

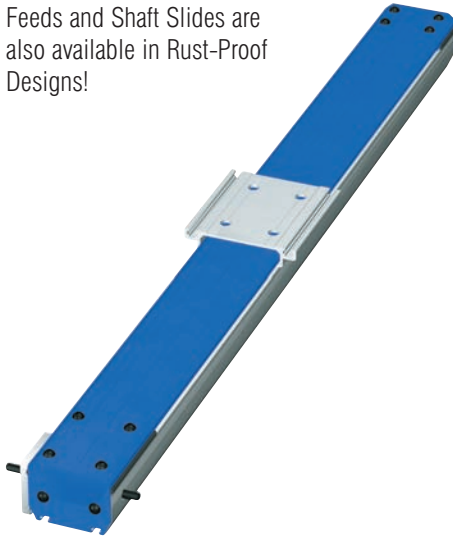
# Timing Belt Feed Axis

## Closed Timing Belt Feed Axis

# LEZ 1 G

## (BlueLine-Series 1)

Feeds and Shaft Slides are also available in Rust-Proof Designs!



### Features

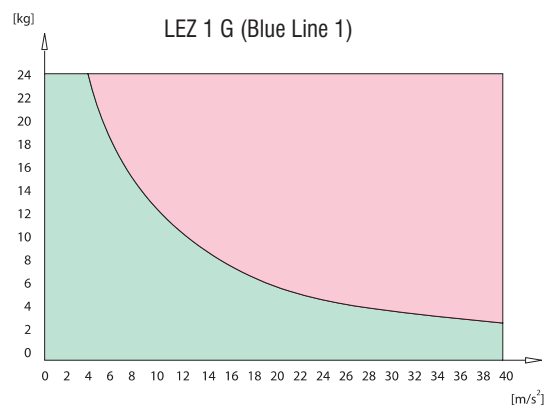
- Aluminium profile with midjet linear guide LFS-8-1
- Clearance-free feed with timing belt feed axis - timing belt with 3 mm pitch, width 15 mm
- Feed 2.4 m/s, at the most
- Shaft slide WS 1 L 126 x W 72 mm
- Repetitive accuracy less or equal  $\pm 0.2$  mm
- Limit and/or reference switch Accuracy  $< 0.1$  mm
- Available in lengths up to 2.05 m
- Motor can be mounted on both sides due to an extended shaft end on the driving side
- Numerous combination possibilities due to additional special and angle profiles
- Integrated reference switch

### Technical Data

Belt version.....	HTD 3M, width 15 mm
Mass of slide.....	0.730 kg
Weight without drive module.....	1,000 mm $\cong$ 6.25 kg
Nominal mass of timing belt.....	0.0375 kg/m
Nominal weight of feed axis.....	0.440 kg/100 mm
Effective diameter of the synchronized pulleys...	$\varnothing 15.28$ mm
Moment of inertia of the synchronized pulleys...	$1.461 \cdot 10^{-6}$ kgm <sup>2</sup>
Feed per revolution.....	48 mm

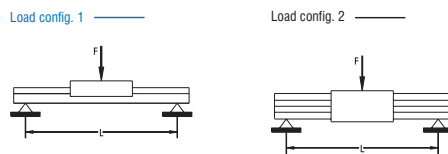
### Load Diagram

Permissible accelerated masses related to belt strength\*

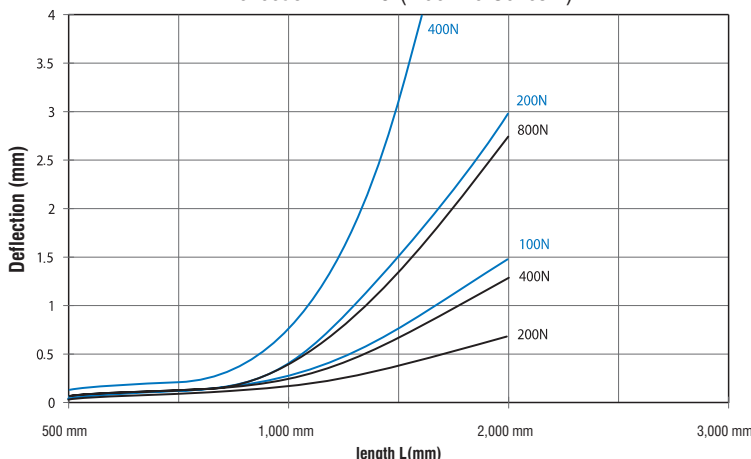


\*At vertical assembly, the acceleration due to gravity ( $g = 9.81$  m/s<sup>2</sup>) has to be taken into account

