 x <b>SES 10x20F</b>	hexagon head bolt, DIN 933	(page H38)
4 x <b>US 10x21F</b>	square washer, DIN 125	(page H39)
4 x <b>SEM 10F</b>	hexagon-nut, DIN 934	(page H41)

article number	H mm	B mm	L mm	G kg
<b>E</b>				
<b>BGU 60E</b>	120	80	200	1,30

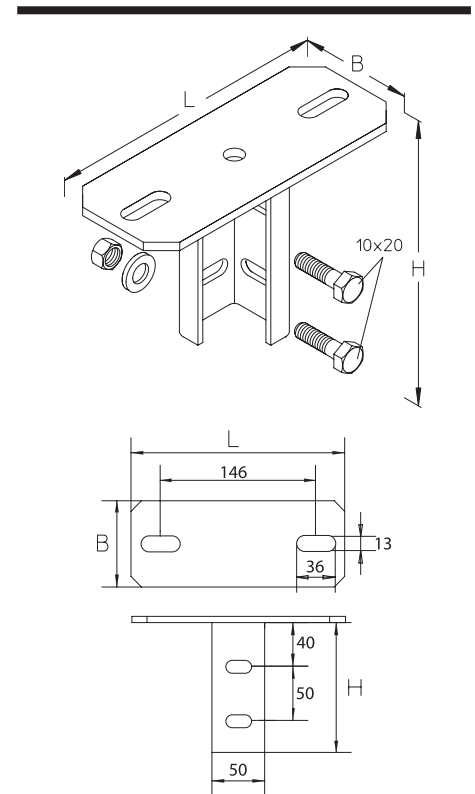
accessories included:

4 x <b>SES 10x20E</b>	hexagon head bolt, DIN 933	(page H38)
4 x <b>US 10x21E</b>	square washer, DIN 125	(page H40)
4 x <b>SEM 10E</b>	hexagon-nut, DIN 934	(page H41)

article number	H mm	B mm	L mm	G kg
<b>E4</b>				
<b>BGU 60E4</b>	120	80	200	1,30

accessories included:

4 x <b>SES 10x20E4</b>	hexagon head bolt, DIN 933	(page H38)
4 x <b>US 10x21E4</b>	square washer, DIN 125	(page H40)
4 x <b>SEM 10E4</b>	hexagon-nut, DIN 934	(page H41)



# Support systems

## KHU-system

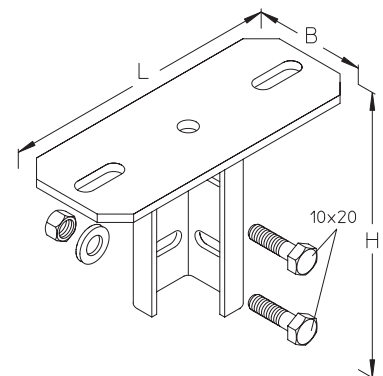
### BGU 80 head plate, profile U80

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
<b>F</b>				
<b>BGU 80F</b>	120	80	200	2,05

accessories included:

4 x <b>SEM 12F</b>	hexagon-nut, DIN 934	(page H41)
4 x <b>US 13x24F</b>	square washer, DIN 125	(page H39)
4 x <b>SES 12x20F</b>	hexagon head bolt, DIN 933	(page H38)

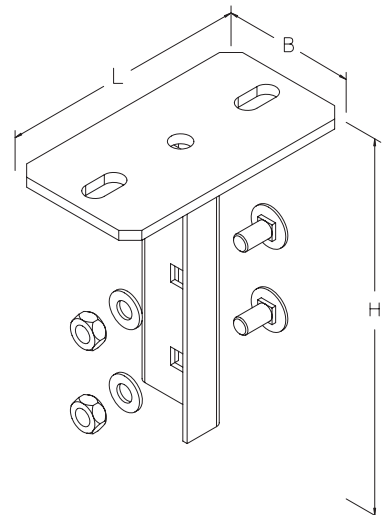


### BGUQ head plate, profile U50

article number	H mm	B mm	L mm	G kg
<b>F</b>				
<b>BGUQ 50F</b>	156	80	150	0,86

accessories included:

2 x <b>SEM 10F</b>	hexagon-nut, DIN 934	(page H41)
2 x <b>US 10x21F</b>	square washer, DIN 125	(page H39)
2 x <b>FRSV 10x20F</b>	round-head screw with short square	(page H34)



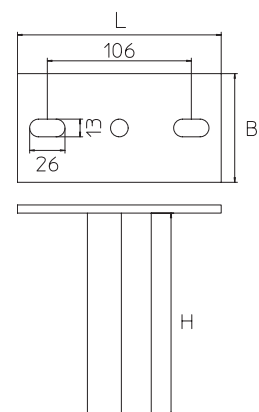
article number	H mm	B mm	L mm	G kg
<b>E</b>				
<b>BGUQ 50E</b>	156	80	150	0,86

accessories included:

2 x <b>SEM 10E</b>	hexagon-nut, DIN 934	(page H41)
2 x <b>US 10x21E4</b>	square washer, DIN 125	(page H40)
2 x <b>US 10x21E</b>	square washer, DIN 125	(page H40)
2 x <b>FRSV 10x20E</b>	round-head screw with short square	(page H35)

accessories optional:

<b>SD</b>	expansion anchor	(page H12)
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# 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
<b>F</b>				
<b>BGUD F</b>	125	80	200	1,30

accessories included:

2 x <b>SES 10x20F</b>	hexagon head bolt, DIN 933	(page H38)
2 x <b>SEM 10F</b>	hexagon-nut, DIN 934	(page H41)
2 x <b>US 10x30F</b>	square washer, DIN 9021	(page H40)

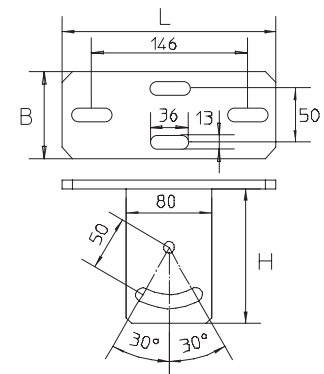
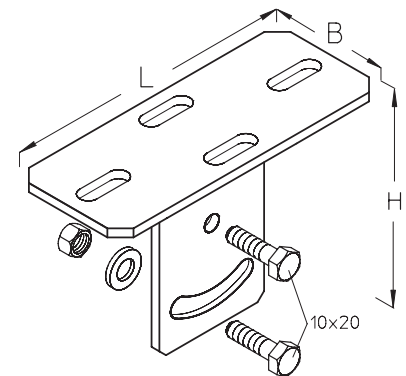
article number	H mm	B mm	L mm	G kg
<b>E</b>				
<b>BGUD E</b>	125	80	200	1,40

accessories included:

2 x <b>SES 10x20E</b>	hexagon head bolt, DIN 933	(page H38)
2 x <b>SEM 10E</b>	hexagon-nut, DIN 934	(page H41)
2 x <b>US 10x30E</b>	square washer, DIN 9021	(page H40)

accessories optional:

<b>SD</b>	expansion anchor	(page H12)
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### 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.

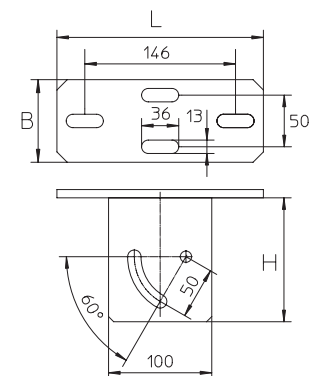
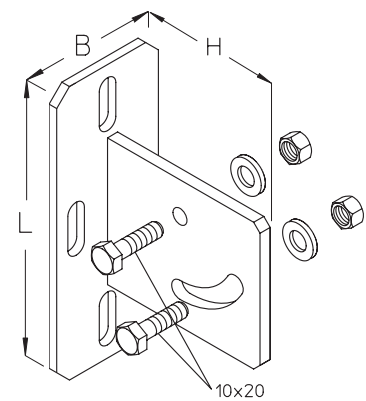
article number	H mm	B mm	L mm	G kg
<b>F</b>				
<b>BGUDW F</b>	120	80	200	1,40

accessories included:

2 x <b>SES 10x20F</b>	hexagon head bolt, DIN 933	(page H38)
2 x <b>SEM 10F</b>	hexagon-nut, DIN 934	(page H41)
2 x <b>US 10x30F</b>	square washer, DIN 9021	(page H40)

accessories optional:

<b>SD</b>	expansion anchor	(page H12)
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# Support systems

## KHU-system

### KHUV 40 coupler

article number	H mm	B mm	L mm	t mm	G kg
<b>S</b>					
<b>KHUV 40S</b>	45	32	210	2,5	0,45

accessories included:

4 x <b>SEM 10</b>	hexagon-nut, DIN 934	(page H41)
4 x <b>US 10x21</b>	square washer, DIN 125	(page H39)
4 x <b>FRSV 10x20</b>	round-head screw with short square	(page H34)

article number	H mm	B mm	L mm	t mm	G kg
<b>F</b>					
<b>KHUV 40F</b>	45	32	210	2,5	0,47

accessories included:

4 x <b>SEM 10F</b>	hexagon-nut, DIN 934	(page H41)
4 x <b>US 10x21F</b>	square washer, DIN 125	(page H39)
4 x <b>FRSV 10x20F</b>	round-head screw with short square	(page H34)

article number	H mm	B mm	L mm	t mm	G kg
<b>E</b>					
<b>KHUV 40E</b>	45	32	210	2,5	0,45

accessories included:

4 x <b>SEM 10E</b>	hexagon-nut, DIN 934	(page G41)
4 x <b>US 10x21E</b>	square washer, DIN 125	(page G40)
4 x <b>FRSV 10x20E</b>	round-head screw with short square	(page G35)

article number	H mm	B mm	L mm	t mm	G kg
<b>E4</b>					
<b>KHUV 40E4</b>	45	32	210	2,5	0,46

accessories included:

4 x <b>SEM 10E4</b>	hexagon-nut, DIN 934	(page H41)
4 x <b>US 10x21E4</b>	square washer, DIN 125	(page H40)
4 x <b>FRSV 10x20E4</b>	round-head screw with short square	(page H35)

### KHUV 57 coupler

article number	H mm	B mm	L mm	t mm	G kg
<b>S</b>					
<b>KHUV 57S</b>	63	32,5	210	2,5	0,60

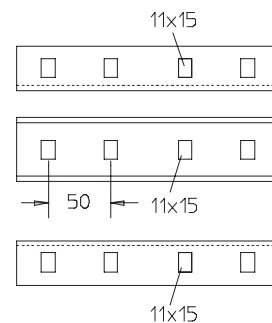
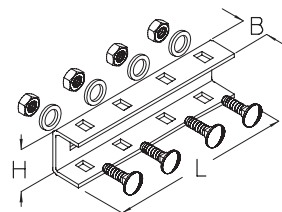
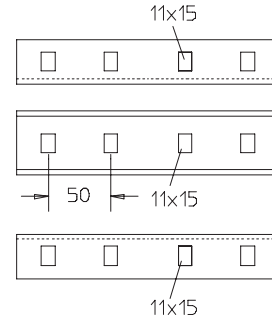
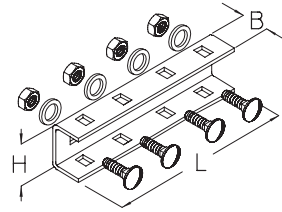
accessories included:

4 x <b>SEM 10</b>	hexagon-nut, DIN 934	(page H41)
4 x <b>US 10x21</b>	square washer, DIN 125	(page H39)
4 x <b>FRSV 10x20</b>	round-head screw with short square	(page H34)

article number	H mm	B mm	L mm	t mm	G kg
<b>F</b>					
<b>KHUV 57F</b>	63	32,5	210	2,5	0,63

accessories included:

4 x <b>SEM 10F</b>	hexagon-nut, DIN 934	(page H41)
4 x <b>US 10x21F</b>	square washer, DIN 125	(page H39)
4 x <b>FRSV 10x20F</b>	round-head screw with short square	(page H34)



# Support systems

## KHU-system

### KHUV 57 coupler

article number	H mm	B mm	L mm	t mm	G kg
<b>E</b>					
<b>KHUV 57E</b>	63	32,5	210	2,5	0,60

accessories included:

4 x <b>SEM 10E</b>	hexagon-nut, DIN 934	(page H41)
4 x <b>US 10x21E</b>	square washer, DIN 125	(page H40)
4 x <b>FRSV 10x20E</b>	round-head screw with short square	(page H35)

article number	H mm	B mm	L mm	t mm	G kg
<b>E4</b>					
<b>KHUV 57E4</b>	63	32,5	210	2,5	0,61

accessories included:

4 x <b>SEM 10E4</b>	hexagon-nut, DIN 934	(page H41)
4 x <b>US 10x21E4</b>	square washer, DIN 125	(page H40)
4 x <b>FRSV 10x20E4</b>	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
<b>F</b>				
<b>KHUV 60F</b>	51	35	210	0,80

accessories included:

4 x <b>KLS 10x20F</b>	fixing set	(page H34)
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article number	H mm	B mm	L mm	G kg
<b>E</b>				
<b>KHUV 60E</b>	51	35	210	0,89

article number	H mm	B mm	L mm	G kg
<b>E4</b>				
<b>KHUV 60E4</b>	51	35	210	0,89

accessories included:

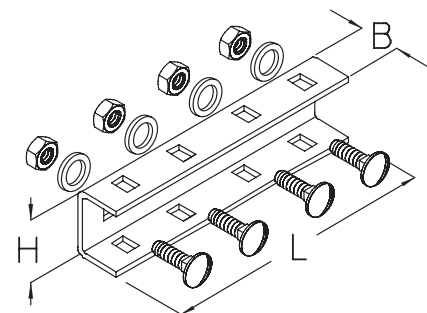
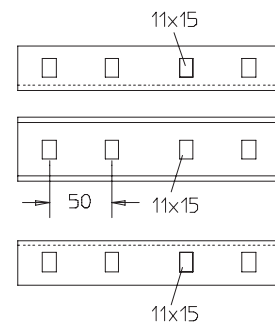
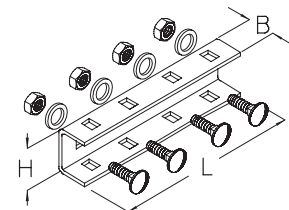
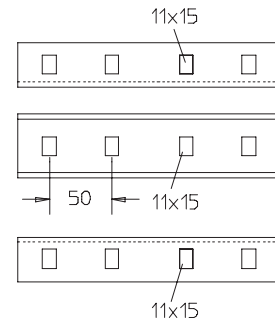
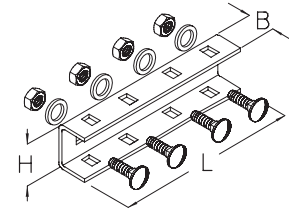
4 x <b>KLS 10x20E</b>	fixing set	(page H34)
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### KHUV 80 connector, KHU 80

article number	H mm	B mm	L mm	t mm	G kg
<b>F</b>					
<b>KHUV 80F</b>	69	54	310	4,00	1,92

accessories included:

6x <b>SEM 12F</b>	hexagon-nut, DIN 934	(page H41)
6x <b>US 13x24F</b>	square washer, DIN 125	(page H39)
6x <b>FRS 12x30F</b>	round-head screw with square, DIN 603	(page H35)



# Support systems

## KHU-system

### KHUSS 40 support piece

For an application example, see the chapter assembly.

article number	G	kg
<b>S</b>		
<b>KHUSS 40S</b>		0,11

accessories included:

1 x <b>SEM 10</b>	hexagon-nut, DIN 934	(page H41)
2 x <b>US 10x21</b>	square washer, DIN 125	(page H39)
1 x <b>SES 10x75</b>	hexagon head bolt, DIN 933	(page H37)

article number	G	kg
<b>F</b>		
<b>KHUSS 40F</b>		0,11

accessories included:

1 x <b>SEM 10F</b>	hexagon-nut, DIN 934	(page H41)
2 x <b>US 10x21F</b>	square washer, DIN 125	(page H39)
1 x <b>SES 10x75F</b>	hexagon head bolt, DIN 933	(page H38)

article number	G	kg
<b>E</b>		
<b>KHUSS 40E</b>		0,11

accessories included:

1 x <b>SEM 10E</b>	hexagon-nut, DIN 934	(page H41)
2 x <b>US 10x21E</b>	square washer, DIN 125	(page H40)
1 x <b>SES 10x75E</b>	hexagon head bolt, DIN 933	(page H38)

article number	G	kg
<b>E4</b>		
<b>KHUSS 40E4</b>		0,11

accessories included:

1 x <b>SEM 10E4</b>	hexagon-nut, DIN 934	(page H41)
2 x <b>US 10x21E4</b>	square washer, DIN 125	(page H40)
1 x <b>SES 10x75E4</b>	hexagon head bolt, DIN 933	(page H38)

### KHUSS 57 support piece

For an application example, see the chapter assembly.

article number	G	kg
<b>S</b>		
<b>KHUSS 57S</b>		0,14

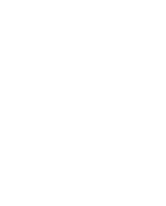
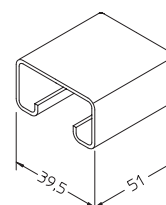
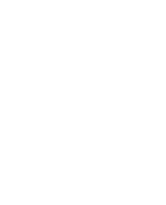
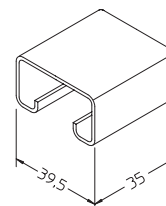
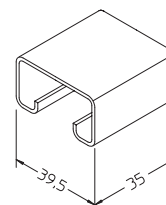
accessories included:

1 x <b>SEM 10</b>	hexagon-nut, DIN 934	(page H41)
2 x <b>US 10x21</b>	square washer, DIN 125	(page H39)
1 x <b>SES 10x100</b>	hexagon head bolt, DIN 933	(page H37)

article number	G	kg
<b>F</b>		
<b>KHUSS 57F</b>		0,14

accessories included:

1 x <b>SEM 10F</b>	hexagon-nut, DIN 934	(page H41)
2 x <b>US 10x21F</b>	square washer, DIN 125	(page H39)
1 x <b>SES 10x100F</b>	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
<b>E</b>	
<b>KHUSS 57E</b>	0,14

accessories included:

1 x <b>SEM 10E</b>	hexagon-nut, DIN 934	(page H41)
2 x <b>US 10x21E</b>	square washer, DIN 125	(page H40)
1 x <b>SES 10x100E</b>	hexagon head bolt, DIN 933	(page H38)

article number	G
	kg
<b>E4</b>	
<b>KHUSS 57E4</b>	0,14

accessories included:

1 x <b>SEM 10E4</b>	hexagon-nut, DIN 934	(page H41)
2 x <b>US 10x21E4</b>	square washer, DIN 125	(page H40)
1 x <b>SES 10x100E4</b>	hexagon head bolt, DIN 933	(page H38)

### KHUSS 60 support piece

For an application example, see the chapter assembly.

article number	G
	kg
<b>S</b>	
<b>KHUSS 60S</b>	0,18

accessories included:

1 x <b>SES 10x100</b>	hexagon head bolt, DIN 933	(page H37)
2 x <b>US 10x21</b>	square washer, DIN 125	(page H39)
1 x <b>SEM 10</b>	hexagon-nut, DIN 934	(page H41)

article number	G
	kg
<b>F</b>	
<b>KHUSS 60F</b>	0,19

accessories included:

2 x <b>US 10x21F</b>	square washer, DIN 125	(page H39)
1 x <b>SEM 10F</b>	hexagon-nut, DIN 934	(page H41)
1 x <b>SES 10x100F</b>	hexagon head bolt, DIN 933	(page H38)

### BL 4 corner angle, profile U50/ U60/ U100

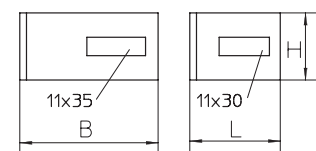
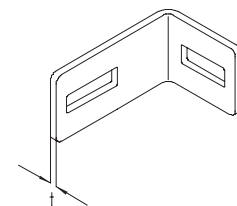
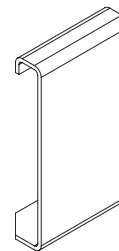
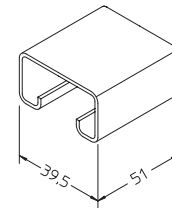
This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

For an application example, see the chapter assembly.

article number	H	B	L	t	G
	mm	mm	mm	mm	kg
<b>F</b>					
<b>BL 4F</b>	40	82,5	54	4	0,15
<b>E</b>					
<b>BL 4E</b>	40	82,5	54	4	0,15

accessories optional:

<b>SD</b>	expansion anchor	(page H12)
<b>KLS</b>	fixing set	(page H33)



# Support systems

## KHU-system

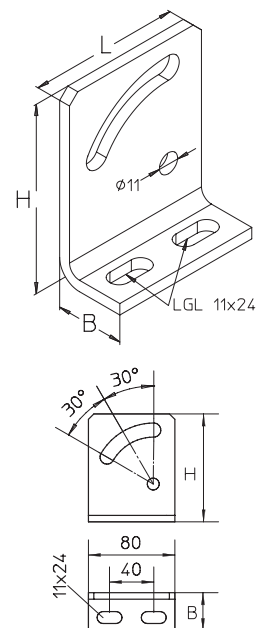
### BLD adaptor diagonal

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	G kg
<b>F</b>				
<b>BLD F</b>	100	37	80	0,50

accessories optional:

<b>SD</b>	expansion anchor	(page H12)
<b>SES</b>	hexagon head bolt, DIN 933	(page H37)
<b>AM22</b>	channel nut, A41/ KHA 41/ KHAL 41	(page H43)
<b>AMF22</b>	channel spring nut, A41	(page H43)
<b>HS18</b>	tee-head bolt, A7/ A8/ A9	(page H45)
<b>AMF18</b>	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
<b>F</b>				
<b>KB F</b>	150	150	3	0,40

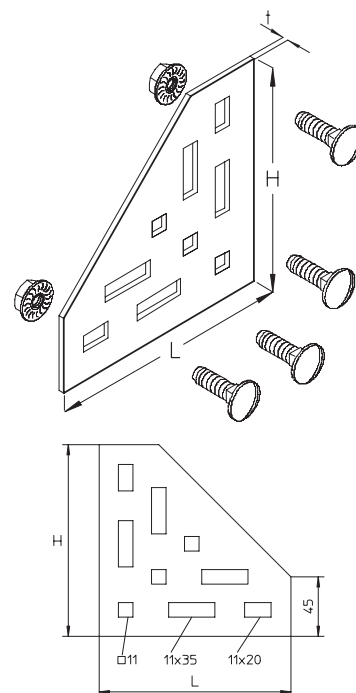
accessories included:

4 x **KLS 10x20F** fixing set (page H34)

article number	H mm	L mm	t mm	G kg
<b>E</b>				
<b>KB E</b>	150	150	2	0,40

accessories included:

4 x **KLS 10x20E** fixing set (page H34)

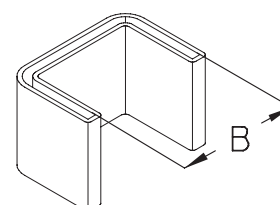


### SU 40 protection end cap

article number	B mm	G kg
<b>PE</b>		
<b>SU 40</b>	44	0,01

accessories optional:

<b>KDU 40</b>	bracket support, 40x30mm	(page F17)
<b>KHU 40</b>	bracket support, 40x30mm	(page F22)



# Support systems

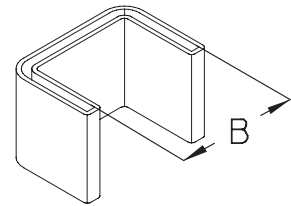
## KHU-system

### SU 57 protection end cap

article number	B mm	G kg
<b>PE</b>		
<b>SU 57</b>	61	0,02

accessories optional:

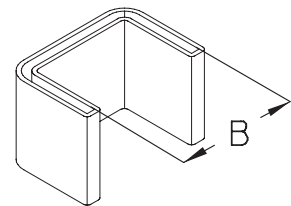
- KDU 57** bracket support, 57x30mm (page F19)  
**KHU 57** bracket support, 57x30mm (page F24)



### SU 60 protection end cap, profile U60

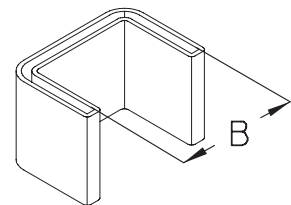
For an application example, see the chapter assembly.

article number	B mm	G kg
<b>PE</b>		
<b>SU 60</b>	64	0,02



### SU 80 protection cap, KHU 80

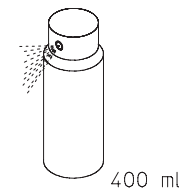
article number	B mm	G kg
<b>PE</b>		
<b>SU 80</b>	84	0.03



### KZS cold zinc spray

For assembly instructions, see the chapter assembly.

