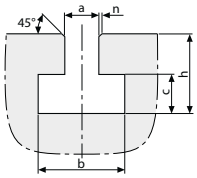
Roller and ball bars for easy and safe die change

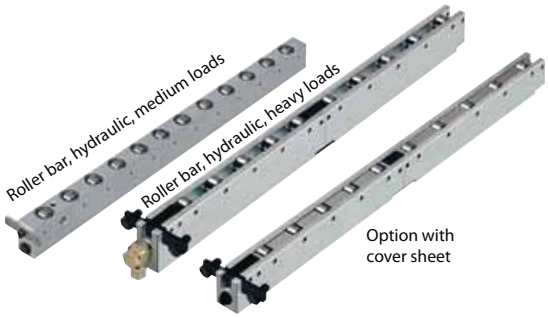
ROEMHELD HILMA ▪ STARK

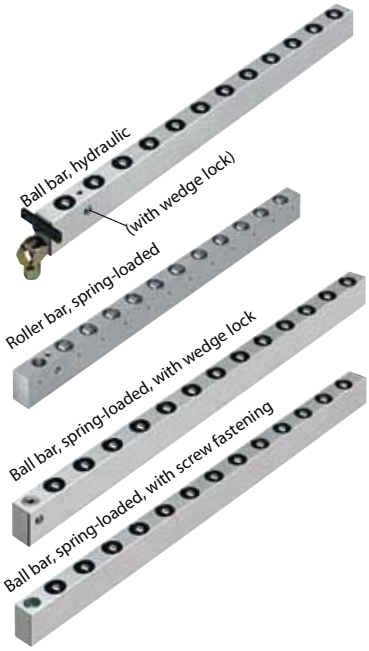
T-slot tolerances acc. to DIN 650

a	b	c	h min.	h max.	n max.
18 H12	30^{+2}	12^{+2}	**30**	36	1,6
22 H12	37^{+3}	16^{+2}	**38**	45	1,6
28 H12	46^{+4}	20^{+2}	**48**	56	1,6
36 H12	56^{+4}	25^{+3}	**61**	71	2,5



Dimensions in mm
$h_{min.}$ = smallest dimension acc. to DIN 650





Load: 20 - 100 kg
Hole: 20 - 40 mm

Load: 40 - 220 kg
Hole: 20 - 40 mm

Applications:

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

Roller bar, hydraulically lifted
for heavy loads, for linear movement of dies:
On the underside of the roller bar lifting pistons are provided. Pressure is applied to these pistons using hydraulic pressure generators, which lift then the complete roller bar. The die positioned on the roller bars is not in contact with the table top and can be easily moved and positioned. The basic bodies are made from a high-strength and robust aluminium alloy.
Max. operating pressure: 400 bar
Load-bearing capacity: up to 160 kN/m, roller spacing 50 mm.
Any length up to 2500 mm is possible using modular segments.
Fastening of the roller bar using a fastening plate.

Roller bar, hydraulically lifted
for medium loads, for linear movement of dies:
The lifting pistons are provided below each roller allowing rollers to be lifted individually. The basic bodies are made from a high-strength aluminium alloy. Lifting pistons are provided below each roller allowing each roller to be lifted individually.
Max. operating pressure: 120 bar.
Max. load-bearing capacity: 99 kN/m, flexible roller spacing and orientation.
Any variable length in a single piece design up to 2900 mm.
Fastening of the roller bar using a fastening plate or a wedge lock.

Ball bar, hydraulically lifted for medium loads , for flexible horizontal movement of dies:
Oil pressure is applied using a hydraulic pressure generator to lift each ball bar individually. The die positioned on the ball bars is not in contact with the table top and can be easily moved.
Max. operating pressure: 100 bar
Max. load-bearing capacity: 55 kN/m, flexible ball spacing.
Any length in a single piece design up to 2900 mm.
Fastening of the ball bar using a fastening plate or a wedge lock.

Ball bar with spring pack for lightweight loads for flexible horizontal movement of dies:
When preloaded, the balls project over the table level by up to 2 mm.
When the die is clamped, the balls are pressed into the bar body against the spring force until they are flush with the table level.
Max. load-bearing capacity: 27 kN/m, flexible ball spacing.
Any variable length in one-piece design up to 2900 mm.
Fastening of the ball bar using a fastening crossbar or a wedge lock.

