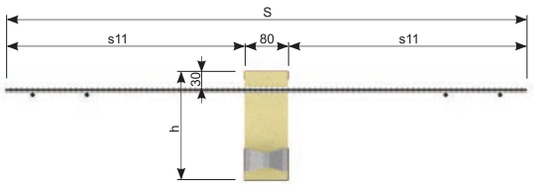
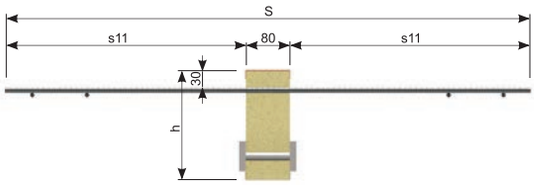
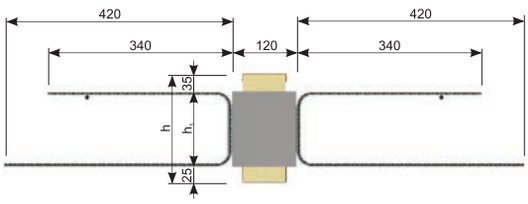
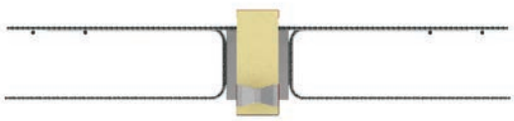
KP-300 BALCONY CONNECTOR- 20 cm module — Concrete class: ≥ C25/30

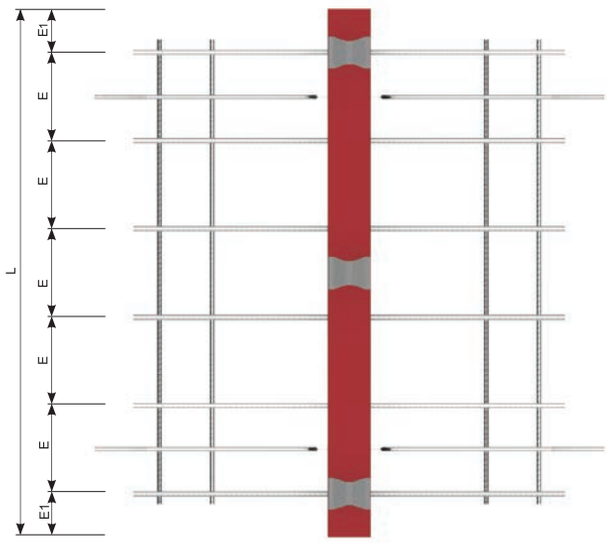
Symbol	h [mm]	h_1 [mm]	Bar diameter ϕ [mm]	Quantity			M_{Rd} (-) [kNm]	Insulation 80 mm V_{Rd} (±) [kN]	Insulation 120 mm V_{Rd} (±) [kN]	RIgidity k [kNm/rad]	ψ [W/mK]	Dimension [mm]		
				Bars	Plate	Compression bearing						S	E	E1
KP-301 2x10-1 L=200 mm	140	80	10	2	1	1	5	22	16	376	0,073	820	100	50
	160	100	10	2	1	1	6	27	22	612	0,081	820	100	50
	180	120	10	2	1	1	8	33	27	906	0,088	820	100	50
	200	140	10	2	1	1	9	38	31	1 256	0,095	820	100	50
	220	160	10	2	1	1	10	44	35	1 664	0,102	820	100	50
	240	180	10	2	1	1	12	49	40	2 129	0,109	820	100	50
	260	200	10	2	1	1	13	55	45	2 652	0,115	820	100	50
	280	220	10	2	1	1	15	60	48	3 231	0,122	820	100	50
	300	240	10	2	1	1	16	65	53	3 868	0,129	820	100	50
KP-302 2x14-1 L=200 mm	140	80	14	2	1	2	9	22	16	555	0,105	1050	100	50
	160	100	14	2	1	2	12	27	22	915	0,111	1050	100	50
	180	120	14	2	1	2	15	33	27	1 364	0,118	1050	100	50
	200	140	14	2	1	2	17	38	31	1 902	0,125	1050	100	50
	220	160	14	2	1	2	20	44	35	2 530	0,132	1050	100	50
	240	180	14	2	1	2	23	49	40	3 247	0,138	1050	100	50
	260	200	14	2	1	2	26	55	45	4 054	0,145	1050	100	50
	280	220	14	2	1	2	28	60	48	4 950	0,151	1050	100	50
	300	240	14	2	1	2	31	65	53	5 935	0,158	1050	100	50



