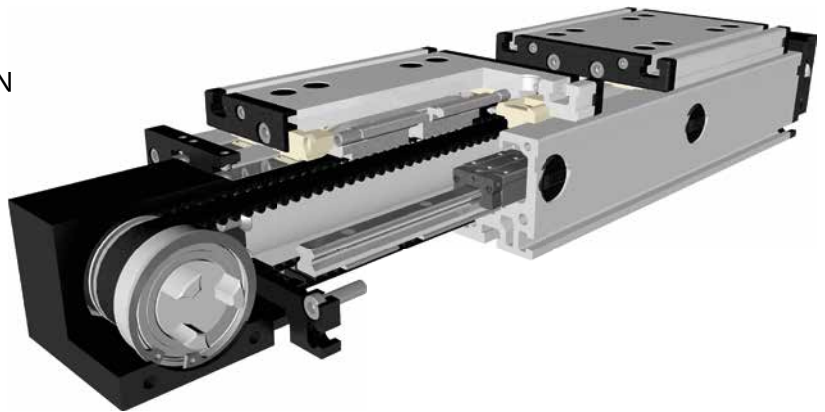
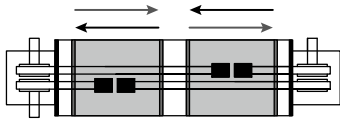


BELT DRIVE - WITH TWO SEPARATELY DRIVEN CARRIAGES

☑ INDEPENDENT CARRIAGES

☒ HORIZONTAL INSTALLATION POSITION



Function:

This unit consists of a rectangular aluminium profile with 2 integrated rail guides. The carriage is moved by a belt drive. Each carriage can be moved separately by its own drive. This unit has twin pulleys, which run on separate bearings, and two independent, parallel drive belts, one for each carriage. The openings of the guide body are sealed with 3 stainless steel cover bands to protect the guide from splash water and dust.

Fitting position:

As required. Max. length 4.000 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 type:

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.

| Forces and torques | Size | 160 | | 200 | |
|--|---|------------------------|----------|-------------------------|----------|
| | permitted dyn. Forces* | 5000 km | 10000 km | 5000 km | 10000 km |
| | F_x (N) | 1210 | 1100 | 1900 | 1800 |
| | F_y (N) | 5570 | 3900 | 15600 | 11080 |
| | F_z (N) | 7050 | 5020 | 20600 | 14600 |
| | M_x (Nm) | 358 | 255 | 1285 | 915 |
| | M_y (Nm) | 369 | 262 | 1375 | 980 |
| | M_z (Nm) | 364 | 258 | 1345 | 960 |
| | 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 | | | | |
| No-load torque | | | | | |
| | Nm ohne Abdeckband | 1,5 | | 2,0 | |
| | Nm mit Abdeckband | 2,1 | | 4 | |
| Speed | | | | | |
| | (m/s) max | 5 | | 5 | |
| Tensile force | | | | | |
| | permanent (N) | 1210 | | 1900 | |
| | 0,2 s (N) | 1331 | | 2090 | |
| Geometrical moments of inertia of aluminium profile | | | | | |
| | I_x mm ⁴ | 21,32x10 ⁵ | | 48,07 x10 ⁵ | |
| | I_y mm ⁴ | 123,36x10 ⁵ | | 259,99 x10 ⁵ | |
| | Elastic modulus N/mm ² | 70000 | | 70000 | |

For life-time calculation use our homepage.

* referred to life-time

Driving torque:

$$M_o = \frac{F \cdot P \cdot S_i}{2000 \cdot \pi} + M_n$$

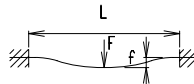
$$P_o = \frac{M_o \cdot n}{9550}$$

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

Deflection:

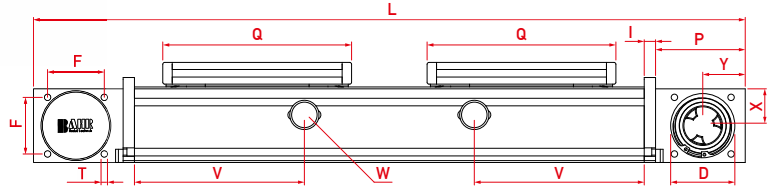
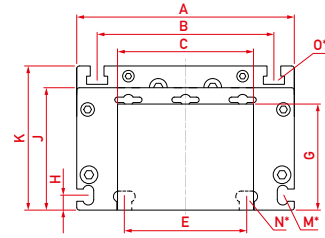
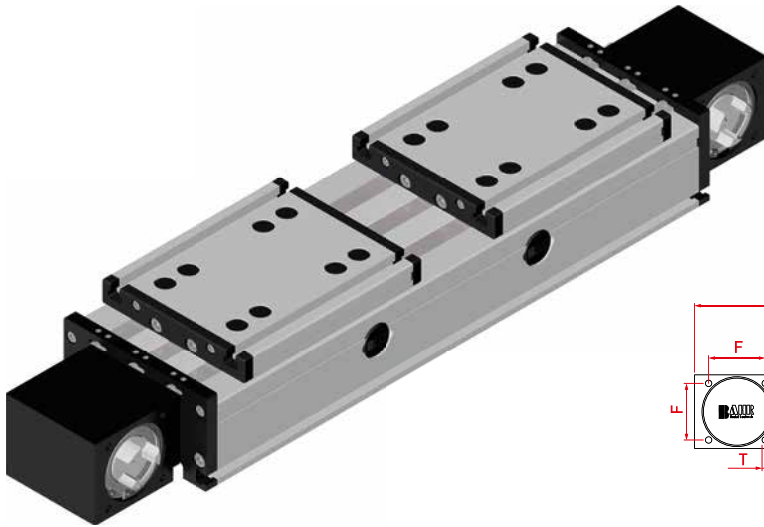
$$f = \frac{F \cdot L^3}{E \cdot I \cdot 192}$$