Roller bar with spring pack
for medium loads, for linear movement of dies:
Function and design of the roller bar similar to spring-loaded ball bars.
Load-bearing capacity slightly increased thanks to the use of rollers.
Max. load-bearing capacity: 66 kN/m, flexible roller spacing and orientation.
Any variable length in one-piece design up to 2900 mm.
Fastening of the roller bar using a fastening crossbar or a wedge lock.

Ball and roller inserts with spring pack
For installation in tables without T-slots:
The spring-loaded ball and roller inserts are individually inserted into drilled holes. The function is similar to that of ball or roller bars with a spring pack.
Max. load-bearing capacity: 2200 N, stroke up to 3 mm.

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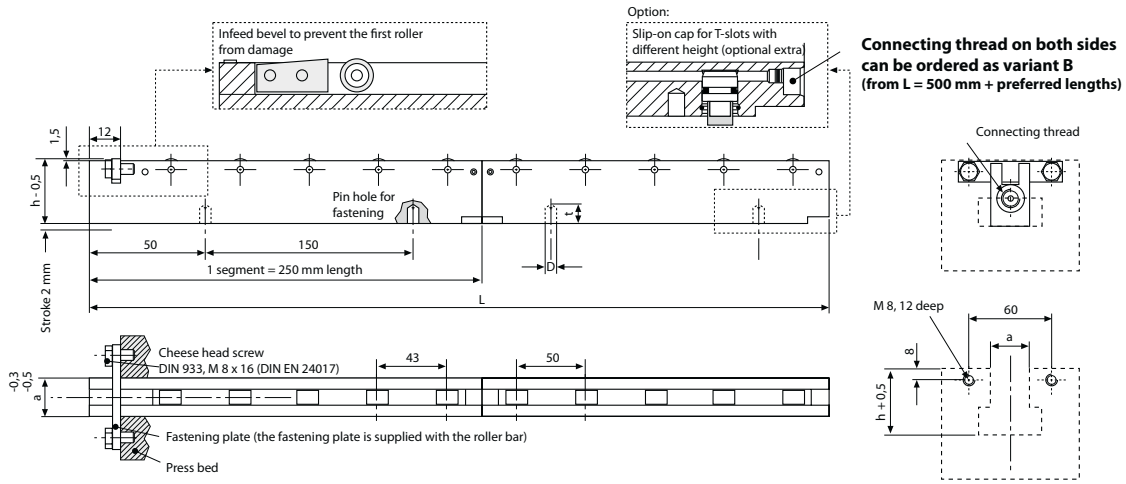
Roller bar for heavy loads, hydraulic lifting of the complete bar (max. 400 bar)



Slot (a) [mm]	22	28	36
Height (h) [mm]	38	48	61
Slot height max. (h) [mm]	45	56	71
Max. load/ roller (in kN)	6,0	6,4	8,0
Number of rollers per segment = 250 mm	5	5	5
Connecting thread	G ⅛	G ⅛	G ¼
Max. operating pressure [bar]	400	400	400
Roller Ø [mm]	16 x 12	16 x 12	19 x 12
Stroke [mm]	2	2	2
Oil requirement / segment [cm³]	1,54	1,60	2,00
D [mm]	6,5	8,5	8,5
t [mm]	9	12	12

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

Connecting thread on both ends can be ordered as variant B (from L = 500 mm + Preferred lengths)

Part no.	Slot (a) [mm]	Length (L) [mm]	Max. load [kN] at 400 bar
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
8.1834.5150L1750	22	1750	210
8.1834.5180L2500	22	2500*	300

* two-piece design
Dimensions printed in bold are the preferred lengths.
On request these are available with a steel sheet cover.

Part no.	Slot (a) [mm]	Length (L) [mm]	Max. load [kN] at 400 bar
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
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	224
8.1834.6160L2000	28	2000	256
8.1834.6180L2500	28	2500*	320

Part no.	Slot (a) [mm]	Length (L) [mm]	Max. load [kN] at 400 bar
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
8.1834.7180L2500	36	2500*	400

Fastening plate and 90° swivel banjo coupling are supplied with the bar.