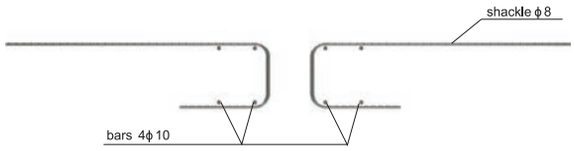








Additional bars installed at the construction site

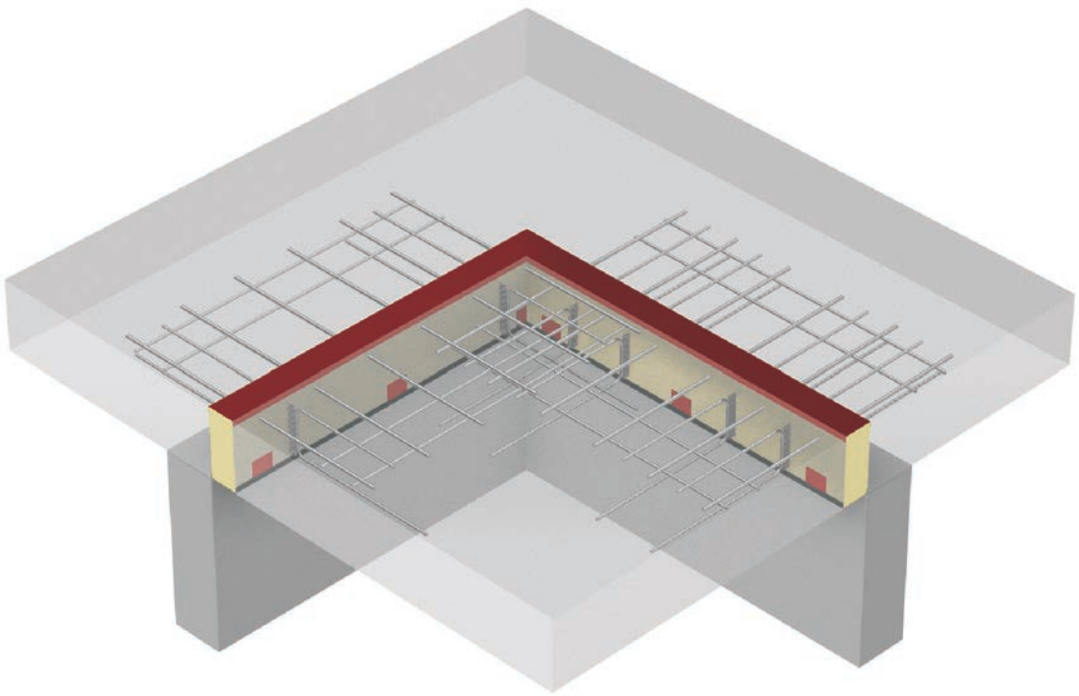


KP-300 BALCONY CONNECTOR - element 100 cm

Concrete class: ≥ C25/30

Symbol	h [mm]	h_1 [mm]	Bar diameter ϕ [mm]	Quantity			M_{Rd} (-) [kNm]	Insulation 80 mm V_{Rd} (±) [kN]	Insulation 120 mm V_{Rd} (±) [kN]	RIgidity k [kNm/rad]	ψ [W/mK]	Dimension [mm]		
				Bars	Plate	Compression bearing						S	E	E1
KP-303 4x10-1 L=1000 mm	140	80	10	4	1	2	10	22	16	752	0,162	820	250	125
	160	100	10	4	1	2	13	27	22	1 225	0,171	820	250	125
	180	120	10	4	1	2	15	33	27	1 811	0,180	820	250	125
	200	140	10	4	1	2	18	38	31	2 513	0,189	820	250	125
	220	160	10	4	1	2	21	44	35	3 328	0,198	820	250	125
	240	180	10	4	1	2	24	49	40	4 259	0,206	820	250	125
	260	200	10	4	1	2	26	55	45	5 303	0,215	820	250	125
	280	220	10	4	1	2	29	60	48	6 463	0,223	820	250	125
	300	240	10	4	1	2	32	65	53	7 736	0,232	820	250	125
KP-304 6x10-2 L=1000 mm	140	80	10	6	2	3	15	43	32	1 128	0,228	820	167	83
	160	100	10	6	2	3	19	54	44	1 837	0,242	820	167	83
	180	120	10	6	2	3	23	65	54	2 717	0,256	820	167	83
	200	140	10	6	2	3	27	76	62	3 769	0,270	820	167	83
	220	160	10	6	2	3	31	87	70	4 993	0,284	820	167	83
	240	180	10	6	2	3	35	98	80	6 388	0,299	820	167	83
	260	200	10	6	2	3	39	109	90	7 955	0,313	820	167	83
	280	220	10	6	2	3	44	120	96	9 694	0,328	820	167	83
	300	240	10	6	2	3	48	130	106	11 605	0,342	820	167	83
KP-305 4x14-2 L=1000 mm	140	80	14	4	2	4	19	43	32	1 110	0,259	1050	250	125
	160	100	14	4	2	4	24	54	44	1 830	0,271	1050	250	125
	180	120	14	4	2	4	30	65	54	2 728	0,285	1050	250	125
	200	140	14	4	2	4	35	76	62	3 805	0,299	1050	250	125
	220	160	14	4	2	4	40	87	70	5 060	0,314	1050	250	125
	240	180	14	4	2	4	46	98	80	6 495	0,329	1050	250	125
	260	200	14	4	2	4	51	109	90	8 108	0,343	1050	250	125
	280	220	14	4	2	4	56	120	96	9 900	0,358	1050	250	125
	300	240	14	4	2	4	62	130	106	11 870	0,373	1050	250	125
KP-306 5x14-2 L=1000 mm	140	80	14	5	2	5	24	43	32	1 388	0,265	1050	200	100
	160	100	14	5	2	5	30	54	44	2 287	0,290	1050	200	100
	180	120	14	5	2	5	37	65	54	3 410	0,306	1050	200	100
	200	140	14	5	2	5	44	76	62	4 756	0,323	1050	200	100
	220	160	14	5	2	5	50	87	70	6 325	0,340	1050	200	100
	240	180	14	5	2	5	57	98	80	8 118	0,357	1050	200	100
	260	200	14	5	2	5	64	109	90	10 135	0,373	1050	200	100
	280	220	14	5	2	5	70	120	96	12 374	0,390	1050	200	100
	300	240	14	5	2	5	77	130	106	14 838	0,407	1050	200	100
KP-307 6x14-3 L=1000 mm	140	80	14	6	3	6	28	65	48	1 666	0,316	1050	167	83
	160	100	14	6	3	6	36	81	66	2 745	0,338	1050	167	83
	180	120	14	6	3	6	44	98	81	4 092	0,360	1050	167	83
	200	140	14	6	3	6	52	114	93	5 707	0,382	1050	167	83
	220	160	14	6	3	6	60	131	105	7 591	0,404	1050	167	83
	240	180	14	6	3	6	69	147	120	9 742	0,426	1050	167	83
	260	200	14	6	3	6	77	164	135	12 162	0,449	1050	167	83
	280	220	14	6	3	6	85	180	144	14 849	0,471	1050	167	83
	300	240	14	6	3	6	93	195	159	17 805	0,493	1050	167	83
KP-308 8x14-4 L=1000 mm	140	80	14	8	4	8	38	86	64	2 221	0,386	1050	125	63
	160	100	14	8	4	8	48	108	88	3 660	0,408	1050	125	63
	180	120	14	8	4	8	59	130	108	5 456	0,433	1050	125	63
	200	140	14	8	4	8	70	152	124	7 610	0,458	1050	125	63
	220	160	14	8	4	8	81	174	140	10 121	0,484	1050	125	63
	240	180	14	8	4	8	91	196	160	12 989	0,509	1050	125	63
	260	200	14	8	4	8	102	218	180	16 216	0,535	1050	125	63
	280	220	14	8	4	8	113	240	192	19 799	0,560	1050	125	63
	300	240	14	8	4	8	123	260	212	23 740	0,586	1050	125	63
KP-309 10x14-5 L=1000 mm	140	80	14	10	5	10	47	97	72	2 776	0,446	1050	100	50
	160	100	14	10	5	10	61	122	99	4 575	0,470	1050	100	50
	180	120	14	10	5	10	74	146	122	6 820	0,496	1050	100	50
	200	140	14	10	5	10	87	171	140	9 512	0,521	1050	100	50
	220	160	14	10	5	10	101	196	158	12 651	0,548	1050	100	50
	240	180	14	10	5	10	114	221	180	16 237	0,575	1050	100	50
	260	200	14	10	5	10	128	245	203	20 269	0,603	1050	100	50
	280	220	14	10	5	10	141	270	216	24 749	0,630	1050	100	50
	300	240	14	10	5	10	154	293	239	29 675	0,657	1050	100	50