### Deflection



Deflection LEZ 1 G (BlueLine-Series 1)



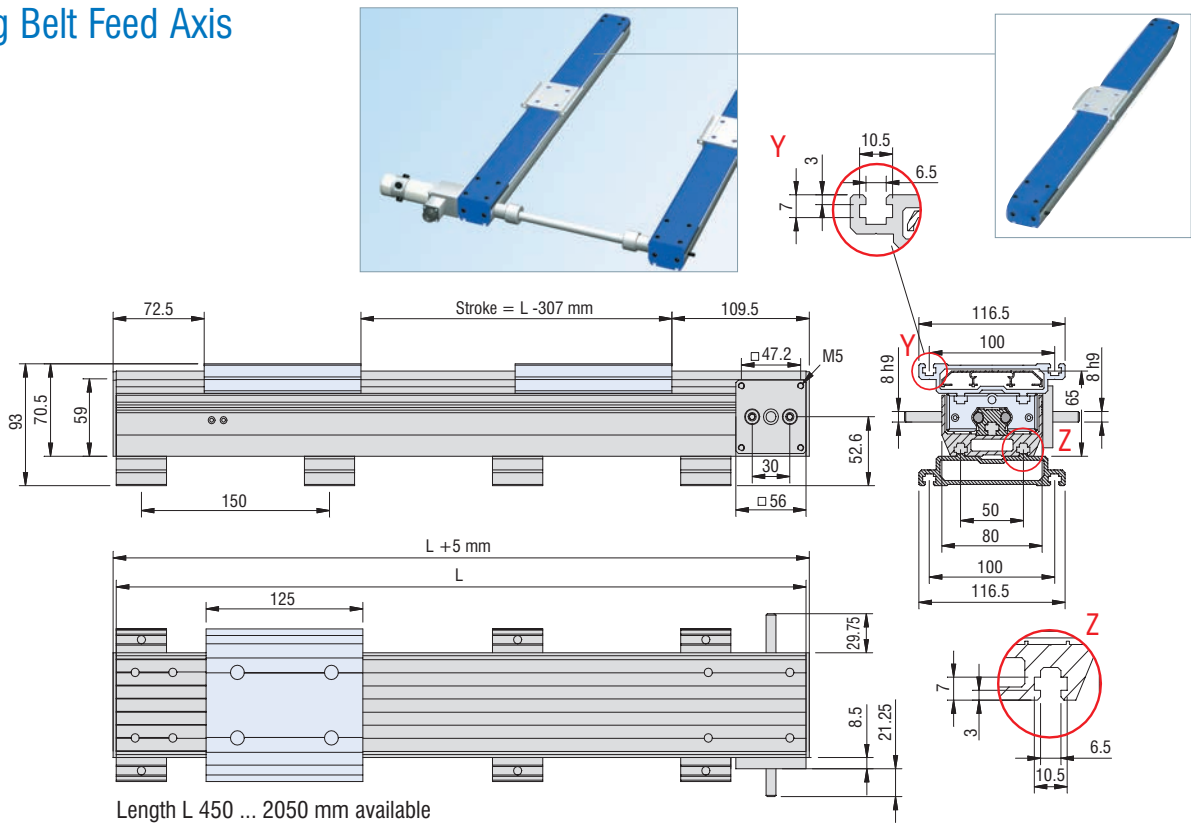
### Idle Torques

Revolution [1/min]	Idle torque [Nm]
500	0.06
1,500	0.09
3,000	0.13

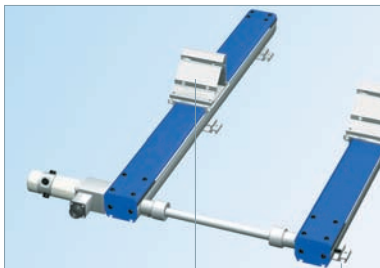
# Timing Belt Feed Axis

# LEZ 1 G (BlueLine-Series 1)

## Timing Belt Feed Axis



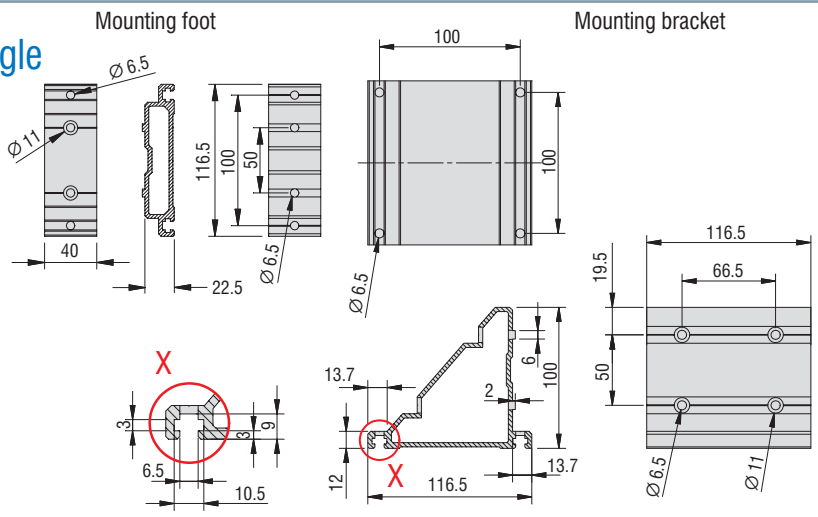
