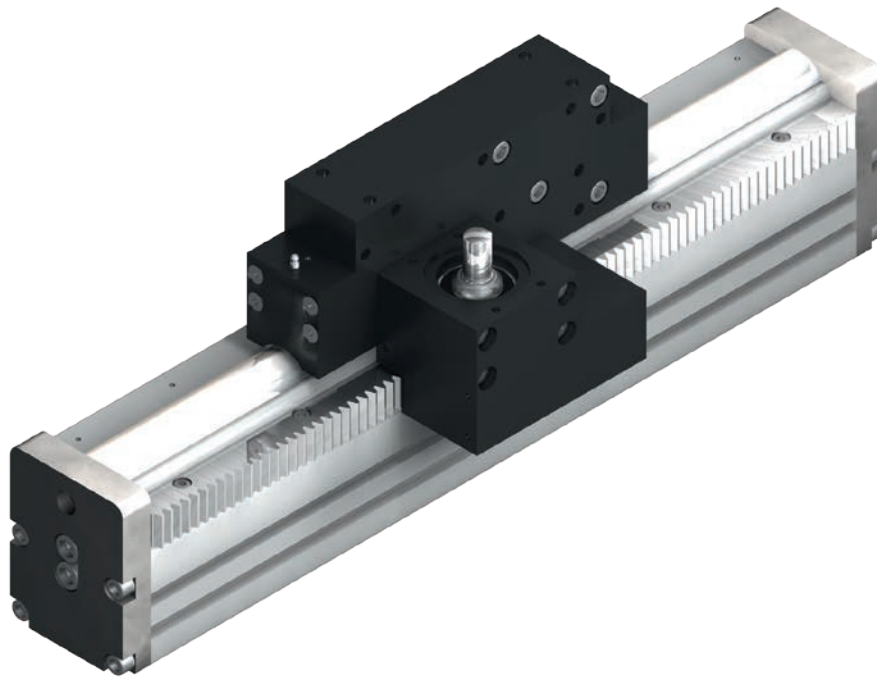


Positioning system SLTZA 30, 50



Function:

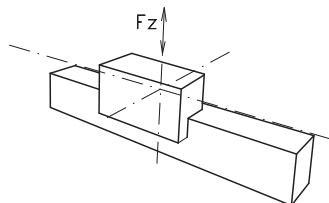
The guide body consists of an aluminium square profile with a guide rod clamped into it on the upper side free of play. A roller pack containing 2 rollers moves along the guide body. The roller pack is secured against derailing by means of a lateral claw. The system is rack and pinion driven. The number of roller packs is limited due to the length. The system may be extended according to your needs by means of the connecting brackets available as accessories.

Fitting position: horizontal, any max. length

Unit mounting: by T-Nuts and mounting profiles at the side of the profile

Forces and torques	Size	SLTZA 30	SLTZA 50
	Forces / Torques	static	static
	F_z (N)	8400	17500
	No-load torque		
	Nm	3	4
	Geometrical moments of inertia of aluminium profile		
	I_x mm ⁴	$2,10 \times 10^7$	$8,70 \times 10^7$
	I_y mm ⁴	$3,00 \times 10^7$	$10,80 \times 10^7$
	Elastic modulus N/mm ²	70000	70000

Forces and torques



14.1

Formula: SLTZA

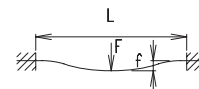
Driving torque:

$$M_o = \frac{F \cdot P \cdot S_1}{2000 \cdot \pi} + M_{leer}$$

$$P_o = \frac{M_o \cdot n}{9550}$$

F	= force	(N)
P	= pulley action perimeter	(mm)
S_1	= safety factor 1,2 ... 2	
M_{leer}	= no-load torque	(Nm)
n	= rpm pulley	(min ⁻¹)
M_o	= driving torque	(Nm)
P_o	= motor power	(KW)