KPE-300 BALCONY CONNECTOR FOR SUPPORT BALCONY SLABS - CORNERS

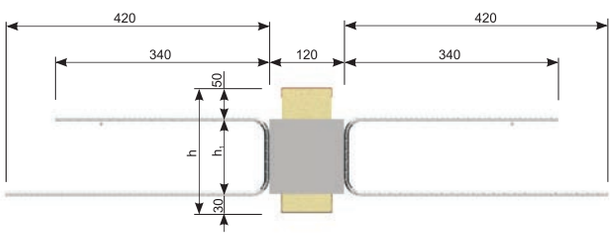


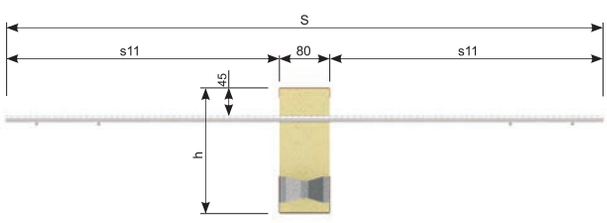
- standard elements for ceilings of thickness between 160 mm and 300 mm
- standard insulation thickness 80 mm; options: 60 mm, 100 mm, 120 mm
- insulation type: mineral wool (WM) or styrofoam (XPS)
- expanded tension rod of ordinary heat galvanised carbon steel
- steel plates of stainless steel
- stainless steel compression bearing (for 16 cm thick ceilings) or concrete compression bearing (for ceiling thickness values 18 cm and upwards)

Marking example:

KPE - 310 | 6 x 10 | - 4 h=200 mm, XPS80, L=1000 mm

connector type | quantity of bars | bar diameter | quantity of steel plate

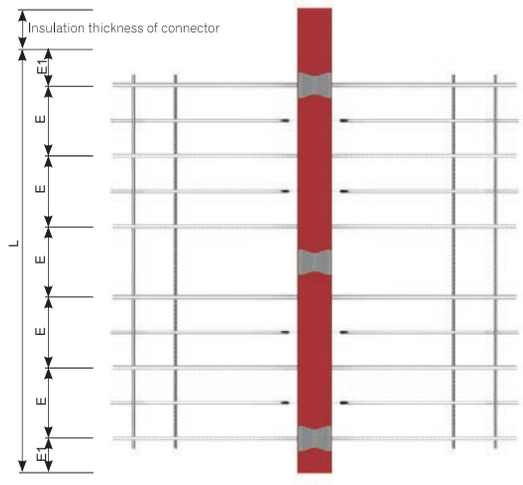




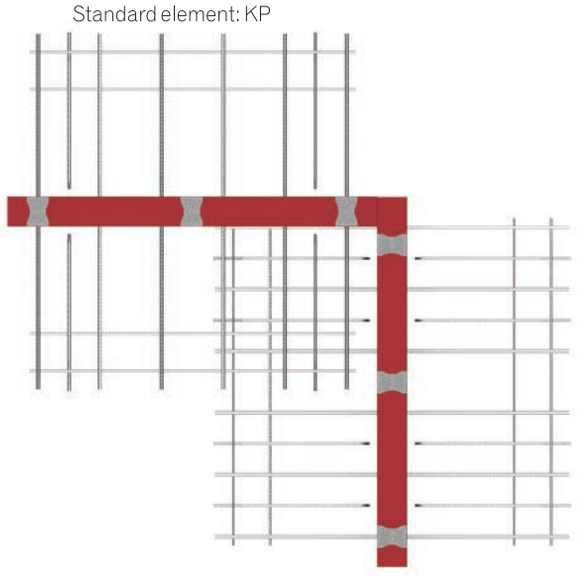
KPE-300 BALCONY CONNECTOR - element 100 cm

