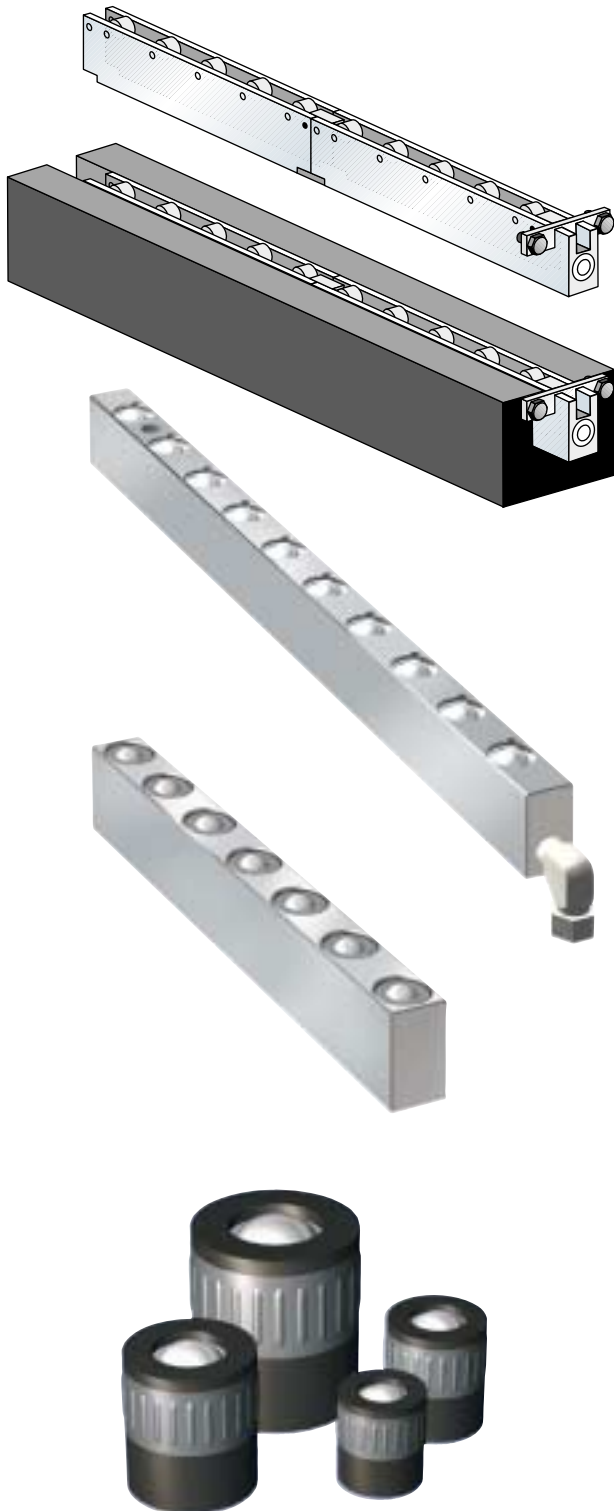




Roller and ball bars for easy and safe die change

Applications:

- in T-slots and rectangular slots of press beds for easy die change
- die change rationalisation



Roller bar, hydraulically lifted

for high loads and linear movement of dies:

Lifting pistons are fitted to the lower side of the roller bars. These pistons which are pressurised by means of a hydraulic pressure generator raise the roller bar. The die placed on the roller bars is not in contact with the bed plate and can be moved in a linear direction and positioned with effortless ease. The maximum operating pressure is 400 bar. and a low-pressure circuit is not required.

The bodies of the roller bars are made from a high-strength aluminium alloy. They are available in variable lengths.

Ball bar, hydraulically lifted

for medium loads and flexible horizontal movement of the dies:

The ball inserts are lifted by the application of oil pressure generated by a hydraulic pressure generator. The die is not in contact with the bed plate and can be moved with effortless ease.

The maximum operating pressure is 100 bar. All bars are available in variable lengths.

Ball bar with spring pack

for easy horizontal movement of lightweight dies:

The balls protrude by about 1 mm above the level of the bed. If the die is clamped, the balls are pressed into the bar body by spring power and are flush with the bed surface.

