

# Linear system QSSR 60, 80, 100

## RAIL GUIDE

- ✓ WITHOUT DRIVE
- ➡ SUPPORT UNIT
- ✓ WITH COVERBAND



### 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. Construction compatible with QST / QSK.

### 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.

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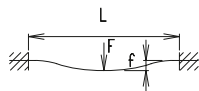
Forces and torques	Size	QSSR 60		QSSR 80		QSSR 100	
	permitted dyn. forces*	5000 km	10000 km	5000 km	10000 km	5000 km	10000 km
$F_y$ (N)		1410	990	3570	2550	4080	2900
$F_z$ (N)		3520	2500	8500	6050	10300	7270
$M_x$ (Nm)		33	23	107	75	142	101
$M_y$ (Nm)		190	143	604	430	838	597
$M_z$ (Nm)		176	125	550	392	745	532
<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 $\frac{F_y}{F_{y_{dyn}}} + \frac{F_z}{F_{z_{dyn}}} + \frac{M_x}{M_{x_{dyn}}} + \frac{M_y}{M_{y_{dyn}}} + \frac{M_z}{M_{z_{dyn}}} \leq 1$							
<b>Geometrical moments of inertia of aluminium profile</b>							
$I_x$ mm <sup>4</sup>		4,3x10 <sup>5</sup>		14,3x10 <sup>5</sup>		31,8x10 <sup>5</sup>	
$I_y$ mm <sup>4</sup>		5,8x10 <sup>5</sup>		18,7x10 <sup>5</sup>		46,5x10 <sup>5</sup>	
E-Modulus N/mm <sup>2</sup>		70000		70000		70000	

For life-time calculation use our homepage.

\* referred to life-time

Deflection:

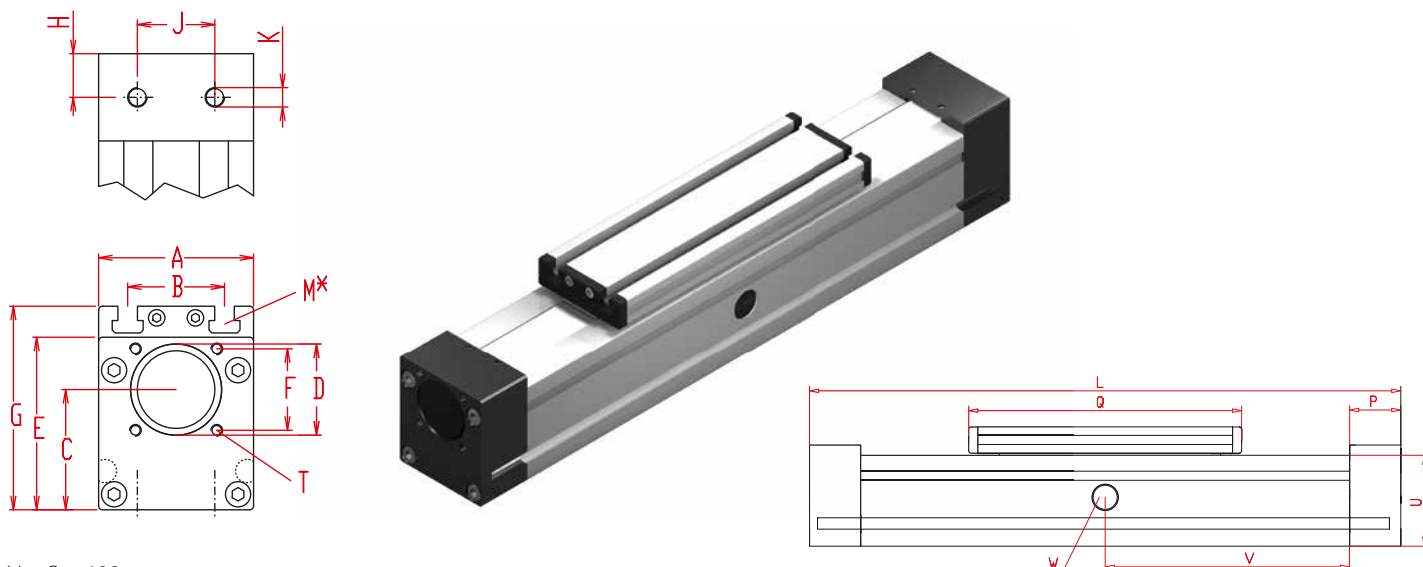
$$f = \frac{F \cdot L^3}{E \cdot I \cdot 192}$$



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

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Dimensions (mm)



$V = Q + 100 \text{ mm}$

W = servicing position

\*For slide nuts refer to chapter 2.2 page 2

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

Size	Basic length L	A	B	C	D -0,05	E	F	G	H	J	K	M for	P	Q	T for	U	Basic weight	Weight per 100 mm
QSSR 60	270	60	36	45	37	67	32	79	19	18	M6	M6	38	188	M5	60	3,1 kg	0,3 kg
QSSR 80	350	80	50	62	47	89	42	106	22,5	40	M10	M8	45	250	M6	80	5,7 kg	0,8 kg
QSSR 100	410	100	66	75	68	112	60	129	28,5	50	M10	M10	57	288	M8	100	10,2 kg	1,2 kg

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**0** Choice of guide body profile:

- (0) Standard (1) corrosion-protected screws
- (4) expanded corrosion-protected version (depending on the availability of components)

**0** Choice of carriage:



Size	Carriage version 1	
	Q	Basic length L
60	255	350
80	336	436
100	383	510

**QSSR 80 0 0 0 0 0 0 0 1500** — Basic length + stroke = total length

Pos. 1 2 3 4 5 6 7

Sample ordering code:  
QSSR80 with standard body profile, standard carriage, 1150 mm stroke.

For additional accessories refer to chapter 2.2