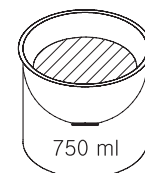
article number	I ml	G kg
<b>KZS</b>	400	0,40



### KZF cold zinc paint

For assembly instructions, see the chapter assembly.

article number	I ml	G kg
<b>KZF</b>	750	1,93



# Support systems

## KHI-system

### 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.

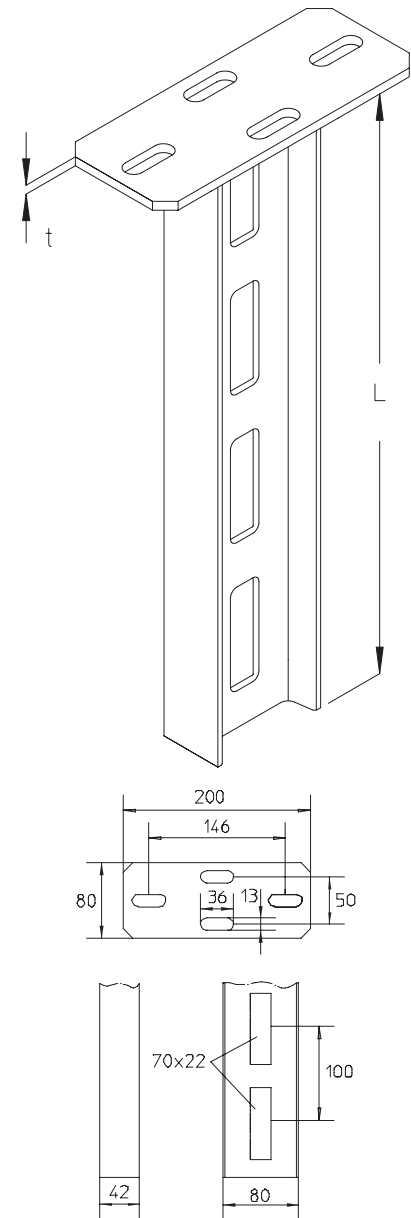
For assembly instructions, see the chapter assembly.



article number	L mm	t mm	G kg
<b>F</b>			
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:

<b>KT</b>	bracket, standard, profile I80	(page F40)
<b>KTS</b>	bracket, heavy, profile I80	(page F40)
<b>KTSS</b>	bracket, very heavy, profile I80	(page F41)
<b>SD</b>	expansion anchor	(page H12)
<b>SI</b>	protection end cap, yellow	(page F46)



# Support systems

## KHI-system

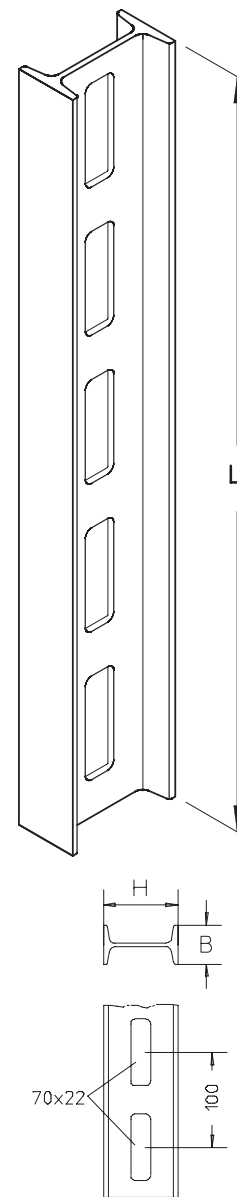
### KHI bracket support, type KT

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
<b>F</b>				
<b>KHI 02F</b>	80	42	200	1,10
<b>KHI 03F</b>	80	42	300	1,70
<b>KHI 04F</b>	80	42	400	2,30
<b>KHI 05F</b>	80	42	500	2,90
<b>KHI 06F</b>	80	42	600	3,50
<b>KHI 07F</b>	80	42	700	4,10
<b>KHI 08F</b>	80	42	800	4,70
<b>KHI 09F</b>	80	42	900	5,30
<b>KHI 10F</b>	80	42	1000	5,90
<b>KHI 11F</b>	80	42	1100	6,40
<b>KHI 12F</b>	80	42	1200	7,10
<b>KHI 13F</b>	80	42	1300	7,60
<b>KHI 14F</b>	80	42	1400	8,20
<b>KHI 15F</b>	80	42	1500	8,80
<b>KHI 16F</b>	80	42	1600	9,40
<b>KHI 17F</b>	80	42	1700	10,00
<b>KHI 18F</b>	80	42	1800	10,60
<b>KHI 19F</b>	80	42	1900	11,10
<b>KHI 20F</b>	80	42	2000	11,70
<b>KHI 21F</b>	80	42	2100	12,30
<b>KHI 22F</b>	80	42	2200	12,90
<b>KHI 23F</b>	80	42	2300	13,50
<b>KHI 24F</b>	80	42	2400	14,10
<b>KHI 25F</b>	80	42	2500	14,60
<b>KHI 26F</b>	80	42	2600	15,20
<b>KHI 27F</b>	80	42	2700	15,80
<b>KHI 28F</b>	80	42	2800	16,30
<b>KHI 29F</b>	80	42	2900	16,90
<b>KHI 30F</b>	80	42	3000	17,50
<b>KHI 60F</b>	80	42	6000	35,10

accessories optional:

<b>KT</b>	bracket, standard, profile I80	(page F40)
<b>KTSS</b>	bracket, very heavy, profile I80	(page F41)
<b>BL 7</b>	corner angle	(page E23, F45)
<b>BL 3</b>	corner angle	(page F44)
<b>BLI</b>	corner angle	(page F45)
<b>BGI</b>	head plate, profile I80	(page E22, F41)
<b>BGIQ</b>	head plate, profile I80	(page E23, F42)
<b>BGID</b>	head plate, profile I80	(page F43)
<b>HKI</b>	support connector	(page E22, F43)
<b>HKIW</b>	support connector	(page F44)
<b>HKIQ</b>	support connector	(page F44)





# Support systems

## KHI-system

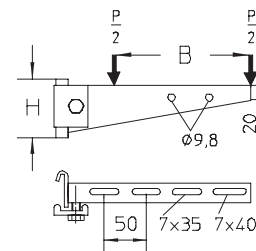
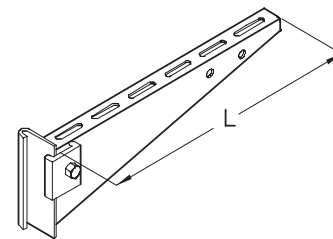
### KT bracket, standard, profile I80

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	$P_{max}$ kN	G kg
<b>F</b>					
<b>KT 010F</b>	50	100	120	2,0	0,24
<b>KT 020F</b>	70	200	220	2,0	0,56
<b>KT 030F</b>	70	300	320	2,0	0,77
<b>KT 040F</b>	90	400	420	2,0	0,87
<b>KT 050F</b>	110	500	520	2,0	1,40
<b>KT 060F</b>	110	600	620	2,1	1,55

accessories optional:

**KLU** fixing set (page H07)  
**KLR** fixing set (page H33)

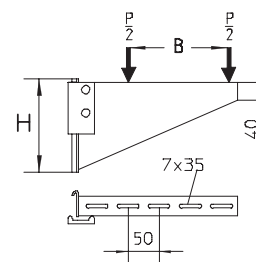
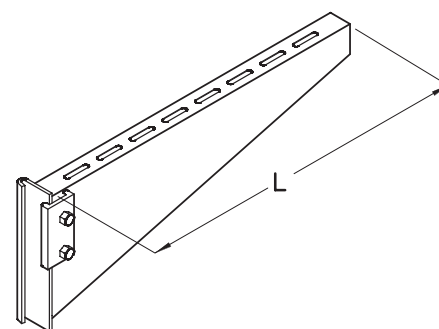


### KTS bracket, heavy, profile I80

article number	H mm	B mm	L mm	$P_{max}$ kN	G kg
<b>F</b>					
<b>KTS 020F</b>	180	200	280	7,0	1,64
<b>KTS 030F</b>	180	300	380	6,3	2,00
<b>KTS 040F</b>	180	400	480	5,5	2,38
<b>KTS 050F</b>	180	500	580	4,9	2,74
<b>KTS 060F</b>	180	600	680	4,3	3,10
<b>KTS 070F</b>	180	600	780	3,6	3,47
<b>KTS 080F</b>	180	600	880	3,0	3,83
<b>KTS 090F</b>	180	600	980	2,3	4,19
<b>KTS 100F</b>	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

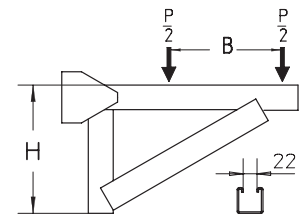
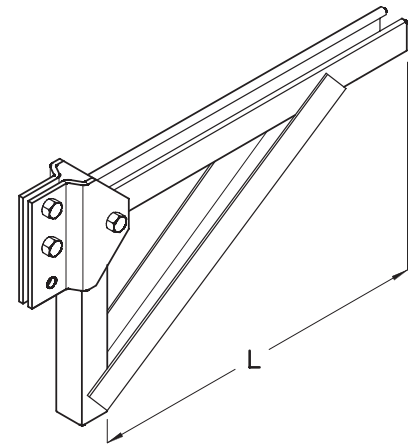
### KTSS bracket, very heavy, profile I80

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	P <sub>max</sub> kN	G kg
<b>F</b>					
<b>KTSS 020F</b>	100	200	280	12	2,94
<b>KTSS 030F</b>	135	300	380	12	3,53
<b>KTSS 040F</b>	165	400	480	12	4,12
<b>KTSS 050F</b>	200	500	580	12	4,71
<b>KTSS 060F</b>	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.

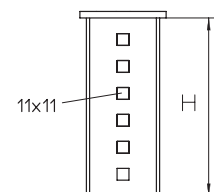
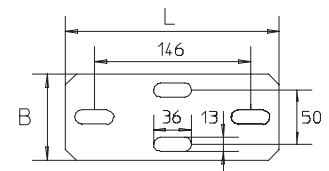
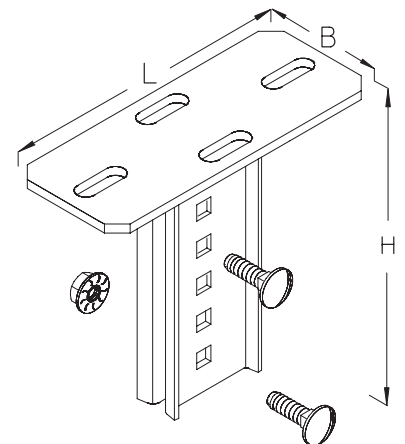
article number	H mm	B mm	L mm	G kg
<b>F</b>				
<b>BGI F</b>	165	80	200	1,40

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.



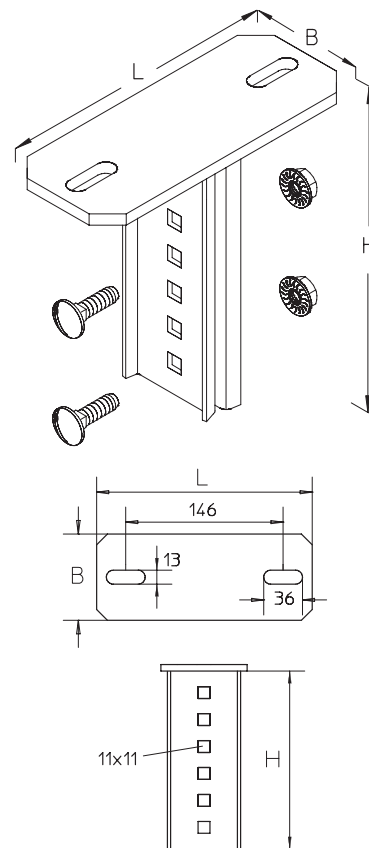
article number	H mm	B mm	L mm	G kg
<b>F</b>				
<b>BGIQ F</b>	165	80	200	1,40

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.