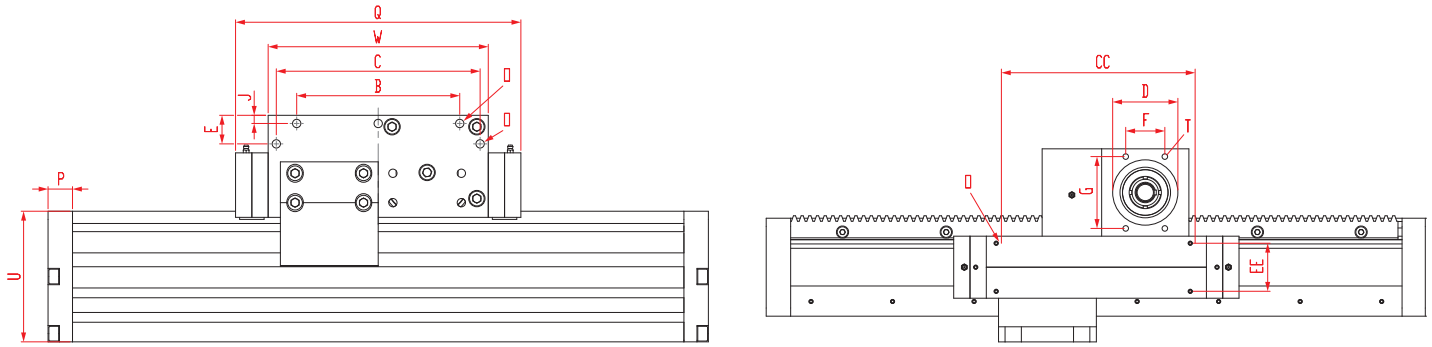
$$f = \frac{F \cdot L^3}{E \cdot I \cdot 192}$$



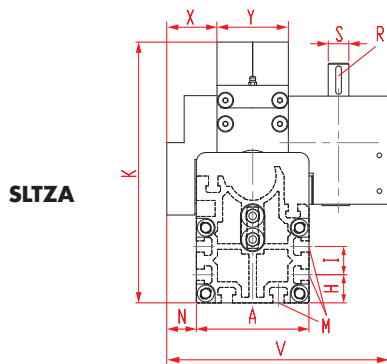
f	= deflection	(mm)
F	= load	(N)
L	= free length	(mm)
E	= elastic modulus 70000	(N/mm ²)
I	= second moment of area	(mm ⁴)

Positioning system SLTZA 30, 50

Dimensions (mm)



Size	Basic length L	B	C	CC	D	E	EE	F	G	J	O	P	Q	T	U	W	Basic weight	Weight per 100 mm
SLTZA 30	340	160	210	184	68	23	36	42	75	12	M10	25	290	M8	115	230	19,8 kg	2,00 kg
SLTZA 50	410	186	250	215	80	35	50	48	88	10	M12	30	350	M8	160	270	40,5 kg	4,00 kg



Size	A	H	I	K	M	N	R	S	V	X	Y	Shaft Ø h6 x length	Key	Pinion	
														mm/rev.	Modul
SLTZA 30	80	24	22	206	M8	28	6x6x30	22h6x35	188	40	56	22 x 35	6x6x30	201,1	2
SLTZA 50	120	30	30	277,5	M10	31,5	6x6x30	22h6x35	236,5	53,5	76	22 x 35	6x6x30	197,9	3

ZA Drive variation:
(ZA) rack and pinion driven

50 Guide rod size / size
Ø=30 mm (SLTZA30), Ø=50 mm (SLTZA50)

0 Choice of guide body profile:
(0) Standard (2) corrosion-protected guide rods and screws (4) expanded corrosion-protected version (depending on the availability of components) (9) corrosion-protected guide rods, rollers, screws and rack

2 Choice of carriage*
(0) without (1) 1 carriage (2) 2 carriages (3) 3 carriages (4) 4 carriages
* = each carriage has got 2 rollers

2 Carriage drives
(0) without (1) 1 drive (2) 2 drives (3) 3 drives (4) 4 drives

Rack and pinion accuracy

Code No.	Quality	Rack accuracy	Material	Marks
0	10	0,091 mm/300 mm	C45	Hardened teeth
1	9	0,065 mm/300 mm	C45	Milled teeth

910 Basic length + stroke = total length

SLT ZA 50 0 0 2 2 0 0 0 00910
Pos. 1 2 3 4 5 6 7

Sample ordering code:

SLTZA 50, 50 mm guide rods, Standard profil, 2 carriages, 2 drives, rack and pinion accuracy 0,091 mm/300 mm, Stroke 500 mm



14.1