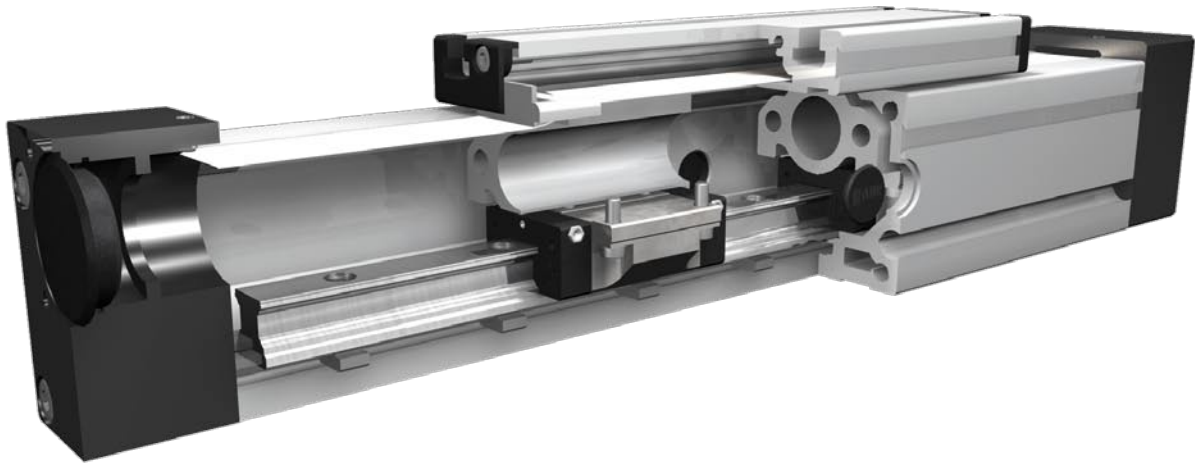


Rail guide



6.1

Function:

This unit consists of a square aluminium profile with an integrated ball rail. The carriage is with leading nut and without drive. The openings of the guide body are covered by a stainless steel cover band to protect the system from splash water and dust.

Fitting position:

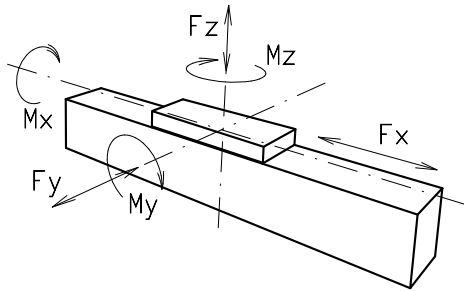
As required, max. length 6.000mm

Carriage connection:

By T-slots

Unit mounting:

By half round slots and tapped holes in the bearing blocks, mounting sets

Forces and torques

Size	QSSR 60		QSSR 80		QSSR 100	
	5000 km	10000 km	5000 km	10000 km	5000 km	10000 km
permitted dyn. forces*						
F_x (N)	1410	990	3570	2550	4080	2900
F_z (N)	3520	2500	8500	6050	10300	7270
M_x (Nm)	33	23	107	75	142	101
M_y (Nm)	190	143	604	430	838	597
M_z (Nm)	176	125	550	392	745	532
C (N)	7800		18800		22800	
All forces and torques related to the following:						
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						
Geometrical moments of inertia of aluminium profile						
I_x mm ⁴	4,3x10 ⁵		14,0x10 ⁵		43,0x10 ⁵	
I_y mm ⁴	4,8x10 ⁵		16,6x10 ⁵		48,8x10 ⁵	
E-Modulus N/mm ²	70000		70000		70000	

* referred to lifetime

Formula: QSSR

Deflection:

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

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

Nominal lifetime:

$$L = \left(\frac{C}{F} \right)^3 \times 10^5$$

L = Lifetime in meters
 C = Dynamic load factor (N)
 F = Medium load (N)