Concrete class: ≥ C25/30

Symbol	h [mm]	h_1 [mm]	Bar diameter ϕ [mm]	Quantity			M_{Rd} (-) [kNm]	Insulation 80 mm V_{Rd} (±) [kN]	Insulation 120 mm V_{Rd} (±) [kN]	RIgidity k [kNm/rad]	ψ [W/mK]	Dimension [mm]		
				Bars	Plate	Compression bearing						S	E	E1
KPE-310 6x10-4 L=1000 mm	160	80	10	6	4	3	16	86	64	1 289	0,261	820	167	83
	180	100	10	6	4	3	20	108	88	2 041	0,287	820	167	83
	200	120	10	6	4	3	24	130	108	2 964	0,313	820	167	83
	220	140	10	6	4	3	28	152	124	4 059	0,339	820	167	83
	240	160	10	6	4	3	32	174	140	5 325	0,364	820	167	83
	260	180	10	6	4	3	36	196	160	6 764	0,390	820	167	83
	280	200	10	6	4	3	40	218	180	8 374	0,415	820	167	83
	300	220	10	6	4	3	45	240	192	10 155	0,441	820	167	83
KPE-311 6x14-5 L=1000 mm	160	80	14	6	5	6	30	97	72	1 910	0,362	1050	167	83
	180	100	14	6	5	6	38	122	99	3 056	0,390	1050	167	83
	200	120	14	6	5	6	46	146	122	4 474	0,418	1050	167	83
	220	140	14	6	5	6	54	171	140	6 153	0,446	1050	167	83
	240	160	14	6	5	6	62	196	158	8 103	0,474	1050	167	83
	260	180	14	6	5	6	71	221	180	10 322	0,502	1050	167	83
	280	200	14	6	5	6	79	245	203	12 808	0,530	1050	167	83
	300	220	14	6	5	6	87	270	216	15 563	0,558	1050	167	83
KPE-312 8x14-5 L=1000 mm	160	80	14	8	5	8	40	97	72	2 547	0,414	1050	125	63
	180	100	14	8	5	8	51	122	99	4 075	0,441	1050	125	63
	200	120	14	8	5	8	62	146	122	5 961	0,468	1050	125	63
	220	140	14	8	5	8	73	171	140	8 204	0,495	1050	125	63
	240	160	14	8	5	8	83	196	158	10 804	0,522	1050	125	63
	260	180	14	8	5	8	94	221	180	13 762	0,550	1050	125	63
	280	200	14	8	5	8	105	245	203	17 078	0,577	1050	125	63
	300	220	14	8	5	8	115	270	216	20 751	0,604	1050	125	63
KPE-313 10x14-6 L=1000 mm	160	80	14	10	6	10	51	110	80	3 184	0,472	1050	100	50
	180	100	14	10	6	10	64	138	110	5 094	0,501	1050	100	50
	200	120	14	10	6	10	77	166	135	7 451	0,530	1050	100	50
	220	140	14	10	6	10	91	194	155	10 255	0,559	1050	100	50
	240	160	14	10	6	10	104	222	175	13 506	0,588	1050	100	50
	260	180	14	10	6	10	118	250	200	17 203	0,618	1050	100	50
	280	200	14	10	6	10	131	278	225	21 347	0,647	1050	100	50
	300	220	14	10	6	10	144	306	240	25 939	0,676	1050	100	50

