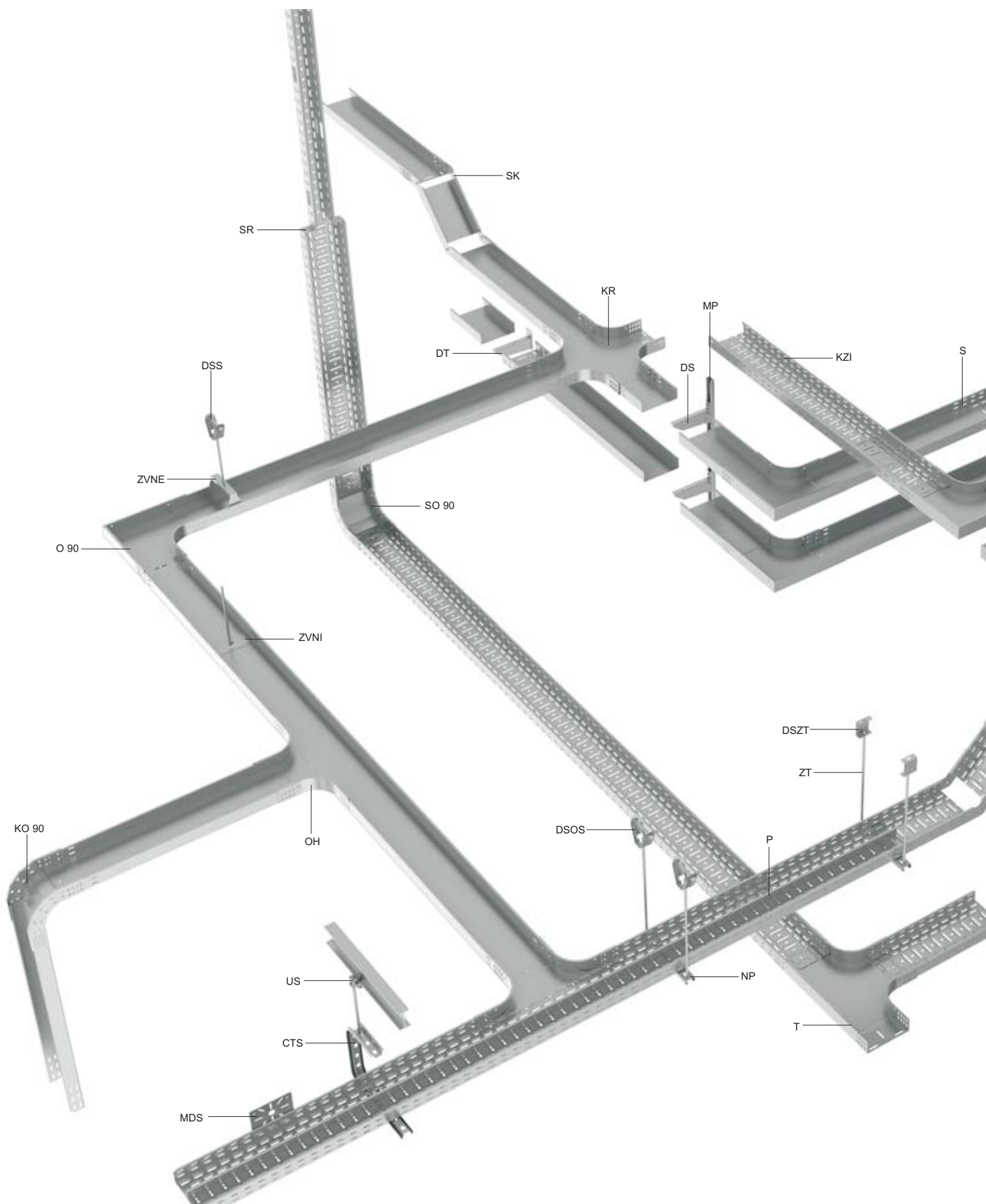




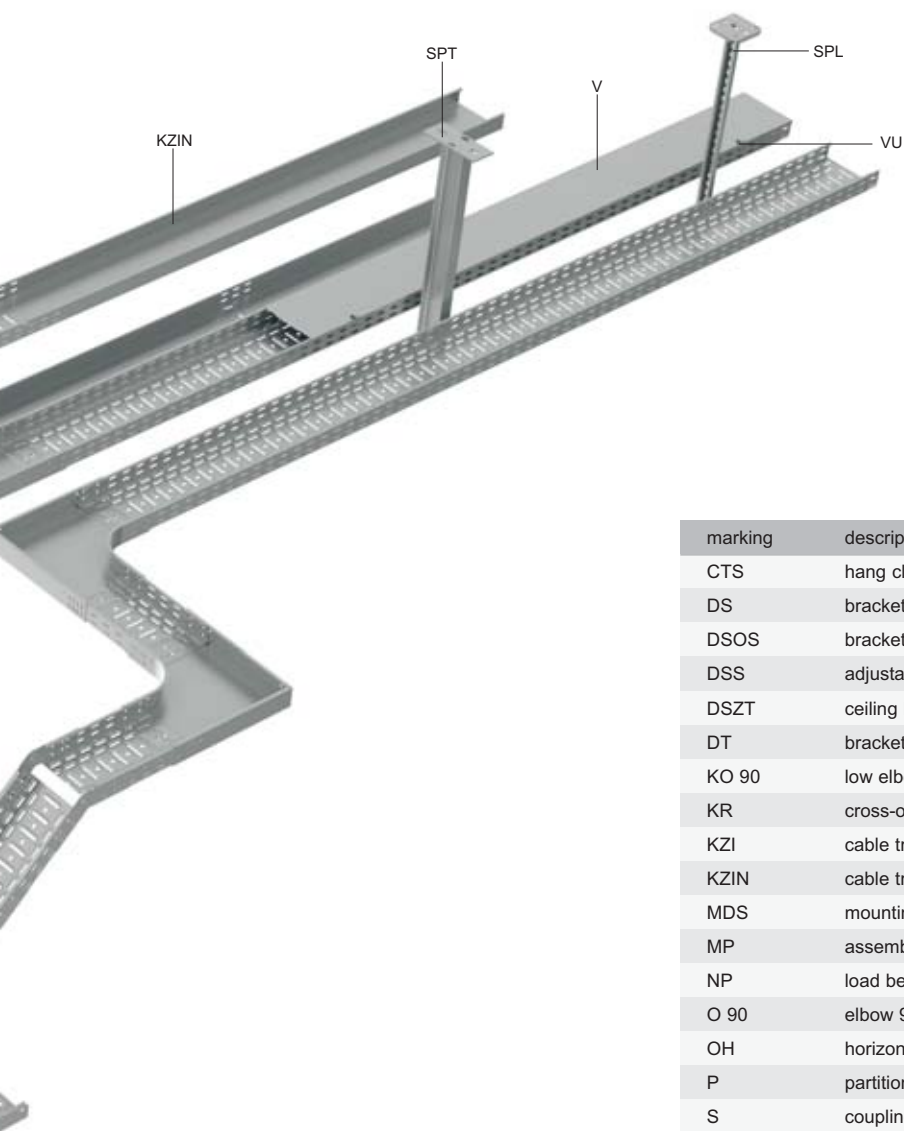
# CABLE TRAYS JUPITER



## OVERVIEW OF SYSTEM ELEMENTS



## OVERVIEW OF SYSTEM ELEMENTS



marking	description	page
CTS	hang clamp	29
DS	bracket – medium	31
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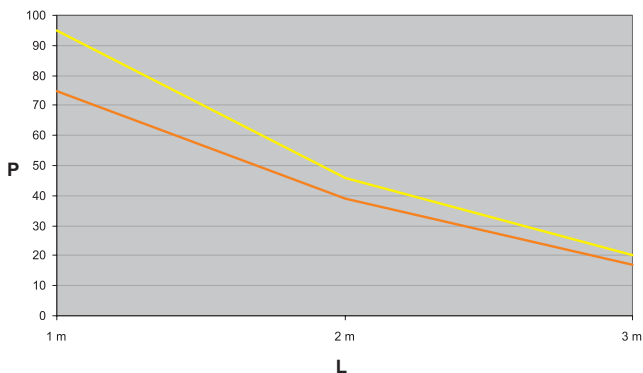
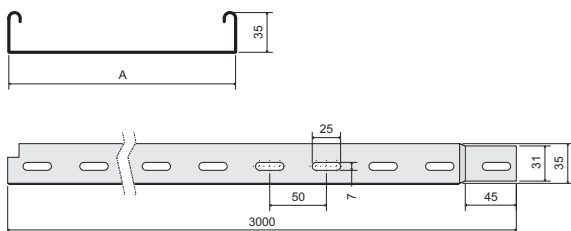


### 35 - cable tray with integrated coupling

item number	A	t	ϕ	U	S	F	EC	P60	P100
KZI 35X50X0.75	50	0,75	0,75	18/1488	●	⊕	⊕	⊕	⊕
KZI 35X75X0.75	75	0,75	0,79	24/1302	●	⊕	⊕	⊕	⊕
KZI 35X100X0.75	100	0,75	1,05	24/1080	●	⊕	⊕	⊕	⊕
KZI 35X150X0.75	150	0,75	1,29	24/696	●	⊕	⊕	⊕	⊕
KZI 35X200X0.75	200	0,75	1,67	18/540	●	⊕	⊕	⊕	⊕
KZI 35X300X0.75	300	0,75	2,00	18/540	●	⊕	⊕	⊕	⊕
KZI 35X400X1.00	400	1,00	3,24	12/360	⊕	⊕	⊕	⊕	⊕
KZI 35X500X1.00	500	1,00	3,60	6/180	⊕	⊕	⊕	⊕	⊕
KZI 35X600X1.00	600	1,00	4,33	6/180	⊕	⊕	⊕	⊕	⊕

The standard length of the cable tray is 3 m.  
 For securing the connection of the trays with the integrated coupling there are used the clamps made from spring steel KSV (page 37) or the bolts NSM 6X10 (page 37), 2 pcs. Example of assembly is on page 37.

- It is possible to create on order the trays:
- in the lengths 2, 4, 5 and 6 meters
  - with openings for cables on the walls or on the bottom. Protective's bushing s. page 41
  - without integrated coupling
  - in the sheet metal thicknesses 0,5; 0,75; 1; 1,25 mm
  - in the sheet metal thickness 1,5 mm - without integrated coupling



The graph shows the maximum allowed even loading of the tray in relation to the distances of the supports.

L = distance of supports (m)  
 P = allowed even loading (weight kg/m)



## 42 - cable tray with integrated coupling

item number	A	↑	‡	⊙	S	F	EC	P60	P100
KZI 42X50X0.75	50	0,75	0,79	18/1296	⊙	⊙	⊙	⊙	⊙
KZI 42X100X0.75	100	0,75	1,08	18/1050	⊙	⊙	⊙	⊙	⊙
KZI 42X150X0.75	150	0,75	1,37	18/900	⊙	⊙	⊙	⊙	⊙
KZI 42X200X0.75	200	0,75	1,55	18/600	⊙	⊙	⊙	⊙	⊙
KZI 42X300X0.75	300	0,75	2,07	12/450	⊙	⊙	⊙	⊙	⊙
KZI 42X400X0.75	400	0,75	2,72	6/300	⊙	⊙	⊙	⊙	⊙
KZI 42X500X0.75	500	0,75	3,36	6/150	⊙	⊙	⊙	⊙	⊙
KZI 42X600X0.75	600	0,75	3,80	6/150	⊙	⊙	⊙	⊙	⊙

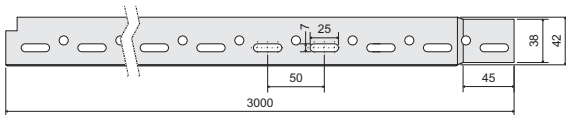
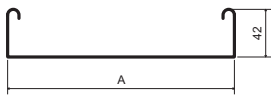


The standard length of the cable tray is 3 m.

For securing the connection of the trays with the integrated coupling there are used the clamps made from spring steel KSV (page 37) or the bolts NSM 6X10 (page 37), 2 pcs. Example of assembly is on page 37.

It is possible to create on order the trays:

- in the lengths 2, 4, 5 and 6 meters
- with openings for cables on the walls or on the bottom. Protective's bushing s. page 41
- without integrated coupling
- in the sheet metal thicknesses 0,5; 0,75; 1; 1,25 mm
- in the sheet metal thickness 1,5 mm - without integrated coupling





## 60 - cable tray with integrated coupling

item number	A	t	z	U	S	F	EO	EC	P60	P100
KZI 60X50X0.75	50	0,75	0,99	18/972	●	⊕	-	⊕	⊕	⊕
KZI 60X75X0.75	75	0,75	1,18	24/912	●	⊕	-	⊕	⊕	⊕
KZI 60X100X0.75	100	0,75	1,37	18/864	●	●	-	⊕	⊕	⊕
KZI 60X150X0.75	150	0,75	1,70	18/540	●	⊕	-	⊕	⊕	⊕
KZI 60X200X0.75	200	0,75	1,86	12/432	●	●	-	⊕	⊕	⊕
KZI 60X300X0.75	300	0,75	2,47	12/324	●	●	-	⊕	⊕	⊕
KZI 60X400X1.00	400	1,00	3,75	6/216	●	⊕	-	⊕	⊕	⊕
KZI 60X500X1.00	500	1,00	4,54	6/108	●	⊕	-	⊕	⊕	⊕
KZI 60X600X1.00	600	1,00	5,40	6/108	●	⊕	-	⊕	⊕	⊕

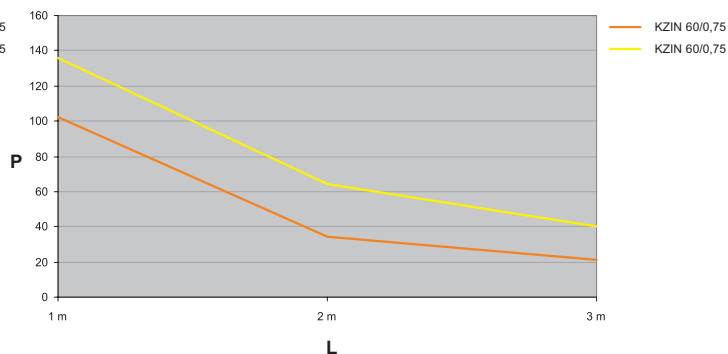
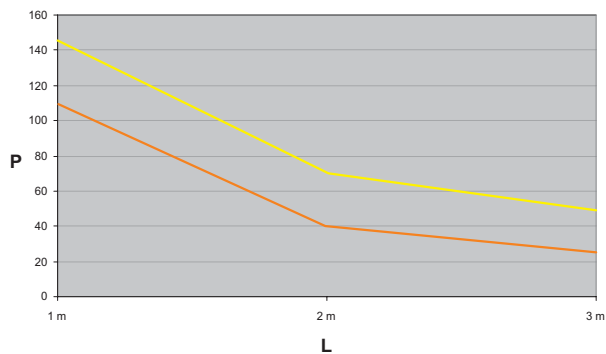
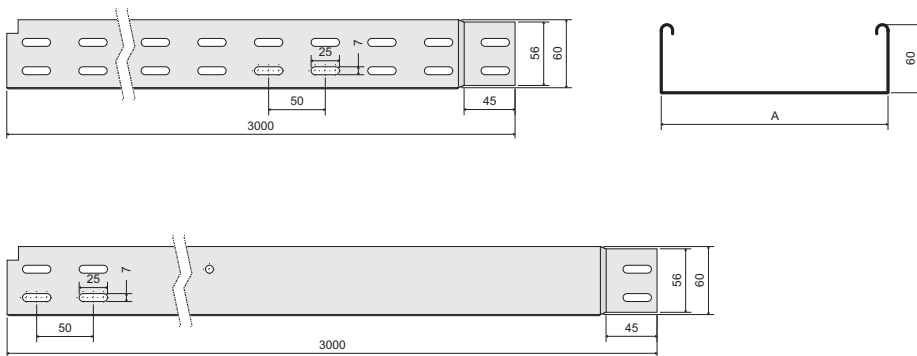
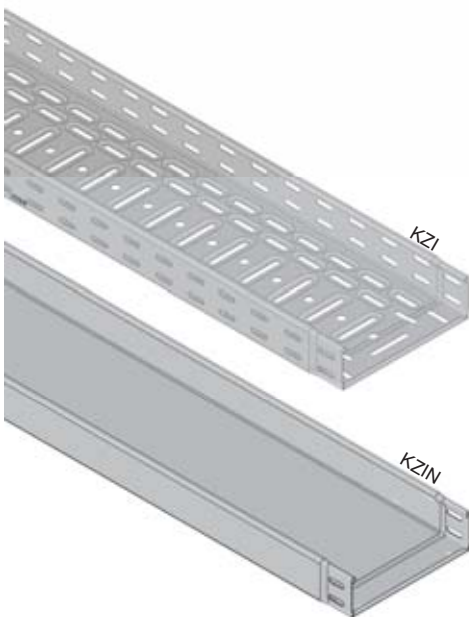
## 60 - cable tray with integrated coupling - non-perforated

KZIN 60X50X0.75	50	0,75	1,09	18/972	●	⊕	⊕	⊕	⊕	⊕
KZIN 60X75X0.75	75	0,75	1,32	24/798	⊕	⊕	⊕	⊕	⊕	⊕
KZIN 60X100X0.75	100	0,75	1,40	18/798	●	⊕	⊕	⊕	⊕	⊕
KZIN 60X150X0.75	150	0,75	1,78	18/540	⊕	⊕	⊕	⊕	⊕	⊕
KZIN 60X200X0.75	200	0,75	2,02	12/432	●	⊕	⊕	⊕	⊕	⊕
KZIN 60X300X0.75	300	1,00	2,62	12/324	●	⊕	⊕	⊕	⊕	⊕
KZIN 60X400X1.00	400	1,00	4,19	6/216	⊕	⊕	⊕	⊕	⊕	⊕
KZIN 60X500X1.25	500	1,25	6,30	6/108	⊕	⊕	⊕	⊕	⊕	⊕
KZIN 60X600X1.25	600	1,25	7,30	6/108	⊕	⊕	⊕	⊕	⊕	⊕

The standard length of the cable tray is 3 m.  
For securing the connection of the trays with the integrated coupling there are used the clamps made from spring steel KSV (page 37) or the bolts NSM 6X10 (page 37), 2 pcs. Example of assembly is on page 37.

It is possible to create on order the trays:

- in the lengths 2, 4, 5 and 6 meters
- with openings for cables on the walls or on the bottom. Protective's bushing s. page 41
- without integrated coupling
- in the sheet metal thicknesses 0,5; 0,75; 1; 1,25 mm
- in the sheet metal thickness 1,5 mm - without integrated coupling



The graph shows the maximum allowed even loading of the tray in relation to the distances of the supports.

