

## Rail guide tables





The SKF® brand now stands for more than ever before, and means more to you as a valued customer.

While SKF maintains its leadership as the hallmark of quality bearings throughout the world, new dimensions in technical advances, product support and services have evolved SKF into a truly solutions-oriented supplier, creating greater value for customers.

These solutions encompass ways to bring greater productivity to customers, not only with breakthrough application-specific products, but also through leading-edge design simulation tools and consultancy services, plant asset efficiency maintenance programmes, and the industry's most advanced supply management techniques.

The SKF brand still stands for the very best in rolling bearings, but it now stands for much more.

**SKF – the knowledge engineering company**

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## General

SKF rail guide tables are state-of-the-art tables with high accuracy and high load carrying capacity. They are available in the following variations:

- five different sizes,
- three different covers
- two different drives
- four precision classes.

### Sizes

SKF rail guide tables are available in widths of 110, 170, 235, 320 and 400 mm.

### Drive

Two different drives can be fitted: ball screws and linear motors.

### Cover

The rail guide tables can be supplied in three versions: without cover, with bellows, with steel cover.

### Precision classes

Depending on their application, the slides are available in four precision classes: P10, P5, P2, P1.

### Customer benefits

- Modular and compact design.
- Variants having high load carrying capacity and stiffness.
- Large number of drives, providing the optimum solution for any application.
- Different covers to suit the environmental conditions.
- Precision class matched with application, thus more cost-efficient.

## Guide

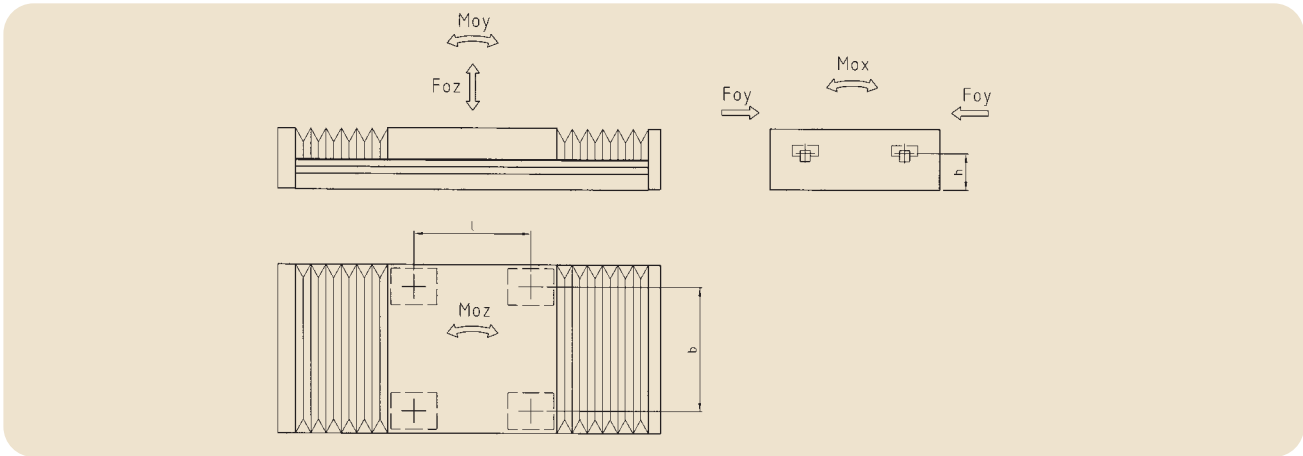
SKF rail guide tables are equipped with a pair of rails fitted with a total of four carriages (with the exception of size 110 with linear motor F 22706 having six carriages).

### Customer benefits

- Profile rail with high load carrying capacity and stiffness

See table 1 for further technical details.

Table 1: Load carrying capacity of the tables



Type Size	Precision class	Load rating per carriage		No. of carriages z	Distance			Maximum static load per table <sup>1)</sup>				
		C	C <sub>0</sub>		b	l	h <sup>3)</sup>	F <sub>oz</sub>	F <sub>oy</sub>	M <sub>ox</sub>	M <sub>oy</sub>	M <sub>oz</sub>
–		N		–	mm			N		Nm		
LTB110.L1.SH/TN	P10 - P1	2 295	4 270	4	81	69	23	17 080	8 540	690	580	290
LTB110.L1.F20906	P5 - P1	2 295	4 270	4	81	63	23	16 880	8 440	680	530	260
LTB110.L1.F21806	P5 - P1	2 295	4 270	4	81	130	23	16 680	8 340	670	1 080	540
LTB110.L1.F22706	P5 - P1	2 295	4 270	6	81	220	23	25 020	12 510	1 010	2 750	1 370
LTB170.L1.SH/TN	P10 - P1	7 800	13 500	4	116	92	35	54 000	27 000	3 130	2 480	1 240
LTB170.L1.F21806	P5 - P1	7 800	13 500	4	116	124	35	53 600	26 800	3 100	3 320	1 660
LTB170.L1.F22706	P5 - P1	7 800	13 500	4	116	195	35	53 400	26 700	3 090	5 200	2 600
LTB235.L1.SX/TN/TL	P10 - P1	18 800	24 400	4	156	140	46	97 600	48 800	7 610	6 830	3 410
LTB235.L1.A32008	P5 - P1	18 800	24 400	4	156	142	46	95 800	47 900	7 470	6 800	3 400
LTB235.L1.A33008	P5 - P1	18 800	24 400	4	156	177	46	94 900	47 450	7 400	8 390	4 190
LTB235.L1.A34008	P5 - P1	18 800	24 400	4	156	262	46	94 000	47 000	7 330	12 310	6 150
LTB320.L1.SX/TN/TL	P10 - P1	22 800	30 400	4	220	221	70	121 600	60 800	13 370	13 430	6 710
LTB320.L1.A32014	P5 - P1	22 800	30 400	4	220	160	70	118 000	59 000	12 980	9 440	4 720
LTB320.L1.A33014	P5 - P1	22 800	30 400	4	220	185	70	116 000	58 100	12 780	10 740	5 370
LTB320.L1.A34014	P5 - P1	22 800	30 400	4	220	275	70	114 000	57 200	12 580	15 730	7 860
LTB400.L1.SX/TN/TL	P10 - P1	41 900	54 000	4	270	270	77	216 000	108 000	29 160	29 160	14 580

<sup>1)</sup> Loads F<sub>oz</sub> and F<sub>oy</sub> for central load application, but not for slides with steel cover.  
 Moments M<sub>ox</sub> to M<sub>oz</sub> for pure moment load (without force), but not for slides with steel cover.  
<sup>2)</sup> Distance up to the middle of the rail

## Drive

### Tables with a ball screw:

These tables are equipped with precision rolled thread ballscrew drives.

Screws SH and SX have a nut with internal ball recirculation. They are not preloaded, the axial clearance

is 0,1 mm maximum. These screws are the standard for precision class P10 tables. On request also for P5.

Screws TN and TL are fitted with an internal preloaded nut. TL screws have long leads and are therefore suitable for high travel speeds. They can be fitted in tables of precision classes P5 to P1.

### Benefits:

- Robust drive.
- Suitable for high axial forces.
- Any drive can be fitted, e.g. manual drive, DC, AC or stepped motor.
- Attachment via motor flange or indirect toothed belt drive.

See table 2 for further technical information.

Table 2: Ball screw technical details

Table	Screw		Nominal		Lead accuracy <sup>1)</sup>	Lead accuracy <sup>1)</sup>	Load rating <sup>2)</sup>		Table drive torque	
	Type	Precision	Type	Lead			dynamic	static	Max.	Max.
size	class	size	d <sub>o</sub>	p	acc. to ISO	V <sub>300p</sub>	C <sub>a</sub>	C <sub>oa</sub>	M <sub>s</sub>	M <sub>a</sub>
–	–	–	mm	–	–	µm/300 mm	–	N	Nm	–
LTB110	P10-P5	SH1205	12	5	G9	87	3 100	5 100	0,17	2,6
	P5-P1	TN1205	12	5	G7	40	6 060	7 100	0,27	2,6
	P5-P1	TN1210	12	10	G7	40	3 730	3 550	0,30	2,6
LTB170	P10-P5	SH1605	16	5	G9	87	5 200	8 700	0,18	5,8
	P5-P1	TN1605	16	5	G7	40	10 710	12 720	0,33	8,4
	P5-P1	TN1610	16	10	G7	40	10 710	12 720	0,38	12,0
	P5-P1	TN1616	16	16	G7	40	6 590	6 360	0,42	12,0
LTB235	P10-P5	SX2505	25	5	G9	87	15 600	31 000	0,19	20,6
	P10-P5	SX2510	25	10	G9	87	18 800	31 000	0,21	32,9
	P5-P1	TN2505	25	5	G7	40	12 700	22 440	0,49	14,9
	P5-P1	TN2510	25	10	G7	40	12 700	22 440	0,61	29,8
	P5-P1	TL2520	25	20	G7	40	12 700	22 440	0,62	32,9
	P5-P1	TL2525	25	25	G7	40	7 820	11 220	0,65	32,9
LTB320	P10-P5	SX3205	32	5	G9	87	17 800	50 400	0,19	33,4
	P10-P5	SX3210	32	10	G9	87	27 500	55 000	0,22	72,9
	P5-P1	TN3205	32	5	G7	40	14 210	30 960	0,59	20,5
	P5-P1	TN3210	32	10	G7	40	23 390	40 960	0,82	54,3
	P5-P1	TL3220	32	20	G7	40	23 390	40 960	0,72	96,0
	P5-P1	TL3232	32	32	G7	40	14 400	20 480	0,84	86,9
	P5-P1	TL3240	32	40	G7	40	14 400	20 480	0,88	96,0
LTB400	P10-P5	SX4005	40	5	G9	87	19 500	63 100	0,21	41,8
	P10-P5	SX4010	40	10	G9	87	29 000	64 000	0,26	84,9
	P5-P1	TN4005	40	5	G7	40	20 350	59 580	0,81	39,3
	P5-P1	TN4010	40	10	G7	40	29 000	64 000	1,66	84,9
	P5-P1	TL4020	40	20	G7	40	29 000	64 000	0,90	169,7
	P5-P1	TL4040	40	40	G7	40	25 500	35 120	1,09	186,3

<sup>1)</sup> Lead accuracy G5 at V<sub>300p</sub> = 23 µm/300 mm available on request.

<sup>2)</sup> Value indicated = minimum load rating of either screw or locating bearing

**Tables with a linear motor drive:**

These are equipped with brushless AC motors and work as follows:

- The secondary part in the lower part of the table takes the form of a magnetic rail.
- The primary part is located in the travelling upper part of the table and takes the form of a coil system.
- Two or three-phase AC synchronous motors with electronic commutation.
- Linear measuring system, integrated in the table as standard.

**Customer benefits:**

- High dynamics and stiffness in a closed loop system.
- Good synchronous characteristics.
- High acceleration capacity.
- High travel speeds, even with large strokes.
- Friction and wear free drive.

See table 3 for further technical details.

**Table 3: Linear motor technical details**

For table: Motorsize	LTB		110 F20906	110+170 F21806	F22706	235 A32008	A33008	320 A34008 A32014 A33014 A34014			
Number of motor phases			2P	2P		3P		3P			
Static maximum force	$F_p$	N	105	210	315	600	900	1 200	1 200	1 800	2 400
Nominal force	$F_n$	N	33	66	100	190	285	379	379	596	759
Power loss at $F_p$	$P_{vp}$	W	212	424	637	424	643	907	690	1 043	1 381
Power loss at $F_n$	$P_{vn}$	W	21	42	64	42		91	69	104	138
Motor constant	$k_m$	N/W <sup>-2</sup>	7,2	10,2	12,5	29,1	35,5	39,8	45,7	55,7	64,6
Attractive force between motor parts	$F_a$	N	200	400	600	1 800	2 700	3 600	3 600	5 400	7 200
Force constant	$k_f$	N/A <sub>eff</sub>	19,7	19,7	19,7	74	74	74	148	148	148
Dyn. force at $v_{lim}$	$F_{lim}$	N	70	160	250	430	750	1 100	900	1 550	2 200
Linear limiting speed at $F_{lim}$	$v_{lim}$	m/s	3,0 <sup>1)</sup>	3,0 <sup>1)</sup>	3,0 <sup>1)</sup>	2,5	2,4	2,3	1,3	1,2	1,1
Maximum current	$I_p$	A <sub>eff</sub>	5,3	10,6	16,0	8,1	12,2	16,2	8,1	12,2	16,2
Continuons current	$I_n$	A <sub>eff</sub>	1,7	3,4	5,0	2,6	3,8	5,1	2,6	3,8	5,1
DC-link Voltage	$U_{zk}$	V	80	80	80	300	300	300	300	300	300
<b>Linear measuring system:</b>											
Signal output	Standard: sinus signal, 1 Vss, grading rate 20 µm; Option: TTL-signal resolution 0,1 - 0,2 - 0,5 - 1 µm, after 4-fold interpolation										
Limit-/Ref. switch	2 switches integrated inside the measuring system, PNP/NC or NPN/NC possible										
Precision class	Standard: ±5 µm; option: ±3 µm or ±2 µm										

<sup>1)</sup> limited by linear guiding

## Cover

The slides with ball screw and linear motor drive are available as follows:

- **With bellows** made of oil and water resistant polyurethane fibre material on both sides. The carriages and ballscrew nut are additionally protected by wipers (with the exception of the SH screws). The screw thrust bearings are also sealed.
- **Without cover** for applications without exposure to dirt, e.g. in

laboratories. The carriages, ball-screw nut and bearings are sealed as they are in the bellows version. The effective stroke is, of course, longer than in the bellows version.

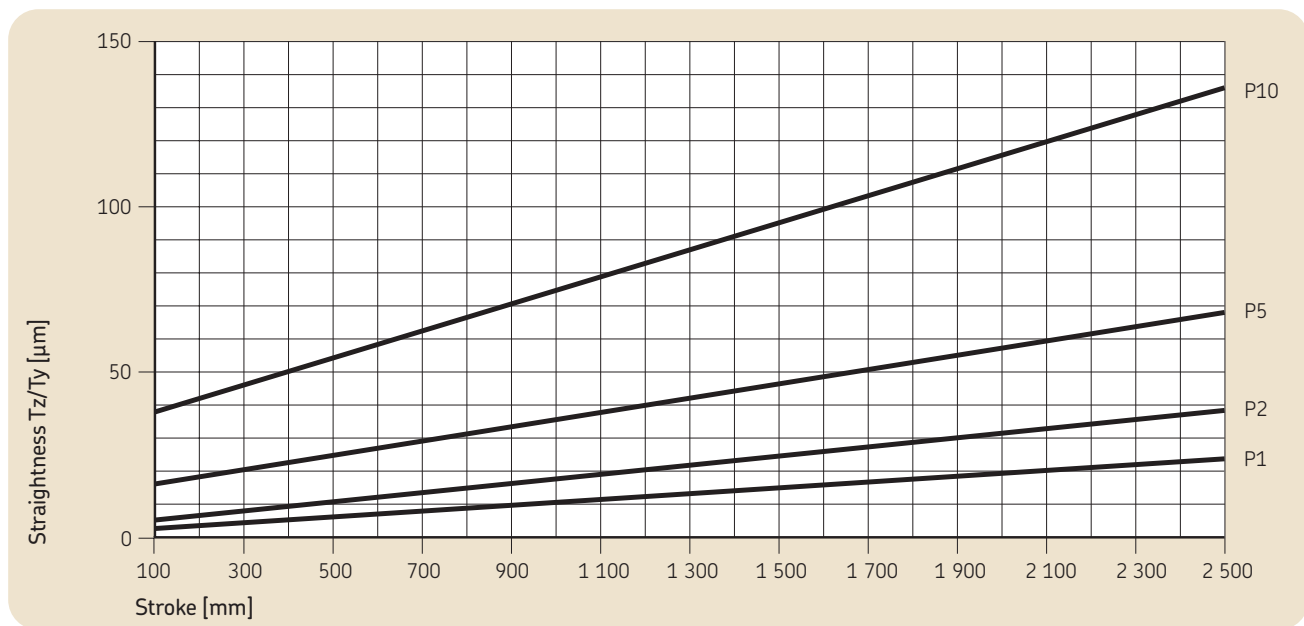
- **With steel cover**, made from corrosion resistant steel sheet, for applications with extreme exposure to dirt from above or for those applications where shock impacts on the cover cannot be excluded. The effective stroke is as long as in the version without cover.

