

## Belt drive

**Function:**

This unit consists of a square aluminium profile with an integrated rail guide and is covered by a stainless steel sheet (thickness 0.37mm, material 1.4301). The carriage is moved by means of an internal rotating toothed belt. On one end there is a pulley block with shaft(s). The opposite front face is provided with a plate containing a tensioning device for the timing belt.

**Fitting position:**

As required. Max. length 3.000 mm without joints.

**Carriage mounting:**

By tapped holes.

**Unit mounting:**

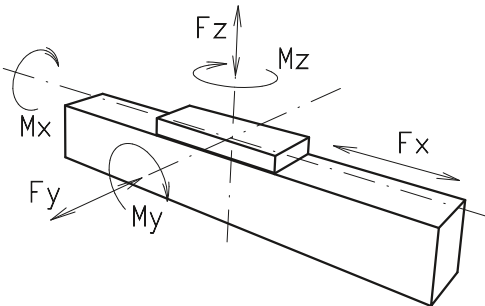
By T-slots and mounting sets, bores through the cover. The linear axis can be combined with any T-slot profile.

**Belt performance:**

HTD with steel reinforcement, no backlash when changing direction, repeatability  $\pm 0,1$  mm.

**Carriage support:**

In the standard version the carriage is positioned on two runner blocks which can be readjusted and maintained at each central servicing position. Two grease nipples at the carriage enable relubrication of the positioning system.