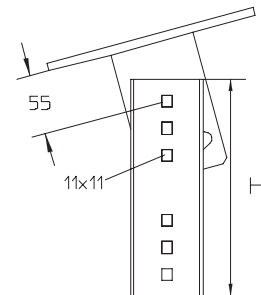
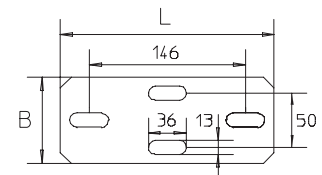
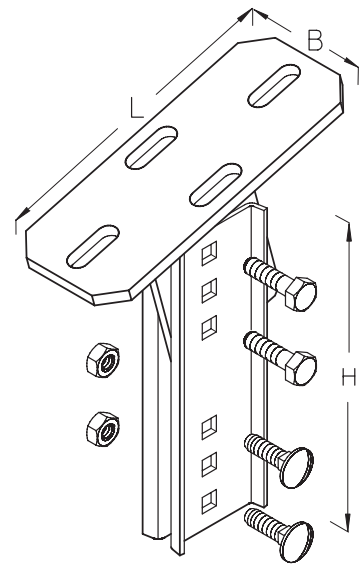
article number	H mm	B mm	L mm	G kg
<b>F</b>				
<b>BGID F</b>	200	80	200	2,30

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.

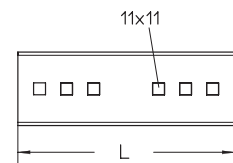
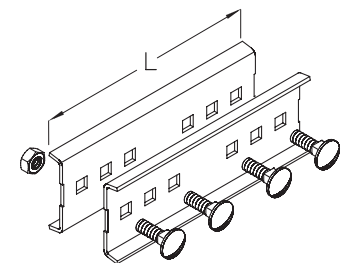
article number	L mm	G kg
<b>F</b>		
<b>HKI F</b>	200	1,00

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

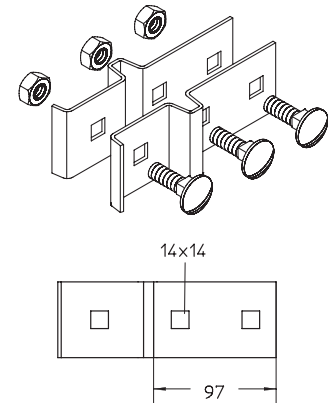
### HKIW support connector

For an application example, see the chapter assembly.

article number	G	kg
<b>F</b>		
<b>HKIW F</b>		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)



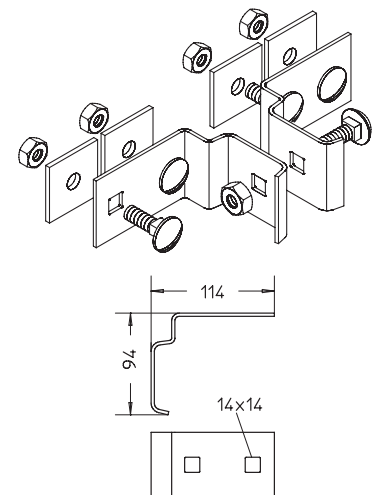
### HKIQ support connector

For an application example, see the chapter assembly.

article number	G	kg
<b>F</b>		
<b>HKIQ F</b>		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

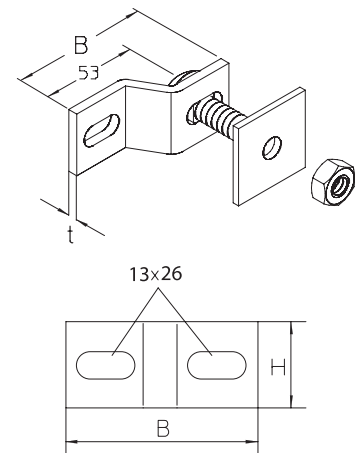
article number	H	B	t	G
	mm	mm	mm	kg
<b>F</b>				
<b>BL 3F</b>	40	90	6	0,20

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

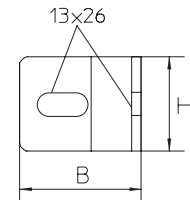
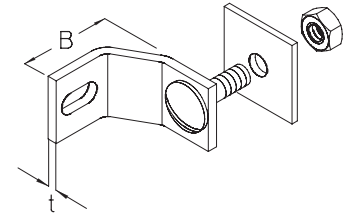
article number	H mm	B mm	t mm	G kg
<b>F</b>				
<b>BL 7F</b>	50	65	5	0,30

accessories included:

1 x <b>FRS 12x30F</b>	round-head screw with square, DIN 603	(page H35)
1 x <b>SEM 12F</b>	hexagon-nut, DIN 934	(page H41)
1 x <b>RUS 50-L13F</b>	square washer	(page H42)

accessories optional:

<b>SD</b>	expansion anchor	(page H12)
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### BL 8 corner angle

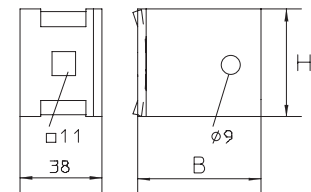
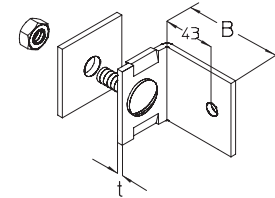
article number	H mm	B mm	t mm	G kg
<b>F</b>				
<b>BL 8F</b>	50	58	4	0,20

accessories included:

1 x <b>FRS 10x30F</b>	round-head screw with square, DIN 603	(page H35)
1 x <b>SEM 10F</b>	hexagon-nut, DIN 934	(page H41)
1 x <b>RUS 50-L13F</b>	square washer	(page H42)

accessories optional:

<b>SD</b>	expansion anchor	(page H12)
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### BLI corner angle

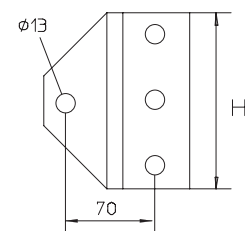
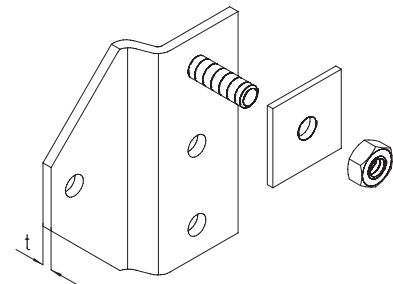
article number	H mm	t mm	G kg
<b>F</b>			
<b>BLI F</b>	140	6	0,80

accessories included:

1 x <b>FRS 12x30F</b>	round-head screw with square, DIN 603	(page H35)
1 x <b>SEM 12F</b>	hexagon-nut, DIN 934	(page H41)
1 x <b>RUS 50-L13F</b>	square washer	(page H42)

accessories optional:

<b>SD</b>	expansion anchor	(page H12)
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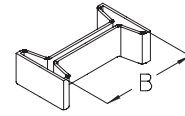


# Support systems

## KHI-system

### SI protection end cap, yellow

article number	B mm	G kg
<b>PE</b>		
<b>SI</b>	80	0,02



### KZF cold zinc paint

For assembly instructions, see the chapter assembly.

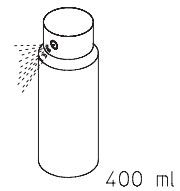
article number	I ml	G kg
<b>KZF</b>	750	1,93



### KZS cold zinc spray

For assembly instructions, see the chapter assembly.

article number	I ml	G kg
<b>KZS</b>	400	0,40



# Support systems

## KHA-system

### KDAG 41 ceiling fixed bracket, profile 41

$F_p/P$ : 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.

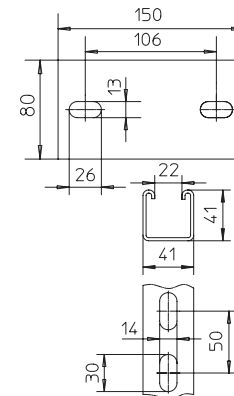
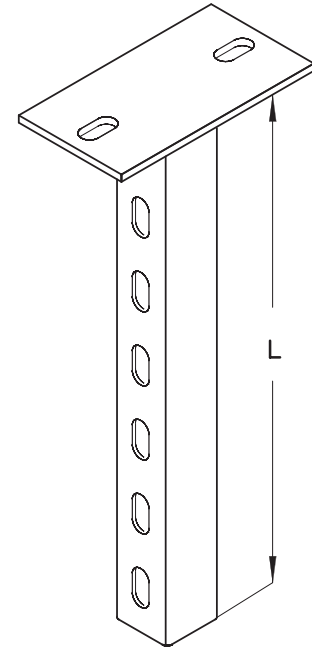
For assembly instructions, see the chapter assembly.



article number	L mm	G kg
<b>F</b>		
<b>KDAG 41-02F</b>	200	1,10
<b>KDAG 41-03F</b>	300	1,40
<b>KDAG 41-04F</b>	400	1,70
<b>KDAG 41-05F</b>	500	1,90
<b>KDAG 41-06F</b>	600	2,20
<b>KDAG 41-07F</b>	700	2,50
<b>KDAG 41-08F</b>	800	2,70
<b>KDAG 41-09F</b>	900	3,00
<b>KDAG 41-10F</b>	1000	3,20

accessories optional:

<b>KA 30</b>	bracket, light duty, profile 41	(page F49)
<b>KA 41</b>	bracket, standard, profile 41	(page F49)
<b>SD</b>	expansion anchor	(page H12)
<b>AM22</b>	channel nut, A41/ KHA 41/ KHAL 41	(page H43)
<b>AMF22</b>	channel spring nut, A41	(page H43)
<b>SA 2</b>	protection end cap	(page F55)





# Support systems

## KHA-system

### KHA 41 C-rail, perforated, 41x41 mm

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

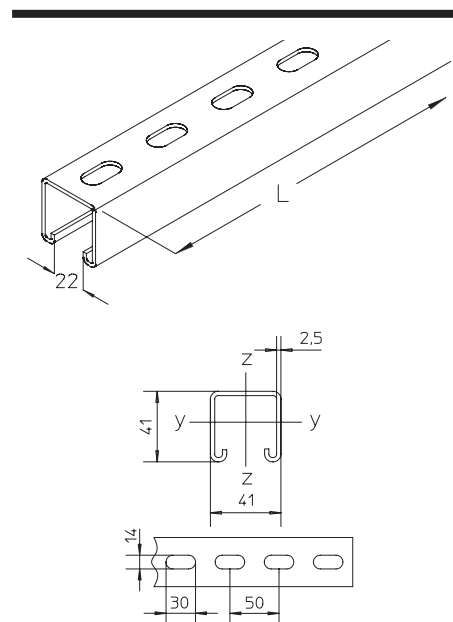
For an application example, see the chapter assembly.