## Precision classes

The characteristics of the different precision classes are listed in the table below. The precision given in diagram 1 applies to a single table in clamped condition on an ideal plane clamping surface.

Straightness defined as in VDI 2617 sheet 3.

Diagram 1: Precision



## Stroke

The strokes S1 (with bellows), S2 (without bellows) and S (with steel cover) are the maximum travel distances between the end stops. Depending on the speed and the moving mass the operating stroke is correspondingly less. The overrun on both sides must be larger than the length of the brake path of the drive. The value of  $2 \times p$  (spindle lead) can be considered to be a reliable guideline value.

## Materials

As standard, the table components are made of aluminium and are black oxidised. The bottom part of the table is made of untreated aluminium. On request the bottom part and the top part are also available in steel.

## Permissible operating temperature

Tables with screw drives:  
-20 °C to +80 °C constant temperature.

Linear motor slides:  
0 °C to + 55 °C constant temperature.

## Lubrication

The guides and screw are greased with an all-purpose SKF grease by the manufacturing unit. The carriages and the screw nut can be relubricated. For further information please refer to the operating instructions. On the carriages can be fitted with a central lubricating connection. Five lubricating holes are provided in the side plate. (Not possible by using carriages with steel cover.) Relubrication intervals depending on operating conditions: 20 - 200 km or after 1 year at the latest.

## Load carrying capacity and life

For exact dimensioning and design of SKF rail guide tables and drives please contact SKF. In order to provide the required data correctly, please fill in the specification sheet on page 35.

## Accessories

### Limit and reference switches

Tables with ball screw drives are fitted with inductive limit switches PNP/NC as standard and can be equipped with inductive reference switches on request. These are integral with the slide. They are connected via a central plug connection on one of the end plates (see dimension specifications). Slides with linear motor drive are fitted with 2 limit/reference switches PNP/NC or NPN/NC, which are integrated in the linear measuring system.

### Cross table assembly

Individual tables can be mounted to form a cross table. The standard drill hole patterns of the table top and bottom parts are matched so that mounting of the same or next smaller size is possible. Please note the details in the corresponding column of the dimensional specifications.

### Linear measuring system

The attachment of a direct linear measurement system is possible. The slides with linear motor drive are equipped with a linear measuring system as standard. It is integral with the table. Further information can be found in table 3 on page 7.

### Motor flange

The slides with ball screw drives can be equipped with a motor flange and coupling on request. When ordering please indicate the motor manufacturer, model and type.

### Indirect toothed belt drive

If space is restricted, an indirect drive using a toothed belt may be the best choice. The motor can be mounted on either the right or left hand side. Standard transmission ratio 1:1.

### Linear motor control units and control components

The following components are available for controlling the linear motors:

- Dividing electronics for measuring system, integrated in the table
- Servo module
- Point-to-point or continuous path control

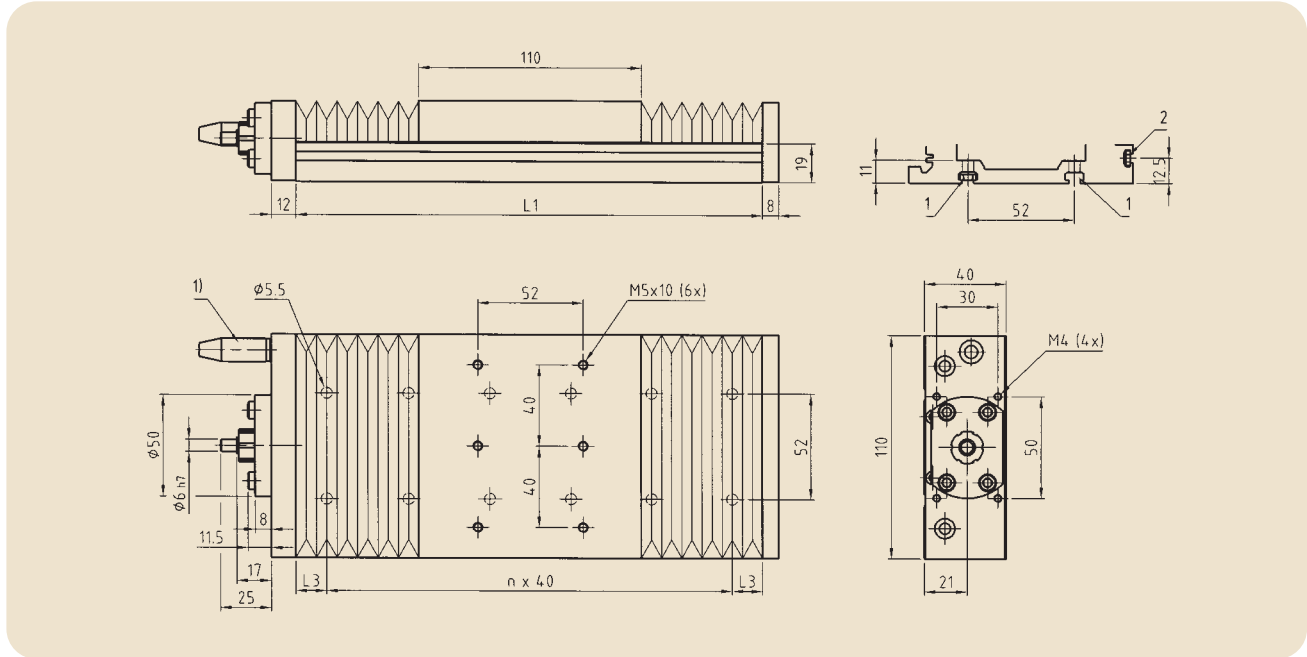
Further information available on request or in the offer as submitted.

## Notes



# Rail guide tables with ball screw drive with or without bellows

T slots in bottom part:  
 Slot 1: for square nut DIN 562 M5  
 Slot 2: for square nut DIN 562 M4



<sup>1)</sup> Plug connection for limit and reference switches (optional)

Direction of travel - <---> +

Length			2) KN	Stroke <sup>3)</sup>		Screw data		Weight <sup>4)</sup>	
L1	L3	n		S1	S2	SH1205 n <sub>max</sub>	TN1205+1210 n <sub>max</sub>	G <sub>A</sub>	G <sub>0</sub>
mm			-	mm		1/min		kg	
150	15	3		10	30	4 160	7 500	1,7	0,8
190	15	4	x	35	70	4 160	7 500	1,6	
230	15	5		60	110	4 160	7 500	1,8	
270	15	6	x	80	150	4 160	7 500	2,0	
310	15	7		105	190	4 160	7 500	2,2	
350	15	8	x	130	230	4 160	7 500	2,4	
390	15	9		155	270	4 160	7 500	2,6	
430	15	10	x	180	310	4 160	7 500	2,7	
470	15	11		205	350	4 160	7 500	2,9	
510	15	12	x	225	390	4 160	7 500	3,1	
550	15	13		250	430	4 160	6 370	3,3	
590	15	14	x	275	470	4 160	5 420	3,5	
630	15	15		300	510	4 160	4 670	3,6	
670	15	16	x	325	550	3 900	4 060	3,8	
710	15	17		350	590	3 420	3 570	4,0	
750	15	18	x	375	630	3 030	3 160	4,2	
790	15	19		395	670	2 700	2 810	4,4	
830	15	20	x	420	710	2 420	2 520	4,5	
870	15	21		445	750	2 180	2 280	4,7	
910	15	22	x	470	790	1 980	2 060	4,9	
950	15	23		495	830	1 800	1 880	5,1	

<sup>2)</sup> Suitable as top axis for central cross table mounting

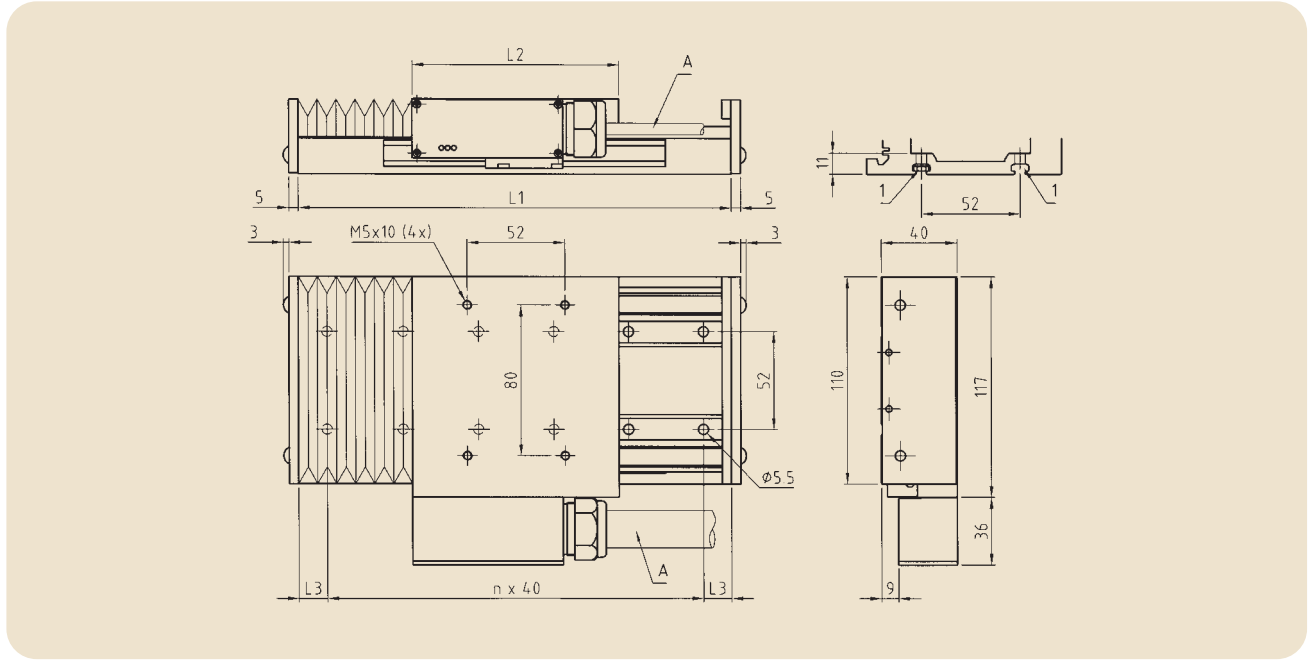
<sup>3)</sup> Maximum stroke between end stops:  
 S1 with bellows (standard version)  
 S2 without bellows (special version)

<sup>4)</sup> G<sub>A</sub> = Total mass of table  
 G<sub>0</sub> = Mobile mass of table top



# Rail guide tables with linear motor drive with or without bellows

T slots in bottom part:  
 Slot 1: for square nut DIN 562 M5



A cable output for motor and measuring system. Flat ribbon cable 20 x 6.3 mm

Direction of travel: - <----> +

Length			F20906					F21806					F22706				
L1	L3	n	2) KN	4) G <sub>0</sub>	L2	Stroke <sup>3)</sup>		5) G <sub>0</sub>	L2	Stroke <sup>3)</sup>		5) G <sub>0</sub>	L2	Stroke <sup>3)</sup>		5) G <sub>0</sub>	
mm	mm	-		kg	mm	S1	S2	kg	mm	S1	S2	kg	mm	S1	S2	kg	
150	15	3		1,3	110	10	30	0,9	190			1,5	280			2,1	
190	15	4	x	1,5		35	70										
230	15	5		2,0		60	110			10	30						
270	15	6	x	2,2		80	150			35	70						
310	15	7		2,5		105	190			60	110						
350	15	8	x	2,9		130	230			80	150			30	60		
390	15	9		3,2		155	270			105	190			55	100		
430	15	10	x	3,5		180	310			130	230			75	140		
470	15	11		3,9		205	350			155	270			100	180		
510	15	12	x	4,1		225	390			180	310			125	220		
550	15	13		4,4		250	430			205	350			150	260		
590	15	14	x	4,8		275	470			225	390			175	300		
630	15	15		5,1		300	510			250	430			200	340		
670	15	16	x	5,4		325	550			275	470			225	380		
710	15	17		5,8		350	590			300	510			245	420		
750	15	18	x	6,0		375	630			325	550			270	460		
790	15	19		6,3		395	670			350	590			295	500		
830	15	20	x	6,7		420	710			375	630			320	540		
870	15	21		7,0		445	750			395	670			345	580		
910	15	22	x	7,3		470	790			420	710			370	620		
950	15	23		7,7		495	830			445	750			390	660		

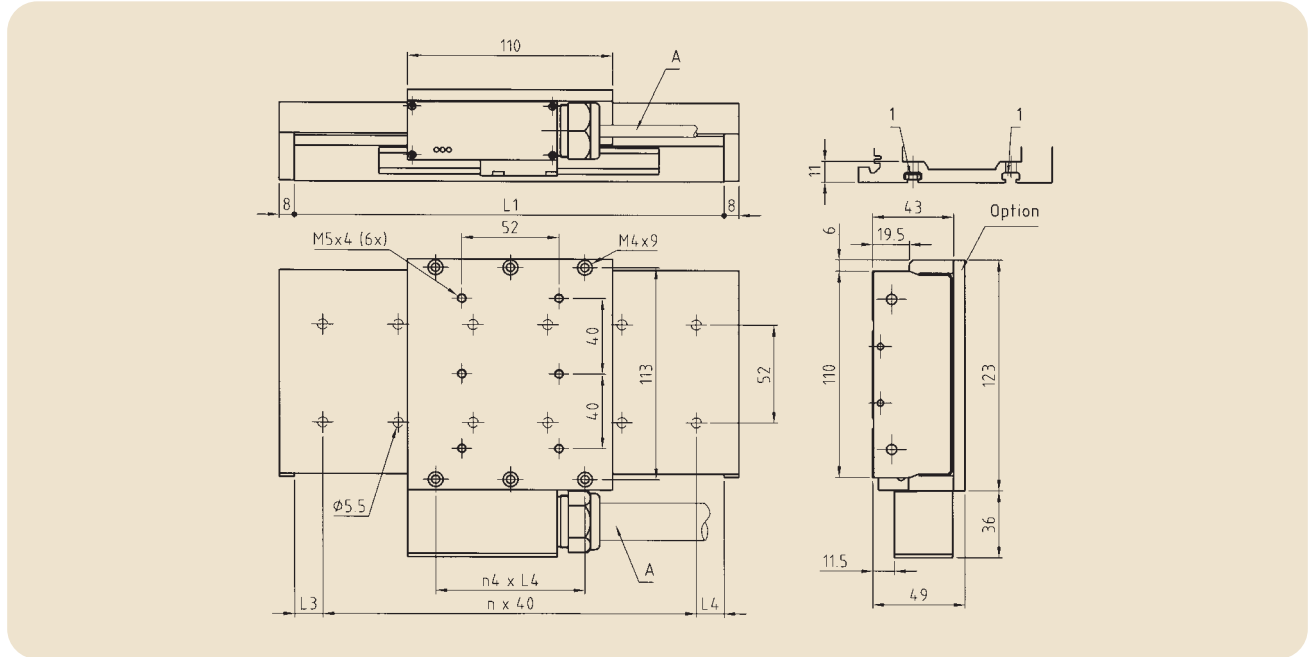
<sup>2)</sup> Suitable as top axis for central cross table mounting