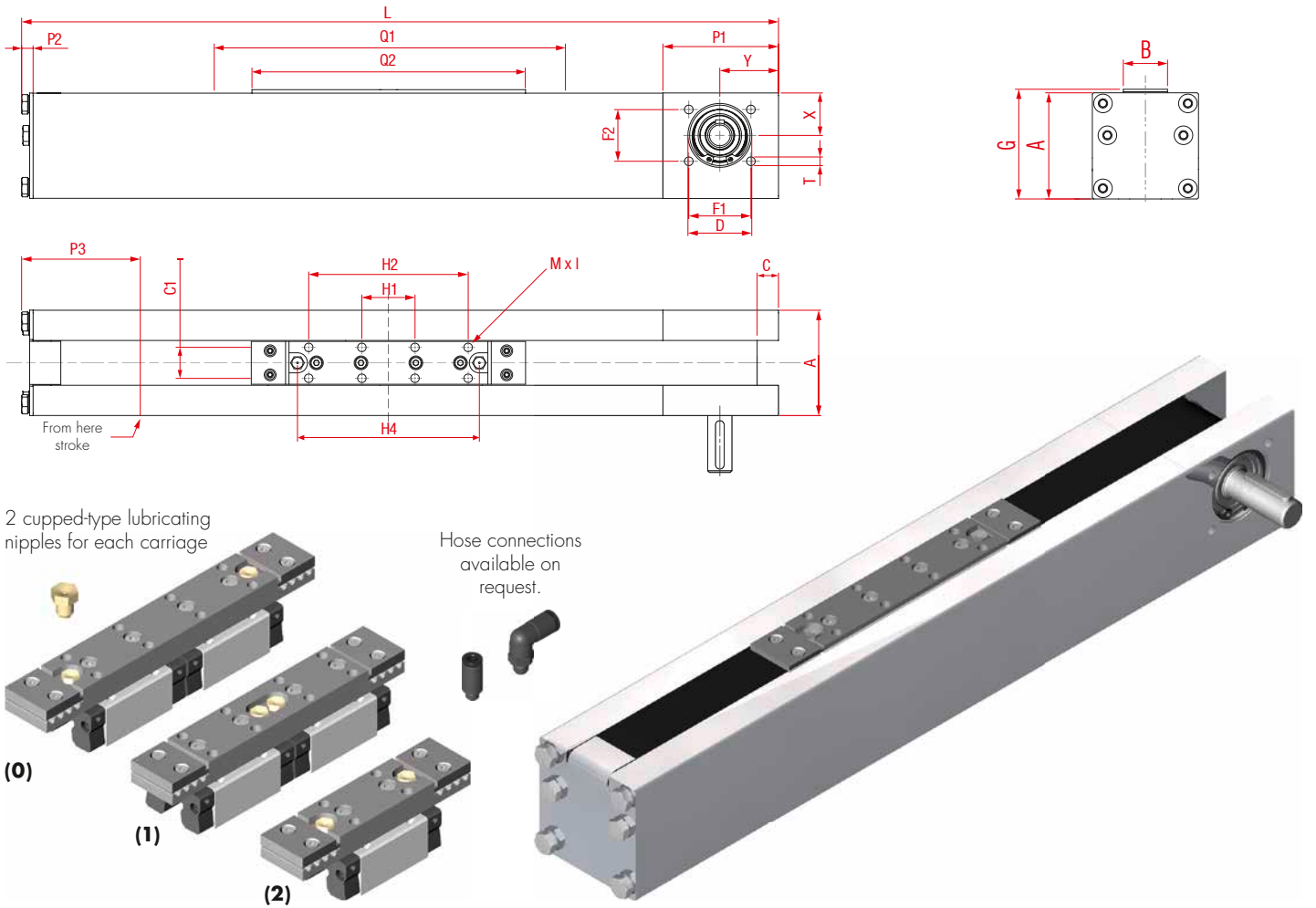
**Forces and torques**

Size	60	
<b>permitted dyn. Forces*</b>	5000 km	10000 km
$F_x$ (N)	894	800
$F_y$ (N)	1410	990
$F_z$ (N)	3520	2500
$M_x$ (Nm)	33	23
$M_y$ (Nm)	104	73
$M_z$ (Nm)	100	70
<b>All forces and torques related to the following:</b>		
existing values	$\frac{F_y}{F_{y_{dyn}}} + \frac{F_z}{F_{z_{dyn}}} + \frac{M_x}{M_{x_{dyn}}} + \frac{M_y}{M_{y_{dyn}}} + \frac{M_z}{M_{z_{dyn}}} \leq 1$	
table values		
<b>No-load torque</b>		
Nm	0,6	
<b>Speed</b>		
(m/s) max	5	
<b>Tensile force</b>		
permanent (N)	900	
0,2 s (N)	1000	
<b>Geometrical moments of inertia of aluminium profile</b>		
$I_x$ mm <sup>4</sup>	4,37x10 <sup>5</sup>	
$I_y$ mm <sup>4</sup>	5,78x10 <sup>5</sup>	
Elastic modulus N/mm <sup>2</sup>	70000	

\* referred to lifetime

# Positioning system LSZE 60

Dimensions (mm)

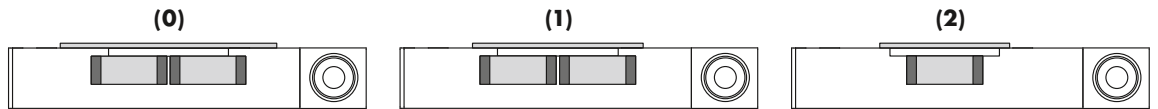


\*For slide nuts refer to chapter 2.2 page 2

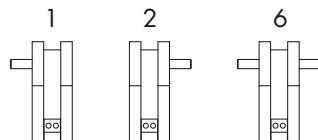
Size	Basic length L	A	B	C	C1	D $\varnothing$ $\pm 0,05$	F1	F2	G	H1	H2	H4	M x l	P1	P2	P3	Q1	Q2	T für	X	Y	Basic weight	Weight per 100 mm
LSZE 60	284	61	25	12,4	18	37	36	30	63	31	93	106	M6x10	67	7	56	160	116	M6	24,6	34	3,3 kg	0,55 kg

**0 Choice of guide body profile:**  
 (0) Version with corrosion-protected components

**0 Choice of carriages:**



**1 Drive version:**



**Belt table:**

Code No.	Size	Belt	mm/rev.	Number of teeth
0 3	60	5M30	130	26

**Shaft dimensions:**

Size	Shaft	Feather key
60	$\varnothing$ 14 h6 x 35	5x5x28

**LSZE 60 1 0 0 1 0 3 1 01500** — Basic length + stroke = total length  
 Pos. 1 2 3 4 5 6 7

Sample ordering code:  
 LSZE60, standard body profile, drive version 1, 1218 mm stroke