For assembly instructions, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	G kg
<b>F</b>					
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:

<b>AM22</b>	channel nut, A41/ KHA 41/ KHAL 41	(page H43)
<b>AMF22</b>	channel spring nut, A41	(page H43)
<b>RUS 41</b>	stabilization plate, KHA profiles	(page H41)
<b>SKS A</b>	beam clamp set	(page H04)
<b>SA 2</b>	protection end cap	(page F55)
<b>SAI 41</b>	protection end cap	(page F55)



# Support systems

## KHA-system

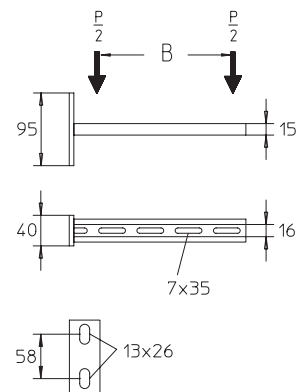
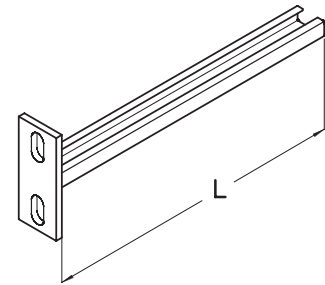
### KA 30 bracket, light duty, profile 41

For an application example, see the chapter assembly.

article number	B mm	L mm	P <sub>max</sub> kN	G kg
<b>F</b>				
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:

<b>HS16</b>	Tee-head bolt	(page H46)
<b>AM16</b>	channel nut, B7	(page H45)
<b>KLR</b>	fixing set	(page H33)



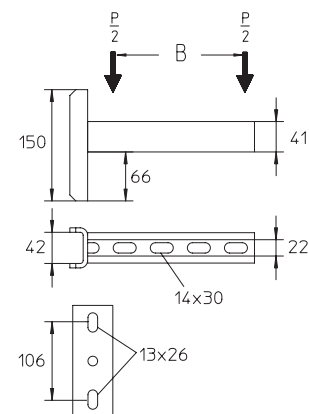
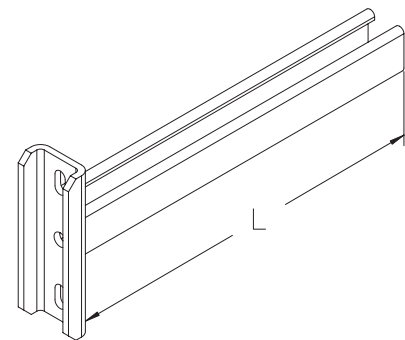
### KA 41 bracket, standard, profile 41

For an application example, see the chapter assembly.

article number	B mm	L mm	P <sub>max</sub> kN	G kg
<b>F</b>				
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:

<b>AM22</b>	channel nut, A41/ KHA 41/ KHAL 41	(page H43)
<b>AMF22</b>	channel spring nut, A41	(page H43)
<b>SES</b>	hexagon head bolt, DIN 933	(page H37)



# Support systems

## KHA-system

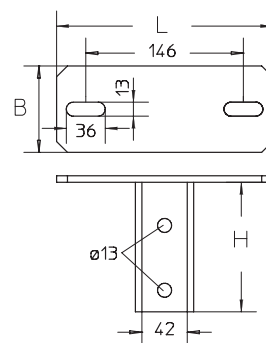
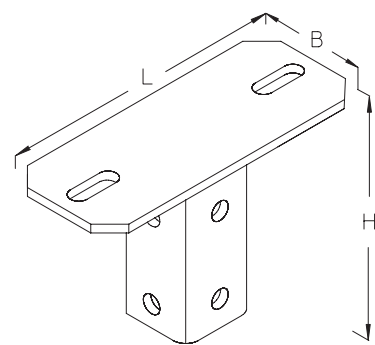
### BGA 41 Mounting/ floor/ ceiling plate

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
<b>F</b>				
<b>BGA 41F</b>	120	80	200	1,20

accessories optional:

<b>SD</b>	expansion anchor	(page H12)
<b>SKLC M</b>	beam clamp set	(page H06)
<b>SES</b>	hexagon head bolt, DIN 933	(page H37)
<b>AMF22</b>	channel spring nut, A41	(page H43)
<b>AM22</b>	channel nut, A41/ KHA 41/ KHAL 41	(page H43)



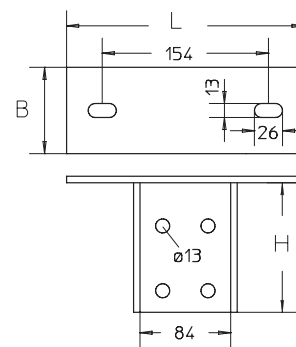
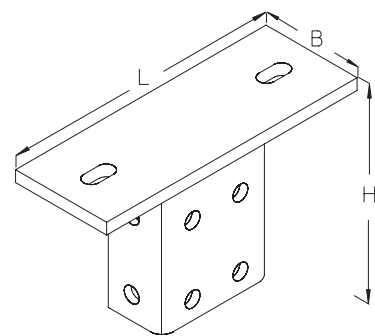
### BGA 41/2 head plate, profile 41

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	G kg
<b>F</b>				
<b>BGA 41/2F</b>	120	80	220	1,80

accessories optional:

<b>SD</b>	expansion anchor	(page H12)
<b>SKLC M</b>	beam clamp set	(page H06)
<b>SES</b>	hexagon head bolt, DIN 933	(page H37)
<b>AMF22</b>	channel spring nut, A41	(page H43)
<b>AM22</b>	channel nut, A41/ KHA 41/ KHAL 41	(page H43)



# Support systems

## KHA-system

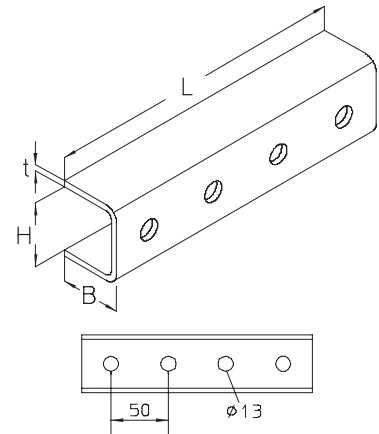
### AV coupler for KHA-profile

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	G kg
<b>F</b>					
<b>AV 41F</b>	42	40	200	4	0,70

accessories optional:

<b>AMF22</b>	channel spring nut, A41	(page H43)
<b>AM22</b>	channel nut, A41/ KHA 41/ KHAL 41	(page H43)
<b>US 125</b>	square washer, DIN 125	(page H39)
<b>IK</b>	hexagon socket head screw, DIN 912	(page H36)
<b>SEM</b>	hexagon-nut, DIN 934	(page H41)

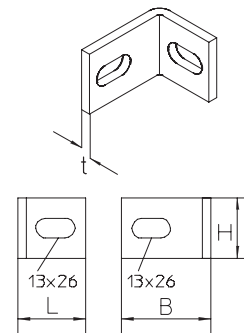


### BL 5 corner angle

article number	H mm	B mm	L mm	t mm	G kg
<b>F</b>					
<b>BL 5F</b>	40	45	60	6	0,20

accessories optional:

<b>SD</b>	expansion anchor	(page H12)
<b>SES</b>	hexagon head bolt, DIN 933	(page H37)
<b>AM22</b>	channel nut, A41/ KHA 41/ KHAL 41	(page H43)
<b>AMF22</b>	channel spring nut, A41	(page H43)
<b>HS18</b>	tee-head bolt, A7/ A8/ A9	(page H45)
<b>AMF18</b>	channel spring nut, A7/ A8	(page H45)
<b>AM18</b>	channel nut, A7/ A8	(page H44)



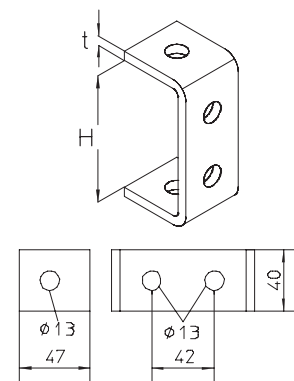
### AKL rail clamp

For an application example, see the chapter assembly.

article number	H mm	t mm	G kg
<b>F</b>			
<b>AKL 41F</b>	84	6	0,30

accessories optional:

<b>SES</b>	hexagon head bolt, DIN 933	(page H37)
<b>AM22</b>	channel nut, A41/ KHA 41/ KHAL 41	(page H43)
<b>AMF22</b>	channel spring nut, A41	(page H43)



# Support systems

## KHA-system

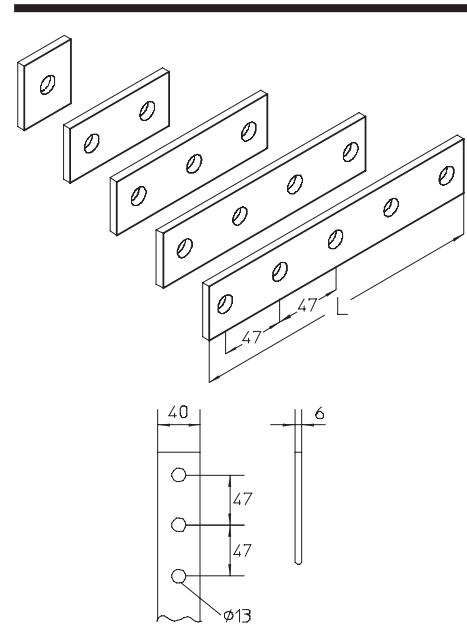
### AVL fastening strip

For an application example, see the chapter assembly.

article number	B mm	L mm	t mm	G kg
<b>F</b>				
<b>AVL-1F</b>	40	42	6	0,07
<b>AVL-2F</b>	40	89	6	0,16
<b>AVL-3F</b>	40	136	6	0,24
<b>AVL-4F</b>	40	183	6	0,32
<b>AVL-5F</b>	40	230	6	0,40

accessories optional:

<b>SES</b>	hexagon head bolt, DIN 933	(page H37)
<b>AM22</b>	channel nut, A41/ KHA 41/ KHAL 41	(page H43)
<b>AMF22</b>	channel spring nut, A41	(page H43)



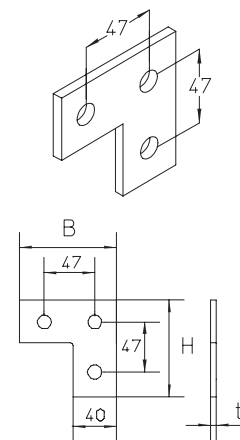
### AVE corner connector 90°

For an application example, see the chapter assembly.

article number	B mm	L mm	t mm	G kg
<b>F</b>				
<b>AVE F</b>	90	90	6	0,27

accessories optional:

<b>SES</b>	hexagon head bolt, DIN 933	(page H37)
<b>AM22</b>	channel nut, A41/ KHA 41/ KHAL 41	(page H43)
<b>AMF22</b>	channel spring nut, A41	(page H43)



# Support systems

## KHA-system

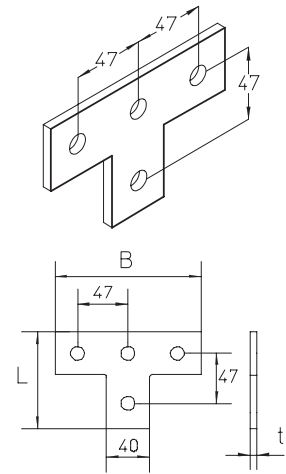
### AVA corner connector T-piece

For an application example, see the chapter assembly.

article number	B mm	L mm	t mm	G kg
<b>F</b>				
<b>AVA F</b>	136	90	6	0,36

accessories optional:

<b>SES</b>	hexagon head bolt, DIN 933	(page G37)
<b>AM22</b>	channel nut, A41/ KHA 41/ KHAL 41	(page G43)
<b>AMF22</b>	channel spring nut, A41	(page G43)



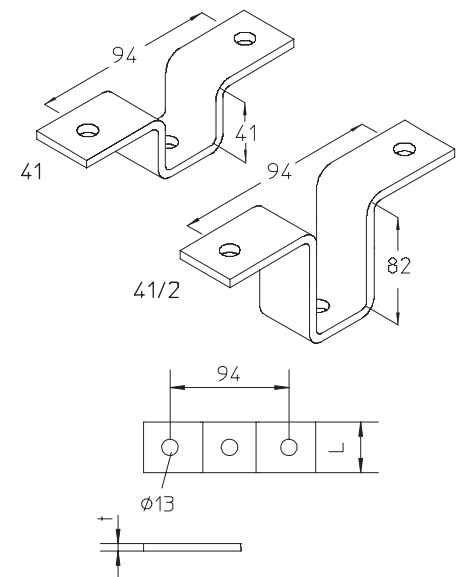
### AVB rail coupler U support

For an application example, see the chapter assembly.

article number	H mm	t mm	G kg
<b>F</b>			
<b>AVB 41F</b>	40	6	0,44
<b>AVB 41/2F</b>	40	6	0,48

accessories optional:

<b>SES</b>	hexagon head bolt, DIN 933	(page H37)
<b>AM22</b>	channel nut, A41/ KHA 41/ KHAL 41	(page H43)
<b>AMF22</b>	channel spring nut, A41	(page H43)