<sup>3)</sup> Maximum stroke between end stops:  
 S1 with bellows (standard version)  
 S2 without bellows (special version)

<sup>4)</sup> G<sub>0</sub> = Stationary mass of bottom part  
 G<sub>0</sub> = Mobile mass of table top

# Rail guide tables with linear motor drive with steel cover

T slots in bottom part:  
Slot 1: for square nut DIN 562 M5



A cable output for motor and measuring system. Flat ribbon cable 20 x 6.3 mm

Direction of travel: - <---> +

Length			F20906					F21806				F22706				
L1	L3	n	2) KN	4) G <sub>U</sub>	Stroke <sup>3)</sup>	5) G <sub>0</sub>	L2	S	n <sub>4xL4</sub>	Stroke <sup>3)</sup>	G <sub>0</sub>	L2	S	n <sub>4xL4</sub>	Stroke <sup>3)</sup>	G <sub>0</sub>
mm	mm	-		kg	mm	kg	mm	mm	mm	mm	kg	mm	mm	mm	mm	kg
150	15	3		1,3	110	30	2x40	1,2	190		4x40	2,0	280		6x40	2,8
190	15	4	x	1,6		70										
230	15	5		2,1		110			30							
270	15	6	x	2,3		150			70							
310	15	7		2,6		190			110							
350	15	8	x	3,1		230			150							
390	15	9		3,4		270			190						60	
430	15	10	x	3,7		310			230						140	
470	15	11		4,1		350			270						180	
510	15	12	x	4,4		390			310						220	
550	15	13		4,7		430			350						260	
590	15	14	x	5,1		470			390						300	
630	15	15		5,4		510			430						340	
670	15	16	x	5,7		550			470						380	
710	15	17		6,1		590			510						420	
750	15	18	x	6,4		630			550						460	
790	15	19		6,7		670			590						500	
830	15	20	x	7,1		710			630						540	
870	15	21		7,4		750			670						580	
910	15	22	x	7,7		790			710						620	
950	15	23		8,2		830			750						660	

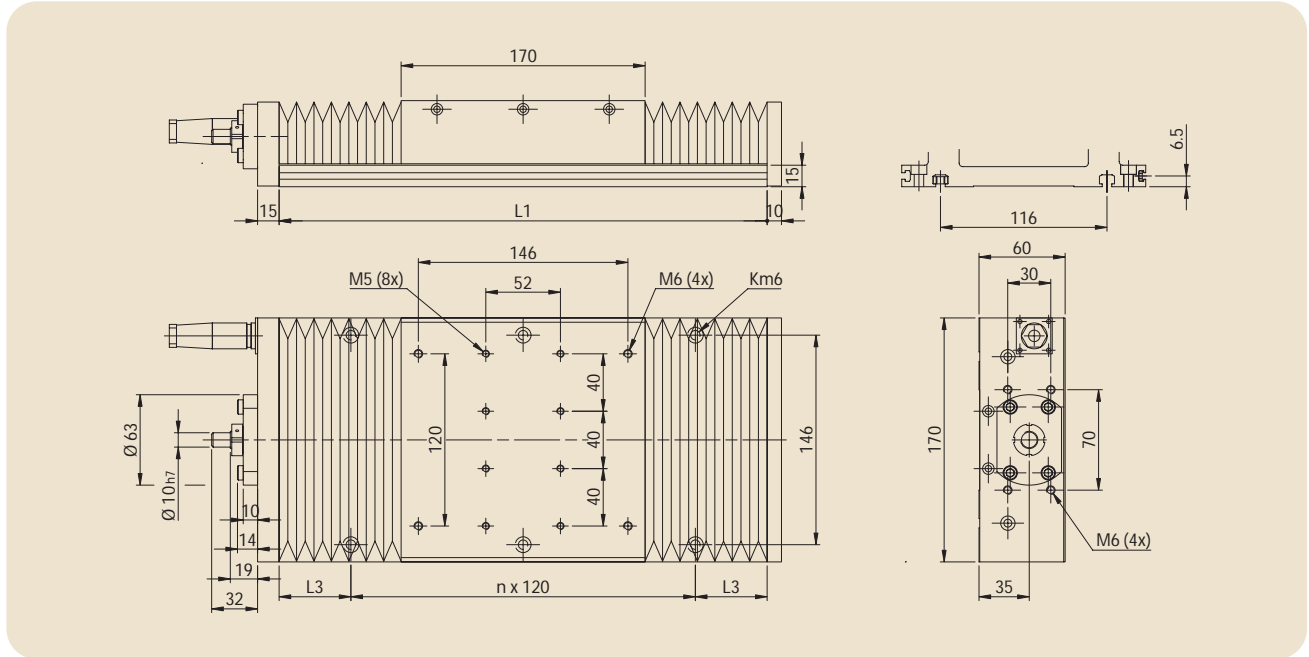
<sup>2)</sup> Suitable as top axis for central cross table mounting

<sup>3)</sup> Maximum stroke between end stops

<sup>4)</sup> G<sub>U</sub> = Stationary mass of bottom part  
G<sub>0</sub> = Mobile mass of table top

# Rail guide tables with ball screw drive with or without bellows

T slots in bottom part:  
 Slot 1: for square nut DIN 562 M6  
 Slot 2: for square nut DIN 562 M4



<sup>1)</sup> Plug connection for limit and reference switches (optional)

Direction of travel: - <----> +

Length			2) KN	Stroke <sup>3)</sup>		Screw data				Weight <sup>4)</sup>	
L1	L3	n		S1	S2	SH1605 n <sub>max</sub>	TN1605 n <sub>max</sub>	TN1610 n <sub>max</sub>	TN1616 n <sub>max</sub>	G <sub>A</sub>	G <sub>O</sub>
mm	mm	mm	mm	mm	mm	1/min	1/min	1/min	1/min	kg	kg
220	50	1	x	25	40	3 120	5 620	5 620	5 620	5,7	2,3
280	20	2		70	100	3 120	5 620	5 620	5 620	6,4	
340	50	2		115	160	3 120	5 620	5 620	5 620	7,1	
400	20	3	x	160	220	3 120	5 620	5 620	5 620	7,8	
460	50	3	x	205	280	3 120	5 620	5 620	5 620	8,5	
520	20	4		250	340	3 120	5 620	5 620	5 620	9,2	
580	50	4		295	400	3 120	5 620	5 620	5 620	9,9	
640	20	5	x	345	460	3 120	5 620	5 620	5 620	10,6	
700	50	5	x	390	520	3 120	5 620	5 620	5 620	11,3	
760	20	6		435	580	3 120	4 670	4 670	4 670	12,0	
820	50	6		485	640	3 120	3 900	3 900	3 900	12,7	
880	20	7	x	525	700	3 120	3 300	3 300	3 300	13,4	
940	50	7	x	570	760	2 830	2 830	2 830	2 830	14,1	
1 000	20	8		615	820	2 460	2 460	2 460	2 460	14,8	
1 060	50	8		665	880	2 150	2 150	2 150	2 150	15,6	
1 120	20	9	x	710	940	1 900	1 900	1 900	1 900	16,3	
1 180	50	9	x	755	1 000	1 690	1 690	1 690	1 690	17,0	
1 240	20	10		805	1 060	1 510	1 510	1 510	1 510	17,7	
1 300	50	10		845	1 120	1 360	1 360	1 360	1 360	18,4	
1 360	20	11	x	890	1 180	1 230	1 230	1 230	1 230	19,1	
1 420	50	11	x	935	1 240	1 120	1 120	1 120	1 120	19,8	
1 480	20	12		985	1 300	1 020	1 020	1 020	1 020	20,5	
1 540	50	12		1 030	1 360	930	930	930	930	21,2	
1 600	20	13	x	1 075	1 420	860	860	860	860	21,9	

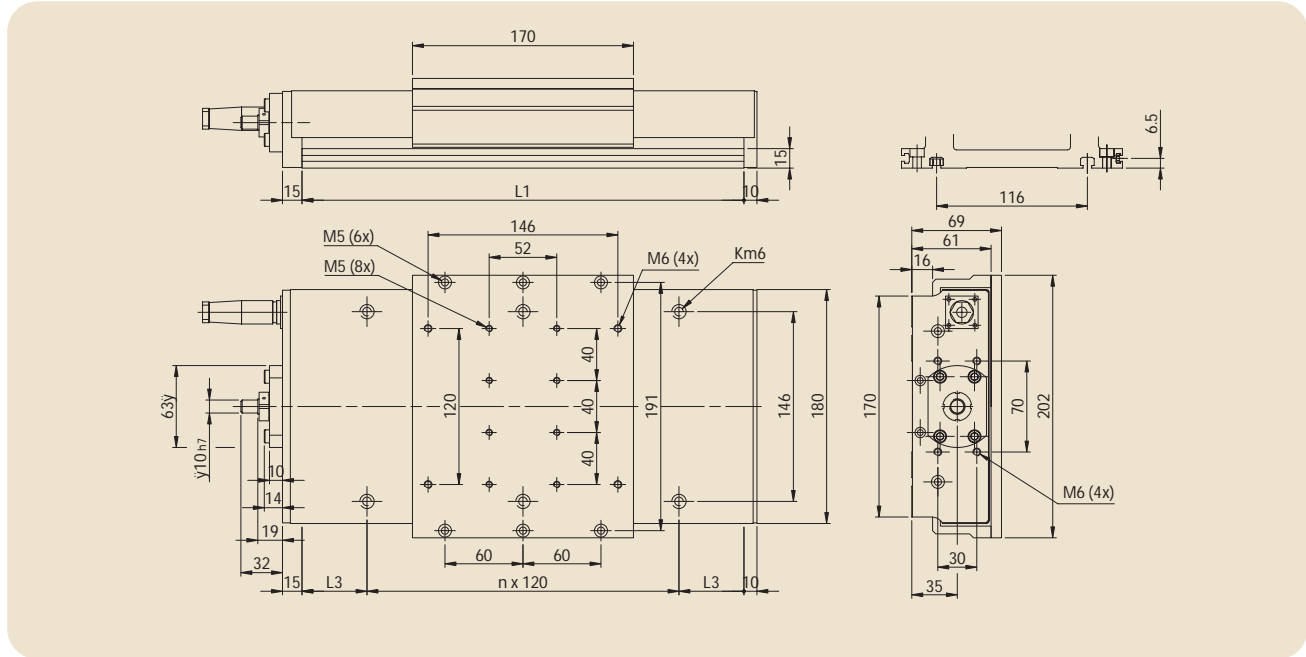
<sup>2)</sup> Suitable as top axis for central cross table mounting

<sup>3)</sup> Maximum stroke between end stops:  
 S1 with bellows (standard version)  
 S2 without bellows (special version)

<sup>4)</sup> G<sub>A</sub> = Total weight of table  
 G<sub>O</sub> = Weight of mobile mass of table top

# Rail guide tables with ball screw drive with steel cover

T slots in bottom part:  
 Slot 1: for square nut DIN 562 M6  
 Slot 2: for square nut DIN 562 M4



<sup>1)</sup> Plug connection for limit and reference switches (optional)

Direction of travel: - <---> +

Length			2) KN	Stroke <sup>3)</sup> S	Screw data				Weight <sup>4)</sup>	
L1	L3	n			SH1605 n <sub>max</sub>	TN1605 n <sub>max</sub>	TN1610 n <sub>max</sub>	TN1616 n <sub>max</sub>	G <sub>A</sub>	G <sub>0</sub>
mm			-	mm	1/min				kg	
220	50	1	x	40	3 120	5 620	5 620	5 620	6,9	3,3
280	20	2		100	3 120	5 620	5 620	5 620	7,7	
340	50	2		160	3 120	5 620	5 620	5 620	8,4	
400	20	3	x	220	3 120	5 620	5 620	5 620	9,2	
460	50	3	x	280	3 120	5 620	5 620	5 620	9,9	
520	20	4		340	3 120	5 620	5 620	5 620	10,7	
580	50	4		400	3 120	5 620	5 620	5 620	11,5	
640	20	5	x	460	3 120	5 620	5 620	5 620	12,2	
700	50	5	x	520	3 120	5 620	5 620	5 620	13,0	
760	20	6		580	3 120	4 670	4 670	4 670	13,8	
820	50	6		640	3 120	3 900	3 900	3 900	14,5	
880	20	7	x	700	3 120	3 300	3 300	3 300	15,3	
940	50	7	x	760	2 830	2 830	2 830	2 830	16,0	
1 000	20	8		820	2 460	2 460	2 460	2 460	16,8	
1 060	50	8		880	2 150	2 150	2 150	2 150	17,6	
1 120	20	9	x	940	1 900	1 900	1 900	1 900	18,3	
1 180	50	9	x	1 000	1 690	1 690	1 690	1 690	19,1	
1 240	20	10		1 060	1 510	1 510	1 510	1 510	19,9	
1 300	50	10		1 120	1 360	1 360	1 360	1 360	20,6	
1 360	20	11	x	1 180	1 230	1 230	1 230	1 230	21,4	
1 420	50	11	x	1 240	1 120	1 120	1 120	1 120	22,1	
1 480	20	12		1 300	1 020	1 020	1 020	1 020	22,9	
1 540	50	12		1 360	930	930	930	930	23,7	
1 600	20	13	x	1 420	860	860	860	860	24,4	

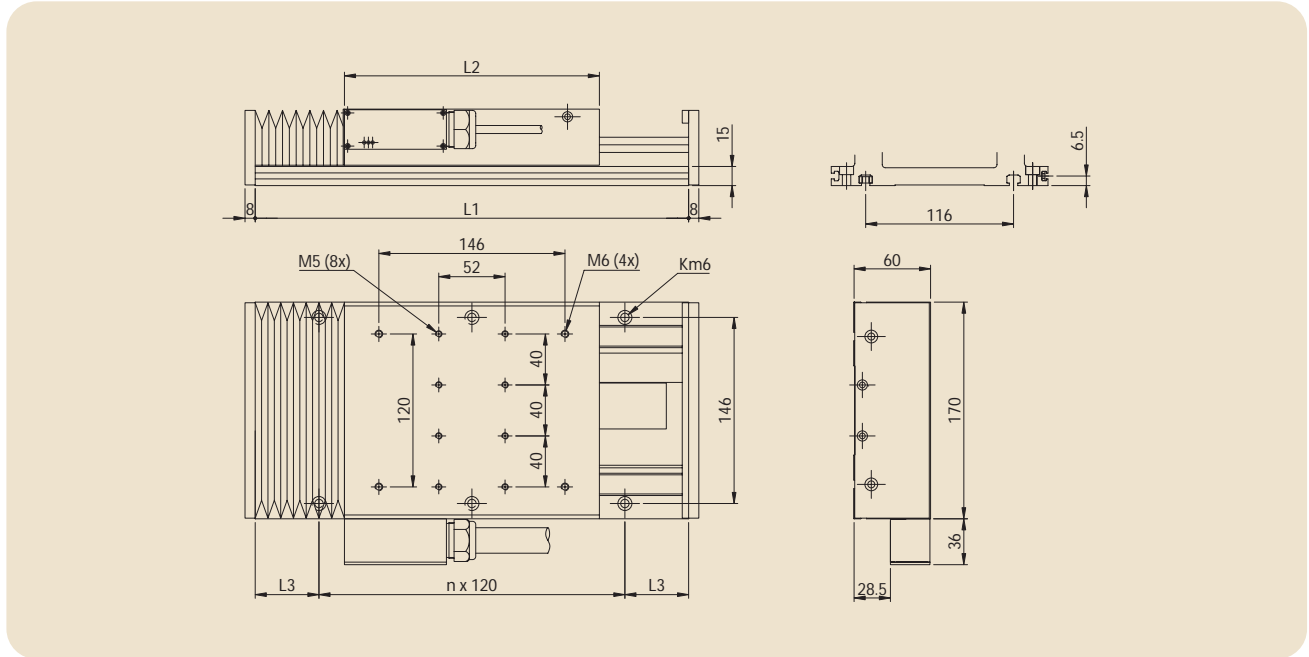
<sup>2)</sup> Suitable as top axis for central cross table mounting