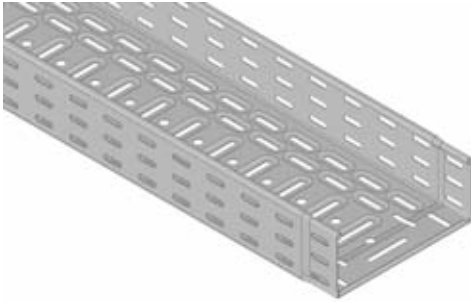
L = distance of supports (m)

P = allowed even loading (weight kg/m)



## 85 - cable tray with integrated coupling

item number	A	↑	‡	⊙	S	F	EC	P60	P100
KZI 85X100X0.75	100	0,75	1,56	12/624	⊙	⊙	⊙	⊙	⊙
KZI 85X150X0.75	150	0,75	1,58	12/390	⊙	⊙	⊙	⊙	⊙
KZI 85X200X1.00	200	1,00	2,58	12/312	⊙	⊙	⊙	⊙	⊙
KZI 85X300X1.00	300	1,00	3,10	12/234	⊙	⊙	⊙	⊙	⊙
KZI 85X400X1.00	400	1,00	4,15	12/156	⊙	⊙	⊙	⊙	⊙
KZI 85X500X1.25	500	1,25	5,70	6/78	⊙	⊙	⊙	⊙	⊙
KZI 85X600X1.25	600	1,25	7,73	6/78	⊙	⊙	⊙	⊙	⊙

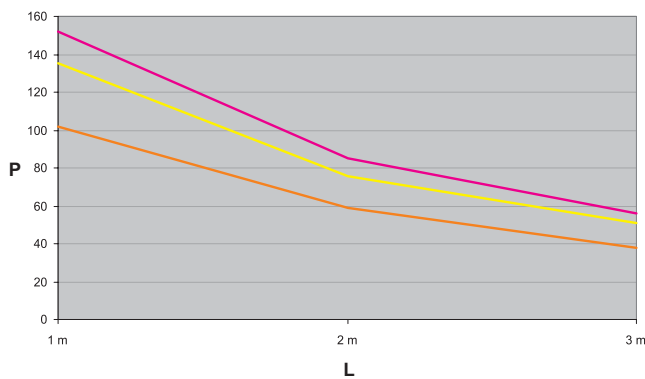
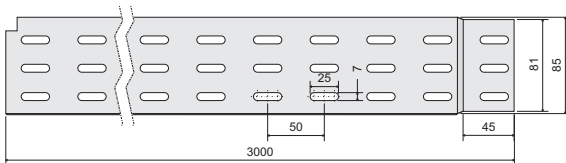
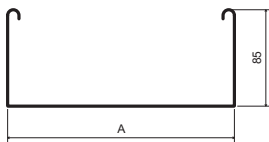


The standard length of the cable tray is 3 m.

For securing the connection of the trays with the integrated coupling there are used the clamps made from spring steel KSV (page 37) or the bolts NSM 6X10 (page 37), 2 pcs. Example of assembly is on page 37.

It is possible to create on order the trays:

- in the lengths 2, 4, 5 and 6 meters
- with openings for cables on the walls or on the bottom. Protective's bushing s. page 41
- without integrated coupling
- in the sheet metal thicknesses 0,5; 0,75; 1; 1,25 mm
- in the sheet metal thickness 1,5 mm - without integrated coupling



The graph shows the maximum allowed even loading of the tray in relation to the distances of the supports.

L = distance of supports (m)

P = allowed even loading (weight kg/m)



## 110 - cable tray with integrated coupling

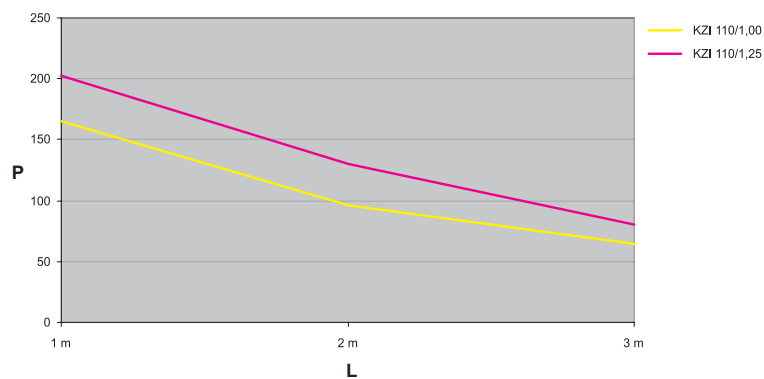
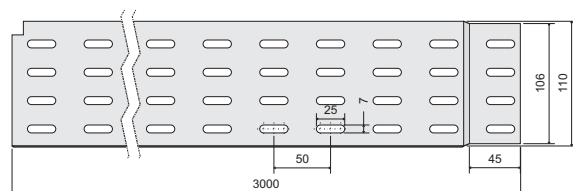
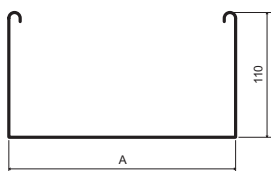
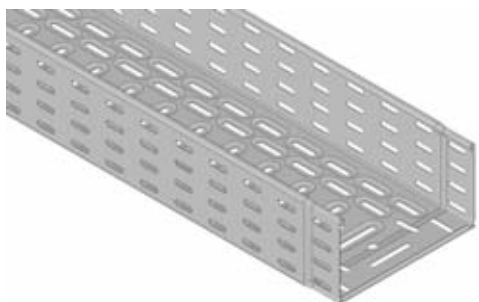
item number	A	t	h	U	S	F	EC	P60	P100
KZI 110X150X1.00	150	1,00	2,61	12/360	⊕	⊕	⊕	⊕	⊕
KZI 110X200X1.00	200	1,00	2,98	12/240	●	⊕	⊕	⊕	⊕
KZI 110X300X1.00	300	1,00	3,64	12/180	●	⊕	⊕	⊕	⊕
KZI 110X400X1.25	400	1,25	5,10	6/120	●	⊕	⊕	⊕	⊕
KZI 110X500X1.25	500	1,25	6,30	6/60	●	⊕	⊕	⊕	⊕
KZI 110X600X1.25	600	1,25	6,85	6/72	⊕	⊕	⊕	⊕	⊕

The standard length of the cable tray is 3 m.

For securing the connection of the trays with the integrated coupling there are used the clamps made from spring steel KSV (page 37) or the bolts NSM 6X10 (page 37), 2 pcs. Example of assembly is on page 37.

It is possible to create on order the trays:

- in the lengths 2, 4, 5 and 6 meters
- with openings for cables on the walls or on the bottom. Protective's bushing s. page 41
- without integrated coupling
- in the sheet metal thicknesses 0,5; 0,75; 1; 1,25 mm
- in the sheet metal thickness 1,5 mm - without integrated coupling



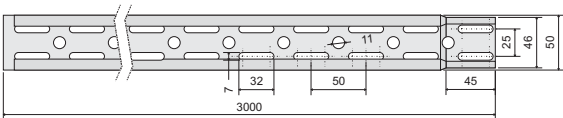
The graph shows the maximum allowed even loading of the tray in relation to the distances of the supports.

L = distance of supports (m)

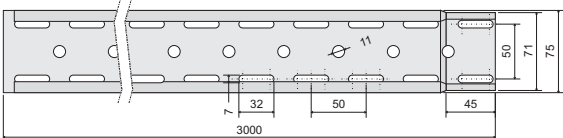
P = allowed even loading (weight kg/m)

Perforation scheme on the bottom trays KZI

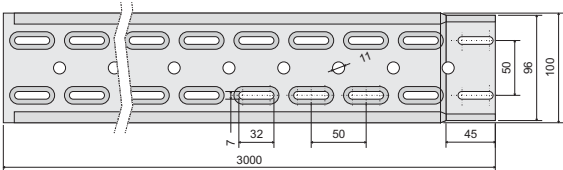
50 mm



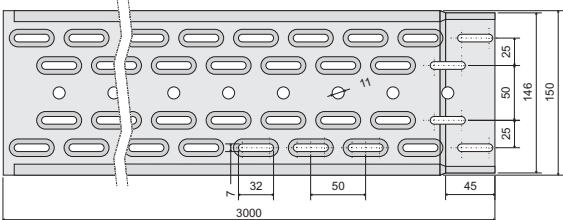
75 mm



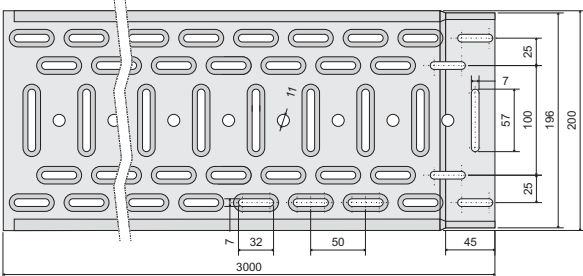
100 mm



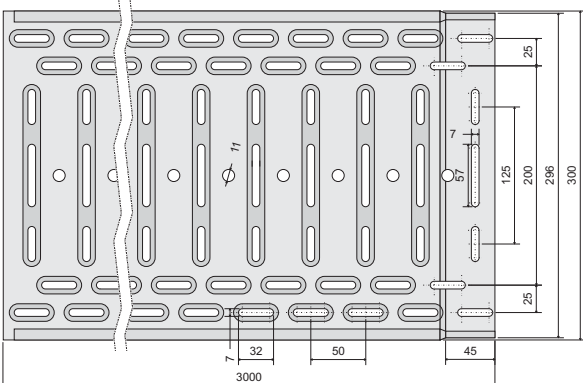
150 mm



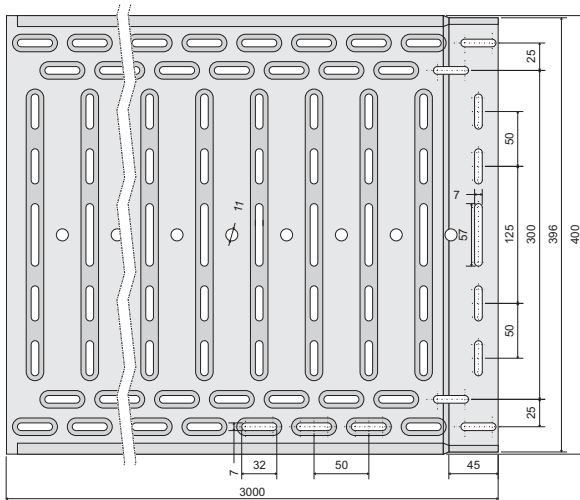
200 mm



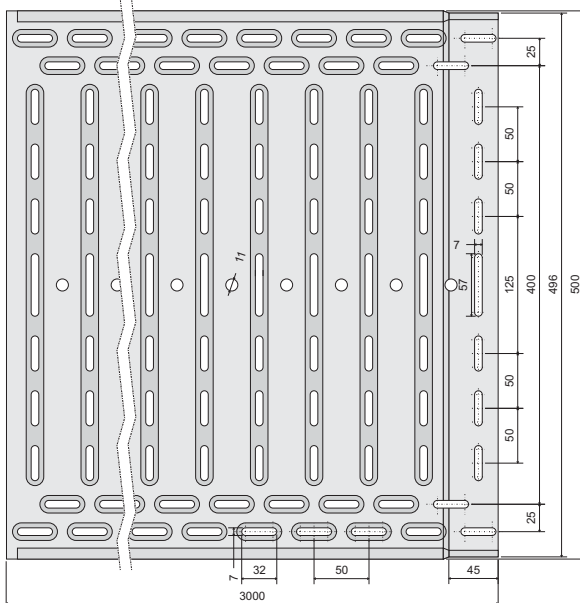
300 mm



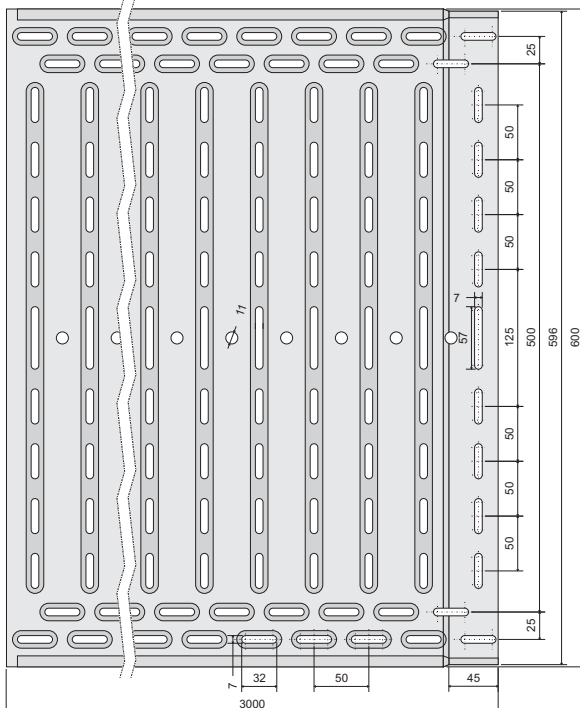
400 mm

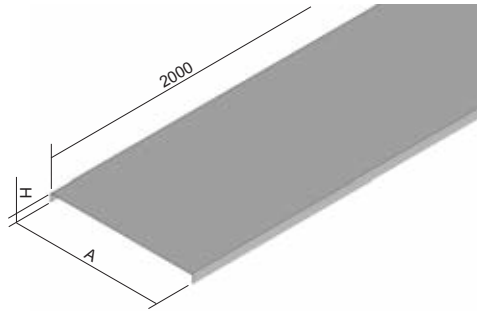
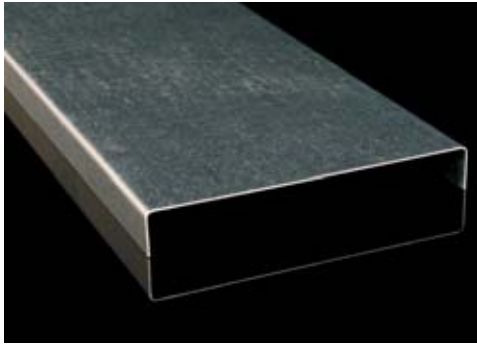


500 mm



600 mm





### cover fixture

item number	A	H	‡	‡	S	F	EO	EC	P60	P100
V 50	50	11	0,55	0,31	●	⊕	⊕	⊕	⊕	⊕
V 75	75	11	0,55	0,43	●	⊕	⊕	⊕	⊕	⊕
V 100	100	11	0,55	0,53	●	●	⊕	⊕	⊕	⊕
V 150	150	11	0,55	0,75	●	⊕	⊕	⊕	⊕	⊕
V 200	200	11	0,55	0,98	●	●	⊕	⊕	⊕	⊕
V 300	300	11	0,80	2,07	●	●	⊕	⊕	⊕	⊕
V 400	400	14	1,00	3,43	●	⊕	⊕	⊕	⊕	⊕
V 500	500	14	1,00	4,22	●	⊕	⊕	⊕	⊕	⊕
V 600	600	14	1,25	6,27	●	⊕	⊕	⊕	⊕	⊕

The standard length of the cable tray cover is 2 m.  
Mentioned thickness of the metal plate is just orientation.  
We recommend cable tray cover Hot-Dip Galvanized in 1,0 mm thick steel plate.  
The fixing of the cover to the tray is done using the cover fixture VU (2 pcs per meter).

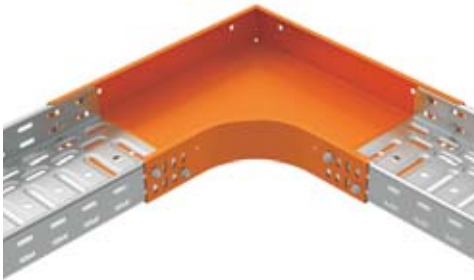
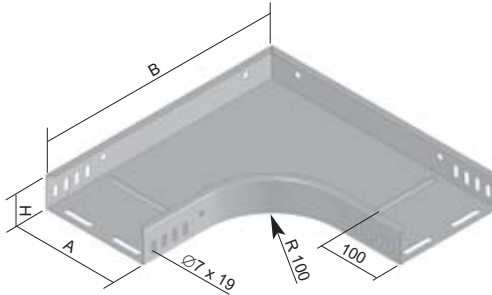
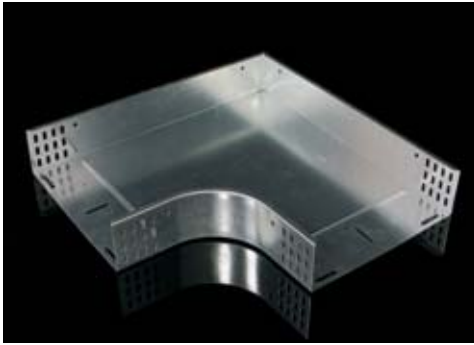


### cover fixture

item number	‡	GMT
VU	0,01	●

Is used for a bolt free attachment of the cover to the tray and to the accessories.  
The cover fixture is placed to the cover and the sidewall in the place of the opening and it is slightly pressed so that the fixture lock slides into the opening.



