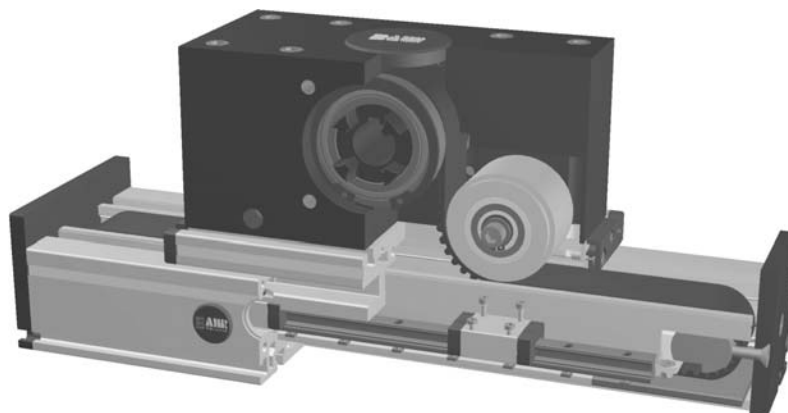


Positioning system DSSZ 160, 200

Specifications

Belt drive



Function:

This linear unit consists of a rectangular aluminium profile with integrated rail guidance. The carriage which has runner blocks is driven by a timing belt. Each standard pulley includes a coupling claw on one side and is equipped with maintenance-free ball bearings. Belt tension can be readjusted by a simple screw adjustment device in the carriage. This device can also be used for symmetrical adjustment of two or more linear units running parallel.

Fitting position:

As required. Max. length 6.000 mm without joints.

Carriage mounting:

By T-slots.

Unit mounting:

By T-slots and mounting sets. 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 runs on 4 runner blocks which can be serviced at a central servicing position. For longer carriages the number of runner blocks can be increased.

8.1



Forces and torques	Size	160		200	
	permitted dyn. Forces*	5000 km	10000 km	5000 km	10000 km
F_x (N)	5000	4000			
F_y (N)	2236	1775			
F_z (N)	5278	4189			
M_x (Nm)	282	224			
M_y (Nm)	283	225			
M_z (Nm)	300	238			
All forces and torques related to the following:					
existing values $\frac{F_y}{F_{y_{dyn}}} + \frac{F_z}{F_{z_{dyn}}} + \frac{M_x}{M_{x_{dyn}}} + \frac{M_y}{M_{y_{dyn}}} + \frac{M_z}{M_{z_{dyn}}} \leq 1$					
values of table $\frac{F_y}{F_{y_{dyn}}} + \frac{F_z}{F_{z_{dyn}}} + \frac{M_x}{M_{x_{dyn}}} + \frac{M_y}{M_{y_{dyn}}} + \frac{M_z}{M_{z_{dyn}}} \leq 1$					
No-load torque					
(Nm)		2,9			
Speed					
(m/sec) max		5			
Tensile force					
permanent (N)		4000			
0,2 sec (N)		4300			
Geometrical moments of inertia of aluminium profile					
I_x mm ⁴		2,13x10 ⁶			
I_y mm ⁴		12,33x10 ⁶			
Elastic modulus N/mm ²		70000			

* referred to life-time

Formula: DSSZ

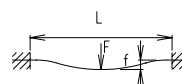
Driving torque:

$$M_o = \frac{F \cdot P \cdot S_s}{2000 \cdot \pi} + M_{leer}$$

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

Deflection:

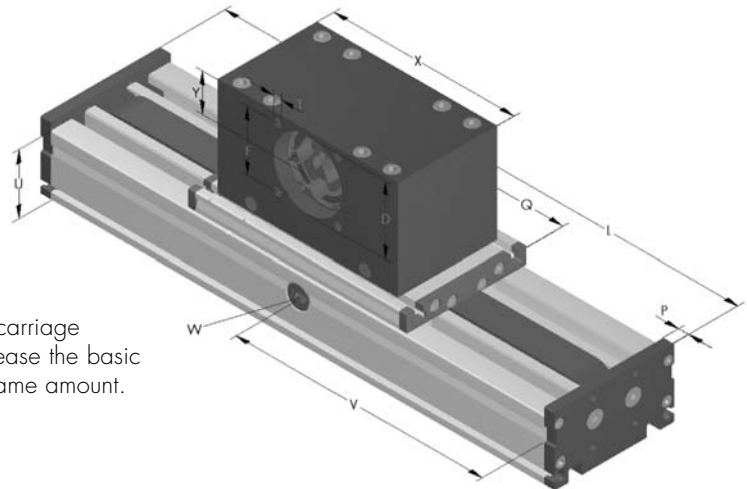
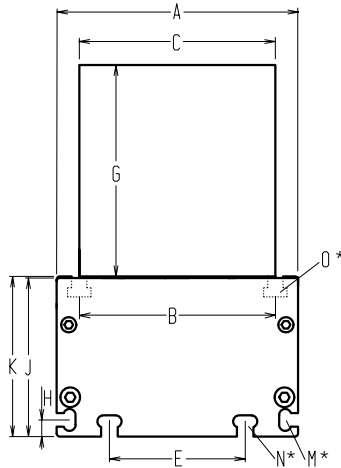
$$f = \frac{F \cdot L^3}{E \cdot I \cdot 192}$$



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

Positioning system DSSZ 160, 200

Dimensions (mm)

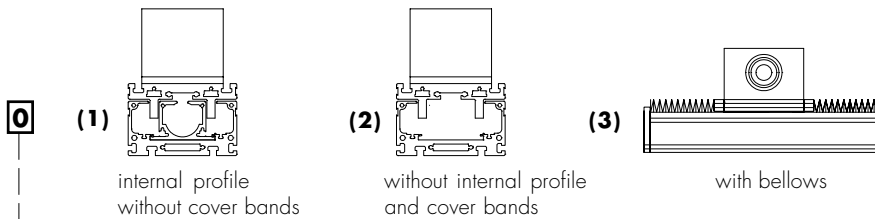


Increasing the carriage length will increase the basic length by the same amount.

*For slide-nuts refer to chapter 2.2 page 2 $V = Q + 100 \text{ mm}$ $W = \text{servicing position}$

Size	Basic length L	A	B	C	D	E	F	G	H	J	K	M for	N for	O for	P	Q	R	S	T	U	X	Y	Basic weight	Weight per 100 mm
DSSZ 160	330	160	130	130	90	90	80	140	11	105	106	M 6	M 8	M 8	12	290	53	60	M 10	80	270	60	27,8 kg	1,8 kg
DSSZ 200																								

Choice of guide body profile:



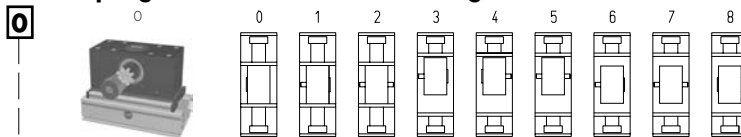
Stainless versions upon request.

Choice of carriages:



Size	Version 0		Version 1	
	Q	L	Q	L
160	290	330	>370	>410
200				

Coupling - Selection of shaft mounting:



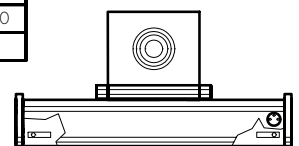
8 is as 0, but with coupling claws on both sides. The standard version is supplied without shaft. A shaft can be retrofitted by inserting in the pulley bore and securing with 2 locking rings or tension sets (size 200).

Belt table

Code No.	Size	Belt	mm/rev.	Number of teeth
0 9	160	8M50	256	32
1 0				

Shaft dimensions

Size	Shaft \varnothing h6 x length	Key
160	22 x 45	6x6x40
200		



Basic length + stroke = total length

DSSZ 160 1 1 0 0 0 9 2 01500
Pos. 1 2 3 4 5 6 7

Sample ordering code:

DSSZ160, body profile with internal profile without cover bands, standard carriage, coupling claws on one side, 1170 mm stroke