<sup>3)</sup> Maximum stroke between end stops

<sup>4)</sup> G<sub>A</sub> = Stationary mass of bottom part  
 G<sub>0</sub> = Mobile mass of table top

# Rail guide tables with linear motor drive with or without bellows

T slots in bottom part:  
 Slot 1: for square nut DIN 562 M6  
 Slot 2: for square nut DIN 562 M4



A cable output for motor and measuring system. Flat ribbon cable 20 x 6.3 mm

Direction of travel: - <----> +

Length			F21806					F22706				
L1	L3	n	2) KN	4) G <sub>U</sub>	L2	Stroke <sup>3)</sup>		5) G <sub>0</sub>	L2	Stroke <sup>3)</sup>		5) G <sub>0</sub>
mm		-		kg	mm	S1	S2	kg	mm	S1	S2	kg
280	20	2		4,5	200	45	70	3,0	280			3,9
340	50	2		5,3		95	130			30	50	
400	20	3	x	6,2		140	190			80	110	
460	50	3	x	7,1		180	250			125	170	
520	20	4		8,0		230	310			165	230	
580	50	4		8,9		275	370			210	290	
640	20	5	x	9,8		320	430			260	350	
700	50	5	x	10,7		365	490			305	410	
760	20	6		11,5		415	550			350	470	
820	50	6		12,4		460	610			400	530	
880	20	7	x	13,3		500	670			445	590	
940	50	7	x	14,2		550	730			485	650	
1 000	20	8		15,1		595	790			530	710	
1 060	50	8		16,0		640	850			580	770	
1 120	20	9	x	16,9		685	910			625	830	
1 180	50	9	x	17,7		735	970			670	890	
1 240	20	10		18,6		780	1 030			720	950	
1 300	50	10		19,5		820	1 090			765	1 010	
1 360	20	11	x	20,4		870	1 150			810	1 070	
1 420	50	11	x	21,3		915	1 210			850	1 130	
1 480	20	12		22,2		960	1 270			900	1 190	
1 540	50	12		23,1		1 005	1 330			945	1 250	
1 600	20	13	x	23,9		1 055	1 390			990	1 310	

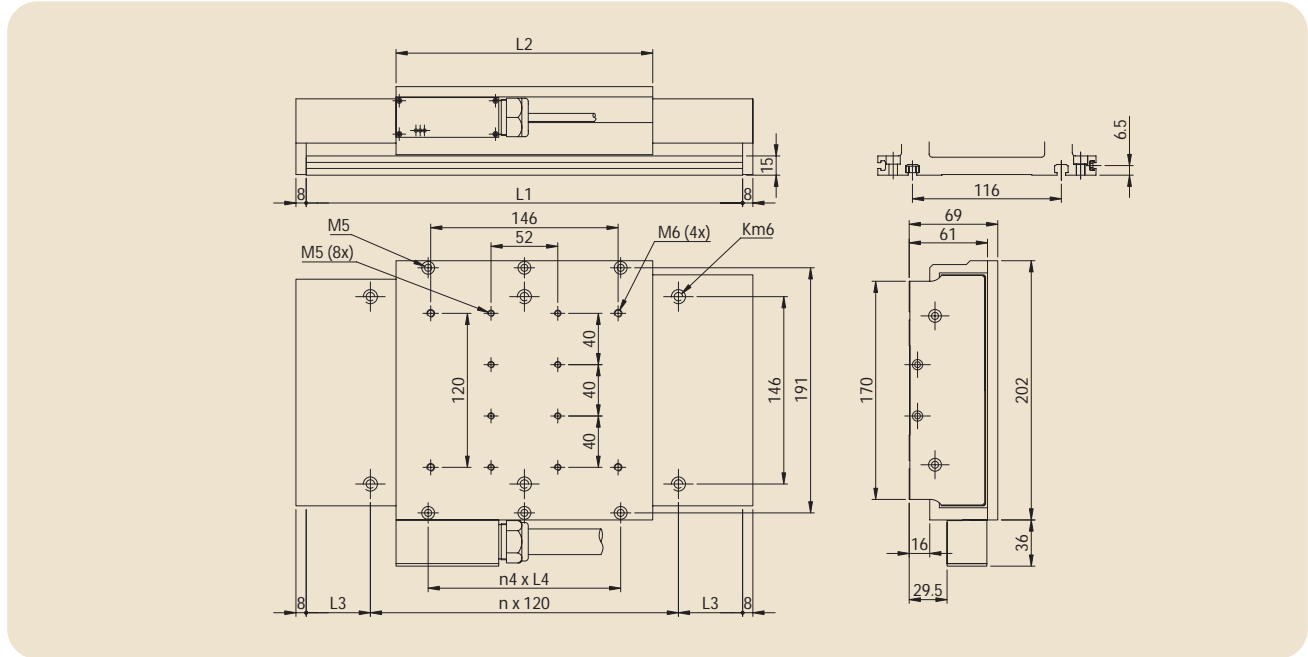
<sup>2)</sup> Suitable as top axis for central cross table mounting

<sup>3)</sup> Maximum stroke between end stops:  
 S1 with bellows (standard version)  
 S2 without bellows (special version)

<sup>4)</sup> G<sub>U</sub> = Stationary mass of bottom part  
<sup>5)</sup> G<sub>0</sub> = Mobile mass of table top

# Rail guide tables with linear motor drive with steel cover

T slots in bottom part:  
 Slot 1: for square nut DIN 562 M6  
 Slot 2: for square nut DIN 562 M4



A cable output for motor and measuring system. Flat ribbon cable 20 x 6.3 mm

Direction of travel: - <----> +

Length				F21806					F22706				
L1	L3	n	2) KN	4) G <sub>U</sub>	L2	Stroke <sup>3)</sup> S	n <sub>4xL4</sub>	5) G <sub>0</sub>	L2	Stroke <sup>3)</sup> S	n <sub>4xL4</sub>	5) G <sub>0</sub>	
mm				kg	mm			kg	mm			kg	
280	20	2		4,5	200	70	2x75	4,2	280		3x75	5,6	
340	50	2		5,4		130				50			
400	20	3	x	6,3		190				110			
460	50	3	x	7,2		250				170			
520	20	4		8,1		310				230			
580	50	4		9,0		370				290			
640	20	5	x	9,8		430				350			
700	50	5	x	10,7		490				410			
760	20	6		11,6		550				470			
820	50	6		12,5		610				530			
880	20	7	x	13,4		670				590			
940	50	7	x	14,3		730				650			
1 000	20	8		15,2		790				710			
1 060	50	8		16,1		850				770			
1 120	20	9	x	17,0		910				830			
1 180	50	9	x	17,9		970				890			
1 240	20	10		18,8		1 030				950			
1 300	50	10		19,7		1 090				1 010			
1 360	20	11	x	20,5		1 150				1 070			
1 420	50	11	x	21,4		1 210				1 130			
1 480	20	12		22,3		1 270				1 190			
1 540	50	12		23,2		1 330				1 250			
1 600	20	13	x	24,1		1 390				1 310			

<sup>2)</sup> Suitable as top axis for central cross table mounting

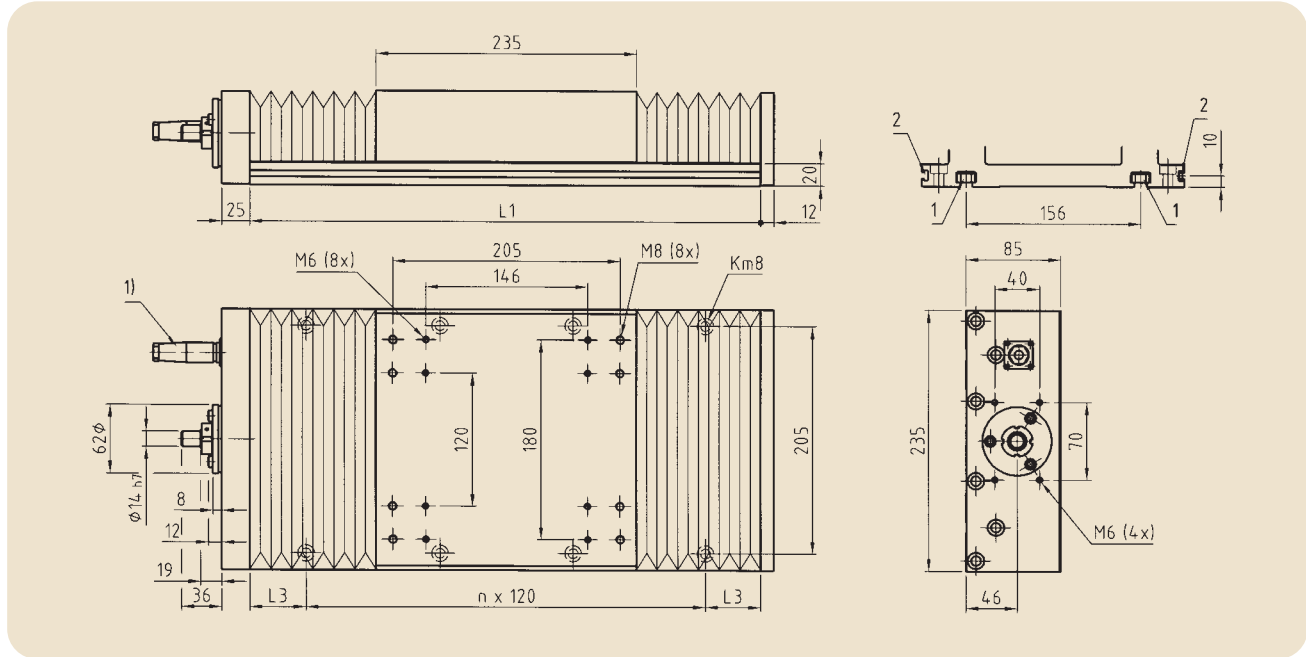
<sup>3)</sup> Maximum stroke between end stops

<sup>4)</sup> G<sub>U</sub> = Stationary mass of bottom part  
<sup>5)</sup> G<sub>0</sub> = Mobile mass of table top



## Rail guide tables with ball screw drive with or without bellows

T slots in bottom part:  
 Slot 1: for square nut DIN 562 M10  
 Slot 2: for square nut DIN 562 M5



<sup>1)</sup> Plug connection for limit and reference switches (optional)

Direction of travel: - <----> +

Length			2) KN	Stroke <sup>3)</sup>		Screw data				Weight <sup>4)</sup>	
L1	L3	n		S1	S2	SX2505 n <sub>max</sub>	TN2505 n <sub>max</sub>	SX2510 n <sub>max</sub>	TN2510+2520+2525 n <sub>max</sub>	G <sub>A</sub>	G <sub>0</sub>
mm	mm	mm	mm	mm	1/min					kg	
1 600	20	13	x	1 130	1 355	1 530	1 520	1 440	1 520	44,5	5,9
1 660	50	13	x	1 180	1 415	1 410	1 400	1 330	1 400	45,8	
1 720	20	14		1 230	1 475	1 300	1 290	1 230	1 290	47,2	
1 780	50	14		1 280	1 535	1 210	1 200	1 140	1 200	48,6	
1 840	20	15	x	1 335	1 595	1 120	1 120	1 060	1 120	49,9	
1 900	50	15	x	1 380	1 655	1 050	1 040	990	1 040	51,3	
1 960	20	16		1 430	1 715	980	970	920	970	52,7	
2 020	50	16		1 480	1 775	920	920	870	910	54,0	
2 080	20	17	x	1 530	1 835	860	860	810	860	55,4	
2 140	50	17	x	1 580	1 895	810	800	760	800	56,7	
2 200	20	18		1 635	1 955	760	760	720	760	58,1	
2 260	50	18		1 685	2 015	720	720	680	720	59,5	
2 320	20	19	x	1 735	2 075	680	608	640	680	60,8	
2 380	50	19	x	1 785	2 135	640	640	610	640	62,2	
2 440	20	20		1 835	2 195	610	610	580	610	63,6	
2 500	50	20		1 880	2 255	580	580	550	580	64,9	
2 560	20	21	x	1 930	2 315	550	550	520	550	66,3	
2 620	50	21	x	1 985	2 375	520	520	490	520	67,6	
2 680	20	22		2 035	2 435	500	500	470	500	69,0	
2 740	50	22		2 085	2 495	480	470	450	470	70,4	
2 800	20	23	x	2 135	2 555	450	450	430	450	71,7	
2 860	50	23	x	2 185	2 615	430	430	410	430	73,1	

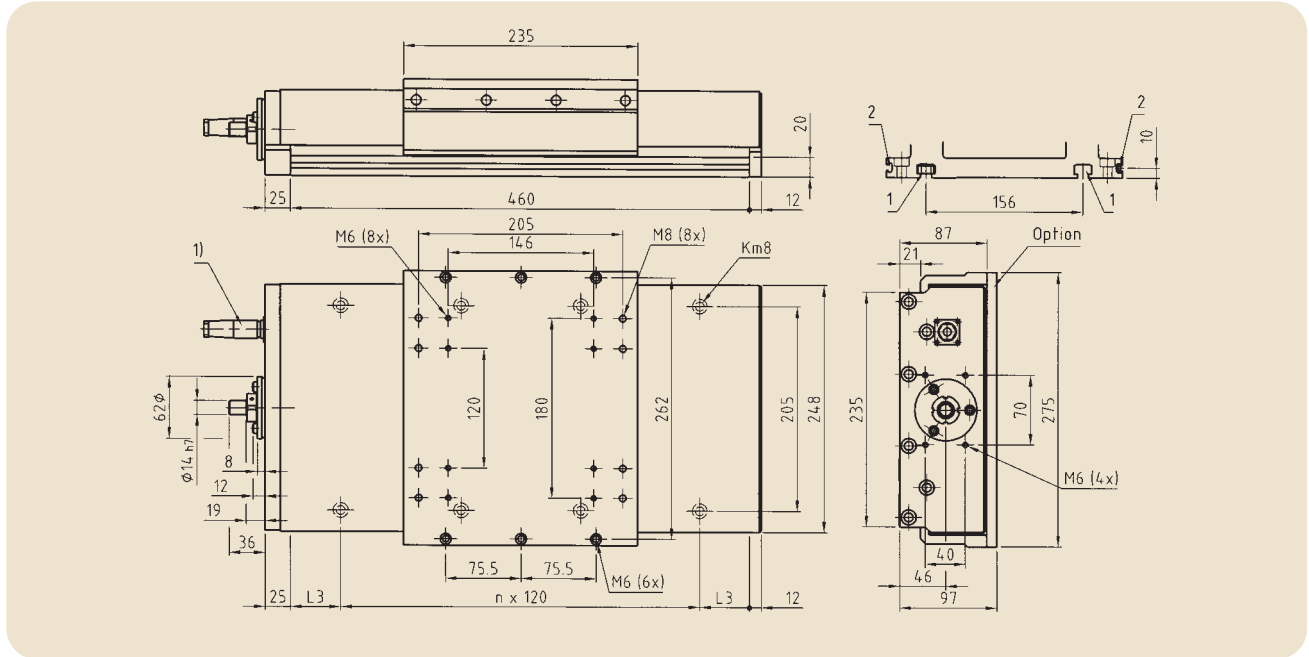
<sup>2)</sup> Suitable as top axis for central cross table mounting