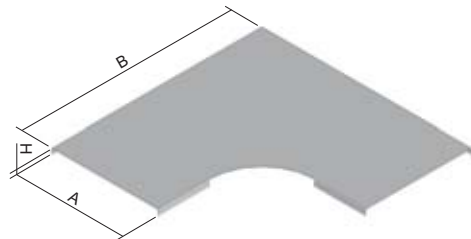


elbow 90°

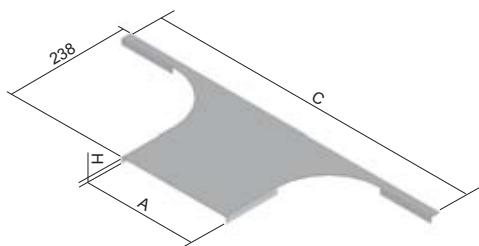
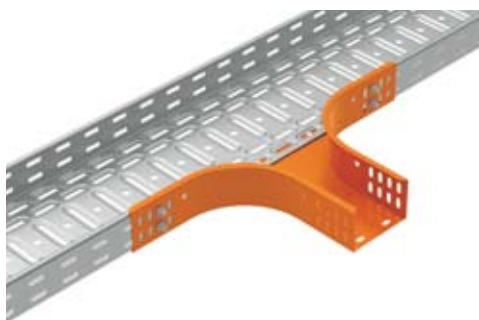
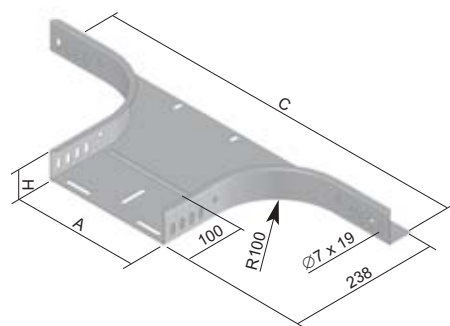
item number	A	H	B	‡	‡	‡	S	F	EO	EC	P60	P100
O 90X35X50	50	35	250	0,8	0,49	8	●	⊕	⊕	⊕	⊕	⊕
O 90X35X75	75	35	275	0,8	0,59	8	●	⊕	⊕	⊕	⊕	⊕
O 90X35X100	100	35	300	0,8	0,69	8	●	⊕	⊕	⊕	⊕	⊕
O 90X35X150	150	35	350	0,8	0,93	8	●	⊕	⊕	⊕	⊕	⊕
O 90X35X200	200	35	400	1,0	1,45	8	●	⊕	⊕	⊕	⊕	⊕
O 90X35X300	300	35	500	1,0	2,25	8	●	⊕	⊕	⊕	⊕	⊕
O 90X35X400	400	35	600	1,0	2,79	8	⊕	⊕	⊕	⊕	⊕	⊕
O 90X35X500	500	35	700	1,0	3,74	8	⊕	⊕	⊕	⊕	⊕	⊕
O 90X35X600	600	35	800	1,2	5,75	8	⊕	⊕	⊕	⊕	⊕	⊕
O 90X42X50	50	42	250	0,8	0,53	8	⊕	⊕	⊕	⊕	⊕	⊕
O 90X42X100	100	42	300	0,8	0,74	8	⊕	⊕	⊕	⊕	⊕	⊕
O 90X42X150	150	42	350	0,8	0,98	8	⊕	⊕	⊕	⊕	⊕	⊕
O 90X42X200	200	42	400	1,0	1,51	8	⊕	⊕	⊕	⊕	⊕	⊕
O 90X42X300	300	42	500	1,0	2,32	8	⊕	⊕	⊕	⊕	⊕	⊕
O 90X42X400	400	42	600	1,0	2,87	8	⊕	⊕	⊕	⊕	⊕	⊕
O 90X42X500	500	42	700	1,0	3,83	8	⊕	⊕	⊕	⊕	⊕	⊕
O 90X42X600	600	42	800	1,2	5,88	8	⊕	⊕	⊕	⊕	⊕	⊕
O 90X60X50	50	60	250	0,8	0,63	8	●	⊕	⊕	⊕	⊕	⊕
O 90X60X75	75	60	275	0,8	0,74	8	●	⊕	⊕	⊕	⊕	⊕
O 90X60X100	100	60	300	0,8	0,86	8	●	●	⊕	⊕	⊕	⊕
O 90X60X150	150	60	350	0,8	1,11	8	●	⊕	⊕	⊕	⊕	⊕
O 90X60X200	200	60	400	1,0	1,67	8	●	●	⊕	⊕	⊕	⊕
O 90X60X300	300	60	500	1,0	2,51	8	●	●	⊕	⊕	⊕	⊕
O 90X60X400	400	60	600	1,0	3,06	8	●	⊕	⊕	⊕	⊕	⊕
O 90X60X500	500	60	700	1,0	4,04	8	●	⊕	⊕	⊕	⊕	⊕
O 90X60X600	600	60	800	1,2	6,14	8	●	⊕	⊕	⊕	⊕	⊕
O 90X85X100	100	85	300	0,8	1,03	16	⊕	⊕	⊕	⊕	⊕	⊕
O 90X85X150	150	85	350	0,8	1,30	16	⊕	⊕	⊕	⊕	⊕	⊕
O 90X85X200	200	85	400	1,0	1,91	16	⊕	⊕	⊕	⊕	⊕	⊕
O 90X85X300	300	85	500	1,0	2,79	16	⊕	⊕	⊕	⊕	⊕	⊕
O 90X85X400	400	85	600	1,0	3,35	16	⊕	⊕	⊕	⊕	⊕	⊕
O 90X85X500	500	85	700	1,0	4,36	16	⊕	⊕	⊕	⊕	⊕	⊕
O 90X85X600	600	85	800	1,2	6,54	16	⊕	⊕	⊕	⊕	⊕	⊕
O 90X110X150	150	110	350	0,8	1,88	16	⊕	⊕	⊕	⊕	⊕	⊕
O 90X110X200	200	110	400	1,0	2,13	16	●	⊕	⊕	⊕	⊕	⊕
O 90X110X300	300	110	500	1,0	3,05	16	●	⊕	⊕	⊕	⊕	⊕
O 90X110X400	400	110	600	1,0	4,23	16	●	⊕	⊕	⊕	⊕	⊕
O 90X110X500	500	110	700	1,0	4,66	16	●	⊕	⊕	⊕	⊕	⊕
O 90X110X600	600	110	800	1,2	8,40	16	⊕	⊕	⊕	⊕	⊕	⊕

elbow cover 90°

VO 90X50	50	12	250	0,6	0,15	●	⊕	⊕	⊕	⊕	⊕
VO 90X75	75	12	275	0,6	0,21	●	⊕	⊕	⊕	⊕	⊕
VO 90X100	100	12	300	0,6	0,28	●	⊕	⊕	⊕	⊕	⊕
VO 90X150	150	12	350	0,6	0,43	●	⊕	⊕	⊕	⊕	⊕
VO 90X200	200	12	400	0,8	0,87	●	⊕	⊕	⊕	⊕	⊕
VO 90X300	300	12	500	1,0	1,83	●	⊕	⊕	⊕	⊕	⊕
VO 90X400	400	15	600	1,0	2,40	●	⊕	⊕	⊕	⊕	⊕
VO 90X500	500	15	700	1,0	3,32	●	⊕	⊕	⊕	⊕	⊕
VO 90X600	600	15	800	1,0	4,36	●	⊕	⊕	⊕	⊕	⊕



To fix the connection use the bolt NSM 6X10 (page 37).  
 To fix the cover use 4 pcs of cover fixtures VU (page 10).  
 From the width of 400 mm the outer right angle of the side walls is replaced by skewed cut.



## horizontal branch

item number	A	H	C	↑	‡	↓	S	F	EO	EC	P60	P100
OH 35X50	50	35	450	0,8	0,57	8	●	⊕	⊕	⊕	⊕	⊕
OH 35X75	75	35	475	0,8	0,60	8	●	⊕	⊕	⊕	⊕	⊕
OH 35X100	100	35	500	0,8	0,64	8	●	⊕	⊕	⊕	⊕	⊕
OH 35X150	150	35	550	0,8	0,72	8	●	⊕	⊕	⊕	⊕	⊕
OH 35X200	200	35	600	1,0	0,90	8	●	⊕	⊕	⊕	⊕	⊕
OH 35X300	300	35	700	1,0	1,09	8	●	⊕	⊕	⊕	⊕	⊕
OH 35X400	400	35	800	1,0	1,28	8	⊕	⊕	⊕	⊕	⊕	⊕
OH 35X500	500	35	900	1,0	1,46	8	⊕	⊕	⊕	⊕	⊕	⊕
OH 35X600	600	35	1000	1,2	1,91	8	⊕	⊕	⊕	⊕	⊕	⊕
OH 42X50	50	42	450	0,8	0,60	8	⊕	⊕	⊕	⊕	⊕	⊕
OH 42X100	100	42	500	0,8	0,68	8	⊕	⊕	⊕	⊕	⊕	⊕
OH 42X150	150	42	550	0,8	0,76	8	⊕	⊕	⊕	⊕	⊕	⊕
OH 42X200	200	42	600	1,0	0,94	8	⊕	⊕	⊕	⊕	⊕	⊕
OH 42X300	300	42	700	1,0	1,13	8	⊕	⊕	⊕	⊕	⊕	⊕
OH 42X400	400	42	800	1,0	1,32	8	⊕	⊕	⊕	⊕	⊕	⊕
OH 42X500	500	42	900	1,0	1,50	8	⊕	⊕	⊕	⊕	⊕	⊕
OH 42X600	600	42	1000	1,2	1,95	8	⊕	⊕	⊕	⊕	⊕	⊕
OH 60X50	50	60	450	0,8	0,71	8	●	⊕	⊕	⊕	⊕	⊕
OH 60X75	75	60	475	0,8	0,74	8	●	⊕	⊕	⊕	⊕	⊕
OH 60X100	100	60	500	0,8	0,78	8	●	⊕	⊕	⊕	⊕	⊕
OH 60X150	150	60	550	0,8	0,86	8	●	⊕	⊕	⊕	⊕	⊕
OH 60X200	200	60	600	1,0	1,04	8	●	⊕	⊕	⊕	⊕	⊕
OH 60X300	300	60	700	1,0	1,23	8	●	⊕	⊕	⊕	⊕	⊕
OH 60X400	400	60	800	1,0	1,42	8	●	⊕	⊕	⊕	⊕	⊕
OH 60X500	500	60	900	1,0	1,60	8	●	⊕	⊕	⊕	⊕	⊕
OH 60X600	600	60	1000	1,2	2,05	8	●	⊕	⊕	⊕	⊕	⊕
OH 85X100	100	85	500	0,8	0,95	16	⊕	⊕	⊕	⊕	⊕	⊕
OH 85X150	150	85	550	0,8	1,02	16	⊕	⊕	⊕	⊕	⊕	⊕
OH 85X200	200	85	600	1,0	1,20	16	⊕	⊕	⊕	⊕	⊕	⊕
OH 85X300	300	85	700	1,0	1,39	16	⊕	⊕	⊕	⊕	⊕	⊕
OH 85X400	400	85	800	1,0	1,58	16	⊕	⊕	⊕	⊕	⊕	⊕
OH 85X500	500	85	900	1,0	1,77	16	⊕	⊕	⊕	⊕	⊕	⊕
OH 85X600	600	85	1000	1,2	2,21	16	⊕	⊕	⊕	⊕	⊕	⊕
OH 110X150	150	110	550	0,8	1,16	16	⊕	⊕	⊕	⊕	⊕	⊕
OH 110X200	200	110	600	1,0	1,34	16	●	⊕	⊕	⊕	⊕	⊕
OH 110X300	300	110	700	1,0	1,53	16	●	⊕	⊕	⊕	⊕	⊕
OH 110X400	400	110	800	1,0	1,72	16	●	⊕	⊕	⊕	⊕	⊕
OH 110X500	500	110	900	1,0	1,90	16	●	⊕	⊕	⊕	⊕	⊕
OH 110X600	600	110	1000	1,2	2,35	16	⊕	⊕	⊕	⊕	⊕	⊕

## horizontal branch cover

VOH 50	50	12	450	0,6	0,13	●	⊕	⊕	⊕	⊕	⊕	⊕
VOH 75	75	12	475	0,6	0,16	●	⊕	⊕	⊕	⊕	⊕	⊕
VOH 100	100	12	500	0,6	0,18	●	⊕	⊕	⊕	⊕	⊕	⊕
VOH 150	150	12	550	0,6	0,23	●	⊕	⊕	⊕	⊕	⊕	⊕
VOH 200	200	12	600	0,8	0,41	●	⊕	⊕	⊕	⊕	⊕	⊕
VOH 300	300	12	700	1,0	0,69	●	⊕	⊕	⊕	⊕	⊕	⊕
VOH 400	400	15	800	1,0	0,88	●	⊕	⊕	⊕	⊕	⊕	⊕
VOH 500	500	15	900	1,0	1,06	●	⊕	⊕	⊕	⊕	⊕	⊕
VOH 600	600	15	1000	1,0	1,23	●	⊕	⊕	⊕	⊕	⊕	⊕

To fix the connection use the bolt NSM 6X10 (page 37).  
Horizontal branch is used for additional branching from the line.  
To fix the cover use 4 pcs of cover fixtures VU (page 10).

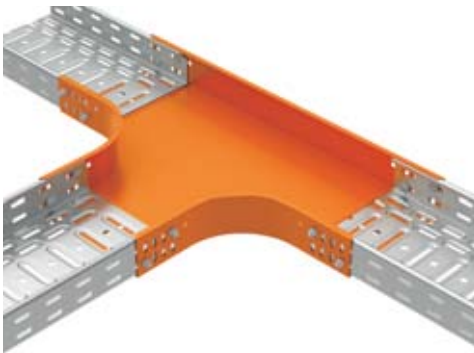
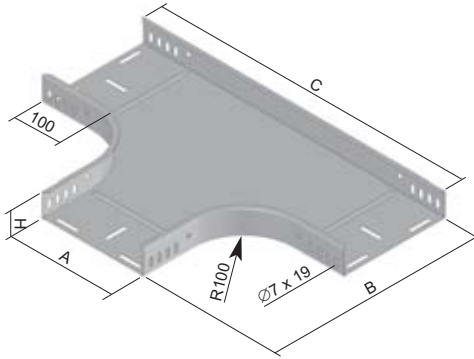
↑ thickness of metal sheet    ‡ weight kg/pc  
↓ amount of bolts for connection

● standard  
⊕ to order

S Pre-Galvanized  
F Hot Dip Galvanized

EO coating, epoxy, along the perimeter  
EC coating, epoxy, total

P60 coating, polyester, 60 µm  
P100 coating, polyester, 100 µm



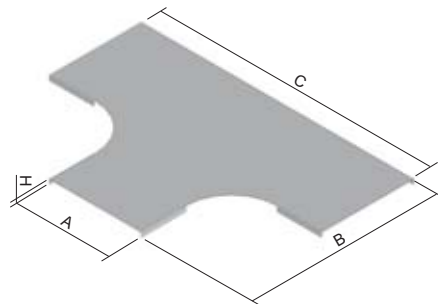
**T-piece**

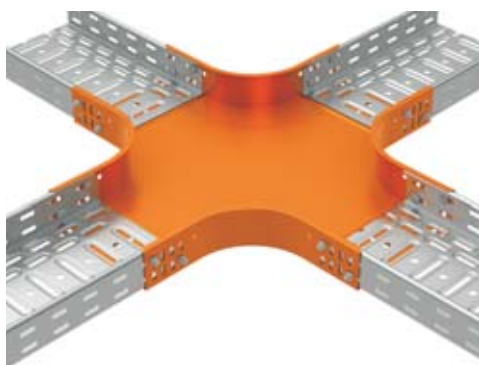
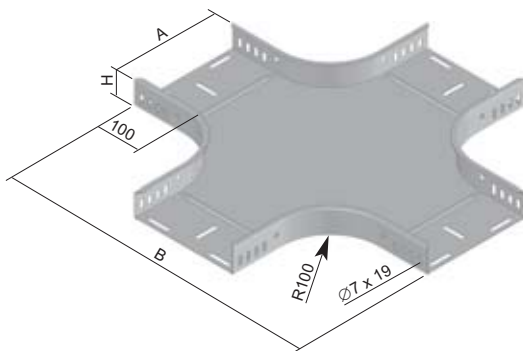
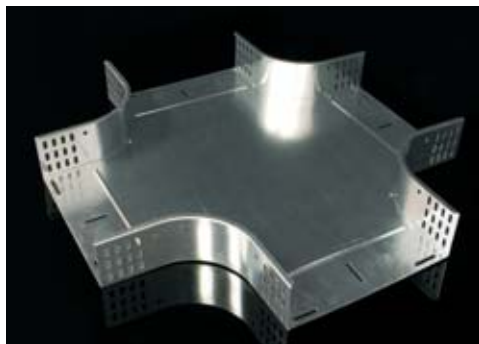
item number	A	H	B	C	‡	‡	‡	S	F	EO	EC	P60	P100
T 35X50	50	35	250	450	0,8	0,74	12	●	⊗	⊗	⊗	⊗	⊗
T 35X75	75	35	275	475	0,8	0,86	12	●	⊗	⊗	⊗	⊗	⊗
T 35X100	100	35	300	500	0,8	0,99	12	●	⊗	⊗	⊗	⊗	⊗
T 35X150	150	35	350	550	0,8	1,27	12	●	⊗	⊗	⊗	⊗	⊗
T 35X200	200	35	400	600	1,0	1,89	12	●	⊗	⊗	⊗	⊗	⊗
T 35X300	300	35	500	700	1,0	2,81	12	●	⊗	⊗	⊗	⊗	⊗
T 35X400	400	35	600	800	1,0	3,09	12	⊗	⊗	⊗	⊗	⊗	⊗
T 35X500	500	35	700	900	1,0	4,12	12	⊗	⊗	⊗	⊗	⊗	⊗
T 35X600	600	35	800	1000	1,2	4,80	12	⊗	⊗	⊗	⊗	⊗	⊗
T 42X50	50	42	250	450	0,8	0,80	12	⊗	⊗	⊗	⊗	⊗	⊗
T 42X100	100	42	300	500	0,8	1,05	12	⊗	⊗	⊗	⊗	⊗	⊗
T 42X150	150	42	350	550	0,8	1,34	12	⊗	⊗	⊗	⊗	⊗	⊗
T 42X200	200	42	400	600	1,0	1,97	12	⊗	⊗	⊗	⊗	⊗	⊗
T 42X300	300	42	500	700	1,0	2,89	12	⊗	⊗	⊗	⊗	⊗	⊗
T 42X400	400	42	600	800	1,0	3,98	12	⊗	⊗	⊗	⊗	⊗	⊗
T 42X500	500	42	700	900	1,0	5,21	12	⊗	⊗	⊗	⊗	⊗	⊗
T 42X600	600	42	800	1000	1,2	7,86	12	⊗	⊗	⊗	⊗	⊗	⊗
T 60X50	50	60	250	450	0,8	0,94	12	●	⊗	⊗	⊗	⊗	⊗
T 60X75	75	60	275	475	0,8	1,07	12	●	⊗	⊗	⊗	⊗	⊗
T 60X100	100	60	300	500	0,8	1,20	12	●	●	⊗	⊗	⊗	⊗
T 60X150	150	60	350	550	0,8	1,50	12	●	⊗	⊗	⊗	⊗	⊗
T 60X200	200	60	400	600	1,0	2,15	12	●	●	⊗	⊗	⊗	⊗
T 60X300	300	60	500	700	1,0	3,09	12	●	●	⊗	⊗	⊗	⊗
T 60X400	400	60	600	800	1,0	4,19	12	●	⊗	⊗	⊗	⊗	⊗
T 60X500	500	60	700	900	1,0	6,80	12	●	⊗	⊗	⊗	⊗	⊗
T 60X600	600	60	800	1000	1,2	8,10	12	●	⊗	⊗	⊗	⊗	⊗
T 85X100	100	85	300	500	0,8	1,45	24	⊗	⊗	⊗	⊗	⊗	⊗
T 85X150	150	85	350	550	0,8	2,05	24	⊗	⊗	⊗	⊗	⊗	⊗
T 85X200	200	85	400	600	1,0	2,43	24	⊗	⊗	⊗	⊗	⊗	⊗
T 85X300	300	85	500	700	1,0	3,39	24	⊗	⊗	⊗	⊗	⊗	⊗
T 85X400	400	85	600	800	1,0	4,51	24	⊗	⊗	⊗	⊗	⊗	⊗
T 85X500	500	85	700	900	1,0	7,00	24	⊗	⊗	⊗	⊗	⊗	⊗
T 85X600	600	85	800	1000	1,2	8,90	24	⊗	⊗	⊗	⊗	⊗	⊗
T 110X150	150	110	350	550	0,8	2,36	24	⊗	⊗	⊗	⊗	⊗	⊗
T 110X200	200	110	400	600	1,0	2,79	24	●	⊗	⊗	⊗	⊗	⊗
T 110X300	300	110	500	700	1,0	3,65	24	●	⊗	⊗	⊗	⊗	⊗
T 110X400	400	110	600	800	1,0	4,95	24	●	⊗	⊗	⊗	⊗	⊗
T 110X500	500	110	700	900	1,0	6,09	24	●	⊗	⊗	⊗	⊗	⊗
T 110X600	600	110	800	1000	1,2	8,60	24	⊗	⊗	⊗	⊗	⊗	⊗

**T-piece cover**

VT 50	50	12	250	450	0,6	0,22	●	⊗	⊗	⊗	⊗	⊗	⊗
VT 75	75	12	275	475	0,6	0,30	●	⊗	⊗	⊗	⊗	⊗	⊗
VT 100	100	12	300	500	0,6	0,39	●	⊗	⊗	⊗	⊗	⊗	⊗
VT 150	150	12	350	550	0,6	0,57	●	⊗	⊗	⊗	⊗	⊗	⊗
VT 200	200	12	400	600	0,8	1,14	●	⊗	⊗	⊗	⊗	⊗	⊗
VT 300	300	12	500	700	1,0	2,32	●	⊗	⊗	⊗	⊗	⊗	⊗
VT 400	400	15	600	800	1,0	3,40	●	⊗	⊗	⊗	⊗	⊗	⊗
VT 500	500	15	700	900	1,0	4,62	●	⊗	⊗	⊗	⊗	⊗	⊗
VT 600	600	15	800	1000	1,0	6,00	●	⊗	⊗	⊗	⊗	⊗	⊗

To fix the connection use the bolt NSM 6X10 (page 37).  
 Use horizontal branch (page 12) or reduction piece SU (page 18) to make unequal T-piece.  
 To fix the cover use 6 pcs of cover fixtures VU (page 10).