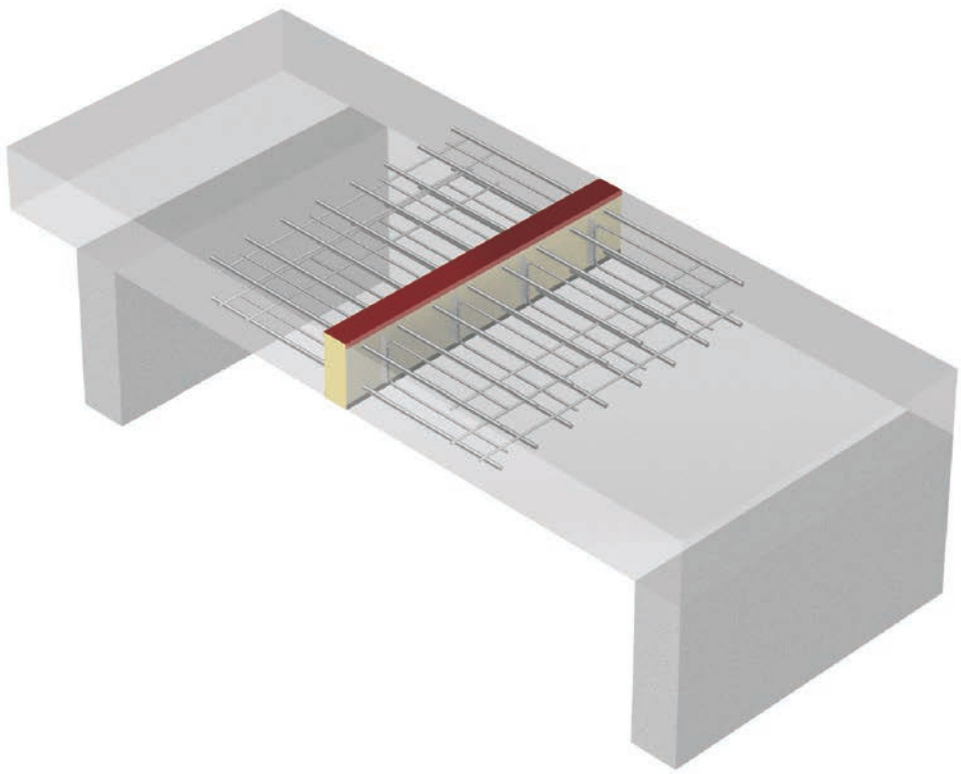


Standard element: KP



Corner element: KPE

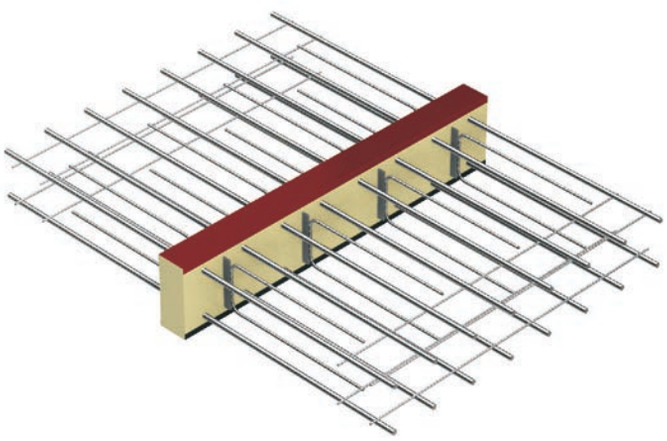
KP-400 BALCONY CONNECTOR FOR BALCONY SLABS ENTERING THE CEILING



- standard elements for ceilings of thickness between 140 mm and 300 mm
- standard insulation thickness 80 mm; options: 60 mm, 100 mm, 120 mm
- insulation type: mineral wool (WM) or styrofoam (XPS)
- expanded tension rod of ordinary heat galvanised carbon steel
- steel plates of stainless steel

Marking example:

KP - 404 (connector type) 8 (quantity of bars) x 14 (bar diameter) - 4 (quantity of steel plate) h=200 mm, XPS80, L=1000 mm

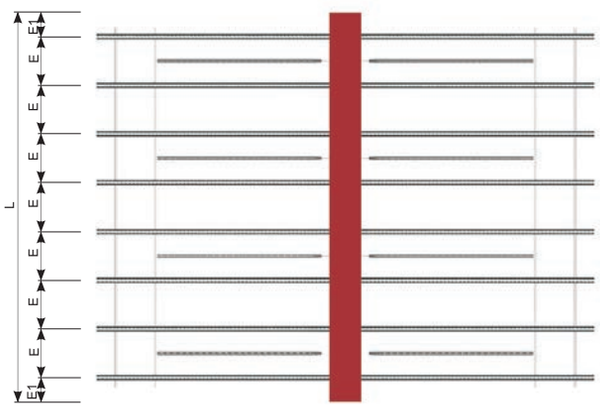


KP-404 balcony connector (8 x 14 - 4)

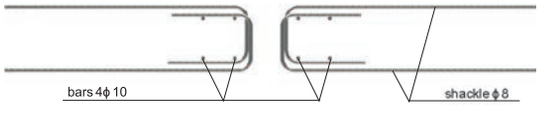
KP-400 BALCONY CONNECTOR - element 100 cm