Ball inserts with spring pack

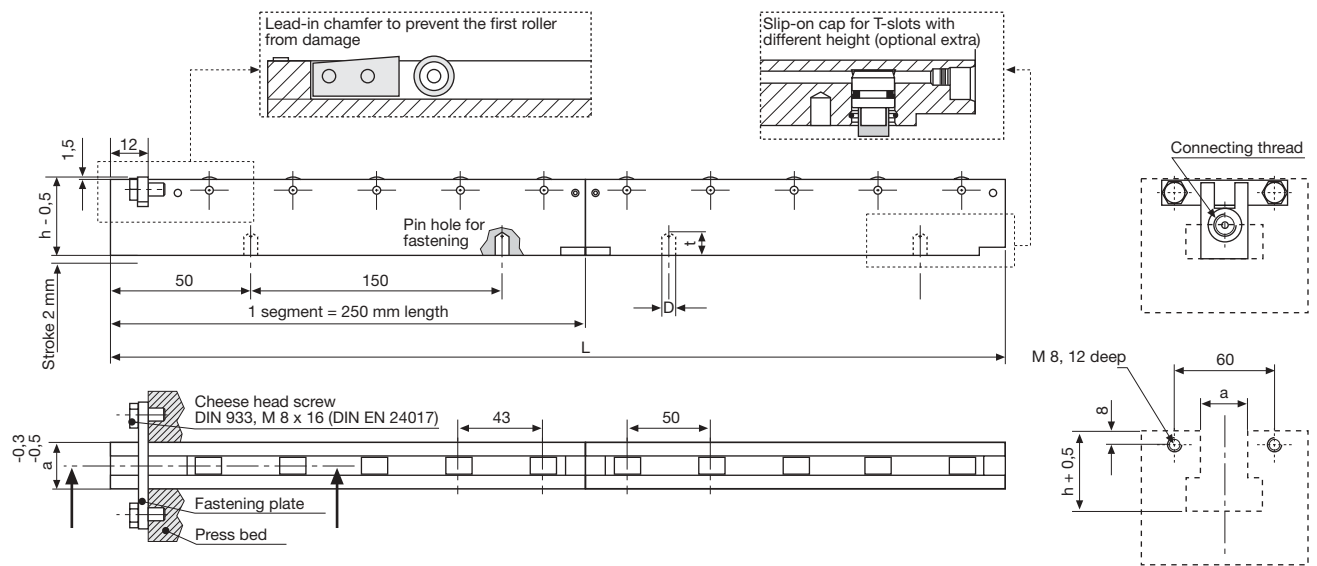
for installation on presses without T-slots:

The spring-loaded ball inserts are individually inserted in drilled holes. Functioning of the ball inserts is similar to that of ball bars with spring pack.

Roller bar, hydraulically lifted (400 bar max.)



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Slot (a)	Height (h) (mm)	Max load/ roller (kN)	Number of rollers per segment = 250 mm	Connecting thread	Max. operating pressure (bar)	Stroke (mm)	D (mm)	t (mm)
22	38	6,0	5	G 1/8	400	2	6,5	9
28	48	6,4	5	G 1/8	400	2	8,5	12
36	61	8,0	5	G 1/4	400	2	8,5	12

Other heights and lengths are available on request. Max. temperature 100°C.

Part no.	Slot (a) (mm)	Length (L) (mm)	Load-bearing capacity (kN)
8.1834.5100L250	22	250	30
8.1834.5110L300	22	300	36
8.1834.5110L350	22	350	42
8.1834.5110L400	22	400	48
8.1834.5110L450	22	450	54
8.1834.5110L500	22	500	60
8.1834.5115L550	22	550	66
8.1834.5115L600	22	600	72
8.1834.5115L650	22	650	78
8.1834.5115L700	22	700	84
8.1834.5115L750	22	750	90
8.1834.5120L800	22	800	96
8.1834.5120L850	22	850	102
8.1834.5120L900	22	900	108
8.1834.5120L1000	22	1000	120
8.1834.5130L1100	22	1100	132
8.1834.5130L1250	22	1250	150
8.1834.5140L1350	22	1350	162
8.1834.5140L1500	22	1500	180