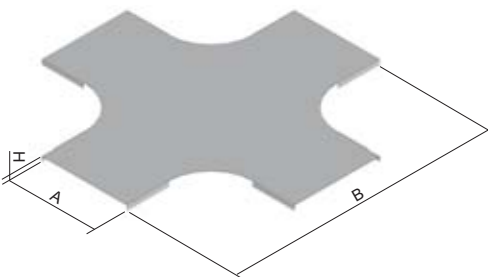
**cross - over**

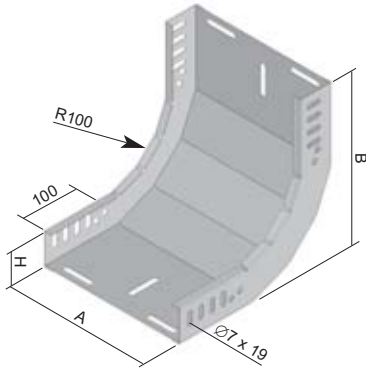
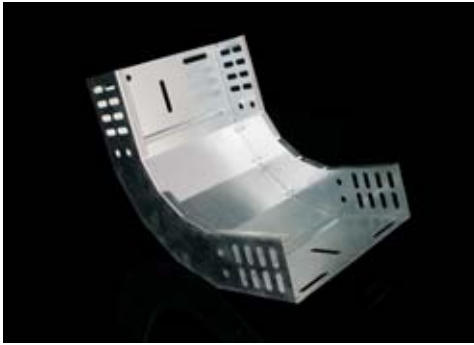
item number	A	H	B	↑	‡	↓†	S	F	EO	EC	P60	P100
KR 35X50	50	35	450	0,8	1,07	16	●	⊕	⊕	⊕	⊕	⊕
KR 35X75	75	35	475	0,8	1,22	16	●	⊕	⊕	⊕	⊕	⊕
KR 35X100	100	35	500	0,8	1,37	16	●	⊕	⊕	⊕	⊕	⊕
KR 35X150	150	35	550	0,8	1,70	16	●	⊕	⊕	⊕	⊕	⊕
KR 35X200	200	35	600	1,0	2,39	16	●	⊕	⊕	⊕	⊕	⊕
KR 35X300	300	35	700	1,0	3,44	16	●	⊕	⊕	⊕	⊕	⊕
KR 35X400	400	35	800	1,0	4,65	16	⊕	⊕	⊕	⊕	⊕	⊕
KR 35X500	500	35	900	1,0	5,99	16	⊕	⊕	⊕	⊕	⊕	⊕
KR 35X600	600	35	1000	1,2	8,87	16	⊕	⊕	⊕	⊕	⊕	⊕
KR 42X50	50	42	450	0,8	1,15	16	⊕	⊕	⊕	⊕	⊕	⊕
KR 42X100	100	42	500	0,8	1,45	16	⊕	⊕	⊕	⊕	⊕	⊕
KR 42X150	150	42	550	0,8	1,78	16	⊕	⊕	⊕	⊕	⊕	⊕
KR 42X200	200	42	600	1,0	2,47	16	⊕	⊕	⊕	⊕	⊕	⊕
KR 42X300	300	42	700	1,0	3,52	16	⊕	⊕	⊕	⊕	⊕	⊕
KR 42X400	400	42	800	1,0	4,73	16	⊕	⊕	⊕	⊕	⊕	⊕
KR 42X500	500	42	900	1,0	6,07	16	⊕	⊕	⊕	⊕	⊕	⊕
KR 42X600	600	42	1000	1,2	8,95	16	⊕	⊕	⊕	⊕	⊕	⊕
KR 60X50	50	60	450	0,8	1,35	16	●	⊕	⊕	⊕	⊕	⊕
KR 60X75	75	60	475	0,8	1,50	16	●	⊕	⊕	⊕	⊕	⊕
KR 60X100	100	60	500	0,8	1,65	16	●	⊕	⊕	⊕	⊕	⊕
KR 60X150	150	60	550	0,8	1,98	16	●	⊕	⊕	⊕	⊕	⊕
KR 60X200	200	60	600	1,0	2,67	16	●	⊕	⊕	⊕	⊕	⊕
KR 60X300	300	60	700	1,0	3,72	16	●	⊕	⊕	⊕	⊕	⊕
KR 60X400	400	60	800	1,0	4,93	16	●	⊕	⊕	⊕	⊕	⊕
KR 60X500	500	60	900	1,0	6,27	16	●	⊕	⊕	⊕	⊕	⊕
KR 60X600	600	60	1000	1,2	9,15	16	●	⊕	⊕	⊕	⊕	⊕
KR 85X100	100	85	500	0,8	1,99	32	⊕	⊕	⊕	⊕	⊕	⊕
KR 85X150	150	85	550	0,8	2,31	32	⊕	⊕	⊕	⊕	⊕	⊕
KR 85X200	200	85	600	1,0	3,01	32	⊕	⊕	⊕	⊕	⊕	⊕
KR 85X300	300	85	700	1,0	4,05	32	⊕	⊕	⊕	⊕	⊕	⊕
KR 85X400	400	85	800	1,0	5,26	32	⊕	⊕	⊕	⊕	⊕	⊕
KR 85X500	500	85	900	1,0	6,60	32	⊕	⊕	⊕	⊕	⊕	⊕
KR 85X600	600	85	1000	1,2	9,48	32	⊕	⊕	⊕	⊕	⊕	⊕
KR 110X150	150	110	550	0,8	2,58	32	⊕	⊕	⊕	⊕	⊕	⊕
KR 110X200	200	110	600	1,0	3,27	32	●	⊕	⊕	⊕	⊕	⊕
KR 110X300	300	110	700	1,0	4,32	32	●	⊕	⊕	⊕	⊕	⊕
KR 110X400	400	110	800	1,0	5,26	32	●	⊕	⊕	⊕	⊕	⊕
KR 110X500	500	110	900	1,0	6,87	32	●	⊕	⊕	⊕	⊕	⊕
KR 110X600	600	110	1000	1,2	9,75	32	⊕	⊕	⊕	⊕	⊕	⊕

**cross - over cover**

VKR 50	50	12	450	0,6	0,28	●	⊕	⊕	⊕	⊕	⊕	⊕
VKR 75	75	12	475	0,6	0,38	●	⊕	⊕	⊕	⊕	⊕	⊕
VKR 100	100	12	500	0,6	0,49	●	⊕	⊕	⊕	⊕	⊕	⊕
VKR 150	150	12	550	0,6	0,72	●	⊕	⊕	⊕	⊕	⊕	⊕
VKR 200	200	12	600	0,8	1,41	●	⊕	⊕	⊕	⊕	⊕	⊕
VKR 300	300	12	700	1,0	2,81	●	⊕	⊕	⊕	⊕	⊕	⊕
VKR 400	400	15	800	1,0	4,04	●	⊕	⊕	⊕	⊕	⊕	⊕
VKR 500	500	15	900	1,0	5,40	●	⊕	⊕	⊕	⊕	⊕	⊕
VKR 600	600	15	1000	1,0	6,30	●	⊕	⊕	⊕	⊕	⊕	⊕

To fix the connection use the bolt NSM 6X10 (page 37).  
 Use horizontal branch (page 12) or reduction piece SU (page 18) to make unequal cross.  
 To fix the cover use 8 pcs of cover fixture VU (page 10).





rising elbow 90°

item number	A	H	B	↑	‡	⌈	S	F	EO	EC	P60	P100
SO 90X35X50	50	35	220	0,8	0,37	8	●	⊗	⊗	⊗	⊗	⊗
SO 90X35X75	75	35	220	0,8	0,43	8	●	⊗	⊗	⊗	⊗	⊗
SO 90X35X100	100	35	220	0,8	0,49	8	●	⊗	⊗	⊗	⊗	⊗
SO 90X35X150	150	35	220	0,8	0,59	8	●	⊗	⊗	⊗	⊗	⊗
SO 90X35X200	200	35	220	1,0	0,85	8	●	⊗	⊗	⊗	⊗	⊗
SO 90X35X300	300	35	220	1,0	1,10	8	●	⊗	⊗	⊗	⊗	⊗
SO 90X35X400	400	35	220	1,0	1,39	8	⊗	⊗	⊗	⊗	⊗	⊗
SO 90X35X500	500	35	220	1,0	1,67	8	⊗	⊗	⊗	⊗	⊗	⊗
SO 90X35X600	600	35	220	1,2	2,30	8	⊗	⊗	⊗	⊗	⊗	⊗
SO 90X42X50	50	42	227	0,8	0,41	8	⊗	⊗	⊗	⊗	⊗	⊗
SO 90X42X100	100	42	227	0,8	0,54	8	⊗	⊗	⊗	⊗	⊗	⊗
SO 90X42X150	150	42	227	0,8	0,64	8	⊗	⊗	⊗	⊗	⊗	⊗
SO 90X42X200	200	42	227	1,0	0,90	8	⊗	⊗	⊗	⊗	⊗	⊗
SO 90X42X300	300	42	227	1,0	1,17	8	⊗	⊗	⊗	⊗	⊗	⊗
SO 90X42X400	400	42	227	1,0	1,46	8	⊗	⊗	⊗	⊗	⊗	⊗
SO 90X42X500	500	42	227	1,0	1,75	8	⊗	⊗	⊗	⊗	⊗	⊗
SO 90X42X600	600	42	227	1,2	2,40	8	⊗	⊗	⊗	⊗	⊗	⊗
SO 90X60X50	50	60	245	0,8	0,50	8	●	⊗	⊗	⊗	⊗	⊗
SO 90X60X75	75	60	245	0,8	0,57	8	●	⊗	⊗	⊗	⊗	⊗
SO 90X60X100	100	60	245	0,8	0,64	8	●	⊗	⊗	⊗	⊗	⊗
SO 90X60X150	150	60	245	0,8	0,77	8	●	⊗	⊗	⊗	⊗	⊗
SO 90X60X200	200	60	245	1,0	1,03	8	●	⊗	⊗	⊗	⊗	⊗
SO 90X60X300	300	60	245	1,0	1,37	8	●	⊗	⊗	⊗	⊗	⊗
SO 90X60X400	400	60	245	1,0	1,70	8	●	⊗	⊗	⊗	⊗	⊗
SO 90X60X500	500	60	245	1,0	2,03	8	●	⊗	⊗	⊗	⊗	⊗
SO 90X60X600	600	60	245	1,2	2,65	8	●	⊗	⊗	⊗	⊗	⊗
SO 90X85X100	100	85	270	0,8	0,80	16	⊗	⊗	⊗	⊗	⊗	⊗
SO 90X85X150	150	85	270	0,8	0,92	16	⊗	⊗	⊗	⊗	⊗	⊗
SO 90X85X200	200	85	270	1,0	1,23	16	⊗	⊗	⊗	⊗	⊗	⊗
SO 90X85X300	300	85	270	1,0	1,59	16	⊗	⊗	⊗	⊗	⊗	⊗
SO 90X85X400	400	85	270	1,0	1,90	16	⊗	⊗	⊗	⊗	⊗	⊗
SO 90X85X500	500	85	270	1,0	2,24	16	⊗	⊗	⊗	⊗	⊗	⊗
SO 90X85X600	600	85	270	1,2	3,01	16	⊗	⊗	⊗	⊗	⊗	⊗
SO 90X110X150	150	110	295	0,8	1,13	16	⊗	⊗	⊗	⊗	⊗	⊗
SO 90X110X200	200	110	295	1,0	1,41	16	●	⊗	⊗	⊗	⊗	⊗
SO 90X110X300	300	110	295	1,0	1,84	16	●	⊗	⊗	⊗	⊗	⊗
SO 90X110X400	400	110	295	1,0	2,18	16	●	⊗	⊗	⊗	⊗	⊗
SO 90X110X500	500	110	295	1,0	2,63	16	●	⊗	⊗	⊗	⊗	⊗
SO 90X110X600	600	110	295	1,2	3,39	16	⊗	⊗	⊗	⊗	⊗	⊗

rising elbow 90° cover

VSO 90X50	50	12	0,6	0,13	●	⊗	⊗	⊗	⊗	⊗	⊗
VSO 90X75	75	12	0,6	0,14	●	⊗	⊗	⊗	⊗	⊗	⊗
VSO 90X100	100	12	0,6	0,17	●	⊗	⊗	⊗	⊗	⊗	⊗
VSO 90X150	150	12	0,6	0,24	●	⊗	⊗	⊗	⊗	⊗	⊗
VSO 90X200	200	12	0,8	0,45	●	⊗	⊗	⊗	⊗	⊗	⊗
VSO 90X300	300	12	1,0	0,82	●	⊗	⊗	⊗	⊗	⊗	⊗
VSO 90X400	400	15	1,0	1,09	●	⊗	⊗	⊗	⊗	⊗	⊗
VSO 90X500	500	15	1,0	1,34	●	⊗	⊗	⊗	⊗	⊗	⊗
VSO 90X600	600	15	1,0	1,59	●	⊗	⊗	⊗	⊗	⊗	⊗

To fix the connection use the bolt NSM 6X10 (page 37).  
To fix the cover use 4 pcs of cover fixtures VU (page 10).

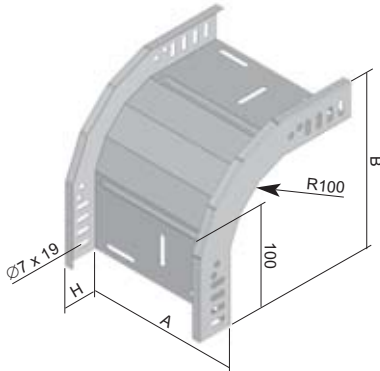
↑ thickness of metal sheet    ‡ weight kg/pc  
⌈ amount of bolts for connection

● standard  
⊗ to order

S Pre-Galvanized  
F Hot Dip Galvanized

EO coating, epoxy, along the perimeter  
EC coating, epoxy, total

P60 coating, polyester, 60 µm  
P100 coating, polyester, 100 µm



## low elbow 90°

item number	A	H	B	↑	‡	↓↑	S	F	EO	EC	P60	P100
KO 90X35X50	50	35	220	0,8	0,35	8	●	⊕	⊕	⊕	⊕	⊕
KO 90X35X75	75	35	220	0,8	0,40	8	●	⊕	⊕	⊕	⊕	⊕
KO 90X35X100	100	35	220	0,8	0,45	8	●	⊕	⊕	⊕	⊕	⊕
KO 90X35X150	150	35	220	0,8	0,55	8	●	⊕	⊕	⊕	⊕	⊕
KO 90X35X200	200	35	220	1,0	0,75	8	●	⊕	⊕	⊕	⊕	⊕
KO 90X35X300	300	35	220	1,0	1,01	8	●	⊕	⊕	⊕	⊕	⊕
KO 90X35X400	400	35	220	1,0	1,26	8	⊕	⊕	⊕	⊕	⊕	⊕
KO 90X35X500	500	35	220	1,0	1,51	8	⊕	⊕	⊕	⊕	⊕	⊕
KO 90X35X600	600	35	220	1,2	2,07	8	⊕	⊕	⊕	⊕	⊕	⊕
KO 90X42X50	50	42	227	0,8	0,39	8	⊕	⊕	⊕	⊕	⊕	⊕
KO 90X42X100	100	42	227	0,8	0,49	8	⊕	⊕	⊕	⊕	⊕	⊕
KO 90X42X150	150	42	227	0,8	0,59	8	⊕	⊕	⊕	⊕	⊕	⊕
KO 90X42X200	200	42	227	1,0	0,79	8	⊕	⊕	⊕	⊕	⊕	⊕
KO 90X42X300	300	42	227	1,0	1,04	8	⊕	⊕	⊕	⊕	⊕	⊕
KO 90X42X400	400	42	227	1,0	1,30	8	⊕	⊕	⊕	⊕	⊕	⊕
KO 90X42X500	500	42	227	1,0	1,55	8	⊕	⊕	⊕	⊕	⊕	⊕
KO 90X42X600	600	42	227	1,2	2,11	8	⊕	⊕	⊕	⊕	⊕	⊕
KO 90X60X50	50	60	245	0,8	0,47	8	●	⊕	⊕	⊕	⊕	⊕
KO 90X60X75	75	60	245	0,8	0,52	8	●	⊕	⊕	⊕	⊕	⊕
KO 90X60X100	100	60	245	0,8	0,57	8	●	⊕	⊕	⊕	⊕	⊕
KO 90X60X150	150	60	245	0,8	0,67	8	●	⊕	⊕	⊕	⊕	⊕
KO 90X60X200	200	60	245	1,0	0,87	8	●	⊕	⊕	⊕	⊕	⊕
KO 90X60X300	300	60	245	1,0	1,13	8	●	⊕	⊕	⊕	⊕	⊕
KO 90X60X400	400	60	245	1,0	1,38	8	●	⊕	⊕	⊕	⊕	⊕
KO 90X60X500	500	60	245	1,0	1,63	8	●	⊕	⊕	⊕	⊕	⊕
KO 90X60X600	600	60	245	1,2	2,19	8	●	⊕	⊕	⊕	⊕	⊕
KO 90X85X100	100	85	270	0,8	0,71	16	⊕	⊕	⊕	⊕	⊕	⊕
KO 90X85X150	150	85	270	0,8	0,81	16	⊕	⊕	⊕	⊕	⊕	⊕
KO 90X85X200	200	85	270	1,0	1,01	16	⊕	⊕	⊕	⊕	⊕	⊕
KO 90X85X300	300	85	270	1,0	1,26	16	⊕	⊕	⊕	⊕	⊕	⊕
KO 90X85X400	400	85	270	1,0	1,52	16	⊕	⊕	⊕	⊕	⊕	⊕
KO 90X85X500	500	85	270	1,0	1,77	16	⊕	⊕	⊕	⊕	⊕	⊕
KO 90X85X600	600	85	270	1,2	2,33	16	⊕	⊕	⊕	⊕	⊕	⊕
KO 90X110X150	150	110	295	0,8	0,95	16	⊕	⊕	⊕	⊕	⊕	⊕
KO 90X110X200	200	110	295	1,0	1,15	16	●	⊕	⊕	⊕	⊕	⊕
KO 90X110X300	300	110	295	1,0	1,41	16	●	⊕	⊕	⊕	⊕	⊕
KO 90X110X400	400	110	295	1,0	1,67	16	●	⊕	⊕	⊕	⊕	⊕
KO 90X110X500	500	110	295	1,0	1,91	16	●	⊕	⊕	⊕	⊕	⊕
KO 90X110X600	600	110	295	1,2	2,48	16	⊕	⊕	⊕	⊕	⊕	⊕

To fix the connection use the bolt NSM 6X10 (page 37).