<sup>3)</sup> Maximum stroke between end stops:  
 S1 with bellows (standard version)  
 S2 without bellows (special version)

<sup>4)</sup> G<sub>A</sub> = Total weight of table  
 G<sub>0</sub> = Weight of mobile mass of table top

# Rail guide tables with ball screw drive with steel cover

T slots in bottom part:  
 Slot 1: for square nut DIN 562 M10  
 Slot 2: for square nut DIN 562 M5



1) Plug connection for limit and reference switches (optional)

Direction of travel: - <----> +

Length			2) KN	Stroke <sup>3)</sup> S	Screw data				Weight <sup>4)</sup>	
L1	L3	n			SX2505 n <sub>max</sub>	TN2505 n <sub>max</sub>	SX2510 n <sub>max</sub>	TN2510+2520+2525 n <sub>max</sub>	G <sub>A</sub>	G <sub>0</sub>
mm			-	mm	1/min				kg	
280	20	2		35	2 000	3 600	2 000	3 600	18,1	8,5
340	50	2		95	2 000	3 600	2 000	3 600	19,6	
400	20	3	x	155	2 000	3 600	2 000	3 600	21,1	
460	50	3	x	215	2 000	3 600	2 000	3 600	22,7	
520	20	4		275	2 000	3 600	2 000	3 600	24,2	
580	50	4		335	2 000	3 600	2 000	3 600	25,7	
640	20	5	x	395	2 000	3 600	2 000	3 600	27,3	
700	50	5	x	455	2 000	3 600	2 000	3 600	28,8	
760	20	6		515	2 000	3 600	2 000	3 600	30,3	
820	50	6		575	2 000	3 600	2 000	3 600	31,8	
880	20	7	x	635	2 000	3 600	2 000	3 600	33,4	
940	50	7	x	695	2 000	3 600	2 000	3 600	34,9	
1 000	20	8		755	2 000	3 600	2 000	3 600	36,4	
1 060	50	8		815	2 000	3 600	2 000	3 600	37,9	
1 120	20	9	x	875	2 000	3 390	2 000	3 380	39,5	
1 180	50	9	x	935	2 000	3 010	2 000	2 990	41,0	
1 240	20	10		995	2 000	2 690	2 000	2 670	42,5	
1 300	50	10		1 055	2 000	2 410	2 000	2 400	44,1	
1 360	20	11	x	1 115	2 000	2 180	2 000	2 170	45,6	
1 420	50	11	x	1 175	1 990	1 980	1 880	1 970	47,1	
1 480	20	12		1 235	1 810	1 800	1 710	1 800	48,6	
1 540	50	12		1 295	1 660	1 650	1 570	1 640	50,2	
1 600	20	13	x	1 355	1 530	1 520	1 440	1 510	51,7	
1 660	50	13	x	1 415	1 410	1 400	1 330	1 390	53,2	

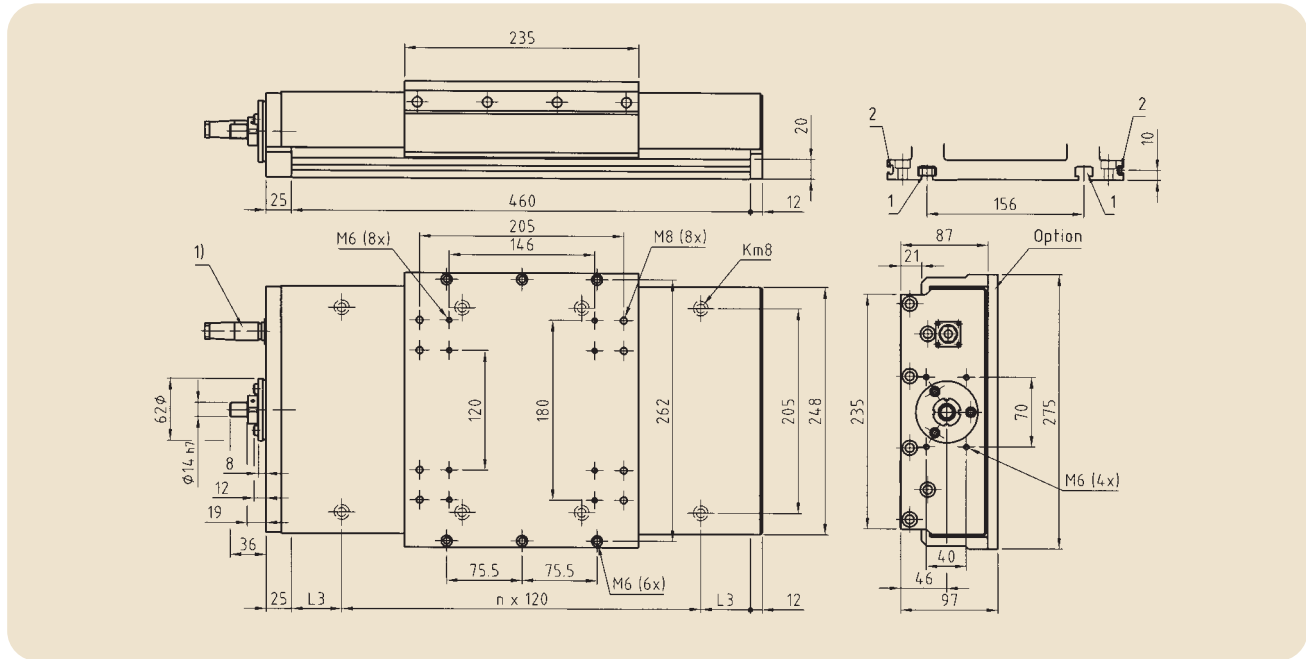
2) Suitable as top axis for central cross table mounting

3) Maximum stroke between end stops

4) G<sub>A</sub> = Total weight of table  
 G<sub>0</sub> = Weight of mobile mass of table top

# Rail guide tables with ball screw drive with steel cover

T slots in bottom part:  
 Slot 1: for square nut DIN 562 M10  
 Slot 2: for square nut DIN 562 M5



<sup>1)</sup> Plug connection for limit and reference switches (optional)

Direction of travel: - <----> +

Length			2) KN	Stroke <sup>3)</sup> S	Screw data				Weight <sup>4)</sup>	
L1	L3	n			SX2505 n <sub>max</sub>	TN2505 n <sub>max</sub>	SX2510 n <sub>max</sub>	TN2510+2520+2525 n <sub>max</sub>	G <sub>A</sub>	G <sub>0</sub>
mm			-	mm	1/min				kg	
1 720	20	14		1 475	1 300	1 290	1 230	1 290	54,7	8,5
1 780	50	14		1 535	1 210	1 200	1 140	1 200	56,3	
1 840	20	15	x	1 595	1 120	1 120	1 060	1 110	57,8	
1 900	50	15	x	1 655	1 050	1 040	990	1 040	59,3	
1 960	20	16		1 715	980	970	920	970	60,9	
2 020	50	16		1 775	920	910	870	910	62,4	
2 080	20	17	x	1 835	860	860	810	860	63,9	
2 140	50	17	x	1 895	810	800	760	800	65,4	
2 200	20	18		1 955	760	760	720	760	67,0	
2 260	50	18		2 015	720	720	680	720	68,5	
2 320	20	19	x	2 075	680	680	640	680	70,0	
2 380	50	19	x	2 135	640	640	610	640	71,5	
2 440	20	20		2 195	610	610	580	610	73,1	
2 500	50	20		2 255	580	580	550	580	74,6	
2 560	20	21	x	2 315	550	550	520	550	76,1	
2 620	50	21	x	2 375	520	520	490	520	77,7	
2 680	20	22		2 435	500	500	470	500	79,2	
2 740	50	22		2 495	480	470	450	470	80,7	
2 800	20	23	x	2 555	450	450	430	450	82,2	
2 860	50	23	x	2 615	430	430	410	430	83,8	

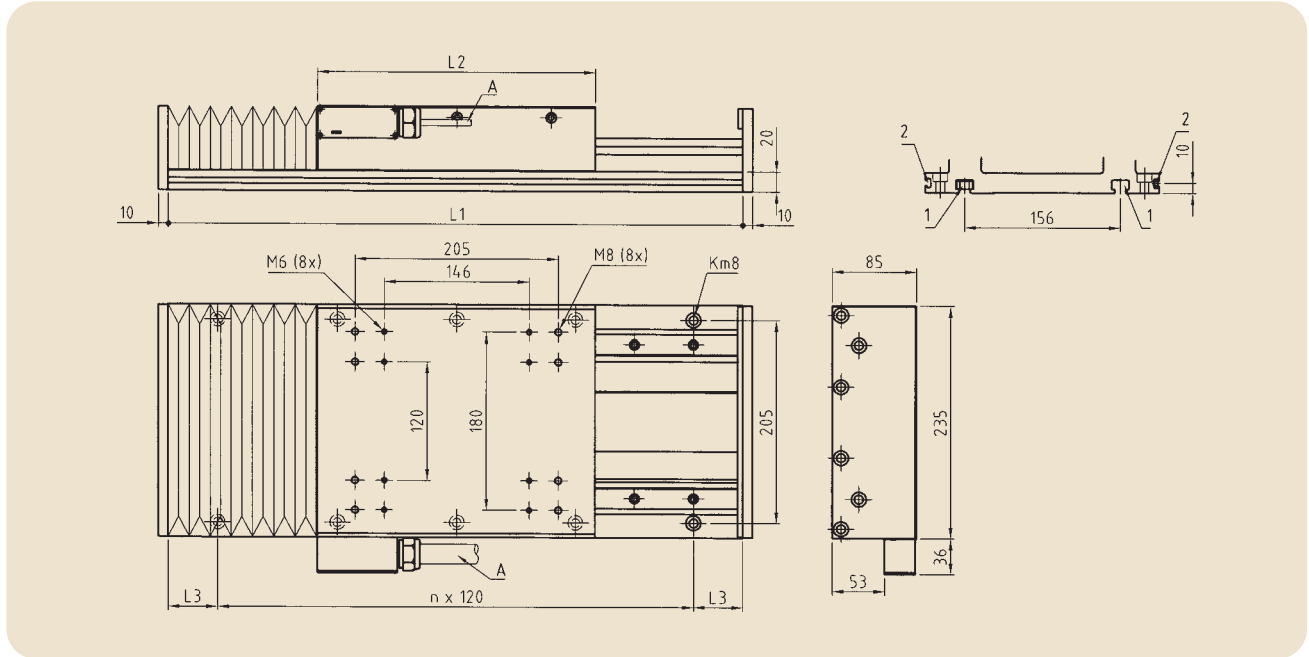
<sup>2)</sup> Suitable as top axis for central cross table mounting

<sup>3)</sup> Maximum stroke between end stops

<sup>4)</sup> G<sub>A</sub> = Total weight of table  
 G<sub>0</sub> = Weight of mobile mass of table top

# Rail guide tables with linear motor drive with or without bellows

T slots in bottom part:  
 Slot 1: for square nut DIN 562 M10  
 Slot 2: for square nut DIN 562 M5



A cable output for motor and measuring system. Flat ribbon cable 20 x 6.3 mm

Direction of travel: - <---> +

Length			A32008					A33008				AC34008				
L1	L3	n	2) KN	4) G <sub>0</sub>	L2	Stroke <sup>3)</sup> S1 S2		5) G <sub>0</sub>	L2	Stroke <sup>3)</sup> S1 S2		5) G <sub>0</sub>	L2	Stroke <sup>3)</sup> S1 S2		5) G <sub>0</sub>
mm		-		kg	mm			kg	mm			kg	mm			kg
340	50	2		8,8	235	75	95	8,0	320			10,6	410			13,1
400	20	3	x	10,2		125	155			55	70					
460	50	3	x	11,6		175	215			105	130					
520	20	4		12,9		225	275			155	190			80	100	
580	50	4		14,3		270	335			205	250			130	160	
640	20	5	x	15,7		325	395			250	310			180	220	
700	50	5	x	17,1		375	455			300	370			230	280	
760	20	6		18,4		425	515			350	430			275	340	
820	50	6		19,8		475	575			405	490			325	400	
880	20	7	x	21,2		525	635			455	550			380	460	
940	50	7	x	22,6		575	695			505	610			430	520	
1 000	20	8		23,9		625	755			555	670			480	580	
1 060	50	8		25,3		680	815			605	730			530	640	
1 120	20	9	x	26,7		730	875			655	790			580	700	
1 180	50	9	x	28,1		780	935			710	850			630	760	
1 240	20	10		29,4		825	995			760	910			680	820	
1 300	50	10		30,8		875	1 055			805	970			735	880	
1 360	20	11	x	32,2		925	1 115			855	1 030			785	940	
1 420	50	11	x	33,6		980	1 175			905	1 090			830	1 000	
1 480	20	12		34,9		1 030	1 235			955	1 150			880	1 060	
1 540	50	12		36,3		1 080	1 295			1 005	1 210			930	1 120	
1 600	20	13	x	37,7		1 130	1 355			1 060	1 270			980	1 180	
1 660	50	13	x	39,1		1 180	1 415			1 110	1 330			1 035	1 240	

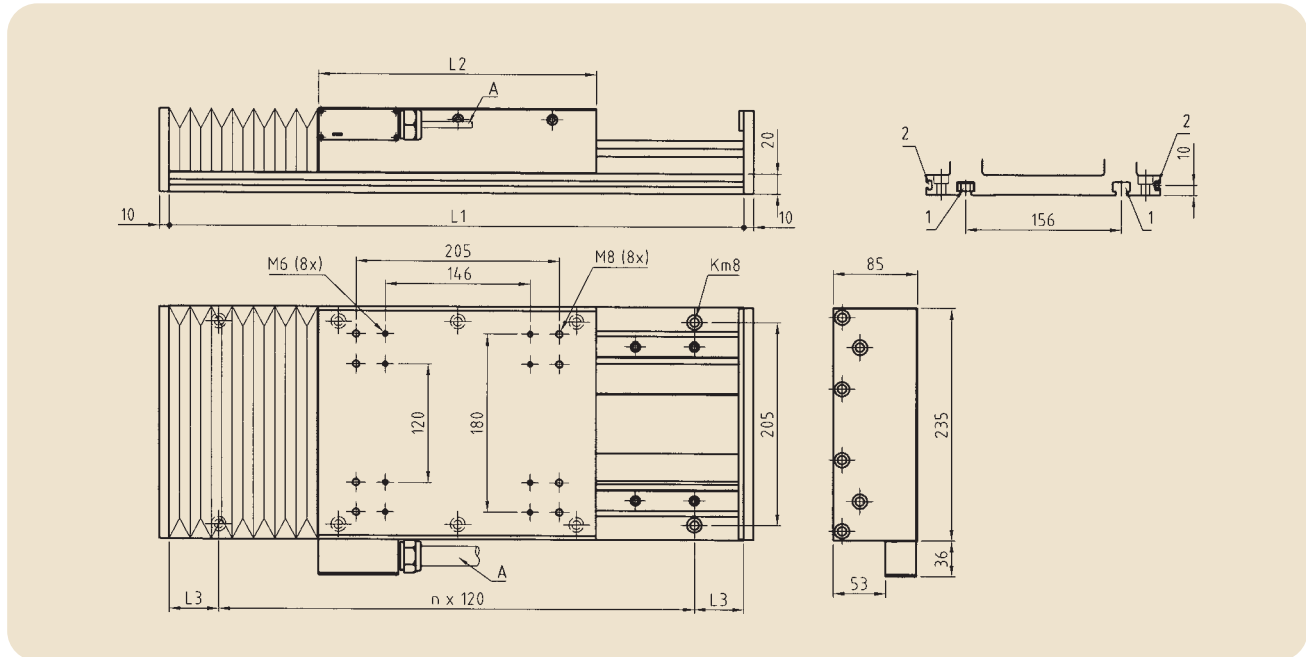
<sup>2)</sup> Suitable as top axis for central cross table mounting