## Mounting Foot and Mounting Angle



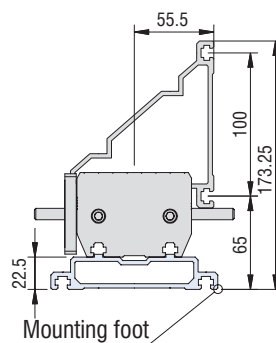
Item no.: 232199 0002



Item no.: 232199 0001



## Mounting Angle as Angle Slide





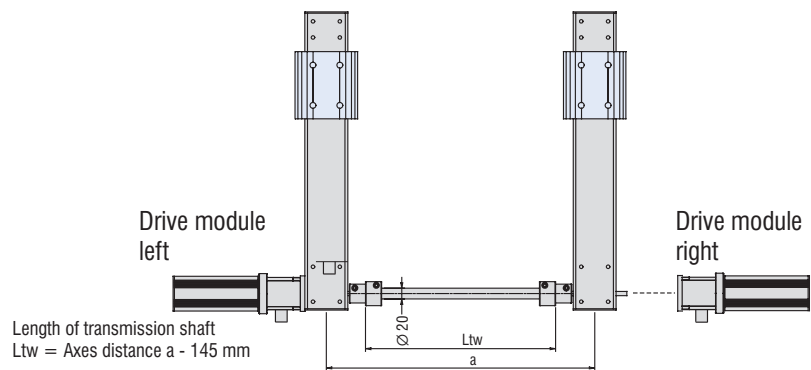
# Timing Belt Feed Axis

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(BlueLine-Series 1)