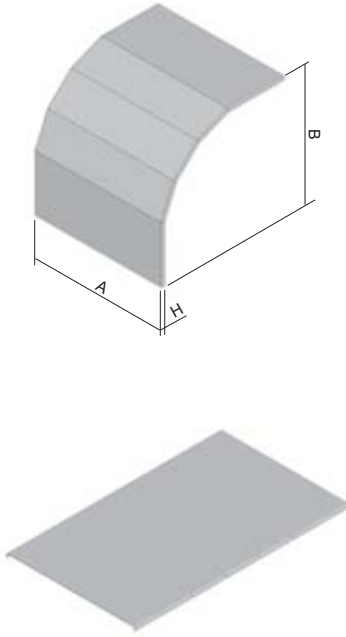
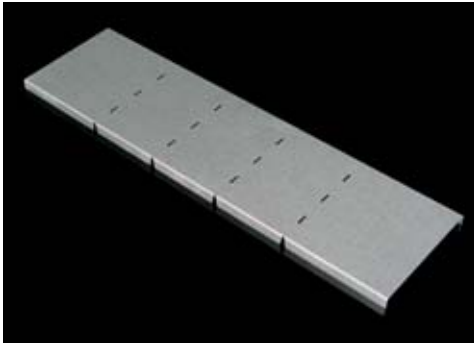
↑ thickness of metal sheet    ‡ weight kg/pc

● standard  
⊕ to order

S Pre-Galvanized  
F Hot Dip Galvanized

EO coating, epoxy, along the perimeter  
EC coating, epoxy, total

P60 coating, polyester, 60 µm  
P100 coating, polyester, 100 µm



low elbow 90° cover

item number	A	H	B	‡	‡	S	F	EO	EC	P60	P100
VKO 90X35X50	50	12	220	0,6	0,12	●	⊗	⊗	⊗	⊗	⊗
VKO 90X35X75	75	12	220	0,6	0,19	●	⊗	⊗	⊗	⊗	⊗
VKO 90X35X100	100	12	220	0,6	0,27	●	⊗	⊗	⊗	⊗	⊗
VKO 90X35X150	150	12	220	0,6	0,44	●	⊗	⊗	⊗	⊗	⊗
VKO 90X35X200	200	12	220	0,8	0,51	●	⊗	⊗	⊗	⊗	⊗
VKO 90X35X300	300	12	220	1,0	0,91	●	⊗	⊗	⊗	⊗	⊗
VKO 90X35X400	400	15	220	1,0	0,97	⊗	⊗	⊗	⊗	⊗	⊗
VKO 90X35X500	500	15	220	1,0	1,41	⊗	⊗	⊗	⊗	⊗	⊗
VKO 90X35X600	600	15	220	1,0	1,69	⊗	⊗	⊗	⊗	⊗	⊗
VKO 90X42X50	50	11	269	0,6	0,14	⊗	⊗	⊗	⊗	⊗	⊗
VKO 90X42X100	100	11	269	0,6	0,23	⊗	⊗	⊗	⊗	⊗	⊗
VKO 90X42X150	150	11	269	0,6	0,39	⊗	⊗	⊗	⊗	⊗	⊗
VKO 90X42X200	200	11	269	0,8	0,56	⊗	⊗	⊗	⊗	⊗	⊗
VKO 90X42X300	300	11	269	1,0	1,02	⊗	⊗	⊗	⊗	⊗	⊗
VKO 90X42X400	400	11	269	1,0	1,35	⊗	⊗	⊗	⊗	⊗	⊗
VKO 90X42X500	500	11	269	1,0	1,66	⊗	⊗	⊗	⊗	⊗	⊗
VKO 90X42X600	600	11	269	1,0	1,98	⊗	⊗	⊗	⊗	⊗	⊗
VKO 90X60X50	50	12	245	0,6	0,14	●	⊗	⊗	⊗	⊗	⊗
VKO 90X60X75	75	12	245	0,6	0,18	●	⊗	⊗	⊗	⊗	⊗
VKO 90X60X100	100	12	245	0,6	0,23	●	⊗	⊗	⊗	⊗	⊗
VKO 90X60X150	150	12	245	0,6	0,32	●	⊗	⊗	⊗	⊗	⊗
VKO 90X60X200	200	12	245	0,8	0,60	●	⊗	⊗	⊗	⊗	⊗
VKO 90X60X300	300	12	245	1,0	0,87	●	⊗	⊗	⊗	⊗	⊗
VKO 90X60X400	400	15	245	1,0	1,45	●	⊗	⊗	⊗	⊗	⊗
VKO 90X60X500	500	15	245	1,0	1,78	●	⊗	⊗	⊗	⊗	⊗
VKO 90X60X600	600	15	245	1,0	2,17	●	⊗	⊗	⊗	⊗	⊗
VKO 90X85X100	100	12	270	0,6	0,31	⊗	⊗	⊗	⊗	⊗	⊗
VKO 90X85X150	150	12	270	0,6	0,39	⊗	⊗	⊗	⊗	⊗	⊗
VKO 90X85X200	200	12	270	0,8	0,66	⊗	⊗	⊗	⊗	⊗	⊗
VKO 90X85X300	300	12	270	1,0	1,19	⊗	⊗	⊗	⊗	⊗	⊗
VKO 90X85X400	400	15	270	1,0	1,58	⊗	⊗	⊗	⊗	⊗	⊗
VKO 90X85X500	500	15	270	1,0	1,95	⊗	⊗	⊗	⊗	⊗	⊗
VKO 90X85X600	600	15	270	1,0	2,32	⊗	⊗	⊗	⊗	⊗	⊗
VKO 90X110X150	150	12	295	0,6	0,38	⊗	⊗	⊗	⊗	⊗	⊗
VKO 90X110X200	200	12	295	0,8	0,72	●	⊗	⊗	⊗	⊗	⊗
VKO 90X110X300	300	12	295	1,0	1,25	●	⊗	⊗	⊗	⊗	⊗
VKO 90X110X400	400	15	295	1,0	1,29	●	⊗	⊗	⊗	⊗	⊗
VKO 90X110X500	500	15	295	1,0	1,82	●	⊗	⊗	⊗	⊗	⊗
VKO 90X110X600	600	15	295	1,0	2,10	⊗	⊗	⊗	⊗	⊗	⊗

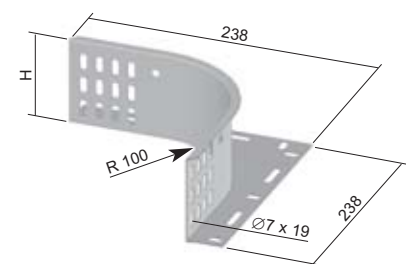
To fix the cover use 4 pcs of cover fixtures VU (page 10).



### hinged joint

item number	H	t	±	∑	S	F	EC	P60	P100
SK 35	29	0,8	0,03	4	●	⊕	⊕	⊕	⊕
SK 42	36	0,8	0,04	4	⊕	⊕	⊕	⊕	⊕
SK 60	54	0,8	0,06	4	●	⊕	⊕	⊕	⊕
SK 85	79	1,2	0,14	8	⊕	⊕	⊕	⊕	⊕
SK 110	104	1,2	0,20	8	●	⊕	⊕	⊕	⊕

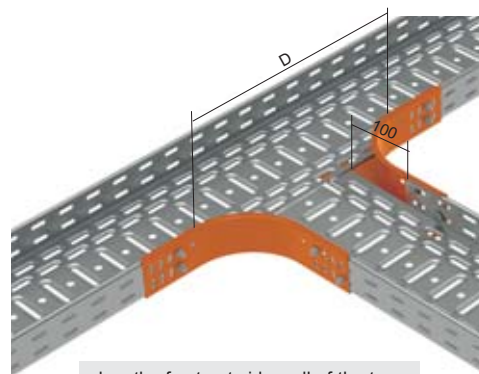
For the connection of the hinged joint to the tray there are used the bolts NSM 6X10 (page 37). The joint is delivered in 1 piece per packing, 2 pcs are needed to make a bend of the line.



### reduction piece

item number	H	t	±	∑	S	F	EC	P60	P100
SU 35	35	1,0	0,30	4	●	⊕	⊕	⊕	⊕
SU 42	42	1,0	0,33	4	⊕	⊕	⊕	⊕	⊕
SU 60	60	1,0	0,37	4	●	⊕	⊕	⊕	⊕
SU 85	85	1,0	0,45	8	⊕	⊕	⊕	⊕	⊕
SU 110	110	1,0	0,51	8	●	⊕	⊕	⊕	⊕

It is used for making an additional branching use an unequal T-piece or cross. Advantage of this using is availability to choose bending tray with any width. The reduction piece is delivered in singles, must be used 2 pieces for installation. The connection is performed using the bolts NSM 6X10 (page 37).



length of cut out side wall of the tray

branch to a channel	D
KZI ...X50	250
KZI ...X100	300
KZI ...X150	350
KZI ...X200	400
KZI ...X300	500
KZI ...X400	600
KZI ...X500	700
KZI ...X600	800

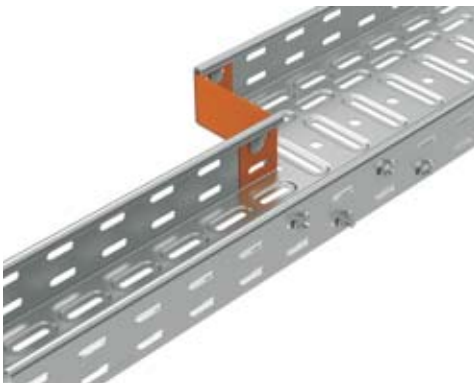
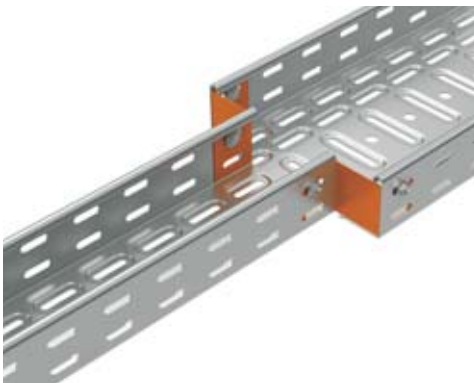
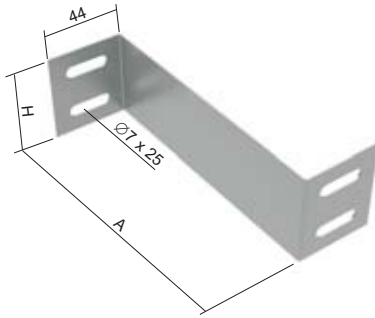
t thickness of metal sheet    t weight kg/pc

∑ amount of bolts for connection

● standard  
⊕ to order

S Pre-Galvanized  
F Hot Dip Galvanized

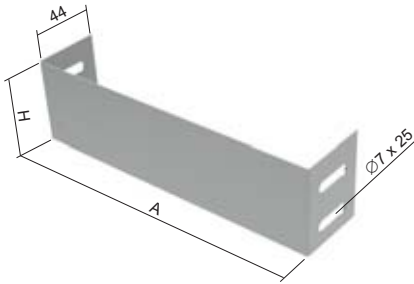
EO coating, epoxy, along the perimeter    P60 coating, polyester, 60 µm  
EC coating, epoxy, total    P100 coating, polyester, 100 µm



reduction

item number	H	A	↑	‡	⌈	S	F	EC	P60	P100
SR 35X25	25	25	1,0	0,02	2	●	⊕	⊕	⊕	⊕
SR 35X50	25	50	1,0	0,02	2	●	⊕	⊕	⊕	⊕
SR 35X75	25	75	1,0	0,03	2	●	⊕	⊕	⊕	⊕
SR 35X100	25	100	1,0	0,03	2	●	⊕	⊕	⊕	⊕
SR 35X125	25	125	1,0	0,04	2	●	⊕	⊕	⊕	⊕
SR 35X150	25	150	1,0	0,04	2	●	⊕	⊕	⊕	⊕
SR 35X200	25	200	1,0	0,05	2	●	⊕	⊕	⊕	⊕
SR 35X250	25	250	1,0	0,06	2	●	⊕	⊕	⊕	⊕
SR 35X300	25	300	1,0	0,07	2	●	⊕	⊕	⊕	⊕
SR 35X350	25	350	1,0	0,08	2	●	⊕	⊕	⊕	⊕
SR 35X400	25	400	1,0	0,09	2	●	⊕	⊕	⊕	⊕
SR 42X50	32	50	1,0	0,03	2	⊕	⊕	⊕	⊕	⊕
SR 42X100	32	100	1,0	0,04	2	⊕	⊕	⊕	⊕	⊕
SR 42X150	32	150	1,0	0,05	2	⊕	⊕	⊕	⊕	⊕
SR 42X200	32	200	1,0	0,07	2	⊕	⊕	⊕	⊕	⊕
SR 42X250	32	250	1,0	0,08	2	⊕	⊕	⊕	⊕	⊕
SR 42X300	32	300	1,0	0,10	2	⊕	⊕	⊕	⊕	⊕
SR 42X350	32	350	1,0	0,11	2	⊕	⊕	⊕	⊕	⊕
SR 42X400	32	400	1,0	0,12	2	⊕	⊕	⊕	⊕	⊕
SR 60X25	50	25	1,0	0,04	4	●	⊕	⊕	⊕	⊕
SR 60X50	50	50	1,0	0,05	4	●	⊕	⊕	⊕	⊕
SR 60X75	50	75	1,0	0,06	4	●	⊕	⊕	⊕	⊕
SR 60X100	50	100	1,0	0,07	4	●	⊕	⊕	⊕	⊕
SR 60X125	50	125	1,0	0,08	4	●	⊕	⊕	⊕	⊕
SR 60X150	50	150	1,0	0,09	4	●	⊕	⊕	⊕	⊕
SR 60X200	50	200	1,0	0,11	4	●	⊕	⊕	⊕	⊕
SR 60X250	50	250	1,0	0,13	4	●	⊕	⊕	⊕	⊕
SR 60X300	50	300	1,0	0,15	4	●	⊕	⊕	⊕	⊕
SR 60X350	50	350	1,0	0,17	4	●	⊕	⊕	⊕	⊕
SR 60X400	50	400	1,0	0,19	4	●	⊕	⊕	⊕	⊕
SR 85X25	75	25	1,0	0,06	6	⊕	⊕	⊕	⊕	⊕
SR 85X50	75	50	1,0	0,07	6	⊕	⊕	⊕	⊕	⊕
SR 85X75	75	75	1,0	0,09	6	⊕	⊕	⊕	⊕	⊕
SR 85X100	75	100	1,0	0,10	6	⊕	⊕	⊕	⊕	⊕
SR 85X125	75	125	1,0	0,12	6	⊕	⊕	⊕	⊕	⊕
SR 85X150	75	150	1,0	0,13	6	⊕	⊕	⊕	⊕	⊕
SR 85X200	75	200	1,0	0,16	6	⊕	⊕	⊕	⊕	⊕
SR 85X250	75	250	1,0	0,19	6	⊕	⊕	⊕	⊕	⊕
SR 85X300	75	300	1,0	0,22	6	⊕	⊕	⊕	⊕	⊕
SR 85X350	75	350	1,0	0,25	6	⊕	⊕	⊕	⊕	⊕
SR 85X400	75	400	1,0	0,28	6	⊕	⊕	⊕	⊕	⊕
SR 110X25	100	25	1,0	0,08	8	●	⊕	⊕	⊕	⊕
SR 110X50	100	50	1,0	0,10	8	●	⊕	⊕	⊕	⊕
SR 110X75	100	75	1,0	0,12	8	●	⊕	⊕	⊕	⊕
SR 110X100	100	100	1,0	0,14	8	●	⊕	⊕	⊕	⊕
SR 110X125	100	125	1,0	0,16	8	●	⊕	⊕	⊕	⊕
SR 110X150	100	150	1,0	0,18	8	●	⊕	⊕	⊕	⊕
SR 110X200	100	200	1,0	0,22	8	●	⊕	⊕	⊕	⊕
SR 110X250	100	250	1,0	0,26	8	●	⊕	⊕	⊕	⊕
SR 110X300	100	300	1,0	0,30	8	●	⊕	⊕	⊕	⊕
SR 110X350	100	350	1,0	0,34	8	●	⊕	⊕	⊕	⊕
SR 110X400	100	400	1,0	0,38	8	●	⊕	⊕	⊕	⊕

The fastening of the joint is performed with the bolts NSM 6X10 (page 37).