<sup>3)</sup> Maximum stroke between end stops:  
 S1 with bellows (standard version)  
 S2 without bellows (special version)

<sup>4)</sup> G<sub>0</sub> = Stationary mass of bottom part  
<sup>5)</sup> G<sub>0</sub> = Mobile mass of table top

## Rail guide tables with linear motor drive with or without bellows

T slots in bottom part:  
 Slot 1: for square nut DIN 562 M10  
 Slot 2: for square nut DIN 562 M5



A cable output for motor and measuring system. Flat ribbon cable 20 x 6.3 mm

Direction of travel: - <----> +

Length			A32008					A33008					AC34008				
L1	L3	n	2) KN	4) G <sub>U</sub>	L2	Stroke <sup>3)</sup>		5) G <sub>0</sub>	L2	Stroke <sup>3)</sup>		5) G <sub>0</sub>	L2	Stroke <sup>3)</sup>		5) G <sub>0</sub>	
mm	mm	-	kg	kg	mm	S1	S2	kg	mm	S1	S2	kg	mm	S1	S2	kg	
1 720	20	14		40,4	235	1 230	1 475	8,0	320	1 160	1 390	10,6	410	1 085	1 300	13,1	
1 780	50	14		41,8		1 280	1 535			1 210	1 450			1 135	1 360		
1 840	20	15	x	43,2		1 335	1 595			1 260	1 510			1 185	1 420		
1 900	50	15	x	44,6		1 380	1 655			1 310	1 570			1 235	1 480		
1 960	20	16		45,9		1 430	1 715			1 360	1 630			1 285	1 540		
2 020	50	16		47,3		1 480	1 775			1 410	1 690			1 330	1 600		
2 080	20	17	x	48,7		1 530	1 835			1 460	1 750			1 385	1 660		
2 140	50	17	x	50,1		1 580	1 895			1 510	1 810			1 435	1 720		
2 200	20	18		51,4		1 635	1 955			1 560	1 870			1 485	1 780		
2 260	50	18		52,8		1 685	2 015			1 610	1 930			1 535	1 840		
2 320	20	19	x	54,2		1 735	2 075			1 660	1 990			1 585	1 900		
2 380	50	19	x	55,6		1 785	2 135			1 715	2 050			1 635	1 960		
2 440	20	20		56,9		1 835	2 195			1 765	2 110			1 690	2 020		
2 500	50	20		58,3		1 880	2 255			1 815	2 170			1 740	2 080		
2 560	20	21	x	59,7		1 930	2 315			1 865	2 230			1 790	2 140		
2 620	50	21	x	61,1		1 985	2 375			1 910	2 290			1 840	2 200		
2 680	20	22		62,4		2 035	2 435			1 960	2 350			1 885	2 260		
2 740	50	22		63,8		2 085	2 495			2 015	2 410			1 935	2 320		
2 800	20	23	x	65,2		2 135	2 555			2 065	2 470			1 985	2 380		
2 860	50	23	x	66,6		2 185	2 615			2 115	2 530			2 040	2 440		

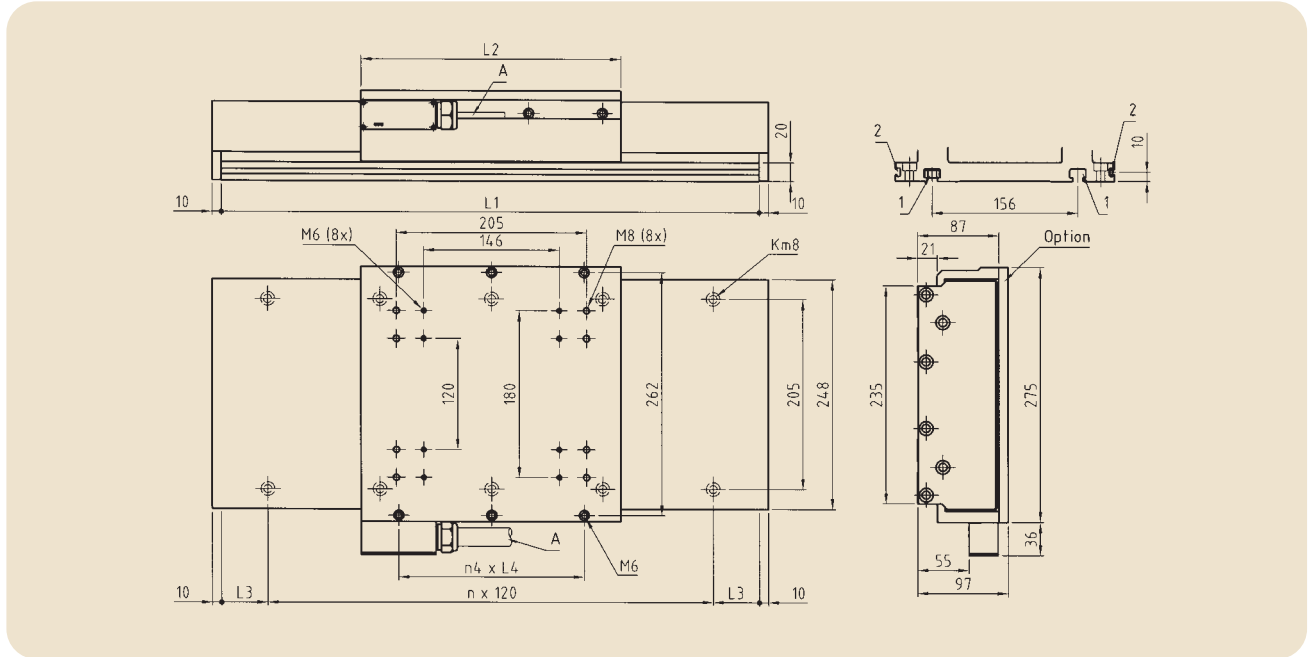
<sup>2)</sup> Suitable as top axis for central cross table mounting

<sup>3)</sup> Maximum stroke between end stops:  
 S1 with bellows (standard version)  
 S2 without bellows (special version)

<sup>4)</sup> G<sub>U</sub> = Stationary mass of bottom part  
<sup>5)</sup> G<sub>0</sub> = Mobile mass of table top

# Rail guide tables with linear motor drive with steel cover

T slots in bottom part:  
 Slot 1: for square nut DIN 562 M10  
 Slot 2: for square nut DIN 562 M5



A cable output for motor and measuring system. Flat ribbon cable 20 x 6.3 mm

Direction of travel: - <---> +

Length		A32008					A33008					A34008				
L1	L3	n	2) KN	4) G <sub>U</sub>	L2	Stroke <sup>3)</sup> S	n <sub>4xL4</sub>	5) G <sub>0</sub>	L2	Stroke <sup>3)</sup> S	n <sub>4xL4</sub>	5) G <sub>0</sub>	L2	Stroke <sup>3)</sup> S	n <sub>4xL4</sub>	5) G <sub>0</sub>
mm		-		kg	mm			kg	mm			kg	mm			kg
340	50	2		9,9	235	95	2x98	10,5	320		3x78	14,1	410		4x81,5	17,6
400	20	3	x	11,5		155				70						
460	50	3	x	13,0		215				130						
520	20	4		14,5		275				190				100		
580	50	4		16,1		335				250				160		
640	20	5	x	17,6		395				310				220		
700	50	5	x	19,2		455				370				280		
760	20	6		20,7		515				430				340		
820	50	6		22,2		575				490				400		
880	20	7	x	23,8		635				550				460		
940	50	7	x	25,3		695				610				520		
1 000	20	8		26,9		755				670				580		
1 060	50	8		28,4		815				730				640		
1 120	20	9	x	29,9		875				790				700		
1 180	50	9	x	31,5		935				850				760		
1 240	20	10		33,0		995				910				820		
1 300	50	10		34,6		1 055				970				880		
1 360	20	11	x	36,1		1 115				1 030				940		
1 420	50	11	x	37,6		1 175				1 090				1 000		
1 480	20	12		39,2		1 235				1 150				1 060		
1 540	50	12		40,7		1 295				1 210				1 120		
1 600	20	13	x	42,3		1 355				1 270				1 180		
1 660	50	13	x	43,8		1 415				1 330				1 240		

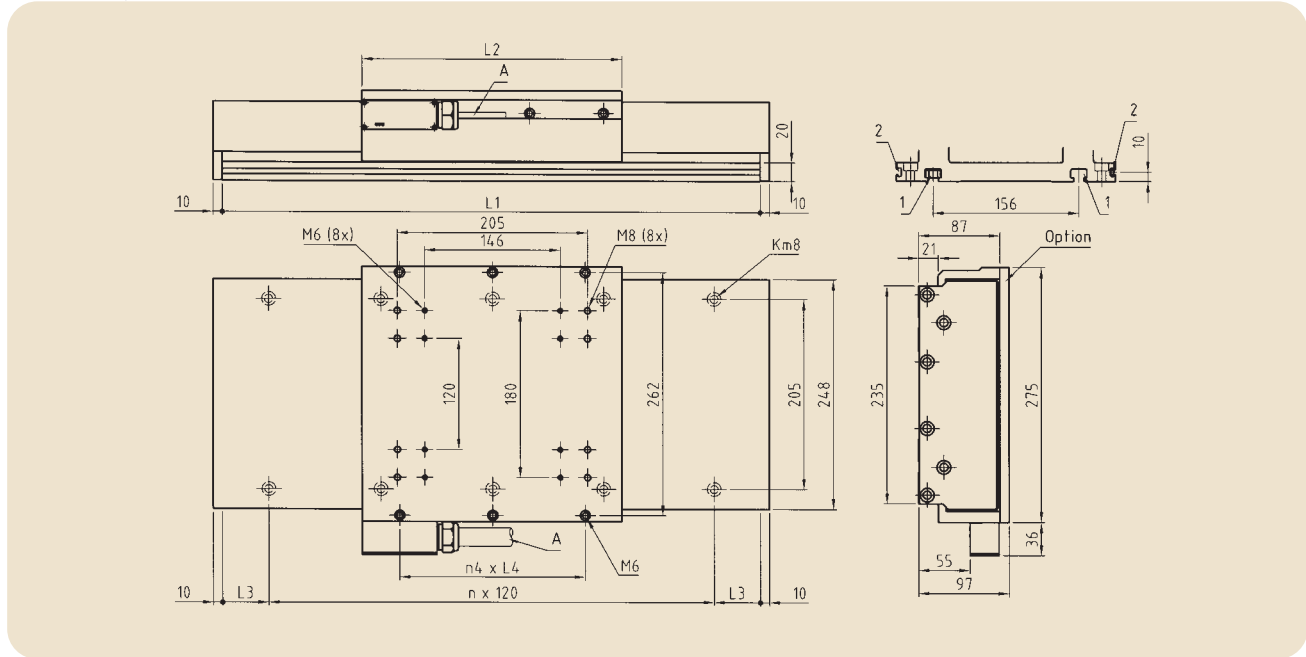
<sup>2)</sup> Suitable as top axis for central cross table mounting

<sup>3)</sup> Maximum stroke between end stops

<sup>4)</sup> G<sub>U</sub> = Stationary mass of bottom part  
<sup>5)</sup> G<sub>0</sub> = Mobile mass of table top

# Rail guide tables with linear motor drive with steel cover

T slots in bottom part:  
 Slot 1: for square nut DIN 562 M10  
 Slot 2: for square nut DIN 562 M5



A cable output for motor and measuring system. Flat ribbon cable 20 x 6.3 mm

Direction of travel: - <----> +

Length			A32008						A33008				A34008			
L1	L3	n	2) KN	4) G <sub>U</sub>	L2	Stroke <sup>3)</sup> S	n <sub>4xL4</sub>	5) G <sub>0</sub>	L2	Stroke <sup>3)</sup> S	n <sub>4xL4</sub>	5) G <sub>0</sub>	L2	Stroke <sup>3)</sup> S	n <sub>4xL4</sub>	5) G <sub>0</sub>
mm	mm	-	kg	kg	mm	mm		kg	mm	mm		kg	mm	mm		kg
1 720	20	14		45,3	235	1 475	2x98	10,5	320	1 390	3x78	14,1	410	1 300	4x81,5	17,6
1 780	50	14		46,9		1 535				1 450				1 360		
1 840	20	15	x	48,4		1 595				1 510				1 420		
1 900	50	15	x	50,0		1 655				1 570				1 480		
1 960	20	16		51,5		1 715				1 630				1 540		
2 020	50	16		53,0		1 775				1 690				1 600		
2 080	20	17	x	54,6		1 835				1 750				1 660		
2 140	50	17	x	56,1		1 895				1 810				1 720		
2 200	20	18		57,7		1 955				1 870				1 780		
2 260	50	18		59,2		2 015				1 930				1 840		
2 320	20	19	x	60,7		2 075				1 990				1 900		
2 380	50	19	x	62,3		2 135				2 050				1 960		
2 440	20	20		63,8		2 195				2 110				2 020		
2 500	50	20		65,4		2 255				2 170				2 080		
2 560	20	21	x	66,9		2 315				2 230				2 140		
2 620	50	21	x	68,4		2 375				2 290				2 200		
2 680	20	22		70,0		2 435				2 350				2 260		
2 740	50	22		71,5		2 495				2 410				2 320		
2 800	20	23	x	73,1		2 555				2 470				2 380		
2 860	50	23	x	74,6		2 615				2 530				2 440		

