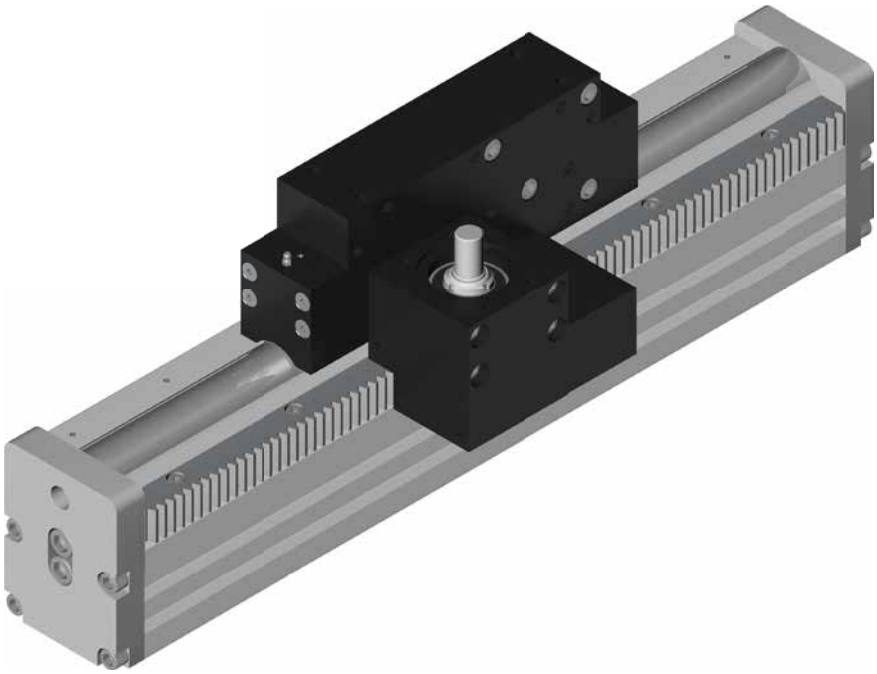
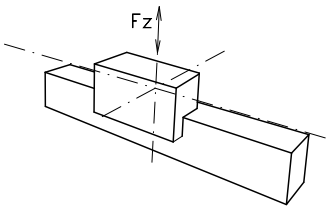
Positioning system SLTZA 30, 50



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 x 10^7	8,70 x 10^7
I_y mm^4	3,00 x 10^7	10,80 x 10^7
Elastic modulus N/mm^2	70000	70000

17.1

Driving torque:

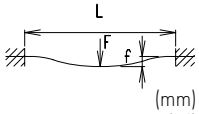
$$M_a = \frac{F * P * S_i}{2000 * \pi} + M_n$$

$$P_a = \frac{M_a * n}{9550}$$

F	= force	(N)
P	= pulley action perimeter	(mm)
Si	= safety factor 1,2 ... 2	
M_n	= no-load torque	(Nm)
n	= rpm pulley	(min^{-1})
M_a	= driving torque	(Nm)
P_a	= motor power	(KW)

Deflection:

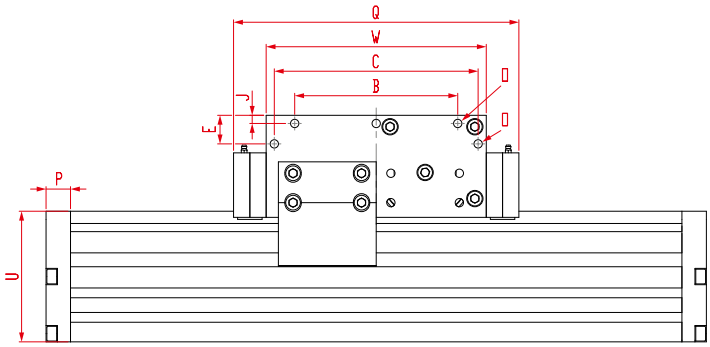
$$f = \frac{F * L^3}{E * I * 192}$$

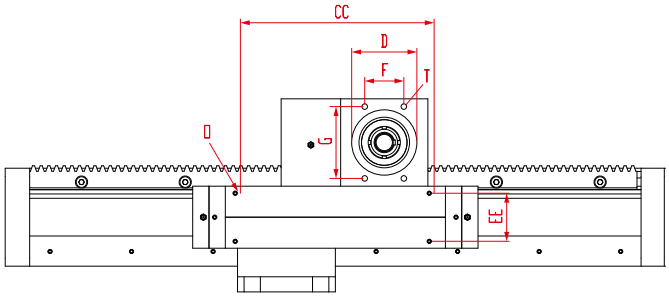


f = deflection	(mm)
F = load	(N)
L = free length	(mm)
E = elastic modulus 70000	(N/mm^2)
I = second moment of area	(mm^4)

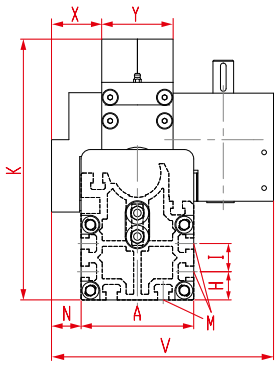
Positioning system SLTZA 30, 50

Dimensions (mm)





Size ❐	Basic length L	B	C	CC	D -0,05	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



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

ZA **Drive variation:**
(ZA) rack and pinion driven

50 **Guide rod size / size**
∅=30 mm (SLTZA30), ∅=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