## end-piece

item number	H	A	‡	‡	‡	S	F	EC	P60	P100
K 35X50	30	50	1,0	0,03	2	●	⊕	⊕	⊕	⊕
K 35X75	30	75	1,0	0,03	2	●	⊕	⊕	⊕	⊕
K 35X100	30	100	1,0	0,04	2	●	⊕	⊕	⊕	⊕
K 35X150	30	150	1,0	0,05	2	●	⊕	⊕	⊕	⊕
K 35X200	30	200	1,0	0,06	2	●	⊕	⊕	⊕	⊕
K 35X300	30	300	1,0	0,09	2	●	⊕	⊕	⊕	⊕
K 35X400	30	400	1,0	0,11	2	⊕	⊕	⊕	⊕	⊕
K 35X500	30	500	1,0	0,14	2	⊕	⊕	⊕	⊕	⊕
K 35X600	30	600	1,0	0,16	2	⊕	⊕	⊕	⊕	⊕
K 42X50	37	50	1,0	0,04	2	⊕	⊕	⊕	⊕	⊕
K 42X100	37	100	1,0	0,05	2	⊕	⊕	⊕	⊕	⊕
K 42X150	37	150	1,0	0,07	2	⊕	⊕	⊕	⊕	⊕
K 42X200	37	200	1,0	0,08	2	⊕	⊕	⊕	⊕	⊕
K 42X300	37	300	1,0	0,11	2	⊕	⊕	⊕	⊕	⊕
K 42X400	37	400	1,0	0,14	2	⊕	⊕	⊕	⊕	⊕
K 42X500	37	500	1,0	0,17	2	⊕	⊕	⊕	⊕	⊕
K 42X600	37	600	1,0	0,20	2	⊕	⊕	⊕	⊕	⊕
K 60X50	55	50	1,0	0,05	4	●	⊕	⊕	⊕	⊕
K 60X75	55	75	1,0	0,06	4	●	⊕	⊕	⊕	⊕
K 60X100	55	100	1,0	0,07	4	●	⊕	⊕	⊕	⊕
K 60X150	55	150	1,0	0,10	4	●	⊕	⊕	⊕	⊕
K 60X200	55	200	1,0	0,12	4	●	⊕	⊕	⊕	⊕
K 60X300	55	300	1,0	0,16	4	●	⊕	⊕	⊕	⊕
K 60X400	55	400	1,0	0,21	4	●	⊕	⊕	⊕	⊕
K 60X500	55	500	1,0	0,25	4	●	⊕	⊕	⊕	⊕
K 60X600	55	600	1,0	0,29	4	●	⊕	⊕	⊕	⊕
K 85X100	80	100	1,0	0,11	4	⊕	⊕	⊕	⊕	⊕
K 85X150	80	150	1,0	0,14	4	⊕	⊕	⊕	⊕	⊕
K 85X200	80	200	1,0	0,17	4	⊕	⊕	⊕	⊕	⊕
K 85X300	80	300	1,0	0,24	4	⊕	⊕	⊕	⊕	⊕
K 85X400	80	400	1,0	0,30	4	⊕	⊕	⊕	⊕	⊕
K 85X500	80	500	1,0	0,36	4	⊕	⊕	⊕	⊕	⊕
K 85X600	80	600	1,0	0,43	4	⊕	⊕	⊕	⊕	⊕
K 110X150	105	150	1,0	0,18	4	⊕	⊕	⊕	⊕	⊕
K 110X200	105	200	1,0	0,23	4	●	⊕	⊕	⊕	⊕
K 110X300	105	300	1,0	0,31	4	●	⊕	⊕	⊕	⊕
K 110X400	105	400	1,0	0,39	4	●	⊕	⊕	⊕	⊕
K 110X500	105	500	1,0	0,48	4	●	⊕	⊕	⊕	⊕
K 110X600	105	600	1,0	0,56	4	⊕	⊕	⊕	⊕	⊕

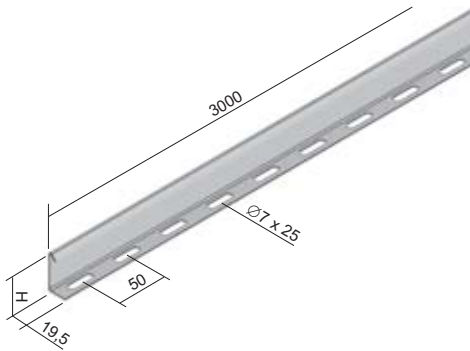
The connection is performed using the bolts NSM 6X10 (page 37).

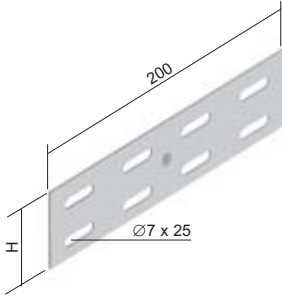
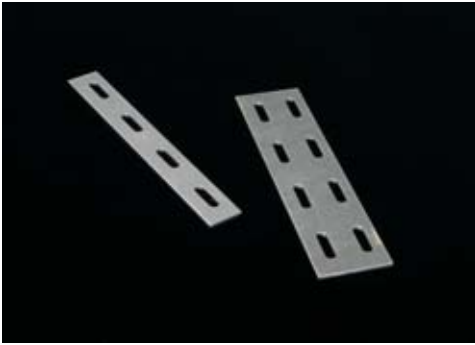


partition

item number	H	↑	‡	S	F	EC	P60	P100
P 35	29	0,8	0,34	●	⊕	⊕	⊕	⊕
P 42	36	0,8	0,41	⊕	⊕	⊕	⊕	⊕
P 60	54	0,8	0,50	●	⊕	⊕	⊕	⊕
P 85	79	0,8	0,66	⊕	⊕	⊕	⊕	⊕
P 110	104	0,8	0,81	●	⊕	⊕	⊕	⊕

The standard length of the partition is 3 m.  
 The connection is performed using the bolts NSM 6X10 (page 37), 2 pcs per 1 meter.  
 The cross piece spatially divides the cables and other electrical systems and functions. In term of electrical compatability, it is also used for dividing several types of lines. It is recommended to use covers for this type of installation and make the covered and shielded room.

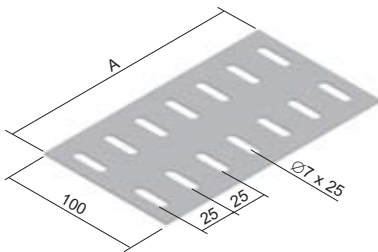
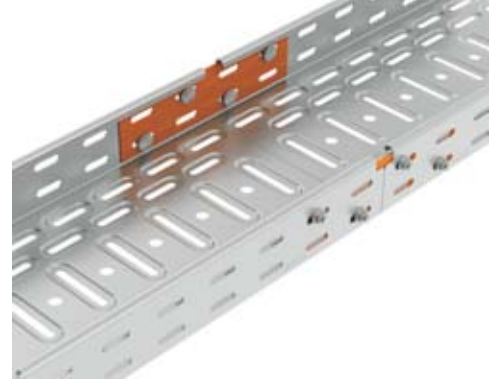




### coupling

item number	H	t	ø	±	S	F	EC	P60	P100
<b>S 35X200</b>	25	1,25	0,04	4	●	⊕	⊕	⊕	⊕
<b>S 42X200</b>	32	1,25	0,06	4	⊕	⊕	⊕	⊕	⊕
<b>S 60X200</b>	50	1,25	0,09	8	●	●	⊕	⊕	⊕
<b>S 85X200</b>	75	1,25	0,13	12	⊕	⊕	⊕	⊕	⊕
<b>S 110X200</b>	100	1,25	0,18	16	●	⊕	⊕	⊕	⊕

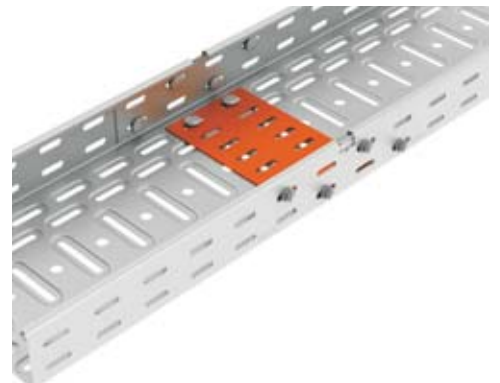
Is used for connection of trays.  
The connection is performed using the bolts NSM 6X10 (page 37).  
To get conductive connection use screws NSMP 6X10 (page 38).

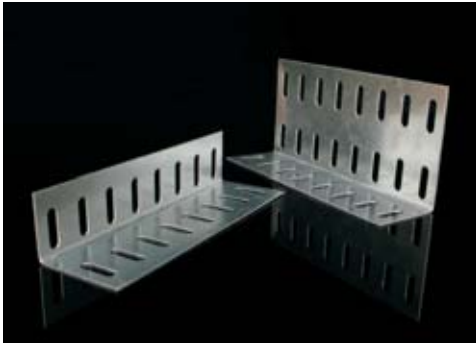


### reinforcement plate

item number	A	t	ø	±	S	F	EC	P60	P100
<b>DV 50</b>	42	1,5	0,04	4	●	⊕	⊕	⊕	⊕
<b>DV 75</b>	68	1,5	0,07	4	●	⊕	⊕	⊕	⊕
<b>DV 100</b>	75	1,5	0,08	4	●	⊕	⊕	⊕	⊕
<b>DV 150</b>	125	1,5	0,13	4	●	⊕	⊕	⊕	⊕
<b>DV 200</b>	175	1,5	0,18	4	●	⊕	⊕	⊕	⊕
<b>DV 300</b>	275	1,5	0,29	8	●	⊕	⊕	⊕	⊕
<b>DV 400</b>	375	1,5	0,39	8	●	⊕	⊕	⊕	⊕
<b>DV 500</b>	475	1,5	0,49	8	⊕	⊕	⊕	⊕	⊕
<b>DV 600</b>	575	1,5	0,60	8	⊕	⊕	⊕	⊕	⊕

Is used for reinforcing the tray connections without integrated coupling.  
It is fastened by the bolts NSM 6X10 (page 37) to the tray bottom.

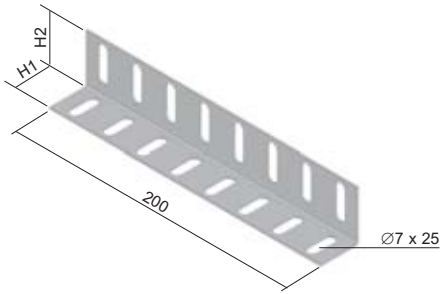
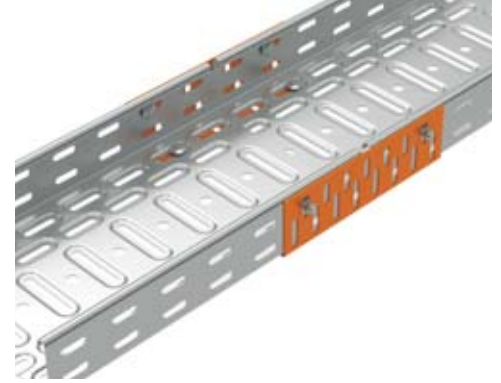




### supporting corner

item number	H1	H2	↑	‡	⌄	S	F	EC	P60	P100
UP 35X42	28	37	1,25	0,10	4	●	⊕	⊕	⊕	⊕
UP 60X85	42,5	60	1,25	0,16	4	●	⊕	⊕	⊕	⊕
UP 110	46	94	1,25	0,23	4	⊕	⊕	⊕	⊕	⊕

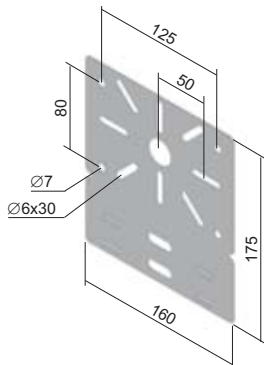
Designated for the increase of the stability of the cable tray.  
It is fastened by the bolt NSM 6X10 (page 37).



### mounting plate

item number	↑	‡	S	F	EC	P60	P100
MDS	1,00	0,20	●	⊕	⊕	⊕	⊕

For mounting distribution boxes to the cable trays up to a sidewall height of 60 mm.  
It is slid onto the sidewall of the cable tray and is fixed by using clamps KSV (page 37) or bolts NSM 6X10 (page 37).  
Recommended for boxes 8101; 8130; 8135; 003.CS.K; 005.CS.K (s. catalogue of Wiring materials).





### threaded rod

item number	Ø	↓*	‡	ZNCR
ZT 6	M 6	2250	0,17	●
ZT 8	M 8	4060	0,31	●
ZT 10	M 10	6490	0,46	●
ZT 12	M 12	9440	0,70	⊕

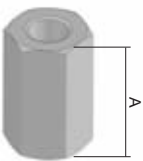
The standard length of the threaded rod is 2 m.  
\* tolerable bearing resistance - calm load

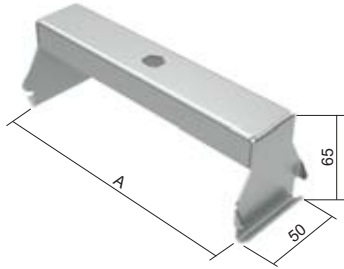


### connection nut

item number	Ø	A	‡	ZNCR
MZ 6	M 6	18	0,01	●
MZ 8	M 8	24	0,02	●
MZ 10	M 10	30	0,04	●
MZ 12	M 12	36	0,06	⊕

Used for the connection of two threaded rods.

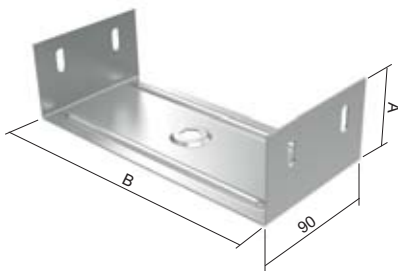
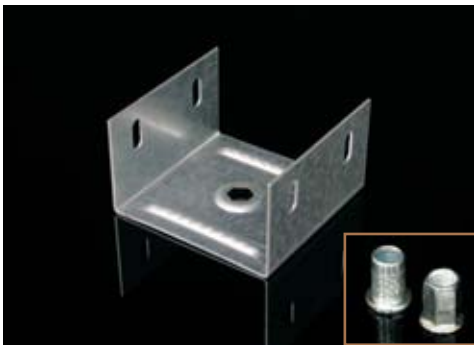
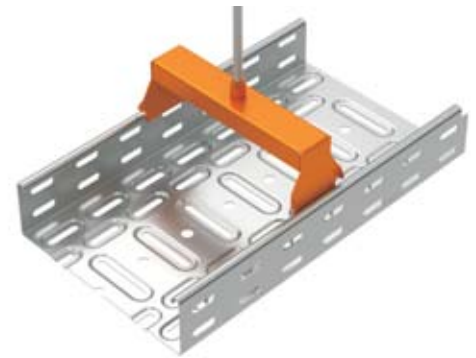




outer hanger

item number	A	‡	S	F	ZNCR
ZVNE 50	30	0,10	●	⊕	-
ZVNE 75	55	0,13	●	⊕	-
ZVNE 100	80	0,14	●	⊕	-
ZVNE 150	130	0,19	●	⊕	-
ZVNE 200	180	0,22	●	⊕	-
ZVNE 300	280	0,31	●	⊕	-
ZVNE 400	380	0,39	●	⊕	-
MN 8	-	0,01	-	-	●
MN 10	-	0,01	-	-	●
MNS 10*	-	0,01	-	-	●

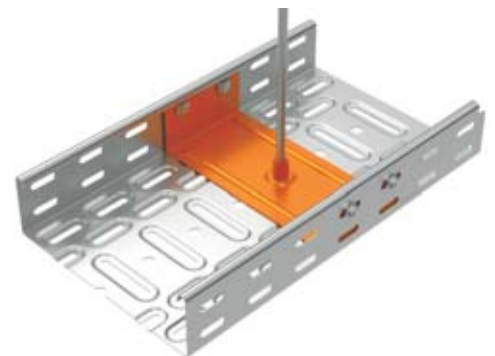
The maximum load is 90 kg.  
 It is mounted using the threaded rod ZT 8 or ZT 10.  
**The nuts MN, NMS are not part of the hanger.**  
 The dimension of the nut is chosen by the diameter of the threaded rod.  
 MNS 10 – hexagonal nut – it is fixed in hanger and against the rotation.  
 The hanger is suitable for hanging cables with cross piece.  
 \* until the sellout of stock



inner hanger

item number	A	B	‡	S	F	ZNCR
ZVNI 35X75	30	70	0,13	●	⊕	-
ZVNI 35X100	30	95	0,16	●	⊕	-
ZVNI 35X150	30	145	0,21	●	⊕	-
ZVNI 35X200	30	195	0,27	●	⊕	-
ZVNI 35X300	30	295	0,37	●	⊕	-
ZVNI 35X400	30	395	0,48	⊕	⊕	-
ZVNI 60X75	55	70	0,19	●	⊕	-
ZVNI 60X100	55	95	0,22	●	⊕	-
ZVNI 60X150	55	145	0,27	●	⊕	-
ZVNI 60X200	55	195	0,32	●	⊕	-
ZVNI 60X300	55	295	0,43	●	⊕	-
ZVNI 60X400	55	395	0,54	●	⊕	-
MN 8	-	-	0,01	-	-	●
MN 10	-	-	0,01	-	-	●
MNS 10*	-	-	0,01	-	-	●

The maximum load is 90 kg.  
 It is mounted using the threaded rod ZT 8 or ZT 10.  
**The nuts MN, NMS are not part of the hanger.**  
 The dimension of the nut is chosen by the diameter of the threaded rod.  
 MNS 10 – hexagonal nut – it is fixed in hanger and against the rotation.  
 \* until the sellout of stock





### fixation clamp

item number	‡	used with	ZNCR
US 1	0,14	ZT 8	●
US 2	0,15	ZT 10	●
US 3	0,21	ZT 12	⊕

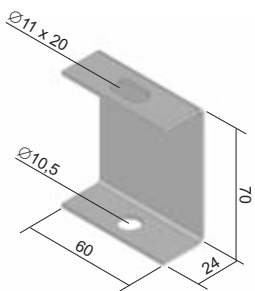
The fixation clamp is used for fixation of the threaded rod on I profile, a packing includes a fixation screw and a lock nut.



### ceiling bracket

item number	‡	S	F
DSZT	0,10	●	⊕

Used together with a threaded rod ZT 8 or ZT 10.