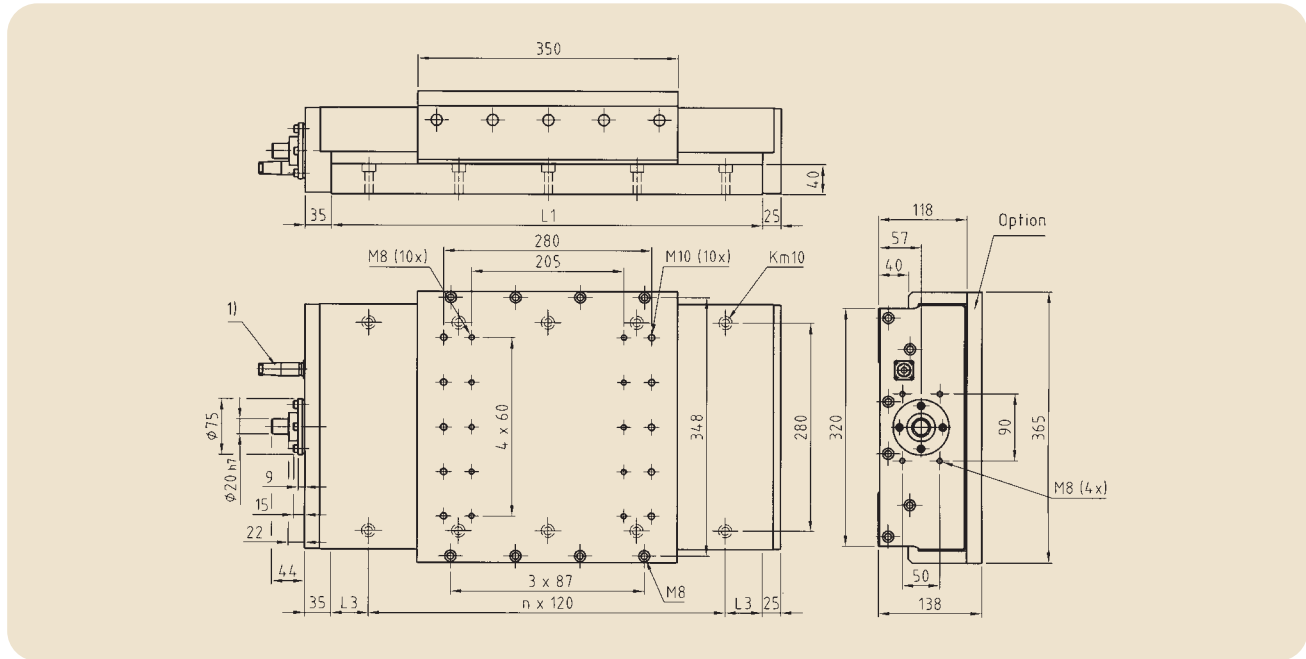
<sup>2)</sup> Suitable as top axis for central cross table mounting

<sup>3)</sup> Maximum stroke between end stops

<sup>4)</sup> G<sub>U</sub> = Stationary mass of bottom part  
<sup>5)</sup> G<sub>0</sub> = Mobile mass of table top



# Rail guide tables with ball screw drive with steel cover



<sup>1)</sup> Plug connection for limit and reference switches (optional)

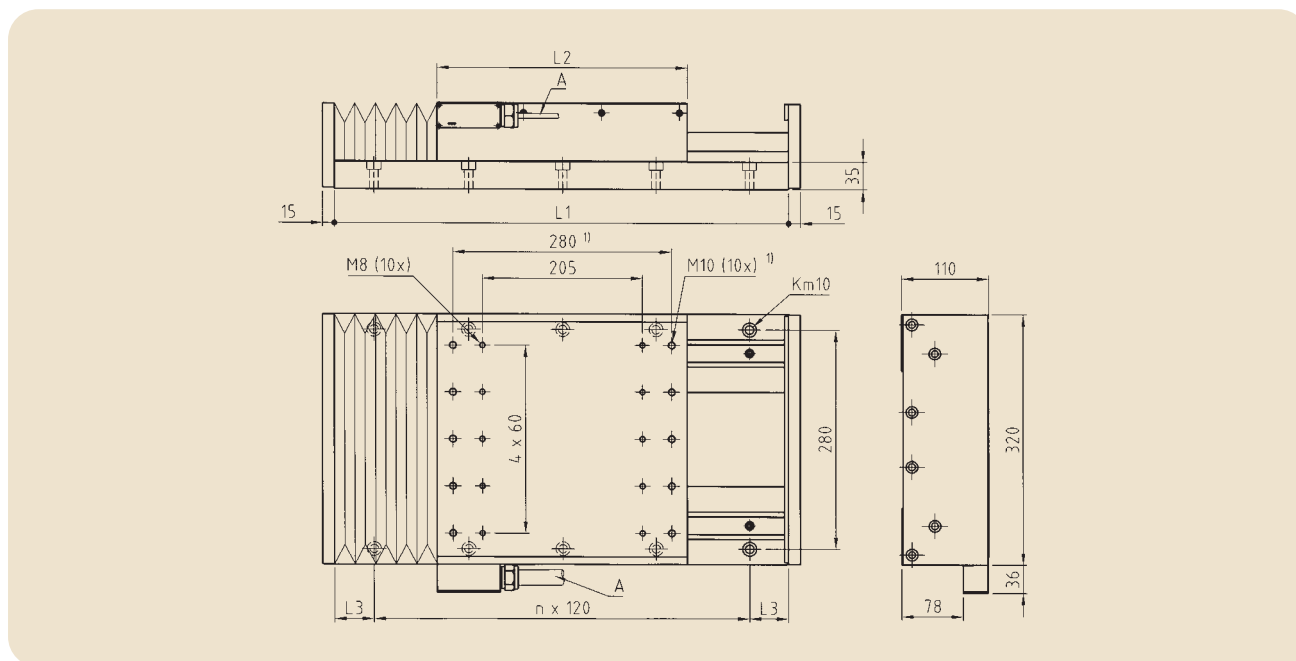
Direction of travel: - <----> +

Length		Stroke <sup>2)</sup>		Screw data				TN3220+3232+3240	Weight <sup>4)</sup>	
L1	L3	n	S	SX3205	TN3205	SX3210	TN3210		G <sub>A</sub>	G <sub>0</sub>
mm		-	mm	1/min				kg		
580	50	4	220	1 560	2 810	1 560	2 810	2 810	62,9	30,4
700	50	5	340	1 560	2 810	1 560	2 810	2 810	68,3	
820	50	6	460	1 560	2 810	1 560	2 810	2 810	73,8	
940	50	7	580	1 560	2 810	1 560	2 810	2 810	79,2	
1 060	50	8	700	1 560	2 810	1 560	2 810	2 810	84,6	
1 180	50	9	820	1 560	2 810	1 560	2 810	2 810	90,0	
1 300	50	10	940	1 560	2 810	1 560	2 810	2 810	95,5	
1 420	50	11	1 060	1 560	2 810	1 560	2 810	2 810	100,9	
1 540	50	12	1 180	1 560	2 610	1 560	2 520	2 520	106,3	
1 660	50	13	1 300	1 560	2 180	1 560	2 100	2 100	111,7	
1 780	50	14	1 420	1 560	1 850	1 560	1 780	1 780	117,2	
1 900	50	15	1 540	1 560	1 590	1 440	1 530	1 530	122,6	
2 020	50	16	1 660	1 380	1 380	1 250	1 330	1 330	128,0	
2 140	50	17	1 780	1 210	1 200	1 090	1 160	1 160	133,5	
2 260	50	18	1 900	1 070	1 060	970	1 030	1 030	138,9	
2 380	50	19	2 020	950	950	860	910	910	144,3	
2 500	50	20	2 140	850	850	770	820	820	149,7	
2 620	50	21	2 260	760	760	690	740	740	155,2	
2 740	50	22	2 380	690	690	630	670	670	160,6	
2 860	50	23	2 500	630	630	570	600	600	166,0	

<sup>2)</sup> Maximum stroke between end stops

<sup>3)</sup> G<sub>A</sub> = Total weight of table  
 G<sub>0</sub> = Weight of mobile mass of table top

## Rail guide tables with linear motor drive with or without bellows



<sup>1)</sup> only at size A33014 + A34014

A cable output for motor and measuring system. Flat ribbon cable 20 x 6.3 mm

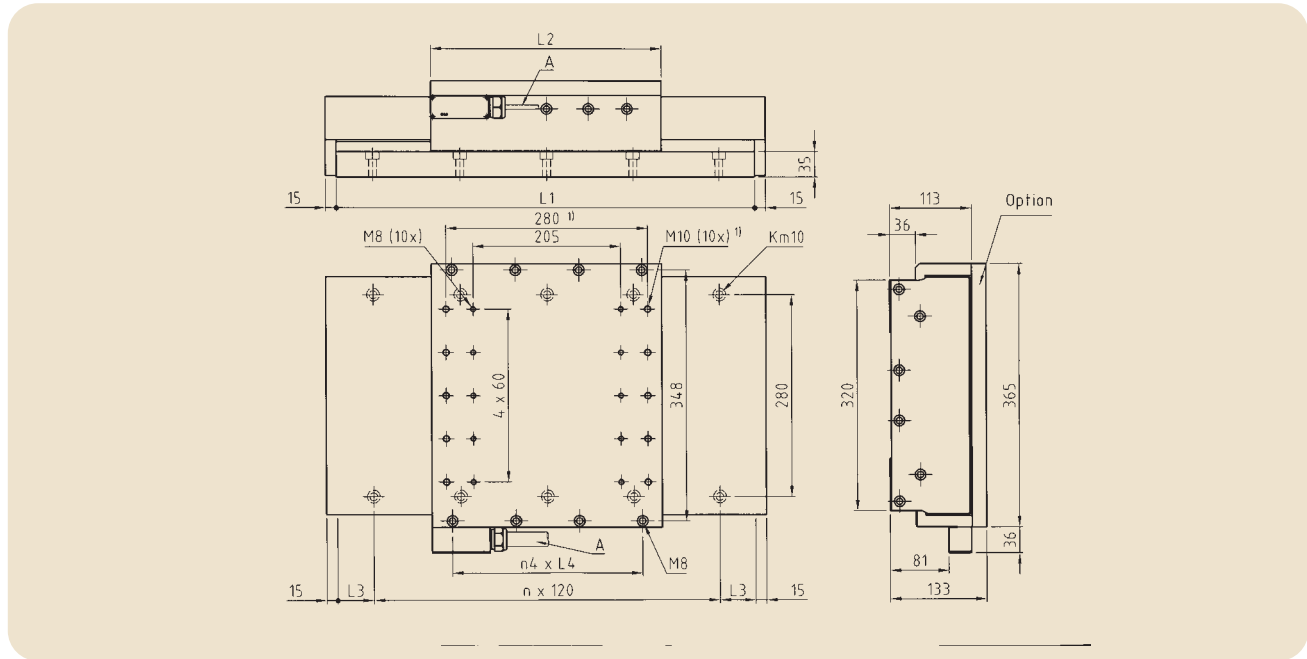
Direction of travel: - <---> +

Length			A32014					A33014					A34014				
L1	L3	n	<sup>3)</sup> G <sub>U</sub>	Stroke <sup>2)</sup>			<sup>4)</sup> G <sub>0</sub>	Stroke <sup>2)</sup>			<sup>4)</sup> G <sub>0</sub>	Stroke <sup>2)</sup>			<sup>4)</sup> G <sub>0</sub>		
mm		-	kg	mm	S1	S2	kg	mm	S1	S2	kg	mm	S1	S2	kg		
580	50	4	30,4	280	245	290	15,3	320	215	250	18,7	410	130	160	23,8		
700	50	5	36,1		350	410			315	370			235	280			
820	50	6	41,9		455	530			420	490			340	400			
940	50	7	47,6		555	650			525	610			445	520			
1060	50	8	53,3		665	770			630	730			545	640			
1180	50	9	59,1		765	890			730	850			655	760			
1300	50	10	64,8		875	1010			840	970			755	880			
1420	50	11	70,5		975	1130			940	1090			865	1000			
1540	50	12	76,3		1080	1250			1045	1210			965	1120			
1660	50	13	82,0		1180	1370			1150	1330			1070	1240			
1780	50	14	87,7		1290	1490			1255	1450			1170	1360			
1900	50	15	93,5		1390	1610			1355	1570			1280	1480			
2020	50	16	99,2		1500	1730			1465	1690			1380	1600			
2140	50	17	104,9		1600	1850			1565	1810			1490	1720			
2260	50	18	110,7		1705	1970			1675	1930			1590	1840			
2380	50	19	116,4		1810	2090			1775	2050			1695	1960			
2500	50	20	122,1		1915	2210			1880	2170			1800	2080			
2620	50	21	127,9		2015	2330			1985	2290			1905	2200			
2740	50	22	133,6		2125	2450			2090	2410			2005	2320			
2860	50	23	139,3		2225	2570			2190	2530			2115	2440			

<sup>2)</sup> Maximum stroke between end stops:  
 S1 with bellows (standard version)  
 S2 without bellows (special version)

<sup>3)</sup> G<sub>U</sub> = Stationary mass of bottom part  
<sup>4)</sup> G<sub>0</sub> = Mobile mass of table top

## Rail guide tables with linear motor drive with steel cover



<sup>1)</sup> only at size A33014 + A34014

A cable output for motor and measuring system. Flat ribbon cable 20 x 6.3 mm

Direction of travel: - <---> +

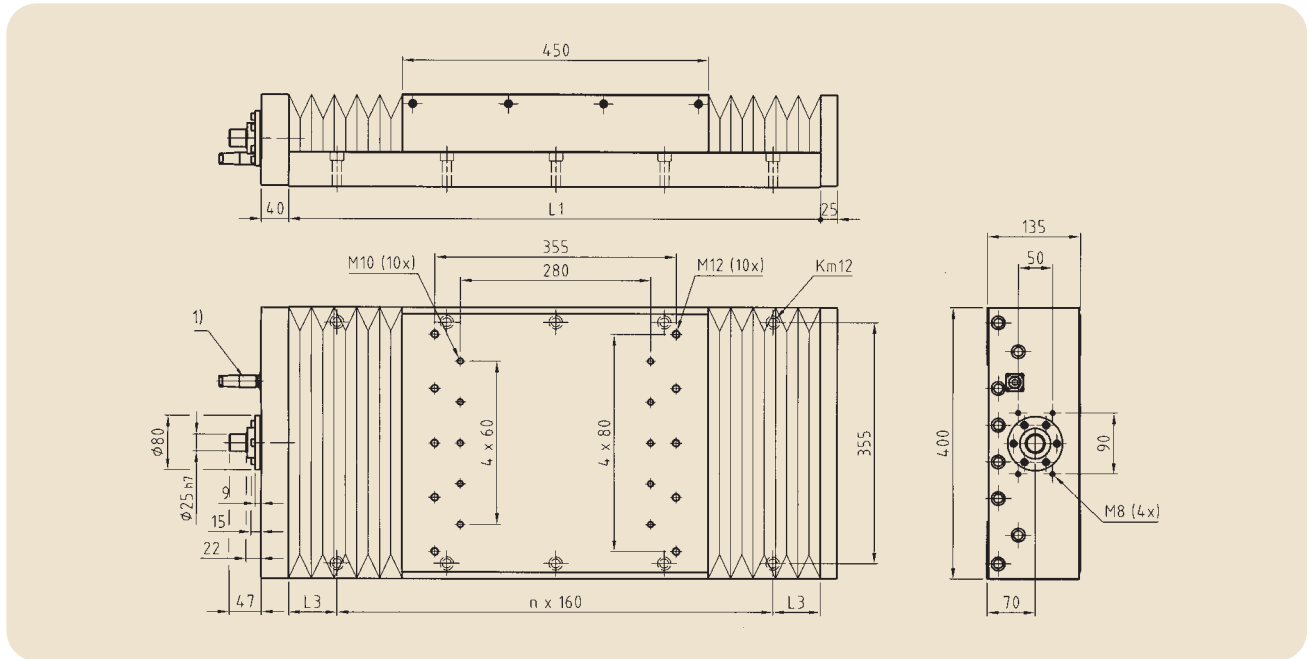
Length			A32014				A33014				A34014				
L1	L3	n	<sup>3)</sup> G <sub>U</sub>	L2	Stroke <sup>2)</sup> S	n <sub>4xL4</sub>	<sup>4)</sup> G <sub>0</sub>	L2	Stroke <sup>2)</sup> S	n <sub>4xL4</sub>	<sup>4)</sup> G <sub>0</sub>	L2	Stroke <sup>2)</sup> S	n <sub>4xL4</sub>	<sup>4)</sup> G <sub>0</sub>
mm		-	kg	mm			kg	mm			kg	mm			kg
580	50	4	32,6	280	290	3x75	22,3	320	250	3x87	26,8	410	160	4x88	34,1
700	50	5	38,7		410				370				280		
820	50	6	44,9		530				490				400		
940	50	7	51,0		650				610				520		
1 060	50	8	57,2		770				730				640		
1 180	50	9	63,3		890				850				760		
1 300	50	10	69,5		1 010				970				880		
1 420	50	11	75,6		1 130				1 090				1 000		
1 540	50	12	81,8		1 250				1 210				1 120		
1 660	50	13	87,9		1 370				1 330				1 240		
1 780	50	14	94,1		1 490				1 450				1 360		
1 900	50	15	100,2		1 610				1 570				1 480		
2 020	50	16	106,4		1 730				1 690				1 600		
2 140	50	17	112,5		1 850				1 810				1 720		
2 260	50	18	118,7		1 970				1 930				1 840		
2 380	50	19	124,8		2 090				2 050				1 960		
2 500	50	20	130,9		2 210				2 170				2 080		
2 620	50	21	137,1		2 330				2 290				2 200		
2 740	50	22	143,2		2 450				2 410				2 320		
2 860	50	23	149,4		2 570				2 530				2 440		