# Support systems

## KHA-system

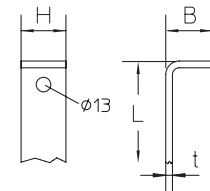
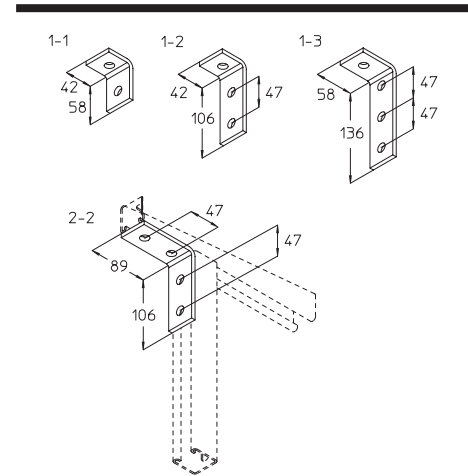
### AVLW corner connector 90°

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	G kg
<b>F</b>					
<b>AVLW 1-1F</b>	40	42	58	6	0,17
<b>AVLW 1-2F</b>	40	42	106	6	0,26
<b>AVLW 1-3F</b>	40	58	136	6	0,36
<b>AVLW 2-2F</b>	40	89	106	6	0,44

accessories optional:

<b>SES</b>	hexagon head bolt, DIN 933	(page H37)
<b>AM22</b>	channel nut, A41/ KHA 41/ KHAL 41	(page H43)
<b>AMF22</b>	channel spring nut, A41	(page H43)



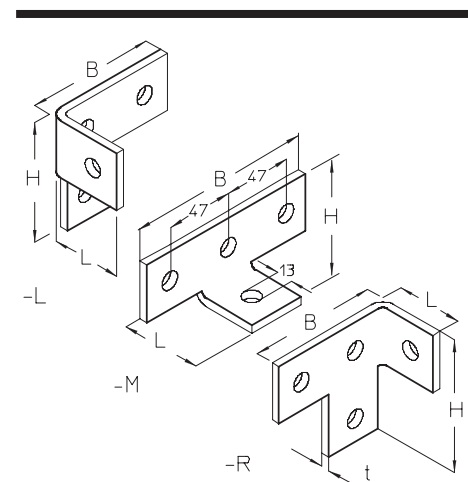
### AVAW corner connector left / center / right

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	G kg
<b>F</b>					
<b>AVAW-L F</b>	90	98	48	6	0,36
<b>AVAW-M F</b>	51	136	52	6	0,36
<b>AVAW-R F</b>	90	98	48	6	0,36

accessories optional:

<b>SES</b>	hexagon head bolt, DIN 933	(page H37)
<b>AM22</b>	channel nut, A41/ KHA 41/ KHAL 41	(page H43)
<b>AMF22</b>	channel spring nut, A41	(page H43)



### SA 1 protection end cap

article number	G kg
<b>PE</b>	
<b>SA 1</b>	0,01

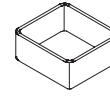


# Support systems

## KHA-system

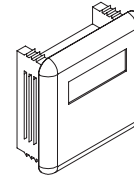
### SA 2 protection end cap

article number	G	kg
<b>PE</b>		
<b>SA 2</b>		0,01



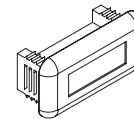
### SAI 41 protection end cap

article number	colour	G	kg
<b>PE</b>			
<b>SAI 41-S</b>	black	0,01	
<b>SAI 41-W</b>	white	0,01	
<b>SAI 41-Y</b>	yellow	0,01	



### SAI 21 protection end cap

article number	colour	G	kg
<b>PE</b>			
<b>SAI 21-S</b>	black	0,01	
<b>SAI 21-W</b>	white	0,01	
<b>SAI 21-Y</b>	yellow	0,01	





# Support systems

## Anchor-rails

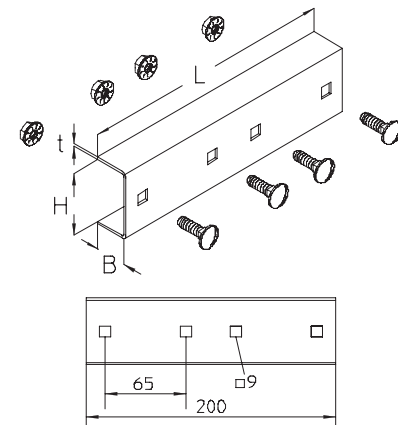
### ASK 4 coupler for KHA-profile

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	G kg
<b>F</b>					
<b>ASK 4</b>	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)



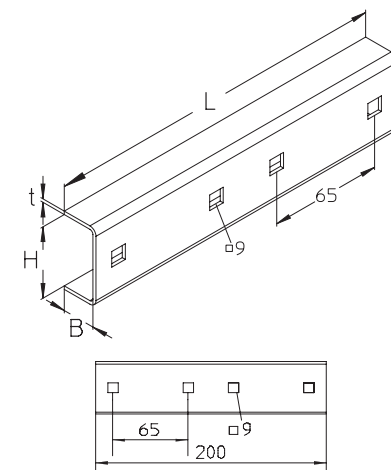
### ASK 8 coupler for KHA-profile

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	G kg
<b>F</b>					
<b>ASK 8</b>	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)

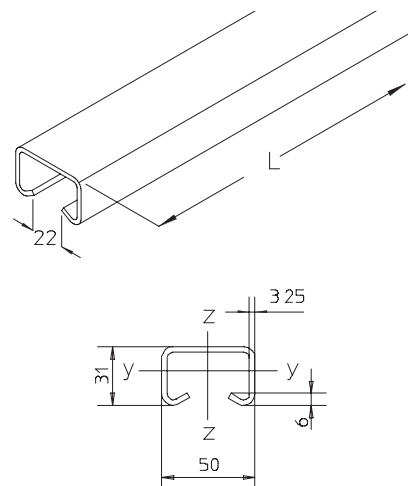


### A 2 C-rail, not perforated, 50x31 mm

article number	H mm	B mm	L mm	t mm	G kg
<b>B</b>					
<b>A 2-30B</b>	31	50	3000	3,25	8,80
<b>A 2-60B</b>	31	50	6000	3,25	17,60
<b>F</b>					
<b>A 2-30F</b>	31	50	3000	3,25	9,40
<b>A 2-60F</b>	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

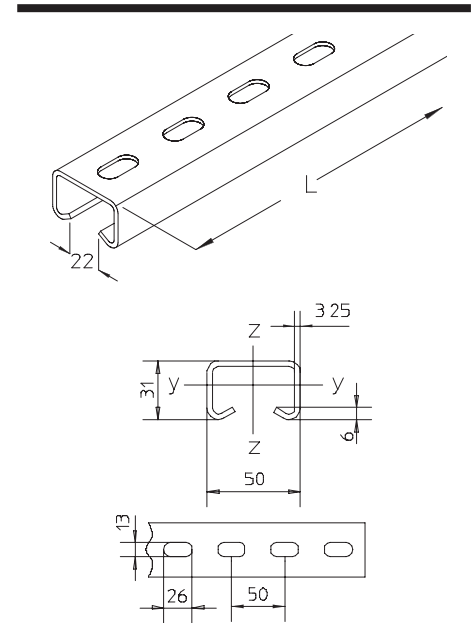
### KHA 2 C-rail, perforated, 50x31 mm

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	G kg
<b>F</b>					
<b>KHA 2-05F</b>	31	50	500	3,25	1,50
<b>KHA 2-10F</b>	31	50	1000	3,25	3,00
<b>KHA 2-15F</b>	31	50	1500	3,25	4,50
<b>KHA 2-20F</b>	31	50	2000	3,25	6,00
<b>KHA 2-30F</b>	31	50	3000	3,25	9,00
<b>KHA 2-60F</b>	31	50	6000	3,25	17,90

accessories optional:

**HS22** tee-head bolt, A2/ A4 (page H43)  
**SKS H** beam clamp set (page H03)

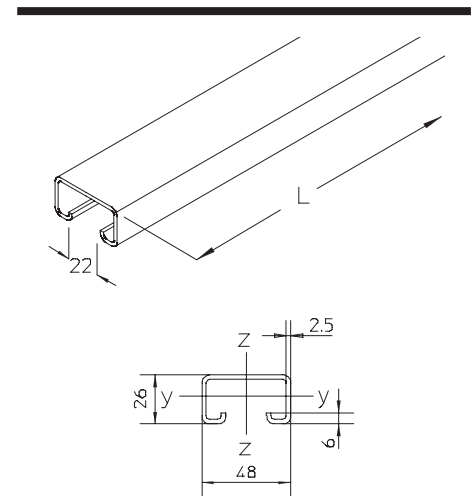


### A 4 C-rail, not perforated, 48x26 mm

article number	H mm	B mm	L mm	t mm	G kg
<b>B</b>					
<b>A 4-30B</b>	26	48	3000	2,5	6,70
<b>A 4-60B</b>	26	48	6000	2,5	13,40
<b>F</b>					
<b>A 4-30F</b>	26	48	3000	2,5	7,20
<b>A 4-60F</b>	26	48	6000	2,5	14,40

accessories optional:

**HS22** tee-head bolt, A2/ A4 (page H43)



# Support systems

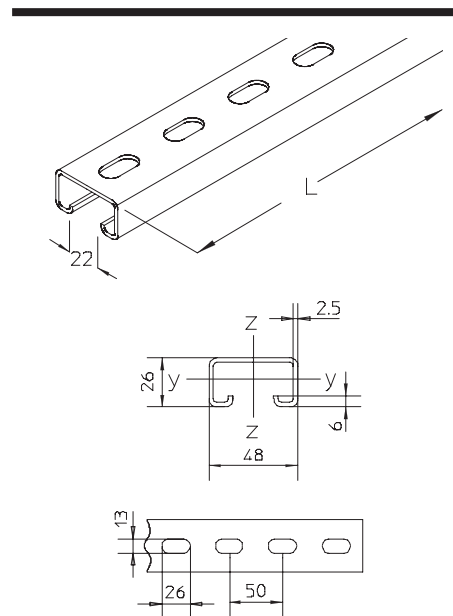
## Anchor-rails

### KHA 4 C-rail, perforated, 48x26 mm

article number	H mm	B mm	L mm	t mm	G kg
<b>F</b>					
<b>KHA 4-30F</b>	26	48	3000	2,5	6,80
<b>KHA 4-60F</b>	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

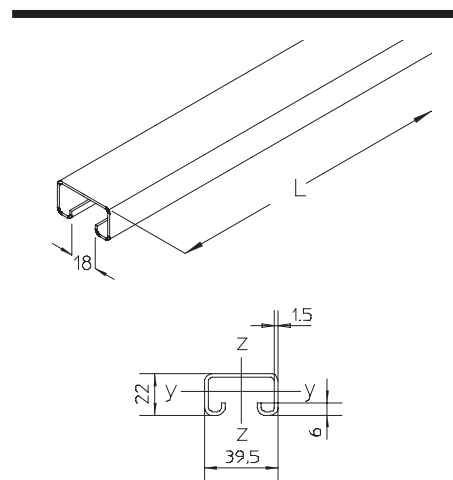
article number	H mm	B mm	L mm	t mm	G kg
<b>S</b>					
<b>A 7-30S</b>	22	39,5	3000	1,5	3,90
<b>A 7-60S</b>	22	39,5	6000	1,5	7,80
<b>E</b>					
<b>A 7-30E</b>	22	39,5	3000	1,5	3,60
<b>A 7-60E</b>	22	39,5	6000	1,5	7,20

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

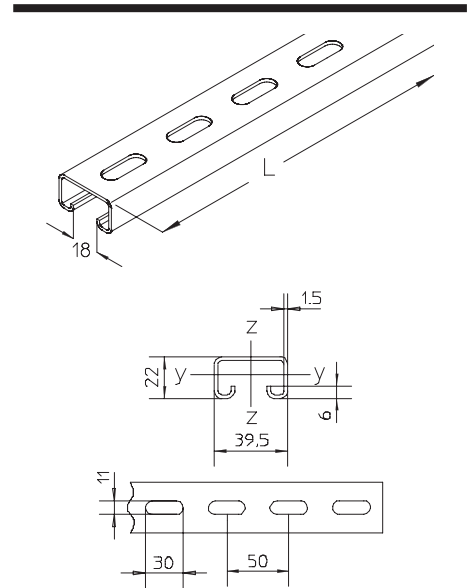
This article is also available made in stainless steel finish, material No. 1.4571 / 1.4404 (V4A).