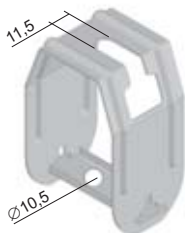




**adjustable ceiling bracket**

item number	‡	S	F
<b>DSS</b>	0,14	●	🕒

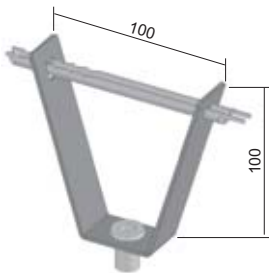
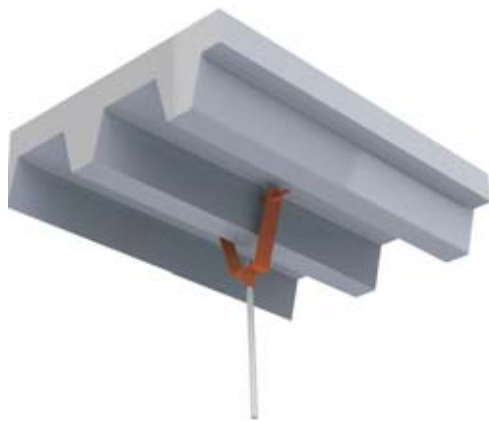
Used together with a threaded rod ZT 8 or ZT 10. Ideal for a slight roof construction slant.



**bracket for trapeze ceilings**

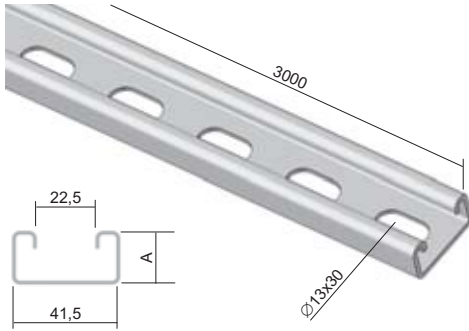
item number	‡	S	F
<b>DSOS</b>	0,20	●	🕒

For fastening into steel roof construction. The DSOS includes a hang nut M8 for direct assembly of the threaded rod ZT 8. When using the threaded rod ZT 10 or ZT 12 it is necessary to remove the hang nut and to use nuts and bolts (not part of the delivery).



thickness metal sheet of trapeze ceiling (mm)	load (N)
0,63-0,70	630
0,70-0,80	740
0,80-1,00	850
1,00-1,20	1050
1,20-1,50	1250
>1,50	1550

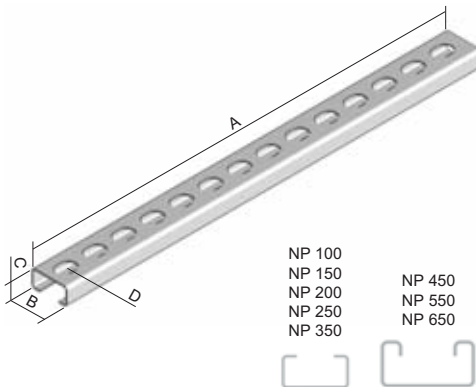
The loading values mentioned in the table are valid only for constant load.



### assembly profile

item number	A	↑	‡	S	F
MP 41X21	21	2,5	1,85	●	●
MP 41X21X1.50	21	1,5	1,13	●	⊕
MP 41X41	41	2,5	2,70	●	●

The standard length of the assembly profile is 3 m. Suitable for creating of beam for cable traces to be carried on thread bars or for creating of supporting structure by help of assembling accessory, see page 34.



NP 100  
NP 150  
NP 200  
NP 250  
NP 350

NP 450  
NP 550  
NP 650

### load bearing profile

item number	A	B	C	D	↑	↓	‡	for KZI	S	F
NP 100	100	30	15	Ø9 x 35	1,2	100	0,06	KZI ..X50	●	⊕
NP 150	150	30	15	Ø9 x 35	1,2	100	0,08	KZI ..X100	●	⊕
NP 200	200	30	15	Ø9 x 35	1,2	100	0,11	KZI ..X150	●	⊕
NP 250	250	30	15	Ø9 x 35	1,2	100	0,14	KZI ..X200	●	⊕
NP 350	350	30	15	Ø9 x 35	1,2	100	0,20	KZI ..X300	●	⊕
NP 450	450	41,5	21	Ø11 x 30	1,5	150	0,50	KZI ..X400	●	⊕
NP 550	550	41,5	21	Ø11 x 30	1,5	150	0,62	KZI ..X500	●	⊕
NP 650	650	41,5	21	Ø11 x 30	1,5	150	0,73	KZI ..X600	●	⊕

The load bearing profile NP 100 to NP 350 is fixed by using two threaded rods ZT 8 + nut M 8 + washer PD 8 (PVL 8).

The load bearing profile NP 450 to NP 650 is fixed by using two threaded rods ZT 10 + nut M 10 + washer PD 10 (PVL 10) or two threaded rods ZT 12 + nut M 12 + washer PD 12 (PVL 12).

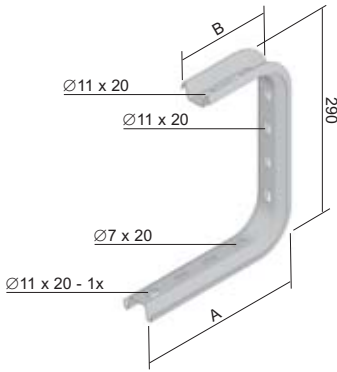
**The size of the load bearing profile is determined according to the width of the cable tray + 50 mm,** for example for a cable tray that is 100 mm wide, order NP 150.



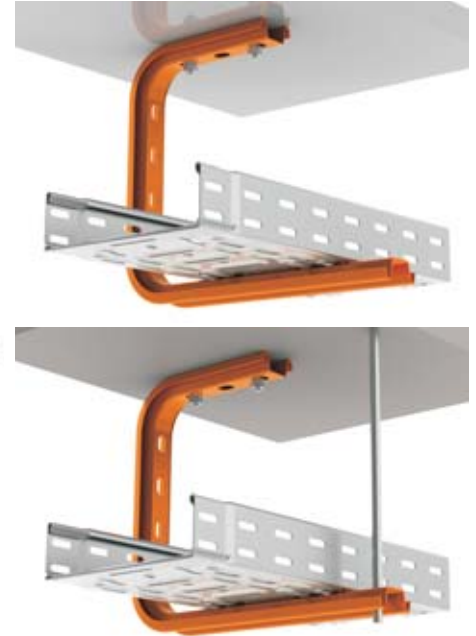
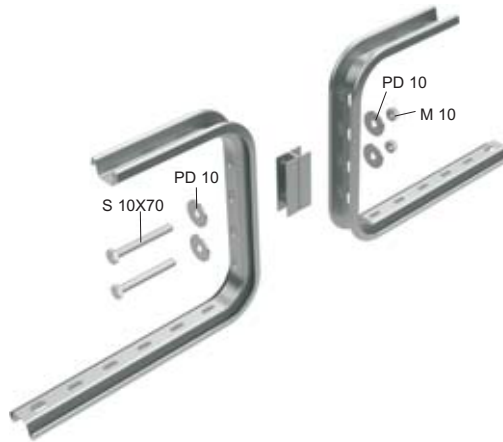


hang clamp

item number	A	B	⊥	‡	S
CTS 100	145	145	70	0,52	●
CTS 150	195	145	60	0,56	●
CTS 200	245	145	60	0,62	●
CTS 250	295	195	50	0,76	●
CTS 300	345	195	50	0,82	●
CTS 400	445	245	40	0,93	⌚

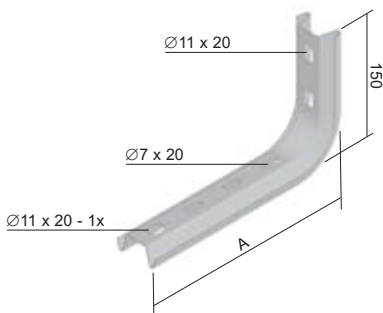


Designated for direct mounting to the ceiling or with a threaded rod ZT 8 or ZT 10.  
The cable tray is fixed by using the bolts NSM 6X10.  
To eliminate deformation during assembly the STS reinforcement is designated.



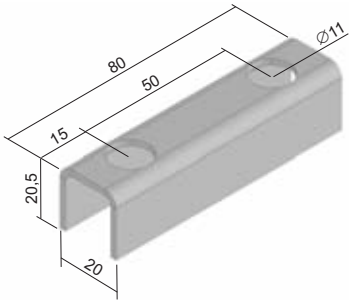
bracket

item number	A	⊥	‡	S
LTS 100	145	110	0,30	●
LTS 150	195	100	0,32	●
LTS 200	245	90	0,34	●
LTS 250	295	80	0,45	●
LTS 300	345	70	0,49	●
LTS 400	445	50	0,54	●
LTS 500	545	40	0,64	⌚
LTS 600	645	30	0,77	⌚



The cable tray is fixed by using the bolts NSM 6X10.  
Brackets LTS 400 - LTS 600 can be used as ceiling profiles.  
To eliminate deformation during assembly the STS reinforcement is designated.

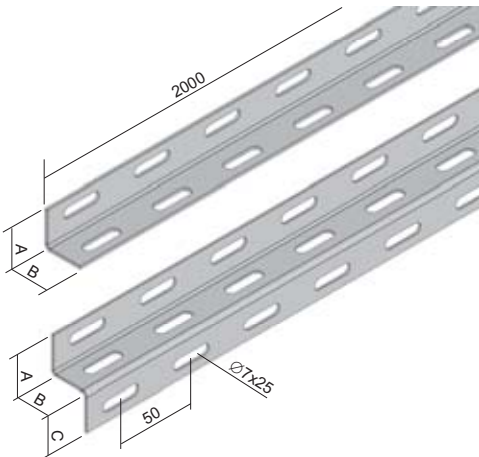




### reinforcement piece for LTS and CTS profile

item number	‡	S
<b>STS</b>	0,06	●

For assembly on to a wall 1 piece, for double assembly 2 pieces back to back.



### L-profile and Z-profile

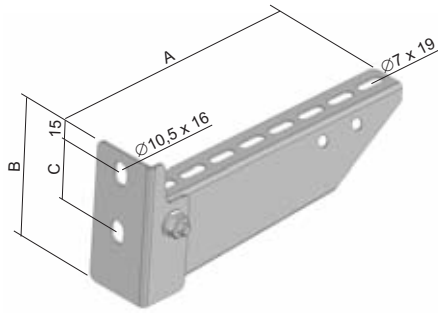
item number	A	B	C	‡	‡	S	F
<b>L 25X1.25</b>	25	25	-	1,25	0,83	⊕	⊕
<b>L 25X50X1.25</b>	25	50	-	1,25	1,29	⊕	⊕
<b>L 50X50X1.25</b>	50	50	-	1,25	1,70	⊕	⊕
<b>Z 25X1.50</b>	25	25	25	1,50	1,48	⊕	⊕
<b>Z 50X1.50</b>	50	50	50	1,50	3,01	⊕	⊕





**bracket – medium**

item number	A	B	C	±	‡	S
DS 100	118	94	60	180	0,24	●
DS 150	168	94	60	160	0,33	●
DS 200	218	104	60	150	0,38	●
DS 300	318	120	60	200	0,63	●
DS 400	418	120	60	180	0,76	●
DS 500	518	140	90	160	1,00	●
DS 600	618	140	90	150	1,23	●

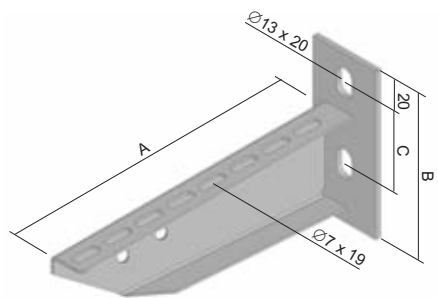


For assembly to the ceiling profile SPL and SPS there are used the sliding nuts PM 41 M 10 (page 39) together with the bolts S 10X20 (2 pcs). Cable tray attaching to the bracket is carried out by bolts NSM 6X10 (page 37).



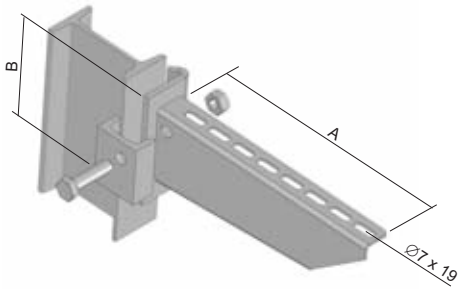
**bracket – heavy**

item number	A	B	C	±	‡	F
DT 100	120	120	60	120	0,30	●
DT 150	170	120	60	230	0,36	●
DT 200	220	120	60	340	0,43	●
DT 250	270	120	60	450	0,53	●
DT 300	320	135	60	320	0,73	●
DT 400	420	135	60	430	0,88	●
DT 500	520	155	90	390	1,30	●
DT 600	620	155	90	350	1,60	●
DT 800	820	155	90	280	1,90	⌚
DT 1000	1020	155	90	200	2,40	⌚



For assembly to the ceiling profile SPL and SPS there are used the sliding nuts PM 41 M 10 (page 39) together with the bolts S 10X20 (2 pcs). Cable tray attaching to the bracket is carried out by bolts NSM 6X10 (page 37).





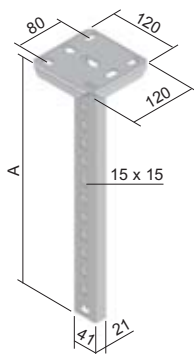
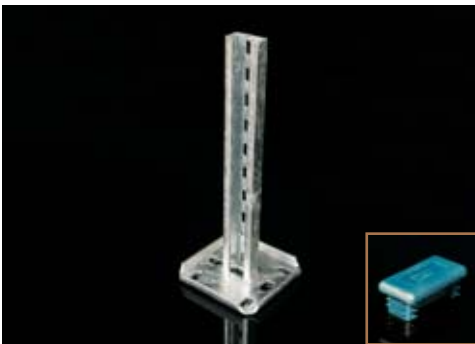
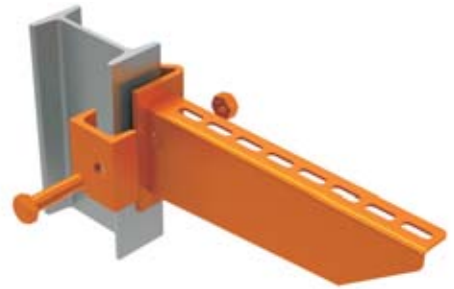
### clamp bracket – heavy

item number	A	B	±	‡	F
DRT 100	120	80	300	0,30	●
DRT 150	170	85	310	0,37	●
DRT 200	220	90	330	0,50	●
DRT 250	270	95	340	0,46	●
DRT 300	320	100	360	0,69	●
DRT 400	420	110	370	0,85	●
DRT 500	520	120	380	1,35	●
DRT 600	620	130	410	1,55	⊕
DRT 800	820	130	370	1,80	⊕
DRT 1000	1020	130	330	2,30	⊕

Set up for installation on the ceiling profile SPT and on Iprofile 80 mm.

Tripping steel square, nut and crew S 8X20 are included.

Cable tray attaching to the bracket is carried out by bolts NSM 6X10 (page 37).



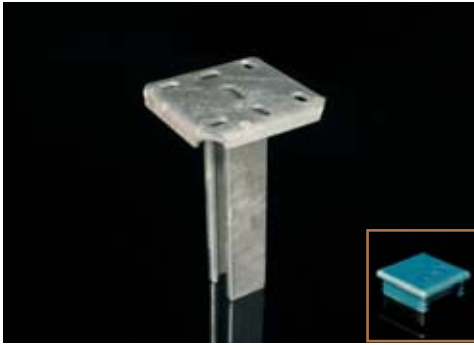
### ceiling profile – light

item number	A	‡	F	XX
SPL 200	214	0,74	●	-
SPL 300	304	0,85	●	-
SPL 400	424	1,01	●	-
SPL 500	514	1,13	●	-
SPL 600	604	1,23	●	-
SPL 800	814	1,45	●	-
SPL 1000	1024	1,75	●	-
SPL 1200	1204	1,95	●	-
OKSPL	-	0,01	-	●

Designated for one sided fastening of the brackets DS and DT with the use of sliding nut PM 41 M 10 and the bolt with a hexagonal head S 10X20.

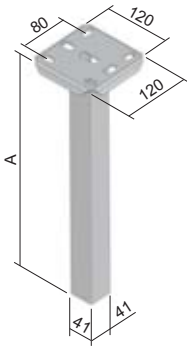
OKSPL – protective cover made from PVC.



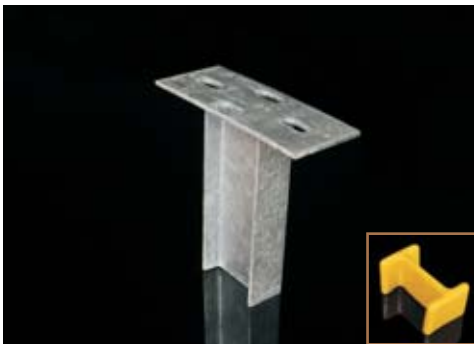


**ceiling profile – medium**

item number	A	‡	F	XX
SPS 200	204	1,03	●	-
SPS 300	304	1,33	●	-
SPS 400	404	1,60	●	-
SPS 500	504	1,90	●	-
SPS 600	604	2,15	●	-
SPS 800	804	2,70	●	-
SPS 1000	1004	3,25	●	-
SPS 1200	1204	3,80	⌚	-
SPS 1500	1504	4,62	⌚	-
OKSPS	-	0,01	-	●

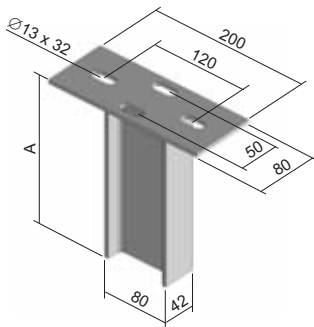


Designated for one sided fastening of the bracket with the use of sliding nut PM 41 M 10 and the bolt with a hexagonal head S 10X20. OKSPS - protective cover made from PVC.



**ceiling profile – heavy**

item number	A	‡	F	XX
SPT 200	208	1,80	●	-
SPT 400	408	3,05	●	-
SPT 500	508	3,60	●	-
SPT 600	608	4,20	●	-
SPT 800	808	5,50	●	-
SPT 1000	1008	6,70	●	-
SPT 1200	1208	8,00	●	-
SPT 1500	1508	9,90	●	-
SPT 1800	1808	12,00	●	-
SPT 2000	2008	13,30	●	-
OKSPT	-	0,02	-	●



Designated for one sided and double sided fastening of the clamp brackets DRT. Used as a bracket for the ceiling or the floor. OKSPT - protective cover made from PVC.