<sup>2)</sup> Maximum stroke between end stops

<sup>4)</sup> G<sub>U</sub> = Stationary mass of bottom part

<sup>5)</sup> G<sub>0</sub> = Mobile mass of table top

# Rail guide tables with ball screw drive with or without bellows



<sup>1)</sup> Plug connection for limit and reference switches (optional)

Direction of travel: - <---> +

Length			Stroke <sup>2)</sup>		Screw data					Weight <sup>3)</sup>	
L1	L3	n	S1	S2	SX4005	TN4005	SX4010	TN4010	TN4020+4040	G <sub>A</sub>	G <sub>0</sub>
mm			mm		1/min					kg	
620	70	3	135	160	1 250	2 250	1 250	2 250	2 250	77,0	25,2
780	70	4	275	320	1 250	2 250	1 250	2 250	2 250	87,7	
940	70	5	420	480	1 250	2 250	1 250	2 250	2 250	98,4	
1 100	70	6	560	640	1 250	2 250	1 250	2 250	2 250	109,1	
1 260	70	7	700	800	1 250	2 250	1 250	2 250	2 250	119,8	
1 420	70	8	850	960	1 250	2 250	1 250	2 250	2 250	130,5	
1 580	70	9	990	1 120	1 250	2 250	1 250	2 250	2 250	141,2	
1 740	70	10	1 130	1 280	1 250	2 250	1 250	2 250	2 250	151,9	
1 900	70	11	1 270	1 440	1 250	2 150	1 250	1 980	1 980	162,6	
2 060	70	12	1 410	1 600	1 250	1 780	1 250	1 630	1 630	173,3	
2 220	70	13	1 555	1 760	1 250	1 490	1 250	1 370	1 370	184,0	
2 380	70	14	1 695	1 920	1 250	1 270	1 180	1 160	1 160	194,7	
2 540	70	15	1 835	2 080	1 090	1 090	1 010	1 000	1 000	205,4	
2 700	70	16	1 975	2 240	950	950	880	870	870	216,1	
2 860	70	17	2 125	2 400	840	830	770	760	760	226,8	

<sup>2)</sup> Maximum stroke between end stops:  
S1 with bellows (standard version)  
S2 without bellows (special version)

<sup>3)</sup> G<sub>A</sub> = Total weight of table  
G<sub>0</sub> = Weight of mobile mass of table top

## Ordering details

For linear motor slides, the following additional details are required:

- Moving mass
- Possibly applied additional forces
- Maximum and minimum speeds; maximum acceleration
- Percentage duty cycle (description of operating cycle)
- Requirements of measuring system such as signal period and accuracy
- Required positioning resolution
- Information on triggering

Please fill in the specification sheet on page 35 and return it to us.

Type designation

LTB 320 · 1900 · A33014 - BL - P5

Width of table: See dimension specifications  
110 to 400 width of bottom part

Length of table: See dimension specifications  
150 to 2860 L1 Length of bottom part

### Drive:

Ball screw:	See page 6 for further information
SH	no preload
SX	no preload
TN	preloaded
TL	preloaded
12 to 40	screw diameter
04 to 40	screw lead
Linear motor drive:	See page 7 for further information
F	motor type
A	motor type
2 - 3	number of motor phases
09 - 40	primary part length [cm]
06 - 14	primary part width [cm]

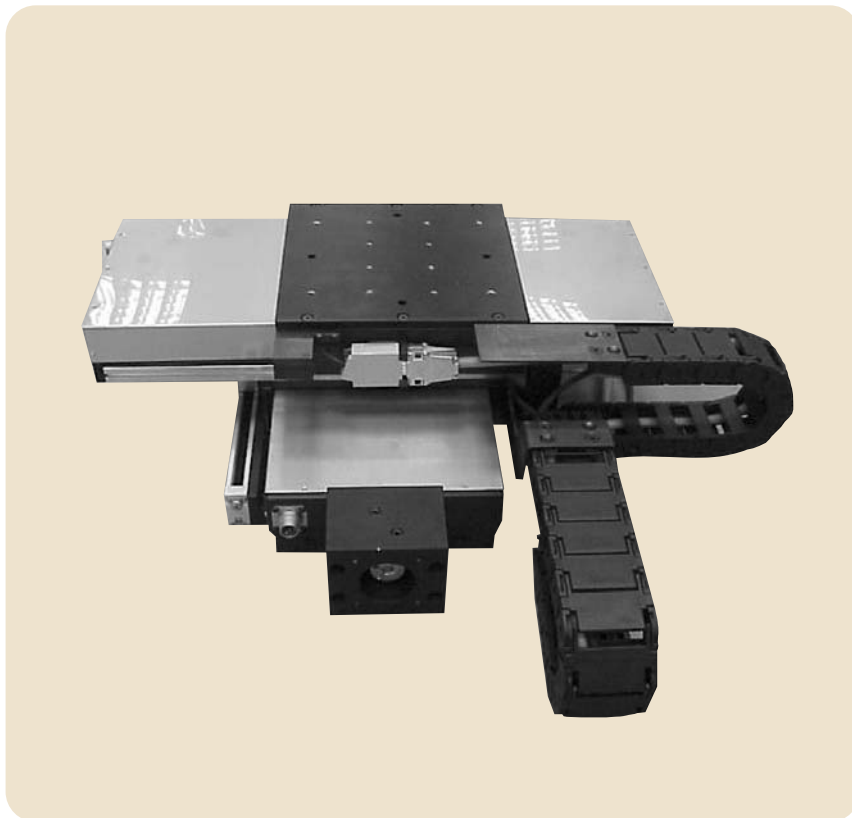
Covers: See page 8 for further information

BL	with bellows
-	without cover
SC	with steel cover

table precision:  
See page 8 for further information  
P10, P5, P2, P1

## Application samples

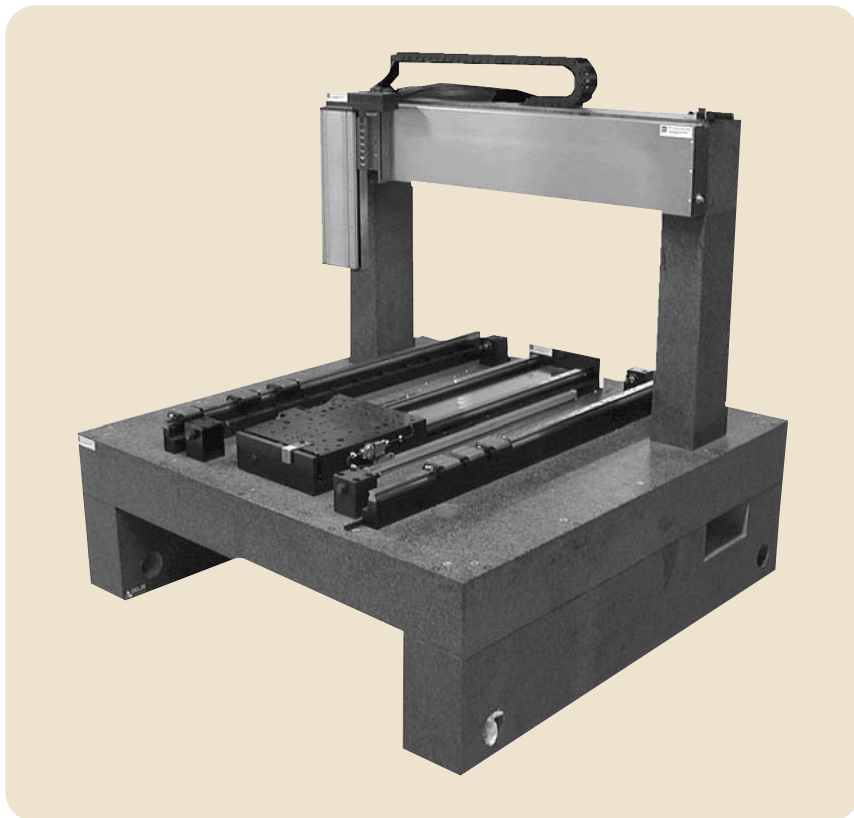
Solder paste printer



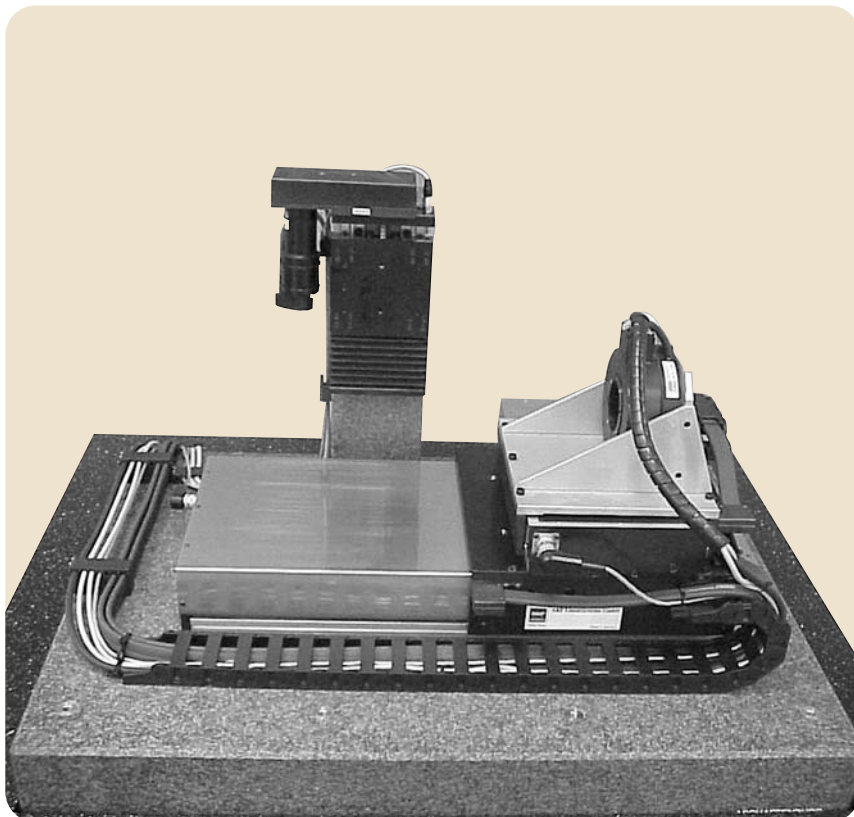
Drive for a milling / drilling unit



Laser cutting



Laser welding



# Possible application schemes

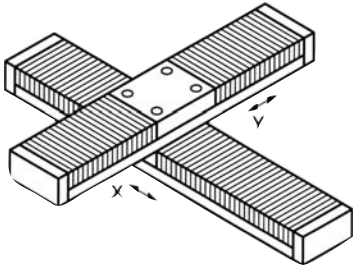


Fig. 1: Cross table X + Y

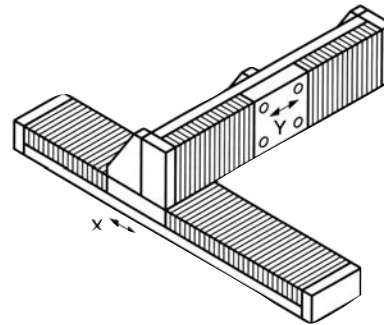


Fig. 2: Gantry X + Y

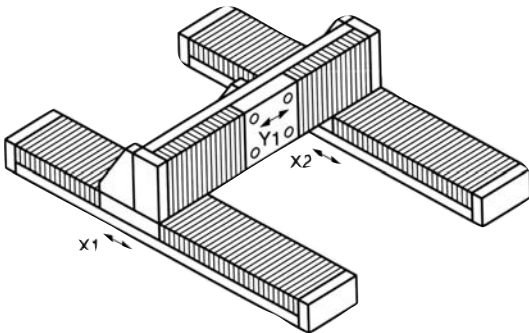


Fig. 3: Gantry X1/X2 + Y

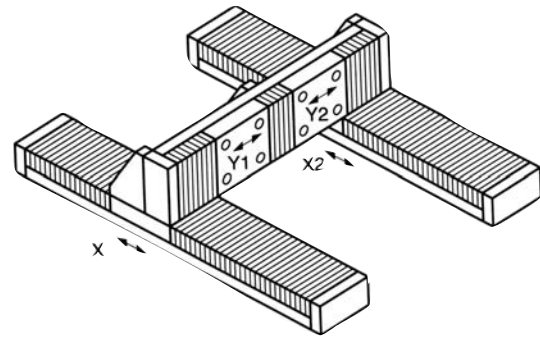


Fig. 4: Gantry X1/X2 + Y1 + Y2

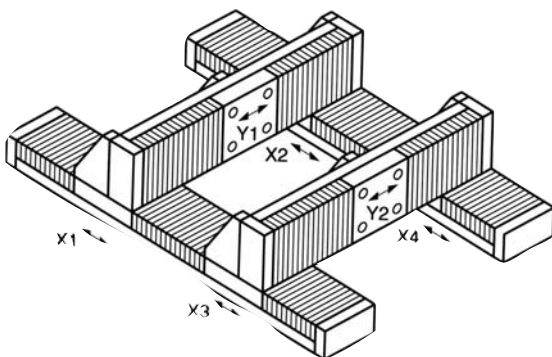


Fig. 5: Gantry X1/X2 + X3/X4 + Y1 + Y2

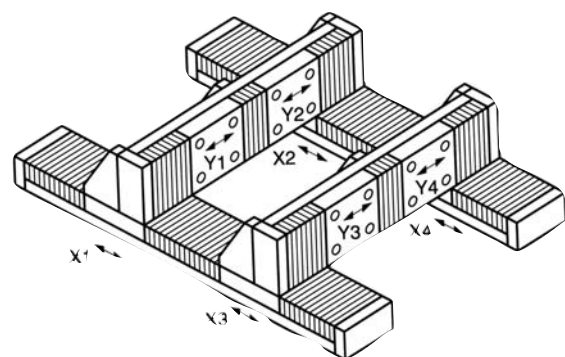


Fig. 6: Gantry X1/X2 + X3/X4 + Y1 + Y2 + Y3 + Y4



## Notes

A large grid of graph paper for taking notes, consisting of 20 columns and 30 rows of small squares.



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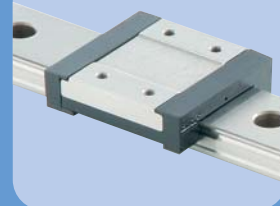
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