Part no.	Slot (a) (mm)	Length (L) (mm)	Load-bearing capacity (kN)
8.1834.6100L250	28	250	32
8.1834.6110L300	28	300	40
8.1834.6110L350	28	350	48
8.1834.6110L400	28	400	48
8.1834.6110L450	28	450	56
8.1834.6110L500	28	500	64
8.1834.6115L550	28	550	72

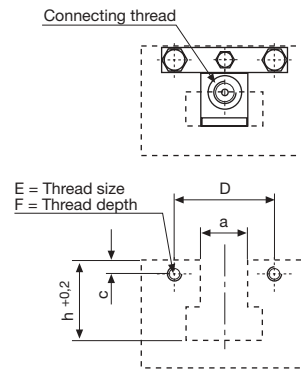
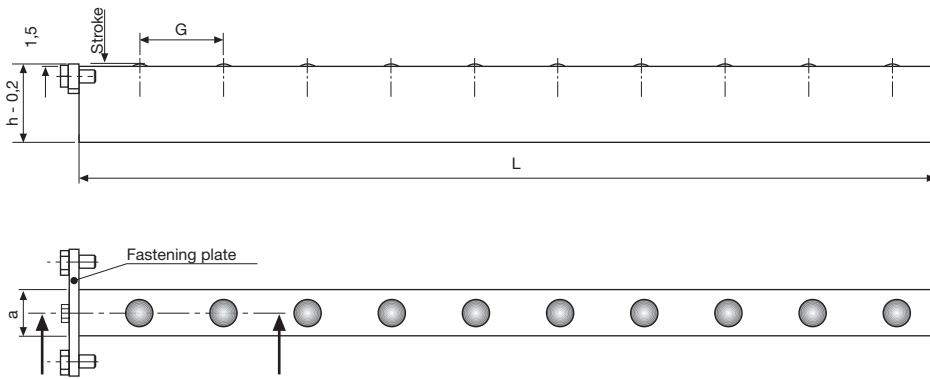
Part no.	Slot (a) (mm)	Length (L) (mm)	Load-bearing capacity (kN)
8.1834.6115L600	28	600	80
8.1834.6115L650	28	650	80
8.1834.6115L700	28	700	88
8.1834.6115L750	28	750	96
8.1834.6120L800	28	800	104
8.1834.6120L850	28	850	112
8.1834.6120L900	28	900	112
8.1834.6120L1000	28	1000	128
8.1834.6130L1100	28	1100	144
8.1834.6130L1250	28	1250	160
8.1834.6140L1350	28	1350	176
8.1834.6140L1500	28	1500	192
8.1834.6150L1750	28	1750	220
8.1834.6160L2000	28	2000	250

Part no.	Slot (a) (mm)	Length (L) (mm)	Load-bearing capacity (kN)
8.1834.7110L500	36	500	80
8.1834.7115L600	36	600	96
8.1834.7115L750	36	750	120
8.1834.7120L850	36	850	136
8.1834.7120L900	36	900	144
8.1834.7120L1000	36	1000	160
8.1834.7130L1100	36	1100	176
8.1834.7130L1250	36	1250	200
8.1834.7140L1350	36	1350	216
8.1834.7140L1500	36	1500	240
8.1834.7150L1750	36	1750	280
8.1834.7160L2000	36	2000	320

Dimensions printed in bold are the preferred lengths. On request these are available with a steel sheet cover. Fastening plate, short hose 250 mm and angular swivel-type screw fitting are supplied with the bar.



Ball bar , hydraulically lifted (max. 100 bar)



Slot (a)	Height (h)	Connecting thread	Max. operating pressure (bar)	Max. load/ball (kN)	Stroke (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)
18	30	G 1/8	100	0,7	1	5	36	M5	15	30
22	38	G 1/4	100	1,0	2	7	40	M5	15	40
28	48	G 1/4	100	1,5	2	9	50	M6	20	45
36	61	G 1/4	100	2,5	2	10	55	M6	20	50

