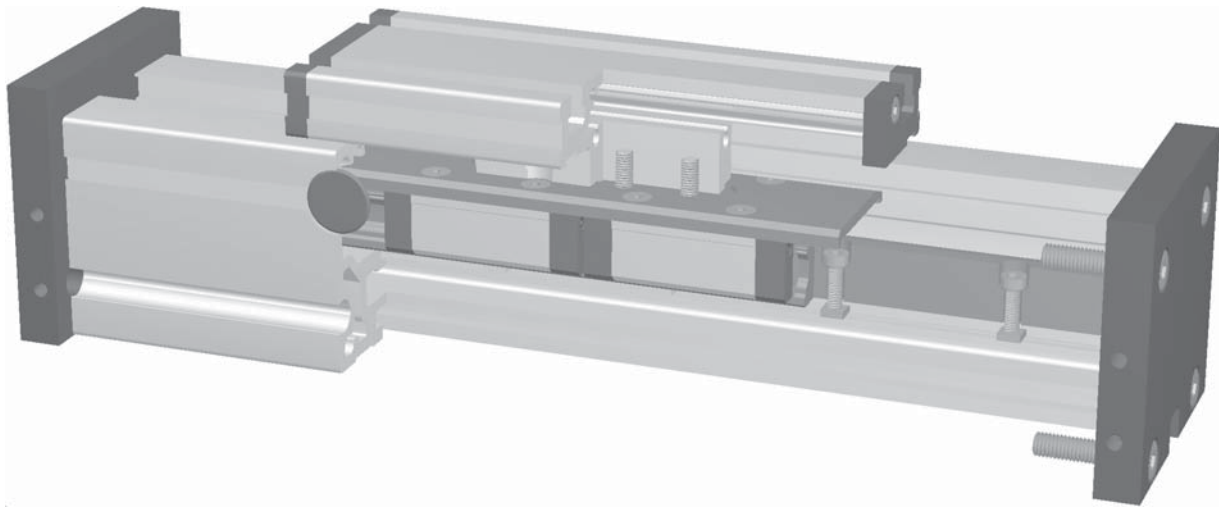


Modular Linear Actuator QSR 60, 80, 100

Profile Rail – Non-Driven

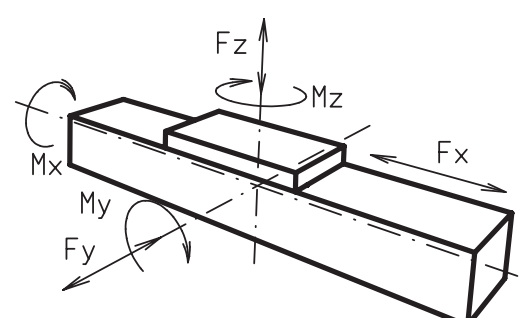


5

Function:

This unit consists of a square aluminium profile with an integrated profile rail. This unit can be driven by a pneumatic cylinder or other devices or it serves as a load carrying slide unit.

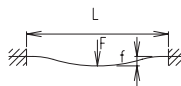
- Fitting length:** As required. Max. length 6,000 mm single/extrusion.
- Carriage mounting:** T-slots
- Unit mounting:** T-slots or tapped holes in the bearing block
- Carriage support:** The carriage runs on 4 rollers which can be adjusted and serviced

Forces and torques	Size		60		80		100	
	Forces/Torques		static	dynamic	static	dynamic	static	dynamic
	F_x (N)		-	-	-	-	-	-
	Dyn. load factor C (N)*		21870	12640	39530	30460	49250	36940
	$F_z = F_y = C$ (N)*		21870	12640	39530	30460	49250	36940
	M_x (Nm)*		210	119	502	388	696	518
	$M_y = M_z$ (Nm)*		634	366	1482	1142	2093	1569
Speed								
(m/sec) max		5		5		5		
Geometrical moments of inertia of aluminium profile								
I_x mm ⁴		4,3x10 ⁵		16,5x10 ⁵		43,0x10 ⁵		
I_y mm ⁴		4,8x10 ⁵		18,7x10 ⁵		48,8x10 ⁵		
Elastic modulus N/mm ²		70000		70000		70000		

* The given values refer to a nominal lifetime of 100.000 m

Formula: QSR

Deflection:

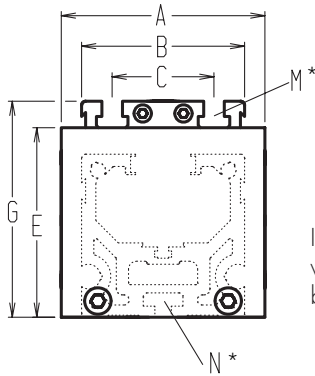
$$f = \frac{F \cdot L^3}{E \cdot I \cdot 192}$$


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

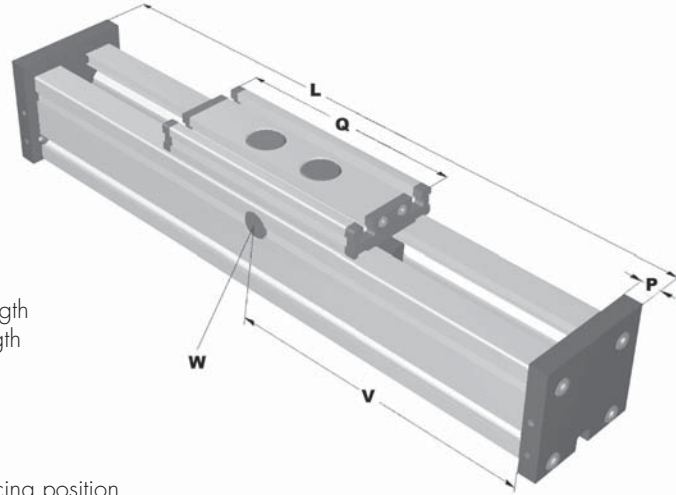
Nominal lifetime:

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

- L = Lifetime in meter
- C = Dynamic load factor (N)
- F = Middle load (N)



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



*For T-nuts refer to the accessory section

W = servicing position

Size	Basic length L	A	B	C	E	G	N	M	P	Q	Basic weight	Additional Weight per 100 mm
QSR 60	205	80	60	36	60	79	M5	M6	12	177	1,8 kg	0,50 kg
QSR 80	270	100	80	50	93	106	M6	M8	17	232	4,9 kg	0,96 kg
QSR 100	315	130	100	66	110	129	M10	M10	20	268	8,2 kg	1,71 kg



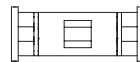
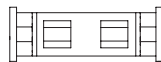
Choice of guide body profile:
0 (0) standard (1) stainless screws

Choice of carriages:

0

(0)

(1)



Size	Version 0		Version 1	
	Q	L	Q	L
60	177	205	152	180
80	232	270	196	234
100	268	315	260	307

1500

Basic length + stroke = total length

QSR 80 0 0 0 0 0 0 0 0 0 1500

Pos. 1 2 3 4 5 6 7

Sample ordering code:

QSR80 with standard body profile, standard carriage and 1230 mm stroke