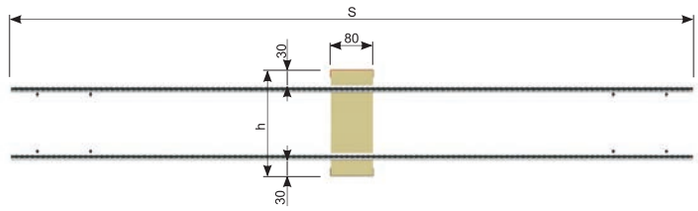
Concrete class: ≥ C25/30

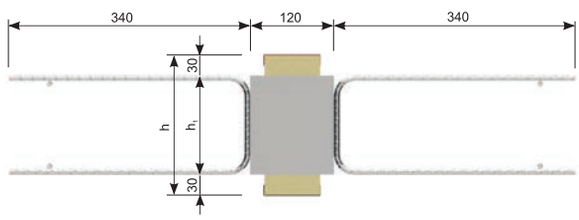
Symbol	h [mm]	h_1 [mm]	Bar diameter ϕ [mm]	Quantity		M_{Rd} (-) [kNm]	Insulation 80 mm V_{Rd} (±) [kN]	Insulation 120 mm V_{Rd} (±) [kN]	RIgidity k [kNm/rad]	ψ [W/mK]	Dimension [mm]		
				Bars	Plate						S	E	E1
KP-401 6x10-2 L=1000 mm	140	80	10	6	2	13	43	32	1 052	0,280	820	167	83
	160	100	10	6	2	16	54	44	1 739	0,293	820	167	83
	180	120	10	6	2	20	65	54	2 598	0,306	820	167	83
	200	140	10	6	2	23	76	62	3 628	0,319	820	167	83
	220	160	10	6	2	27	87	70	4 830	0,332	820	167	83
	240	180	10	6	2	31	98	80	6 204	0,345	820	167	83
	260	200	10	6	2	34	109	90	7 750	0,359	820	167	83
	280	220	10	6	2	38	120	96	9 467	0,372	820	167	83
	300	240	10	6	2	41	130	106	11 356	0,385	820	167	83
KP-402 4x14-2 L=1000 mm	140	80	14	4	2	17	43	32	973	0,303	1050	250	125
	160	100	14	4	2	22	54	44	1 652	0,317	1050	250	125
	180	120	14	4	2	27	65	54	2 510	0,331	1050	250	125
	200	140	14	4	2	32	76	62	3 547	0,345	1050	250	125
	220	160	14	4	2	38	87	70	4 762	0,359	1050	250	125
	240	180	14	4	2	43	98	80	6 211	0,373	1050	250	125
	260	200	14	4	2	48	109	90	7 729	0,387	1050	250	125
	280	220	14	4	2	53	120	96	9 481	0,401	1050	250	125
	300	240	14	4	2	58	130	106	11 411	0,415	1050	250	125
KP-403 6x14-3 L=1000 mm	140	80	14	6	3	25	65	48	1 460	0,420	1050	167	83
	160	100	14	6	3	33	81	66	2 479	0,434	1050	167	83
	180	120	14	6	3	41	98	81	3 765	0,448	1050	167	83
	200	140	14	6	3	49	114	93	5 320	0,462	1050	167	83
	220	160	14	6	3	56	131	105	7 143	0,476	1050	167	83
	240	180	14	6	3	64	147	120	9 235	0,489	1050	167	83
	260	200	14	6	3	72	164	135	11 594	0,503	1050	167	83
	280	220	14	6	3	80	180	144	14 221	0,516	1050	167	83
	300	240	14	6	3	87	195	159	17 117	0,530	1050	167	83
KP-404 8x14-4 L=1000 mm	140	80	14	8	4	34	86	64	1 946	0,494	1050	125	63
	160	100	14	8	4	44	108	88	3 305	0,514	1050	125	63
	180	120	14	8	4	55	130	108	5 021	0,534	1050	125	63
	200	140	14	8	4	65	152	124	7 094	0,554	1050	125	63
	220	160	14	8	4	75	174	140	9 525	0,574	1050	125	63
	240	180	14	8	4	85	196	160	12 313	0,594	1050	125	63
	260	200	14	8	4	96	218	180	15 458	0,613	1050	125	63
	280	220	14	8	4	106	240	192	18 962	0,633	1050	125	63
	300	240	14	8	4	116	260	212	22 822	0,653	1050	125	63



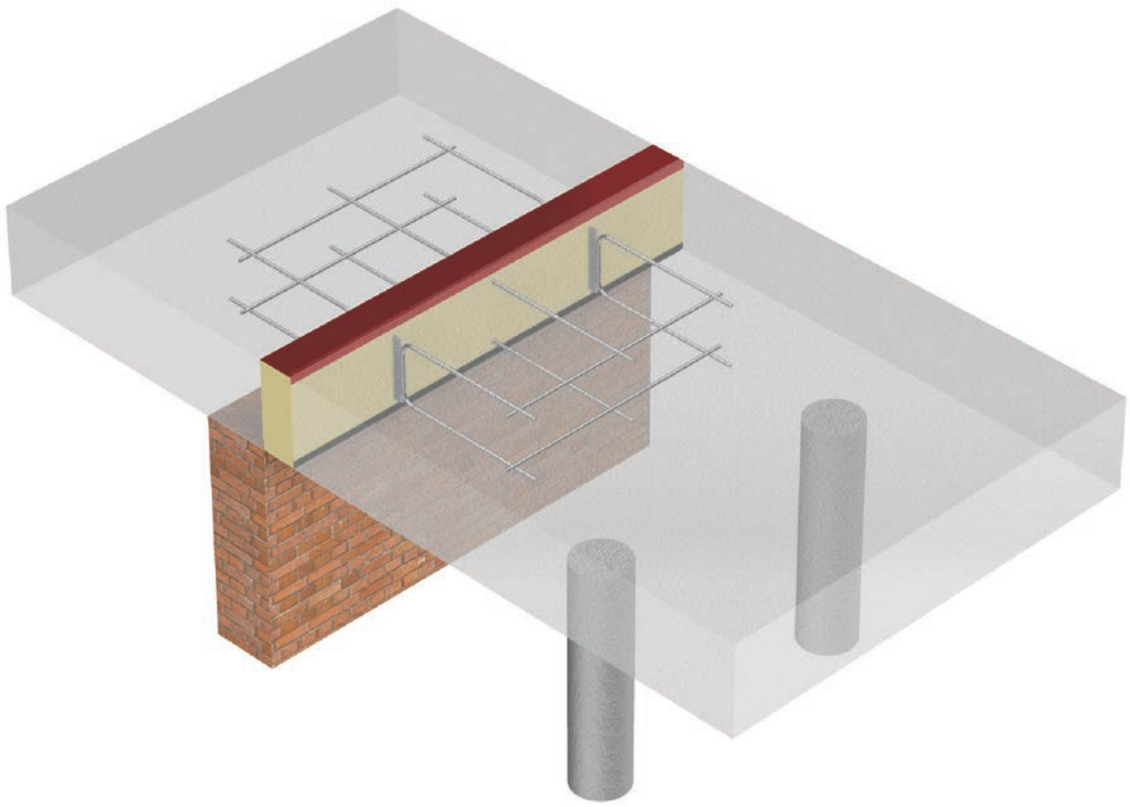
Additional bars installed at the construction site







