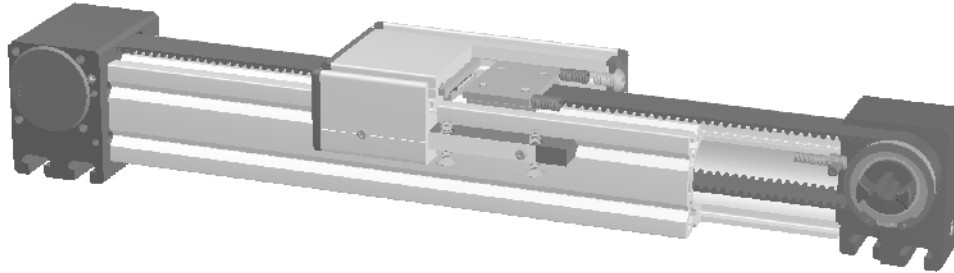


Modular Linear Actuator Addendums EGZ 30, 40, 60, 80

Belt Driven

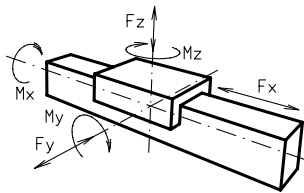


Function:

This linear unit consists of an aluminium square profile with lateral V-guides. The carriage that can be adjusted free of play is driven along the V-guides by a timing belt. The pulleys have maintenance-free ball bearings. Belt tension can be readjusted by a simple screw adjustment device in the carriage. This device can also be use for symmetrical adjustment of two or more linear units running parallel.

Fitting length:
Carriage mounting:
Unit mounting:
Belt type:

As required. Max. length 6,000 mm without joints.
T-slots
T-slots or tapped holes in the bearing block, mounting sets.
HTD with steel reinforcement, no backlash when changing direction, repeatability: $\pm 0,1$ mm.



Forces and torques

Size	EGZ 30		EGZ 40		EGZ 60		EGZ 80	
	static	dynamic	static	dynamic	static	dynamic	static	dynamic
Forces/Torques								
F_x (N)	200	180	390	350	894	800	1900	1800
F_y (N)	90	60	350	315	500	450	1000	900
F_z (N)	90	60	500	450	750	675	1125	1000
M_x (Nm)	10	5	20	18	33	30	82	75
M_y (Nm)	13	6	44	40	77	70	220	200
M_z (Nm)	14	7	33	30	55	50	165	150
No-load torque	existing values values of table							
	$\frac{F_y}{F_{y_{dyn}}} + \frac{F_z}{F_{z_{dyn}}} + \frac{M_x}{M_{x_{dyn}}} + \frac{M_y}{M_{y_{dyn}}} + \frac{M_z}{M_{z_{dyn}}} \leq 1$							
Nm	0,2		0,3		0,6		0,9	
Speed								
(m/sec) max	2		2		2		2	
Tensile force								
permanent (N)	200		390		900		1900	
0,2 sec (N)	280		480		1000		2090	
Geometrical moments of inertia of aluminium profile								
I_x mm ⁴	4,09x10 ⁴		1,4x10 ⁵		5,62x10 ⁵		19,23x10 ⁵	
I_y mm ⁴	4,00x10 ⁴		1,47x10 ⁵		6,05x10 ⁵		20,09x10 ⁵	
E-Modulus N/mm ²	70000		70000		70000		70000	

Formula: EGZ

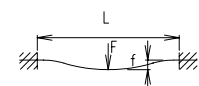
Driving torque:

$$M_a = \frac{F \cdot P \cdot S}{2000 \cdot \pi} + M_{leer}$$

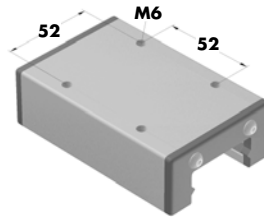
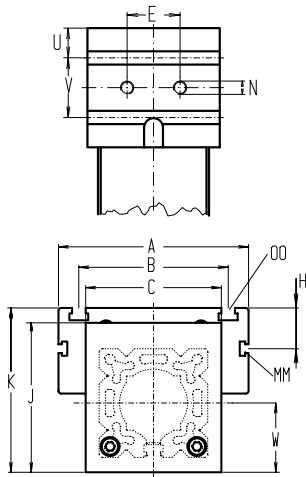
$$P_a = \frac{M_a \cdot n}{9550}$$