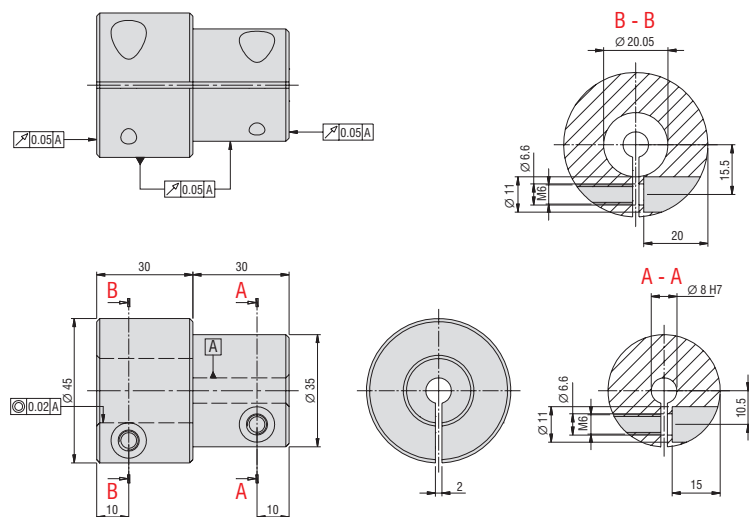
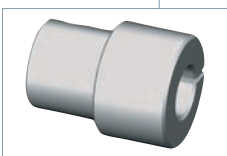
## Connection of two Timing Belt Feed Axes

### Transmission Shaft



## Connection of two Timing Belt Feed Axes

### Coupling for Transmission Shaft



## Moments of Inertia

### for Coupling and Transmission Shaft

#### Coupling

$$J_k = 4.258 \cdot 10^{-5} \text{ kgm}^2$$

#### Transmission shaft (per 100 mm)

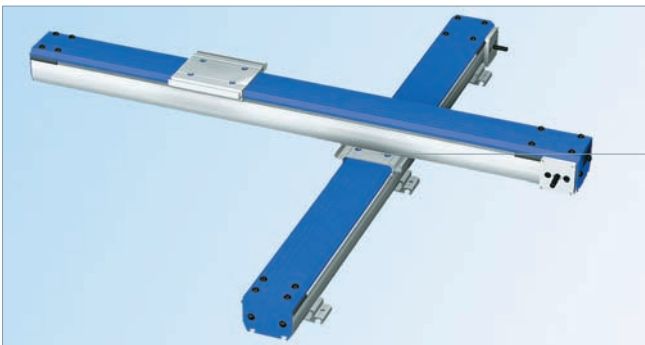
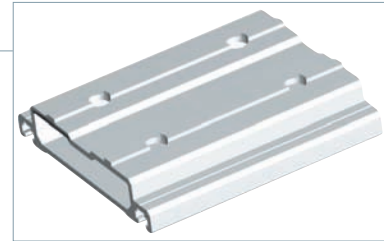
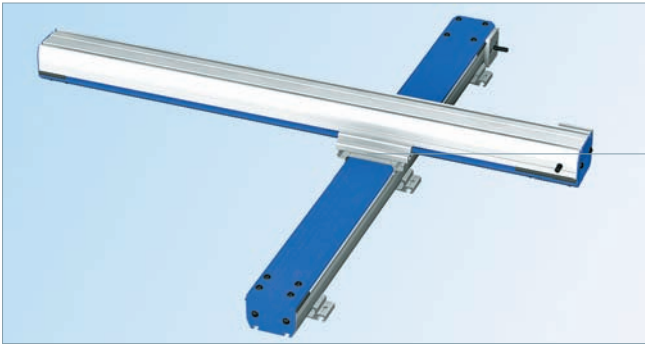
$$J_{Trs} = 2.513 \cdot 10^{-6} \text{ kgm}^2/100 \text{ mm}$$

# Timing Belt Feed Axis

## LEZ 1 G (BlueLine-Series 1)

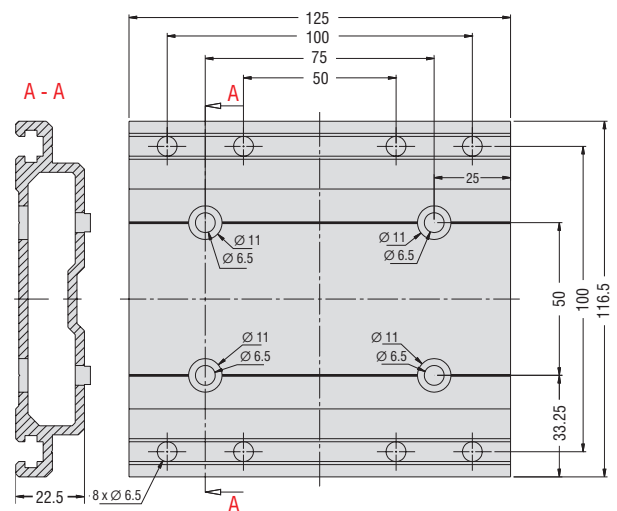
### Compound Table Construction

#### Connecting Slides for Compound Tables



One of the timing belt feed axes has to be supplied with a connecting slide for compound tables in order to make the compound table construction possible.