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



Linear system DSZZ 160, 200

Dimensions (mm)

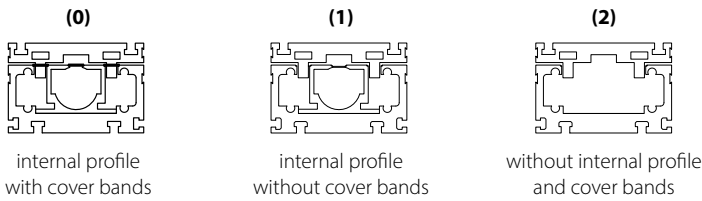


$V = Q + 100 \text{ mm}$ $W = \text{servicing position}$

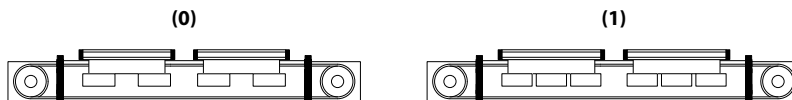
Increasing the carriage length will increase the basic length by the same amount.

| Size | Basic length L | A | B | C | D | E | F | G | H | I | J | K | M for | N for | O for | P | Q | T | X | Y | Basic weight | Weight per 100 mm |
|----------|----------------|-----|-----|-----|----|-----|----|----|----|----|-----|-----|-------|-------|-------|-----|-----|-----|----|----|--------------|-------------------|
| DSZZ 160 | 625 | 160 | 130 | 121 | 68 | 90 | 60 | 78 | 11 | 12 | 90 | 106 | M6 | M8 | M8 | 95 | 200 | M8 | 39 | 45 | 20,5 kg | 1,95 kg |
| DSZZ 200 | 800 | 200 | 160 | 150 | 90 | 140 | 80 | 97 | 15 | 15 | 110 | 129 | M8 | M10 | M10 | 110 | 270 | M10 | 49 | 50 | 34,5 kg | 2,90 kg |

0 Choice of guide body profile: Stainless versions upon request.

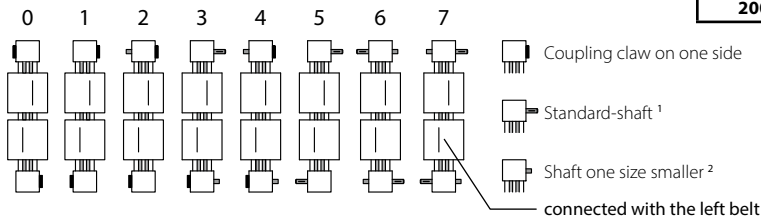


0 Choice of carriages:



| Size | Version 0 | | Version 1 | |
|------|-----------|-----|-----------|-----|
| | Q | L | Q | L |
| 160 | 200 | 625 | 230 | 685 |
| 200 | 270 | 800 | 310 | 880 |

0 Drive version:



Belt table:

| Code No. | Size | Belt | mm/rev. | Number of teeth |
|----------|------|-------|---------|-----------------|
| 0 6 | 160 | 8M 20 | 176 | 22 |
| 0 7 | 200 | 8M 30 | 224 | 28 |

Shaft dimensions / Coupling:

| Size | Shaft $\varnothing h6 \times \text{length}$ | Key | Coupling |
|-----------------------|---|--------|----------|
| DSZZ 160 ¹ | $\varnothing 18 \times 45$ | 6x6x35 | 19 |
| DSZZ 160 ² | $\varnothing 14 \times 35$ | 5x5x28 | 19 |
| DSZZ 200 ¹ | $\varnothing 22 \times 45$ | 6x6x40 | 24 |
| DSZZ 200 ² | $\varnothing 18 \times 45$ | 6x6x40 | 24 |

DSZZ 200 4 0 0 2 0 7 1 1500 — Basic length + stroke = total length

Pos. 1 2 3 4 5 6 7

Sample ordering code:

DSZZ 200 with internal profile and cover bands, carriage version 0, drive version 2, 700 mm stroke.