F = force (N)
P = pulley action perimeter (mm)
S₁ = safety factor 1,2 ... 2
M_{leer} = no-load torque (Nm)
n = rpm pulley (min⁻¹)
M_a = driving torque (Nm)
P_a = motor power (KW)

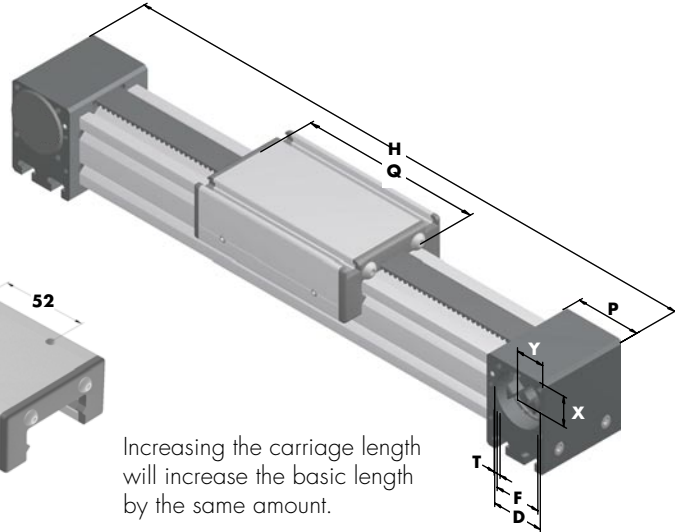
$$f = \frac{F \cdot L^3}{E \cdot I \cdot 192}$$



f = deflection (mm)
F = load (N)
L = free length (mm)
E = elastic modulus 70000 (N/mm²)
I = second moment of area (mm⁴)



Increasing the carriage length will increase the basic length by the same amount.

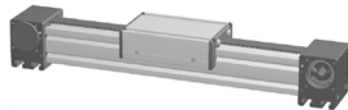


Size	Basic length L	A	B	C	D	E	F	H	J	K	MM for	N	OO for	P	Q	T	U	V	W	X	Y	Basic weight	Additional Weight per 100 mm
EGZ30	158	70	56	42	28	13	25	-	44	47	-	M 5	M 6	36	82	M 4	-	-	21	16	16	0,8 kg	0,13 kg
EGZ40	225	70	-	58	37	18	32	-	58	64	-	M 6	M 6	49	118	M 5	12,5	24	29	20,5	20,5	1,74 kg	0,22 kg
EGZ60	290	100	80	80	47	30	42	-	82	90	-	M 8	M 8	59	164	M 6	15	30	41	27	26	4,32 kg	0,41 kg
EGZ80	375	140	110	100	68	40	60	30	110	121	M 6	M 10	M 10	90	193	M 8	22,5	45	51	39	38	9,36 kg	0,82 kg

Choice of guide body profile:
(0) Standard **(1)** stainless guide rods (only Size 30) **(2)** stainless guide rods and screws (only Size 30)

Choice of carriages:

(0)



For standard carriage length see 'Q' in table. Non-standard length on request. The longer the carriage, the greater the load capacity.

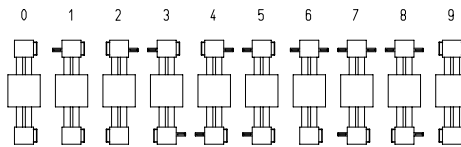
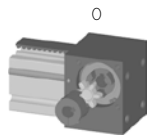
(1)



Top and bottom carriages are rigidly joined, enabling higher loads to be applied. This increases the basic length by 12-16 mm. Thickness of jointing plate refer to accessory section.

Coupling - shaft mounting:

(0)



9 is as 0, but with jaw coupling on both sides.

The standard version is supplied without shaft. A shaft can be retrofitted by inserting in the pulley bore and securing with 2 locking rings.

Belt table

Code No.	Size	Belt	mm/rev.	Number of teeth
0 1	30	3M12	75	25
0 3	40	5M15	100	20
0 4	60	5M25	130	26
0 7	80	8M30	192	24

Shaft dimensions

Size	Shaft \varnothing h6 x length	Key
30	6 x 15	2x2x12
40	10 x 27	3x3x25
60	14 x 35	5x5x28
80	18 x 45	6x6x40

Basic length + stroke = total length

EGZ 40 1 0 0 0 0 3 1 01500

Pos. 1 2 3 4 5 6 7

Sample ordering code:

EGZ 40 with standard body profile, standard carriage, jaw coupling on one side, 1275 mm stroke