article number	H mm	B mm	L mm	t mm	G kg
<b>S</b>					
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

<b>E</b>					
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:

<b>HS18</b>	tee-head bolt, A7/ A8/ A9	(page H45)
<b>AM18</b>	channel nut, A7/ A8	(page H44)
<b>AMF18</b>	channel spring nut, A7/ A8	(page H45)
<b>ASK 8</b>	coupler for KHA-profile	(page F56)
<b>SA 1</b>	protection end cap	(page F54)



# Support systems

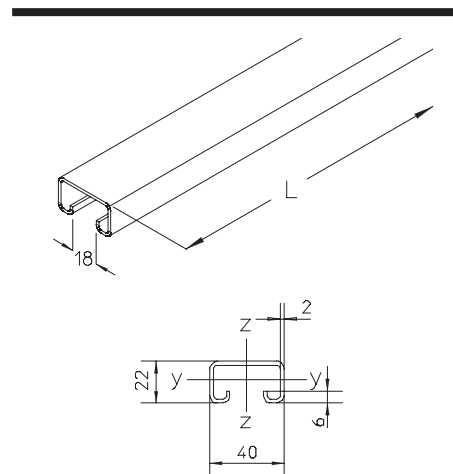
## Anchor-rails

### A 8 C-rail, not perforated, 40x22 mm

article number	H mm	B mm	L mm	t mm	G kg
<b>B</b>					
<b>A 8-30B</b>	22	40	3000	2	4,60
<b>A 8-60B</b>	22	40	6000	2	9,20
<b>F</b>					
<b>A 8-30F</b>	22	40	3000	2	5,00
<b>A 8-60F</b>	22	40	6000	2	9,90

accessories optional:

<b>HS18</b>	tee-head bolt, A7/ A8/ A9	(page H45)
<b>AM18</b>	channel nut, A7/ A8	(page H44)
<b>AMF18</b>	channel spring nut, A7/ A8	(page H45)



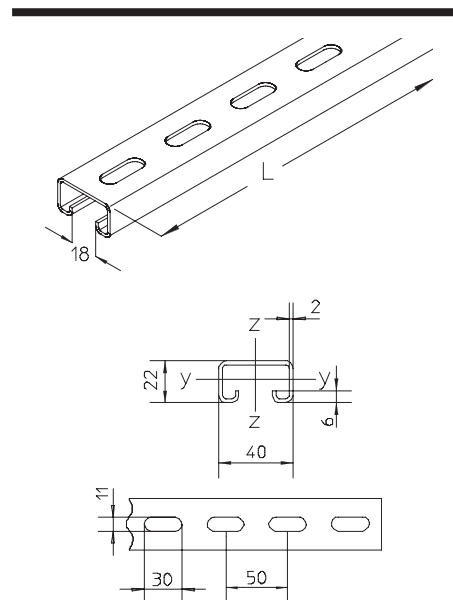
### KHA 8 C-rail, perforated, 40x22 mm

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	G kg
<b>F</b>					
<b>KHA 8-01F</b>	22	40	100	2	0,20
<b>KHA 8-02F</b>	22	40	200	2	0,30
<b>KHA 8-03F</b>	22	40	300	2	0,50
<b>KHA 8-04F</b>	22	40	400	2	0,60
<b>KHA 8-05F</b>	22	40	500	2	0,80
<b>KHA 8-06F</b>	22	40	600	2	0,90
<b>KHA 8-07F</b>	22	40	700	2	1,10
<b>KHA 8-08F</b>	22	40	800	2	1,30
<b>KHA 8-09F</b>	22	40	900	2	1,40
<b>KHA 8-10F</b>	22	40	1000	2	1,60
<b>KHA 8-11F</b>	22	40	1100	2	1,70
<b>KHA 8-12F</b>	22	40	1200	2	1,90
<b>KHA 8-13F</b>	22	40	1300	2	2,00
<b>KHA 8-14F</b>	22	40	1400	2	2,20
<b>KHA 8-15F</b>	22	40	1500	2	2,40
<b>KHA 8-20F</b>	22	40	2000	2	3,10
<b>KHA 8-30F</b>	22	40	3000	2	4,70
<b>KHA 8-60F</b>	22	40	6000	2	9,40

accessories optional:

<b>HS18</b>	tee-head bolt, A7/ A8/ A9	(page H45)
<b>AM18</b>	channel nut, A7/ A8	(page H44)
<b>AMF18</b>	channel spring nut, A7/ A8	(page H45)
<b>ASK 8</b>	coupler for KHA-profile	(page F56)



# Support systems

## Anchor-rails

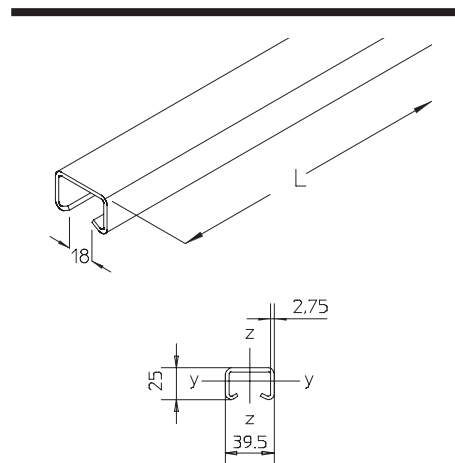
### A 9 C-rail, not perforated, 40x25 mm

article number	H mm	B mm	L mm	t mm	G kg
<b>B</b>					
A 9-30B	25	39,5	3000	2,75	5,50
A 9-60B	25	39,5	6000	2,75	11,00
<b>F</b>					
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)



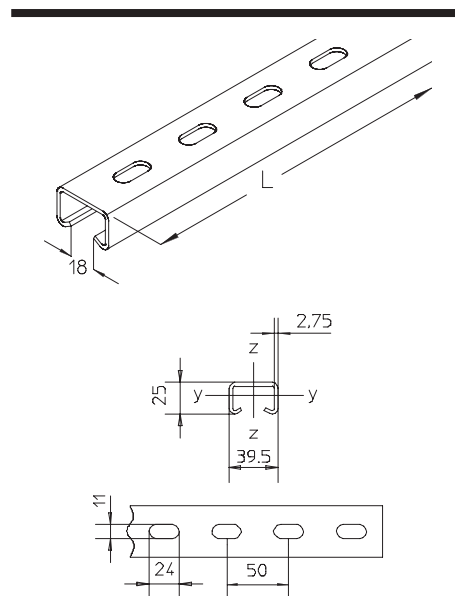
### KHA 9 C-rail, perforated, 40x25 mm

article number	H mm	B mm	L mm	t mm	G kg
<b>F</b>					
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)



# Support systems

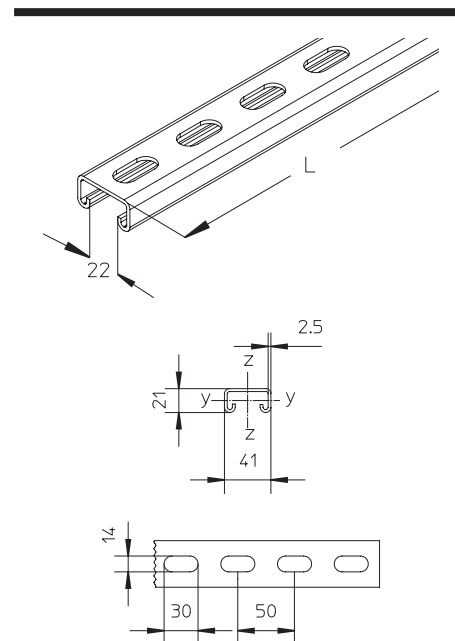
## Anchor-rails

### KHA 21 C-rail, perforated, 41x21 mm

article number	H mm	B mm	L mm	t mm	G kg
<b>F</b>					
<b>KHA 21-30F</b>	21	41	3000	2,5	5,30
<b>KHA 21-60F</b>	21	41	6000	2,5	10,60
<b>E4</b>					
<b>KHA 21-30E4</b>	21	41	3000	2,5	5,10
<b>KHA 21-60E4</b>	21	41	6000	2,5	10,10

accessories optional:

<b>AM22</b>	channel nut, A41/ KHA 41/ KHAL 41	(page H43)
<b>RUS 41</b>	stabilization plate, KHA profiles	(page H41)
<b>SA 1</b>	protection end cap	(page F54)
<b>SAI 21</b>	protection end cap	(page F55)

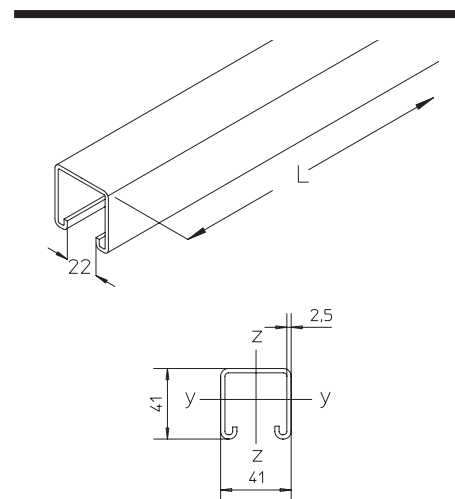


### A 41 C-rail, not perforated, 41x41 mm

article number	H mm	B mm	L mm	t mm	G kg
<b>B</b>					
<b>A 41-30B</b>	41	41	3000	2,5	7,80
<b>A 41-60B</b>	41	41	6000	2,5	15,60
<b>F</b>					
<b>A 41-30F</b>	41	41	3000	2,5	8,30
<b>A 41-60F</b>	41	41	6000	2,5	16,60

accessories optional:

<b>AM22</b>	channel nut, A41/ KHA 41/ KHAL 41	(page H43)
<b>AMF22</b>	channel spring nut, A41	(page H43)



# Support systems

## Anchor-rails

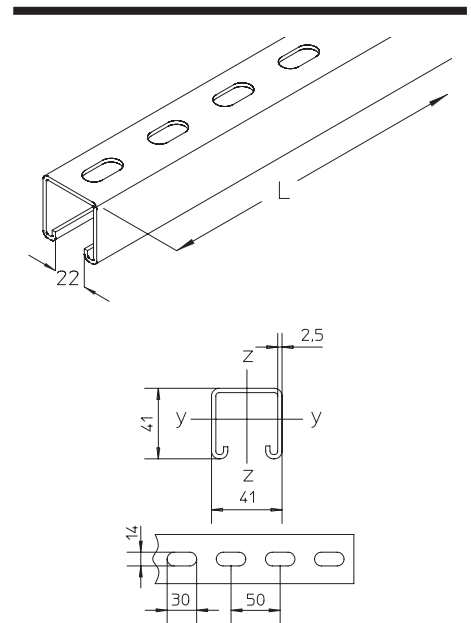
### KHA 41 C-rail, perforated, 41x41 mm

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
<b>F</b>					
<b>KHA 41-01F</b>	41	41	100	2,5	0,30
<b>KHA 41-02F</b>	41	41	200	2,5	0,50
<b>KHA 41-03F</b>	41	41	300	2,5	0,80
<b>KHA 41-04F</b>	41	41	400	2,5	1,10
<b>KHA 41-05F</b>	41	41	500	2,5	1,30
<b>KHA 41-06F</b>	41	41	600	2,5	1,60
<b>KHA 41-07F</b>	41	41	700	2,5	1,90
<b>KHA 41-08F</b>	41	41	800	2,5	2,10
<b>KHA 41-09F</b>	41	41	900	2,5	2,40
<b>KHA 41-10F</b>	41	41	1000	2,5	2,60
<b>KHA 41-11F</b>	41	41	1100	2,5	2,90
<b>KHA 41-12F</b>	41	41	1200	2,5	3,20
<b>KHA 41-13F</b>	41	41	1300	2,5	3,40
<b>KHA 41-14F</b>	41	41	1400	2,5	3,70
<b>KHA 41-15F</b>	41	41	1500	2,5	4,00
<b>KHA 41-20F</b>	41	41	2000	2,5	5,30
<b>KHA 41-30F</b>	41	41	3000	2,5	7,90
<b>KHA 41-60F</b>	41	41	6000	2,5	15,90

accessories optional:

<b>AM22</b>	channel nut, A41/ KHA 41/ KHAL 41	(page H43)
<b>AMF22</b>	channel spring nut, A41	(page H43)
<b>RUS 41</b>	stabilization plate, KHA profiles	(page H41)
<b>SKS A</b>	beam clamp set	(page H04)
<b>SA 2</b>	protection end cap	(page F55)
<b>SAI 41</b>	protection end cap	(page F55)





# Support systems

## Anchor-rails

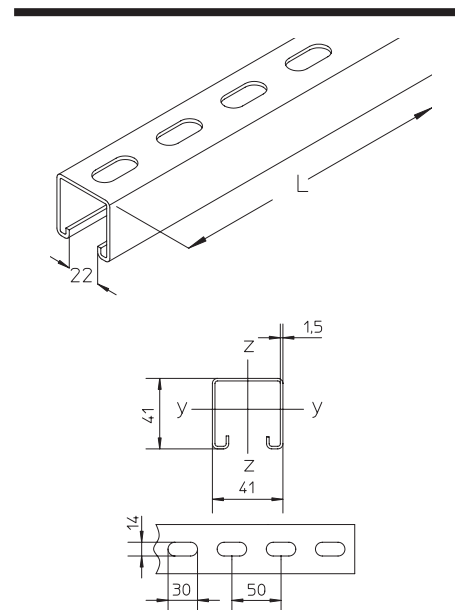
### KHAL 41 C-rail, perforated, 41x41 mm

For an application example, see the chapter assembly.

article number	H mm	B mm	L mm	t mm	G kg
<b>S</b>					
<b>KHAL 41-30S</b>	41	41	3000	1,5	4,70
<b>KHAL 41-60S</b>	41	41	6000	1,5	9,40
<b>F</b>					
<b>KHAL 41-05F</b>	41	41	500	1,5	0,80
<b>KHAL 41-10F</b>	41	41	1000	1,5	1,70
<b>KHAL 41-15F</b>	41	41	1500	1,5	2,50
<b>KHAL 41-20F</b>	41	41	2000	1,5	3,30
<b>KHAL 41-30F</b>	41	41	3000	1,5	5,00
<b>KHAL 41-36F</b>	41	41	3600	1,5	6,01
<b>KHAL 41-60F</b>	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)



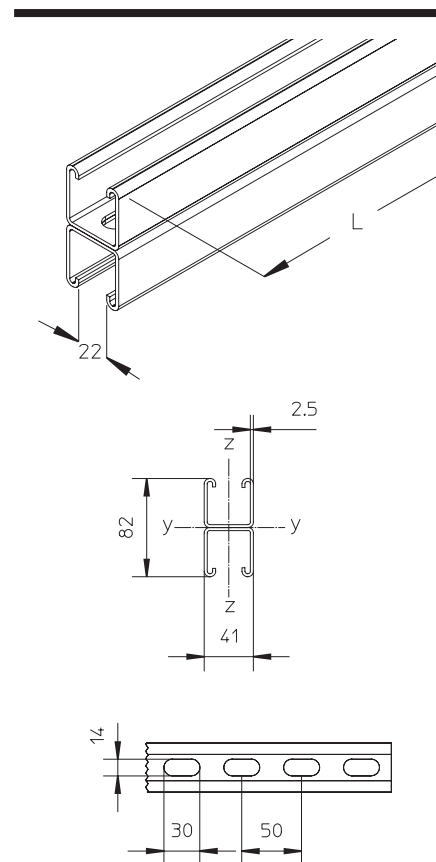
### KHA 82 C-rail, perforated, 41x82 mm

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
<b>F</b>					
<b>KHA 82-60F</b>	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

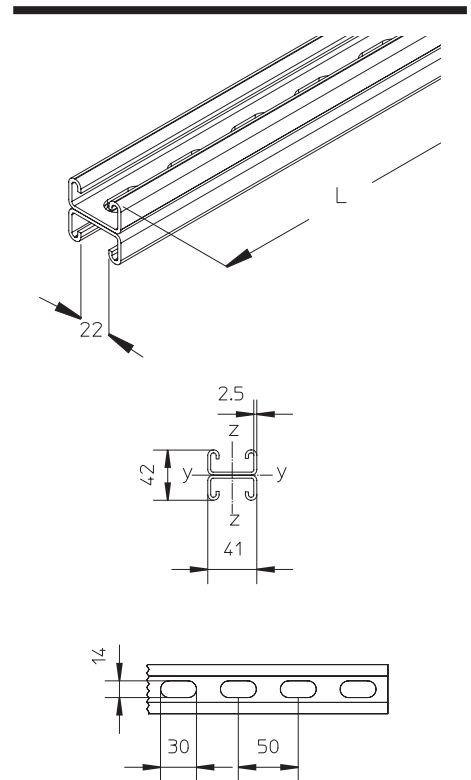
### KHA 42 C-rail, perforated, 41x42 mm

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
<b>F</b>					
<b>KHA 42-60F</b>	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)

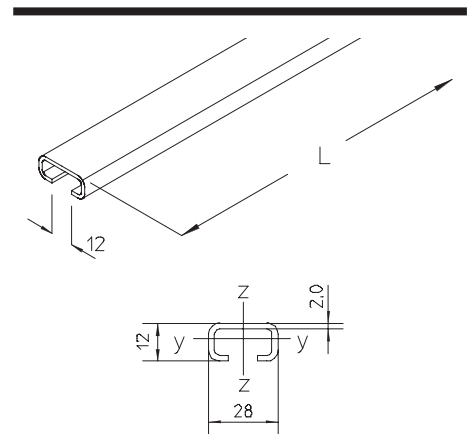


### B 3 profile rail, not perforated, 28x12 mm

article number	H mm	B mm	L mm	t mm	G kg
<b>B</b>					
<b>B 3-30B</b>	12	28	3000	2	2,50
<b>B 3-60B</b>	12	28	6000	2	5,00
<b>F</b>					
<b>B 3-30F</b>	12	28	3000	2	2,70
<b>B 3-60F</b>	12	28	6000	2	5,30
<b>E4</b>					
<b>B 3-30E4</b>	12	28	3000	2	2,50
<b>B 3-60E4</b>	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

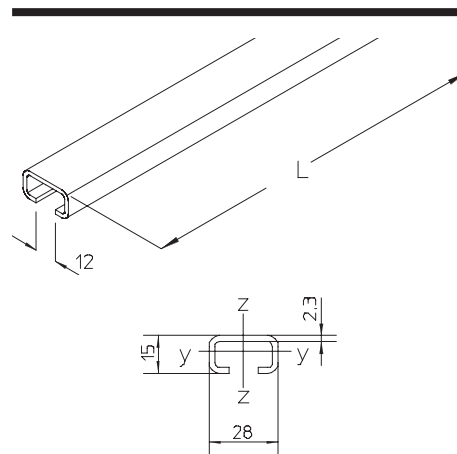
### B 6 profile rail, not perforated, 28x15 mm

article number	H mm	B mm	L mm	t mm	G kg
<b>B</b>					
<b>B 6-30B</b>	15	28	3000	2,3	3,10
<b>B 6-60B</b>	15	28	6000	2,3	6,30
<b>F</b>					
<b>B 6-30F</b>	15	28	3000	2,3	3,40
<b>B 6-60F</b>	15	28	6000	2,3	6,70
<b>E</b>					
<b>B 6-30E</b>	15	28	3000	2,3	3,10
<b>B 6-60E</b>	15	28	6000	2,3	6,30
<b>E4</b>					
<b>B 6-30E4</b>	15	28	3000	2,3	3,40
<b>B 6-60E4</b>	15	28	6000	2,3	6,30

accessories optional:

**HS12** Tee-head bolt (page H46)

**AM12** channel nut, B3/ B6 (page H46)



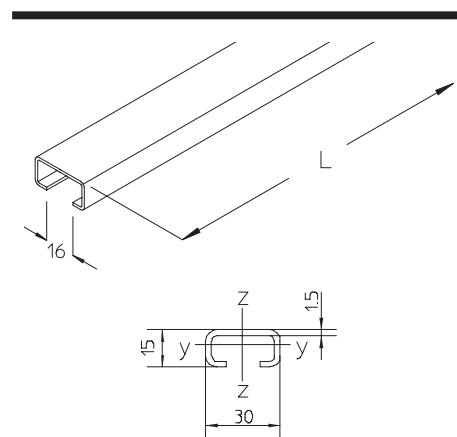
### B 7 profile rail, not perforated, 30x15 mm

article number	H mm	B mm	L mm	t mm	G kg
<b>B</b>					
<b>B 7-30B</b>	15	30	3000	1,5	2,20
<b>B 7-60B</b>	15	30	6000	1,5	4,40
<b>S</b>					
<b>B 7-30S</b>	15	30	3000	1,5	2,30
<b>B 7-60S</b>	15	30	6000	1,5	4,50
<b>F</b>					
<b>B 7-30F</b>	15	30	3000	1,5	2,40
<b>B 7-60F</b>	15	30	6000	1,5	4,80
<b>E</b>					
<b>B 7-30E</b>	15	30	3000	1,5	2,20
<b>B 7-60E</b>	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

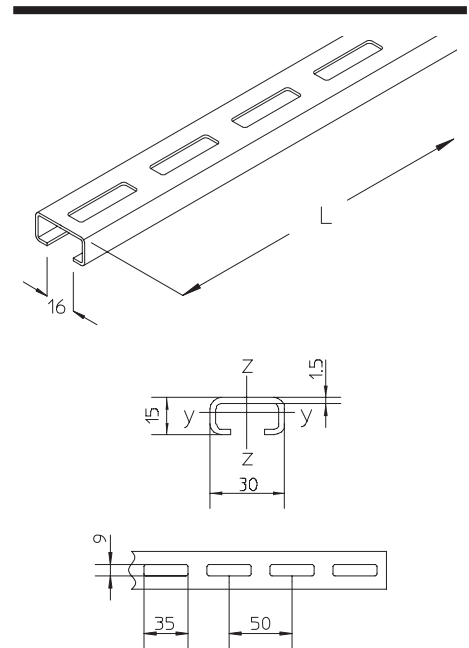
### KHB 7 profile rail, perforated, 30x15 mm

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
<b>S</b>					
KHB 7-30S	15	30	3000	1,5	2,10
KHB 7-60S	15	30	6000	1,5	4,20
<b>F</b>					
KHB 7-30F	15	30	3000	1,5	2,30
KHB 7-60F	15	30	6000	1,5	4,60
<b>E</b>					
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:

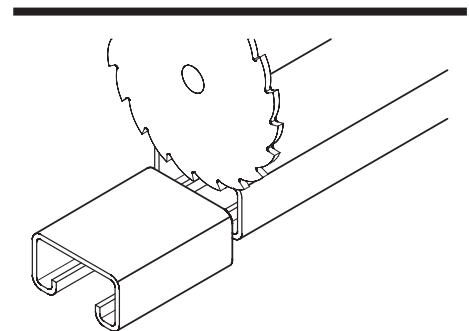
**HS16** Tee-head bolt (page H46)  
**AM16** channel nut, B7 (page H45)



### PRS cut

For detailed explanations, see the chapter planning.

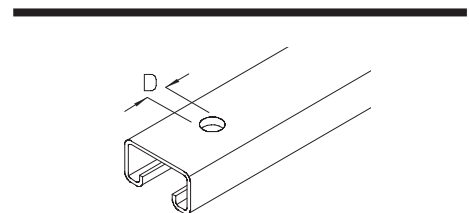
article number
<b>PRS A</b>
<b>PRS B</b>



### RL round hole

For detailed explanations, see the chapter planning.

article number	D mm
<b>RL 7</b>	7
<b>RL 9</b>	9
<b>RL 11</b>	11
<b>RL 13</b>	13



# Support systems

## Anchor-rails

### LGL elongated hole

For detailed explanations, see the chapter planning.

article number	B mm	L mm
<b>LGL 7x10</b>	7	10
<b>LGL 9x20</b>	9	20
<b>LGL 11x24</b>	11	24
<b>LGL 13x26</b>	13	26