Other heights and lengths are available on request

Part no.	Slot (a) (mm)	Length (L) (mm)	Max. load (kN)	Number of balls
2.9217.1803	18	105	2,1	3
2.9217.1804	18	135	2,8	4
2.9217.1805	18	165	3,5	5
2.9217.1806	18	195	4,2	6
2.9217.1808	18	255	5,6	8
2.9217.1810	18	315	7,0	10
2.9217.1812	18	375	8,4	12
2.9217.1814	18	435	9,8	14
2.9217.1816	18	495	11,2	16
2.9217.1818	18	555	12,6	18
2.9217.1820	18	615	14,0	20
2.9217.1822	18	675	15,4	22
2.9217.1824	18	735	16,8	24
2.9217.1826	18	795	18,2	26
2.9217.1828	18	855	19,6	28
2.9217.1830	18	915	21,0	30
2.9217.1832	18	975	22,4	32
2.9217.1834	18	1035	23,8	34

Part no.	Slot (a) (mm)	Length (L) (mm)	Max. load (kN)	Number of balls
2.9217.2803	28	155	4,5	3
2.9217.2804	28	200	6,0	4
2.9217.2805	28	245	7,5	5
2.9217.2806	28	290	9,0	6
2.9217.2808	28	380	12,0	8
2.9217.2810	28	470	15,0	10
2.9217.2812	28	560	18,0	12
2.9217.2814	28	650	21,0	14
2.9217.2816	28	740	24,0	16
2.9217.2818	28	830	27,0	18
2.9217.2820	28	920	30,0	20
2.9217.2822	28	1010	33,0	22
2.9217.2824	28	1100	36,0	24
2.9217.2826	28	1190	39,0	26
2.9217.2828	28	1280	42,0	28
2.9217.2830	28	1370	45,0	30
2.9217.2832	28	1460	48,0	32

Part no.	Slot (a) (mm)	Length (L) (mm)	Max. load (kN)	Number of balls
2.9217.2203	22	140	3,0	3
2.9217.2204	22	180	4,0	4
2.9217.2205	22	220	5,0	5
2.9217.2206	22	260	6,0	6
2.9217.2208	22	340	8,0	8
2.9217.2210	22	420	10,0	10
2.9217.2212	22	500	12,0	12
2.9217.2214	22	580	14,0	14
2.9217.2216	22	660	16,0	16
2.9217.2218	22	740	18,0	18
2.9217.2220	22	820	20,0	20
2.9217.2222	22	900	22,0	22
2.9217.2224	22	980	24,0	24
2.9217.2226	22	1060	26,0	26
2.9217.2228	22	1140	28,0	28
2.9217.2230	22	1220	30,0	30
2.9217.2232	22	1300	32,0	32
2.9217.2234	22	1380	34,0	34
2.9217.2236	22	1460	36,0	36

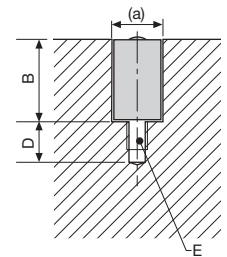
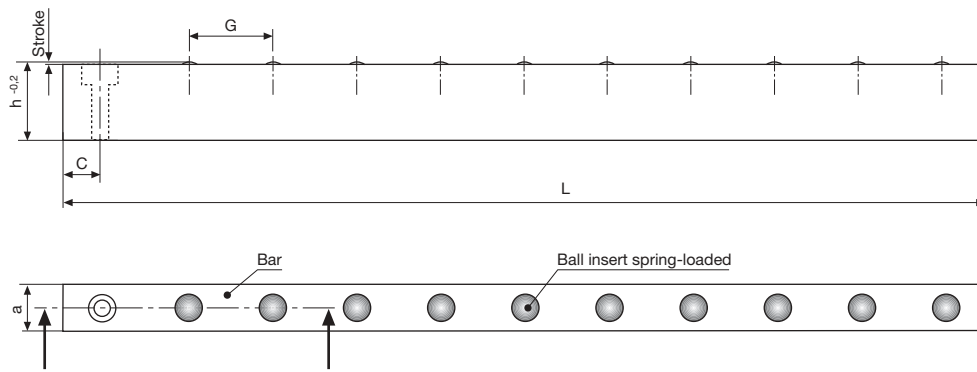
Part no.	Slot (a) (mm)	Length (L) (mm)	Max. load (kN)	Number of balls
2.9217.3603	36	170	7,5	3
2.9217.3604	36	220	10,0	4
2.9217.3605	36	270	12,0	5
2.9217.3606	36	320	15,0	6
2.9217.3608	36	420	20,0	8
2.9217.3610	36	520	25,0	10
2.9217.3612	36	620	30,0	12
2.9217.3614	36	720	35,0	14
2.9217.3616	36	820	40,0	16
2.9217.3618	36	920	45,0	18
2.9217.3620	36	1020	50,0	20
2.9217.3622	36	1120	55,0	22
2.9217.3624	36	1220	60,0	24
2.9217.3626	36	1320	65,0	26
2.9217.3628	36	1420	70,0	28
2.9217.3630	36	1520	75,0	30