The assembly takes place in the factory.



# Timing Belt Feed Axis

# LEZ 1 G

(BlueLine-Series 1)

## Order Key

232 1XX XXXX

### Motor

- 0 = without motor
- 1 = with stepping motor MS 160
- 2 = with DC servo motor MV 120

### Driving Side

- 0 = motor connection, right\*
  - 1 = motor connection, left\*
- \* Motor flange for drive is mounted on the right resp. left side

### Slide / Connection

- 0 = with standard slide profile
- 1 = with connecting slides for compound tables
- 2 = with angle slide, right
- 3 = with angle slide, left

### Basic Profile Lengths (mm)

- 450, 550, 650, 750, 850, 950,  
1,050, 1,150, 1,250, 1,350, 1,450,  
1,550, 1,650, 1,750, 1,850, 1,950,  
2,050
- (e. g. 450 mm = 045  
2,050 mm = 205)

Travel = L -307 mm

## Order Samples



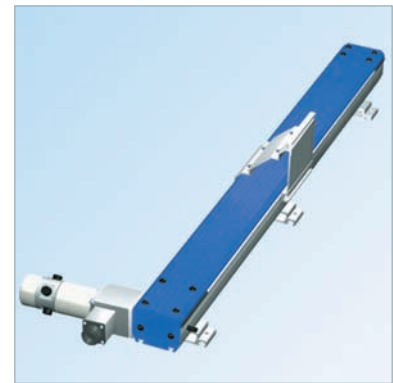
- without motor
- motor connection, left
- with standard slide profile
- basic profile length 750 mm

Item no.: **232101 0075**



- with stepping motor MS 160
- motor connection, left
- with standard slide profile
- basic profile length 750 mm

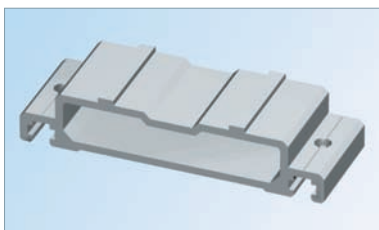
Item no.: **232111 0075**



- with DC servo motor MV 120
- motor connection, left
- with angle slide, right
- basic profile length 750 mm

Item no.: **232121 2075**

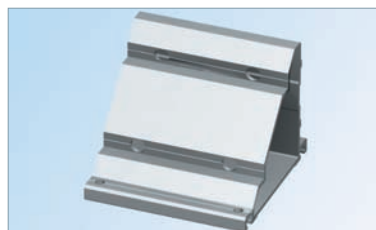
## Accessory



### Feet

- for BlueLine series 1
- 116.5 x 40 x 22.5 mm
- packing unit: 2 pieces

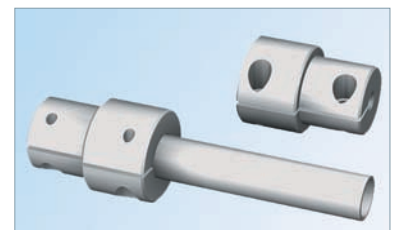
Item no.: **232199 0001**



### Angle slide as angle bracket

- for BlueLine series 1
- incl. fastening

Item no.: **232199 0002**



### Coupling for transmission shaft

- for BlueLine series 1
- packaging unit: 2 couplings

Item no.: **218050 0001**

### Transmission shaft Ø 20 mm

- for BlueLine-Series 1

Length 1 m, item no.: **219001 0120**  
Length 2 m, item no.: **219001 0220**