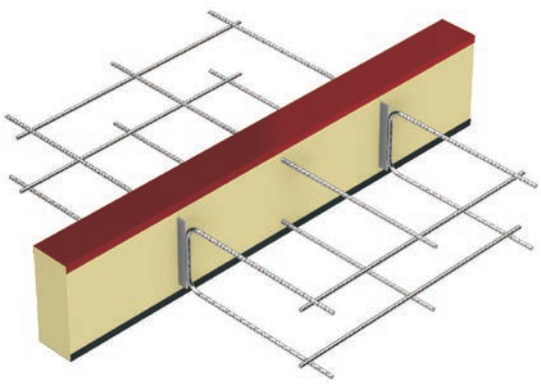
KP-500 BALCONY CONNECTOR FOR ARTICULATE-SUPPORTED BALCONY SLABS



- standard elements for ceilings of thickness between 140 mm and 300 mm
- standard insulation thickness 80 mm; options: 60 mm, 100 mm, 120 mm
- insulation type: mineral wool (WM) or styrofoam (XPS)
- reinforcement bars of stainless steel
- steel plates of stainless steel

Marking example:

KP - 504 (connector type) 2 (quantity of steel plate) h=200 mm, XPS80, L=1000 mm

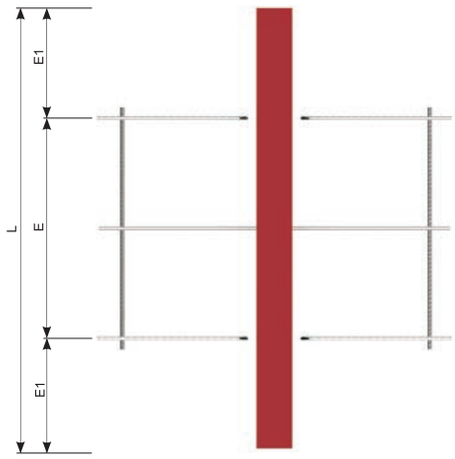


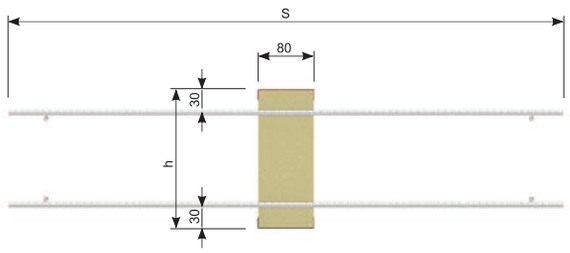
KP-504 balcony connector (2 pl)

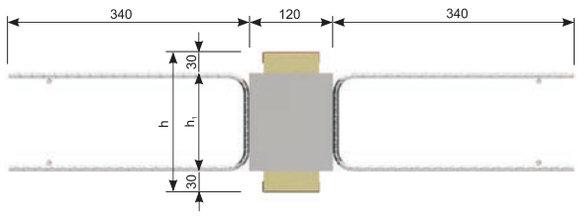
KP-500 BALCONY CONNECTOR - 20 and 30 cm module

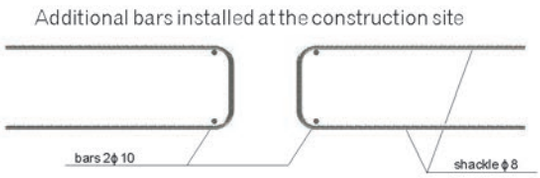
Concrete class: ≥ C25/30

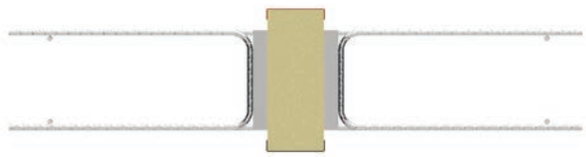
Symbol	h [mm]	h_1 [mm]	Quantity Plate	Insulation 80 mmm V_{Rd} (±) [kN]	Insulation 120 mm V_{Rd} (±) [kN]	Dimension [mm] S	E	E1
KP-501 (1pl) L=200 mm	140	80	1	22	16	800	100	50
	160	100	1	27	22	800	100	50
	180	120	1	33	27	800	100	50
	200	140	1	38	31	800	100	50
	220	160	1	44	35	800	100	50
	240	180	1	49	40	800	100	50
	260	200	1	55	45	800	100	50
	280	220	1	60	48	800	100	50
	300	240	1	65	53	800	100	50
KP-502 (2pl) L=300 mm	140	80	2	43	32	800	100	50
	160	100	2	54	44	800	100	50
	180	120	2	65	54	800	100	50
	200	140	2	76	62	800	100	50
	220	160	2	87	70	800	100	50
	240	180	2	98	80	800	100	50
	260	200	2	109	90	800	100	50
	280	220	2	120	96	800	100	50
	300	240	2	130	106	800	100	50