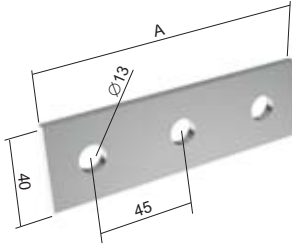




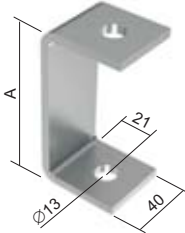
## assembly accessories

item number	A	t	±	F
VS 41X01	85	5	0,13	●
VS 41X02	130	5	0,19	●
VS 41X03	175	5	0,26	●
VS 41X04	220	5	0,32	●
VS 41X05	55	5	0,13	●
VS 41X06*	100	5	0,19	●
VS 41X07	55	5	0,20	●
VS 41X08*	100	5	0,26	●
VS 41X10	21	5	0,16	●
VS 41X12	21	5	0,26	●
VS 41X13	41	5	0,32	●
VS 41X14	82	5	0,46	●
VS 41X16	82	5	0,27	●
VS 41X17	85	5	0,24	●
VS 41X18	93	5	0,21	●
VS 41X19*	130	5	0,27	●
VS 41X20	100	5	0,35	●
VS 41X26	130	5	0,36	●
VS 41X27	130	5	0,29	●
VS 41X31	55	5	0,34	●
VS 41X36*	90	5	0,21	●
VS 41X37	41	5	0,47	●
VS 41X38	124	5	0,64	●
VS 41X41	50	4	0,37	●
VS 41X43	92	8	0,20	●
VS 41X44*	40	5	0,11	●

VS 41X01  
VS 41X02  
VS 41X03  
VS 41X04  
VS 41X26  
VS 41X27  
VS 41X36  
VS 41X43  
VS 41X44



VS 41X10  
VS 41X12  
VS 41X13  
VS 41X14  
VS 41X16  
VS 41X37



VS 41X05  
VS 41X06  
VS 41X07  
VS 41X08  
VS 41X17  
VS 41X18  
VS 41X19  
VS 41X20  
VS 41X31



VS 41X38

































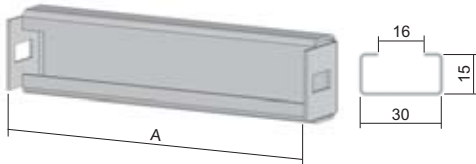
VS 41X41



Designed for use with assembly profiles MP 41X21 and MP 41X41. Fastening is performed using the bolts S 12X20 or S 12X30 and sliding nuts PM 41 M 12.

\* until the sell-out of stocks

VS 41X01	VS 41X01	VS 41X02	VS 41X02	VS 41X03
				
VS 41X03	VS 41X04	VS VS 41X04	VS 41X05	VS 41X06
				
VS 41X07	VS 41X08	VS 41X10	VS 41X12	VS 41X13
				
VS 41X14	VS 41X16	VS 41X17	VS 41X18	VS 41X19
				
VS 41X20	VS 41X26	VS 41X27	VS 41X31	VS 41X36
				
VS 41X37	VS 41X38	VS 41X41	VS 41X43	VS 41X44
				



### supporting profile for cable clamps

item number	A	‡	S	F
NPKV 50	47,5	0,04	●	⊕
NPKV 75	72,5	0,05	●	⊕
NPKV 100	97,5	0,07	●	⊕
NPKV 150	147,5	0,10	●	⊕
NPKV 200	197,5	0,13	●	⊕
NPKV 300	297,5	0,19	●	⊕
NPKV 400	397,5	0,25	●	⊕
NPKV 500	497,5	0,32	●	⊕
NPKV 600	597,5	0,38	●	⊕

The supporting profiles is designated for the cable trays. It is installed on the bottom of the cable tray and it is fixed by using two bolts NSM 6X10 (page 37) to the tray sidewalls.

It is used for mounting of cable clamps and thereby for the anchoring of the cables inside the tray. It finds its use primarily in vertical routes, for the lightening of the cable tension.

When using a cover it is necessary to take into account the height of the clamps.



### cable clamp for 1 cable

item number	A min	B	‡	F	KZI 60	KZI 85	KZI 110
PKC1 1198	8	12	0,03	●	yes	yes	yes
PKC1 1199	12	16	0,03	●	yes	yes	yes
PKC1 1200	16	20	0,04	●	no	yes	yes
PKC1 1201	20	24	0,04	●	no	yes	yes
PKC1 1202	24	28	0,04	●	no	yes	yes
PKC1 1203	28	32	0,06	●	no	yes	yes
PKC1 1204	32	36	0,07	●	no	yes	yes
PKC1 1205	36	40	0,08	●	no	yes	yes
PKC1 1206	40	44	0,09	●	no	no	yes
PKC1 1207	44	48	0,10	●	no	no	yes
PKC1 1208	48	52	0,10	●	no	no	yes
PKC1 1209	52	56	0,11	●	no	no	yes
PKC1 1210	56	60	0,14	●	no	no	no
PKC1 1211	60	64	0,16	●	no	no	no
PKC1 1212	64	70	0,16	●	no	no	no

The possibility of trace covering by cover upon the use of maximum cable diameter into the cable clamp.

The information states the minimum and maximum diameter of the cable being fastened.



YES



NO

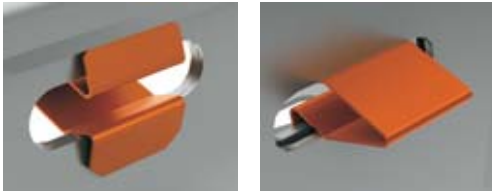




**clamp**

item number	GMT
<b>KSV</b>	●

Is used for securing the connection of cable trays or the attaching of the mounting plate MDS.



**carriage bolt and lock nut**

item number	‡	⌚	ZNCR	GMT
<b>NSM 6X10</b>	0,009	100	●	-
<b>NSM 6X10-GMT</b>	0,009	100	-	●

To lock connection of the cable trays and accessories.



**bolt with around head and lock nut**

item number	‡	⌚	ZNCR
<b>S 6X20 M</b>	0,01	100	●

Used for the securing of conductive connecting.



### bolt + nut + lock washers

item number	‡	⌚	ZNCR
NSMP 6X10	0,009	100	●

Used for the securing of conductive connecting.



### bolt with hexagonal head

item number	‡	ZNCR
S 6X20	0,01	●
S 6X30	0,01	●
S 8X20	0,01	●
S 8X30	0,02	●
S 8X40	0,02	●
S 8X50	0,02	●
S 8X70	0,03	⊕
S 10X20	0,02	●
S 10X30	0,03	●
S 10X40	0,03	●
S 10X50	0,04	●
S 10X70	0,05	●
S 12X20	0,03	●
S 12X30	0,04	●
S 12X40	0,05	●
S 12X50	0,06	●
S 12X60	0,07	⊕



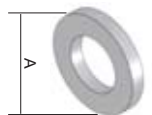
### hexagon nut

item number	‡	ZNCR
M 6	0,001	●
M 8	0,001	●
M 10	0,001	●
M 12	0,002	●



### washer

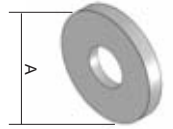
item number	A	‡	ZNCR
PD 6	12	0,001	●
PD 8	16	0,001	●
PD 10	20	0,001	●
PD 12	24	0,001	●





### large washer

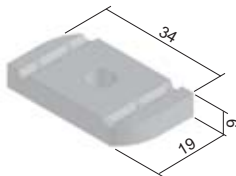
item number	A	‡	ZNCR
PVL 6	18	0,001	●
PVL 8	24	0,001	●
PVL 10	30	0,001	●
PVL 12	38	0,002	⊕



### sliding nut

item number	‡	ZNCR
PM 41 M 6	0,03	⊕
PM 41 M 8	0,03	●
PM 41 M 10	0,03	●
PM 41 M 12	0,03	⊕

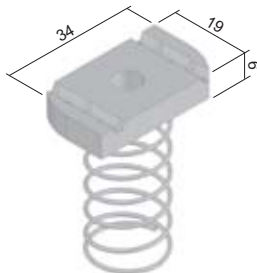
Used for the attaching of the brackets to the profiles MP 41X21, MP 41X41 or profiles each other by the VS system (page 34).

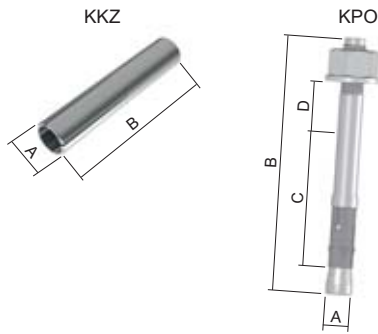


### sliding nut with spring

item number	‡	ZNCR
PMP 41 M 6	0,04	⊕
PMP 41 M 8	0,04	●
PMP 41 M 10	0,04	●
PMP 41 M 12	0,04	⊕

Used for the attaching of the brackets to the profiles MP 41X21, MP 41X41 or profiles each other by the VS system (page 34).  
The spring simplifies the fixation of the nut during assembly.





## anchor

item number	A	B	C	D	E	thread	‡	PO	ZNCR
KPO 6X50	6	50	35	5	45	M6	0,01	●	-
KPO 6X70	6	70	35	10	70	M6	0,02	●	-
KPO 8X77	8	77	45	10	75	M8	0,03	●	-
KPO 8X97	8	97	45	30	95	M8	0,04	●	-
KPO 10X95	10	95	60	10	90	M10	0,06	●	-
KPO 10X115	10	115	60	30	110	M10	0,08	●	-
KPO 12X120	12	120	70	10	115	M12	0,10	●	-
KPO 12X150*	12	150	70	30	145	M12	0,13	●	-
KKZ 6	8	25	-	-	-	M6	0,01	-	●
KKZ 8	10	30	-	-	-	M8	0,01	-	●
KKZ 10	12	40	-	-	-	M10	0,02	-	●
KKZ 12	15	50	-	-	-	M12	0,05	-	⊕

C - anchor depth

D - maximum thickness of the material being attached

E - minimum depth of the drilled hole

Anchors serve for the attaching of construction elements to the base material (concrete, stone).

The knock in anchors KKZ serve for the direct attachment of the threaded rods.

\* until the sell-out of stocks



## zinc paint / spray

item number	‡	
WEICON 375 (paint)	0,50	●
GZS (spray)	0,45	●

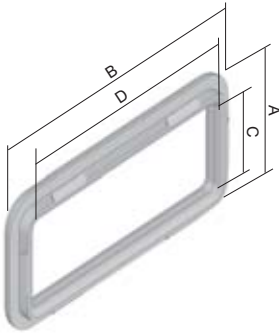
Anticorrosive protection to be intended for service of defective and damaged places on galvanized surface. Lay on the color by paintbrush, stipple technology.



**cable tray bushing**

item number	A	B	C	D	‡		Ⓢ
<b>OKKZ 15X75</b>	15	75	8	68	0,0046	for trays KZI with sidewall height 35, 42 mm	Ⓢ
<b>OKKZ 32X75</b>	32	75	25	68	0,0062	for trays KZI with sidewall height of 60 mm	Ⓢ
<b>OKKZ 57X57</b>	57	57	50	50	0,0066	for bottom of the cable tray, for trays KZI with a width from 200 mm	Ⓢ

Bushings serve for safe leading of cables from the cable tray.  
Specified for cable trays with openings on the side wall, which are produced on order.

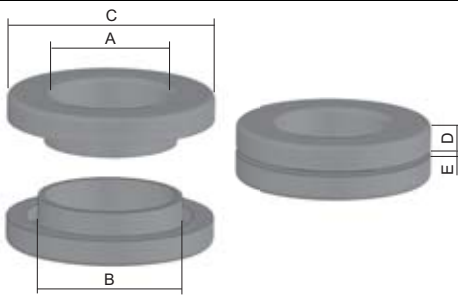
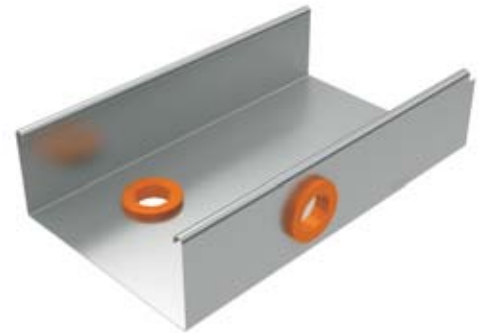


**bushing**

item number	A	B	C	D	E	‡	
<b>NKP 9</b>	10	<b>15</b>	24	5	0,5 - 5	0,002	●
<b>NKP 11</b>	12	<b>18,5</b>	26	6	0,5 - 5	0,004	●
<b>NKP 13</b>	16	<b>20</b>	31	6	0,5 - 5	0,006	●
<b>NKP 16</b>	17	<b>22</b>	33	6	0,5 - 5	0,006	●
<b>NKP 21</b>	24	<b>28</b>	40	7	0,5 - 5	0,010	●
<b>NKP 29</b>	31	<b>37</b>	53	7	0,5 - 5	0,018	●

Bushings serve for the safe passing of the cables through the sheet metal.  
One part of the bushing is inserted from one side into the created opening in the bottom or the sidewall of the tray, the second part is inserted from the second side and gentle pressure is used to press both the parts together and this connects them firmly.

B - drilled hole diameter



**edge protector**

item number	‡	
<b>NCH</b>	0,06	●

The edge protector made from plastic with a steel insert is used to protect the edges of cable trays.  
Package = 10 m



## technical information

### Standard

Cable trays Jupiter are certified by EZÚ (Electrotechnical Testing Institute) according to standard number ČSN EN 61537:02 Laying cables – cable tray systems and cable ladder systems.

Products comply with the EU requirements.

### Surface finish:

Basic design made from zinc-coated sheet metal with Sendzimir surface treatment.

Hot Dip Galvanized – this surface finish provides greater anti-corrosion protection, secured by a thicker layer of surface zinc.

Painting – epoxy or polyester paints over the entire perimeter of the tray. For trays KZIN and tray accessories it is possible to also order painting, only from the outer side (so called EO). The thickness of the polyester paint can furthermore be selected between 60 and 100 µm.

## electrical conductivity and grounding

The JUPITER system of cable trays is constructed so that first-rate bonding is ensured when individual trays are connected. This is achieved by fixed connection using special bolts S 6X10 M. When using the KSV clamp it is necessary to connect individual parts (trays, accessories) by an additional protective wire with the corresponding cross section.

### The protection against electric shock

For safety reasons, the system of trays bonded in this way shall be on both ends connected to a ground clamp. Such grounding is made according to the requirement no. 543.1.2 ČSN332000-5-54 and table 54 F (Appendix 7) stipulating the minimum cross-section of the appropriate protective conductor with regard to the cross-sections of phase conductors of the installation.

The minimum cross-section of a cable tray is calculated without a cover.

## inner usable cross-section of the channel

Type number	cm <sup>2</sup>	utilization 50% (cross- section cm <sup>2</sup> )	CYKY	CYKY	CYKY	CYKY	CYKY	CYKY	CYKY	CYKY	CYKY	CYKY	CYKY	CYKY	CYKY	CYKY	CYKY	CYKY
			3x1,5	5x1,5	3x2,5	5x2,5	3x4	5x4	5x6	5x10	5x16	5x25	4x35	4x50	3x70+50	3x95+70	3x120+95	3x240+120
			Ø 8,6	Ø 10,1	Ø 9,5	Ø 11,2	Ø 11,2	Ø 13,8	Ø 15,1	Ø 18	Ø 20,4	Ø 26,1	Ø 24,8	Ø 31,3	Ø 33,6	Ø 39,3	Ø 43	Ø 56,4
KZI 35X50	17,5	8,8	12	9	10	7	7	5	4	3	2	1	1	1	1	1	0	0
KZI 35X75	26,3	13,1	18	13	15	10	10	7	6	4	3	2	2	1	1	1	1	0
KZI 35X100	35	17,5	24	17	19	14	14	9	8	5	4	3	3	2	2	1	1	1
KZI 35X150	52,5	26,3	19	26	29	21	21	14	12	8	6	4	4	3	2	2	1	1
KZI 35X200	70	35,0	47	34	39	28	28	18	15	11	8	5	6	4	3	2	2	1
KZI 35X300	105	52,5	71	51	58	42	42	28	23	16	13	8	9	5	5	3	3	2
KZI 35X400	140	70,0	95	69	78	56	56	37	31	22	17	10	11	7	6	5	4	2
KZI 35X500	175	87,5	118	86	97	70	70	46	38	27	21	13	14	9	8	6	5	3
KZI 35X600	210	105,0	142	103	116	84	84	55	46	32	25	15	17	11	9	7	6	3
KZI 60X75	45	22,5	30	22	25	18	18	12	10	7	5	3	4	2	2	1	1	1
KZI 60X100	60	30,0	41	29	33	24	24	16	13	9	7	4	5	3	3	2	2	1
KZI 60X150	90	45,0	61	44	50	36	36	24	20	14	11	7	7	5	4	3	2	1
KZI 60X200	120	60,0	81	59	66	48	48	32	26	19	14	9	10	6	5	4	3	2
KZI 60X300	180	90,0	122	88	100	72	72	47	39	28	22	13	15	9	8	6	5	3
KZI 60X400	240	120,0	162	118	133	96	96	63	53	37	29	18	20	12	11	8	6	4
KZI 60X500	300	150,0	203	147	166	120	120	79	66	46	36	22	24	15	13	10	8	5
KZI 60X600	360	180,0	243	176	199	143	143	95	79	56	43	26	29	18	16	12	10	6
KZI 85X100	85	42,5	57	42	47	34	34	22	19	13	10	6	7	4	4	3	2	1
KZI 85X150	127,5	63,8	86	62	71	51	51	33	28	20	15	9	10	7	6	4	3	2
KZI 85X200	170	85,0	115	83	94	68	68	45	37	26	20	12	14	9	8	6	5	3
KZI 85X300	255	127,5	172	125	141	102	102	67	56	39	31	19	21	13	11	8	7	4
KZI 85X400	340	170,0	230	167	188	136	136	89	75	52	41	25	28	17	15	11	9	5
KZI 85X500	425	212,5	287	208	235	169	169	112	93	66	51	31	35	22	19	14	11	7
KZI 85X600	510	255,0	345	250	283	203	203	134	112	79	61	37	41	26	23	17	14	8
KZI 110X150	165	82,5	112	81	91	66	66	43	36	25	20	12	13	8	7	5	4	3
KZI 110X200	220	110,0	149	108	122	88	88	58	48	34	26	16	18	11	10	7	6	3
KZI 110X300	330	165,0	223	162	183	132	132	87	72	51	40	24	27	17	15	11	9	5
KZI 110X400	440	220,0	297	216	244	175	175	116	96	68	53	32	36	22	19	14	12	7
KZI 110X500	550	275,0	372	270	305	219	219	144	121	85	66	40	45	28	24	18	15	9
KZI 110X600	660	330,0	446	323	366	263	263	173	145	102	79	48	54	34	29	21	18	10

The values state the number of cables with the tray at 50% full. Orientation diameters of the cables CYKY.

The values are mathematically calculated. The limit values (small tray x big cable or contrariwise) it is necessary to consider combination of the tray and diameter of the cable and used them with reference to technical conditions.