The load-bearing capacity applies to each individual bar. Fastening plate, short hose 250 mm and angular screw fitting are supplied with the bar.

Ball bar with spring pack



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Slot (a)	Height (h) (mm)	Stroke (mm)	Load-bearing capacity/ball (kN)	B (mm)	C (mm)	D (mm)	E	G (mm)
18	31	1	0,2	30 + 0,2	10,0	15	M6	20
22	39	1	0,4	38 + 0,2	12,5	15	M8	30
28	49	1	0,6	48 + 0,2	15,0	20	M10	45
36	62	2	1,0	61 + 0,2	20,0	20	M10	45

Part no.	Slot (a) (mm)	Length (L) (mm)	Load-bearing (kN)	Number of balls
2.9218.1803	18	80	0,6	3
2.9218.1804	18	100	0,8	4
2.9218.1805	18	120	1,0	5
2.9218.1806	18	140	1,2	6
2.9218.1808	18	180	1,6	8
2.9218.1810	18	220	2,0	10
2.9218.1812	18	260	2,4	12
2.9218.1814	18	300	2,8	14
2.9218.1816	18	340	3,2	16
2.9218.1818	18	380	3,6	18
2.9218.1820	18	420	4,0	20
2.9218.1822	18	460	4,4	22
2.9218.1824	18	500	4,8	24

Part no.	Slot (a) (mm)	Length (L) (mm)	Load-bearing (kN)	Number of balls
2.9218.2803	28	165	1,8	3
2.9218.2804	28	210	2,4	4
2.9218.2805	28	255	3,0	5
2.9218.2806	28	300	3,6	6
2.9218.2808	28	390	4,8	8
2.9218.2810	28	480	6,0	10
2.9218.2812	28	570	7,2	12
2.9218.2814	28	660	8,4	14
2.9218.2816	28	750	9,6	16
2.9218.2818	28	840	10,8	18
2.9218.2820	28	930	12,0	20
2.9218.2822	28	1020	13,2	22

Part no.	Slot (a) (mm)	Length (L) (mm)	Load-bearing (kN)	Number of balls
2.9218.2203	22	115	1,2	3
2.9218.2204	22	145	1,6	4
2.9218.2205	22	175	2,0	5
2.9218.2206	22	205	2,4	6
2.9218.2208	22	265	3,0	8
2.9218.2210	22	325	4,0	10
2.9218.2212	22	385	4,8	12
2.9218.2214	22	445	5,6	14
2.9218.2216	22	505	6,4	16
2.9218.2218	22	565	7,2	18
2.9218.2220	22	625	8,0	20
2.9218.2222	22	685	8,8	22
2.9218.2224	22	745	9,6	24
2.9218.2226	22	805	10,4	26
2.9218.2228	22	865	11,2	28
2.9218.2230	22	925	12,0	30
2.9218.2232	22	985	12,8	32

Part no.	Slot (a) (mm)	Length (L) (mm)	Load-bearing (kN)	Number of balls
2.9218.3603	36	175	3,0	3
2.9218.3604	36	220	4,0	4
2.9218.3605	36	265	5,0	5
2.9218.3606	36	310	6,0	6
2.9218.3608	36	400	8,0	8
2.9218.3610	36	490	10,0	10
2.9218.3612	36	580	12,0	12
2.9218.3614	36	670	14,0	14
2.9218.3616	36	760	16,0	16
2.9218.3618	36	850	18,0	18
2.9218.3620	36	940	20,0	20
2.9218.3622	36	1.030	22,0	22

The load-bearing capacity applies to each individual bar. Fastening plate are supplied with the bar.