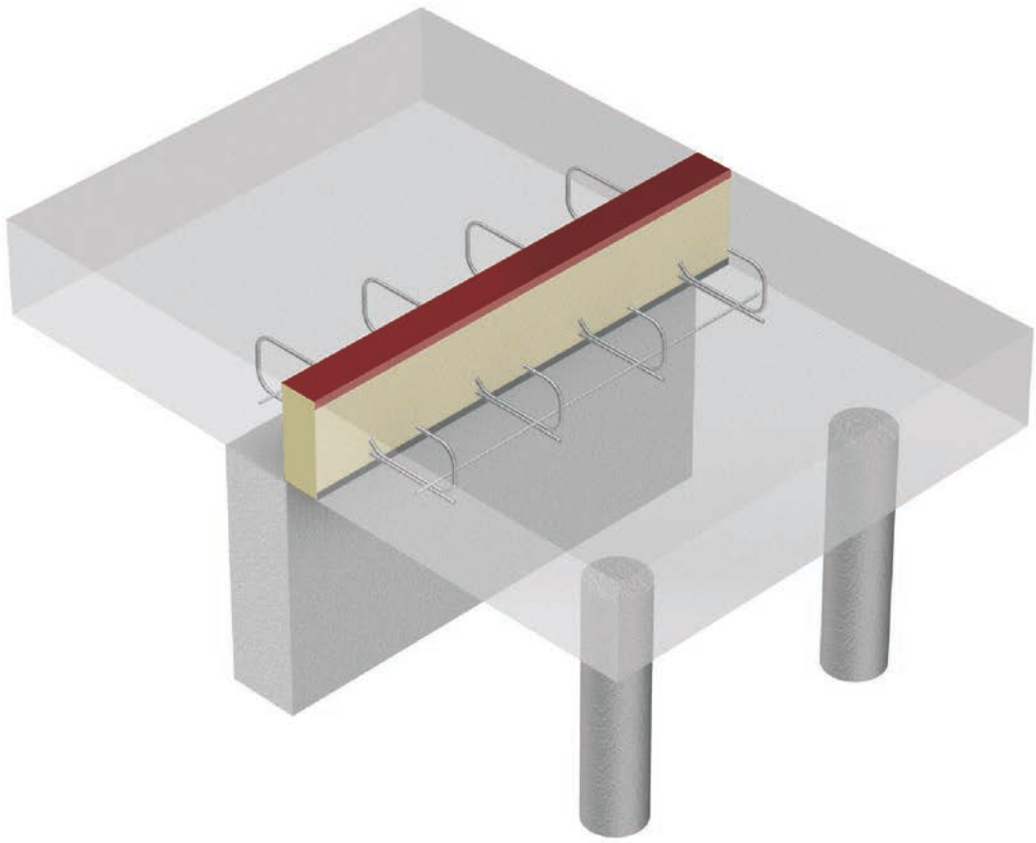




KP-500 BALCONY CONNECTOR - element 100 cm — **Concrete class: ≥ C25/30**

Symbol	h [mm]	h_1 [mm]	Quantity	Insulation 80 mmm	Insulation 120 mm	Dimension [mm]		
			Plate	V_{Rd} (±) [kN]	V_{Rd} (±) [kN]	S	E	E1
KP-503 (1pl) L=1000 mm	140	80	1	22	16	800	-	500
	160	100	1	27	22	800	-	500
	180	120	1	33	27	800	-	500
	200	140	1	38	31	800	-	500
	220	160	1	44	35	800	-	500
	240	180	1	49	40	800	-	500
	260	200	1	55	45	800	-	500
	280	220	1	60	48	800	-	500
	300	240	1	65	53	800	-	500
KP-504 (2pl) L=1000 mm	140	80	2	43	32	800	500	250
	160	100	2	54	44	800	500	250
	180	120	2	65	54	800	500	250
	200	140	2	76	62	800	500	250
	220	160	2	87	70	800	500	250
	240	180	2	98	80	800	500	250
	260	200	2	109	90	800	500	250
	280	220	2	120	96	800	500	250
	300	240	2	130	106	800	500	250
KP-505 (3pl) L=1000 mm	140	80	3	65	48	800	333	167
	160	100	3	81	66	800	333	167
	180	120	3	98	81	800	333	167
	200	140	3	114	93	800	333	167
	220	160	3	131	105	800	333	167
	240	180	3	147	120	800	333	167
	260	200	3	164	135	800	333	167
	280	220	3	180	144	800	333	167
	300	240	3	195	159	800	333	167
KP-506 (4pl) L=1000 mm	140	80	4	86	64	800	250	125
	160	100	4	108	88	800	250	125
	180	120	4	130	108	800	250	125
	200	140	4	152	124	800	250	125
	220	160	4	174	140	800	250	125
	240	180	4	196	160	800	250	125
	260	200	4	218	180	800	250	125
	280	220	4	240	192	800	250	125
	300	240	4	260	212	800	250	125
KP-507 (5pl) L=1000 mm	140	80	5	97	72	800	200	100
	160	100	5	122	99	800	200	100
	180	120	5	146	122	800	200	100
	200	140	5	171	140	800	200	100
	220	160	5	196	158	800	200	100
	240	180	5	221	180	800	200	100
	260	200	5	245	203	800	200	100
	280	220	5	270	216	800	200	100
	300	240	5	293	239	800	200	100

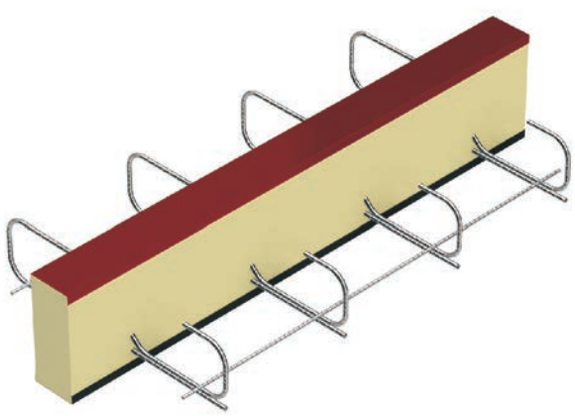
KP-600 BALCONY CONNECTOR FOR ARTICULATE-SUPPORTED BALCONY SLABS



- standard elements for ceilings of thickness between 160 mm and 300 mm
- standard insulation thickness 80 mm; options: 60 mm
- insulation type: mineral wool (WM) or styrofoam (XPS)
- reinforcement bars (rod) of stainless steel

Marking example:

KP - 604 (connector type) h=200 mm, XPS80, L=1000 mm



KP-604 balcony connector