



LINEAR SYSTEM LB

LINEAR SYSTEM LB



The LB design is based on LME 20 linear ball bearings that are built into our construction profile in the specially provided bore holes. Precision shafts D 20 mm give this guide high load capacity. The LB design offers substantial advantages for short travelling distances and high stroke frequencies. Especially compact and economical guide elements based on our solid precision ball bushings from the LME series with integrated sealing rings, which provide functional security under rough conditions.

Possible applications

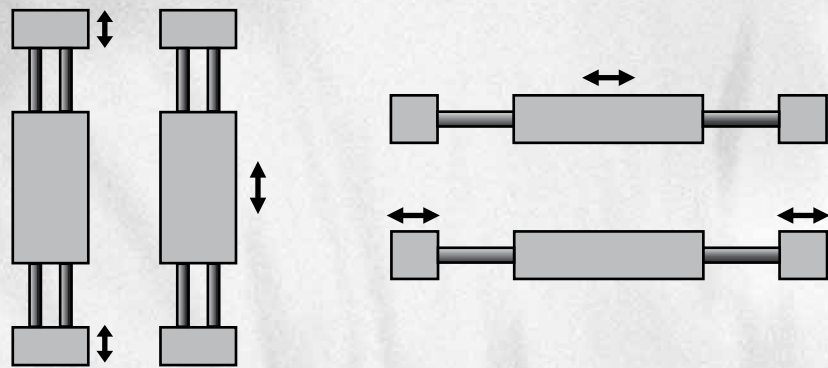
Calculation of life:

$$L = \frac{C}{F} \cdot 10^5$$

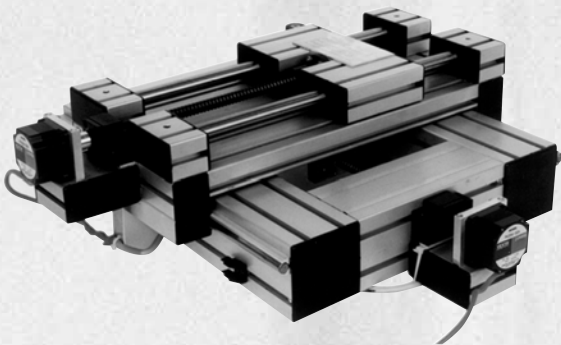
L = Life

C = Basic dynamic load rating (N)

F = Working load (N)



MiniTec LB series linear guides are particularly suitable for short strokes of up to 1 meter. The modular system provides absolute flexibility in the design of the guide. The ball bushings with solid outer ring made from hardened and ground bearing steel are mounted directly into the profile 32 Ø bores of the extra strong profil 45 x 135, 45 x 180, 90 x 180, 90 x 45 S and 90 x 90 S.



The axial position of the bushes is secured with one-component glue. The ball-bushing combines low friction, limited clearance, low noise and long life.

When designing a linear system LB, shaft deflection under load of max. 0.5° must be considered.

For further technical details see MiniTec catalogue "Linear bearings".
 Linear guides LB are available completely assembled with ball-screw on request.
 All components are also available in stainless version.

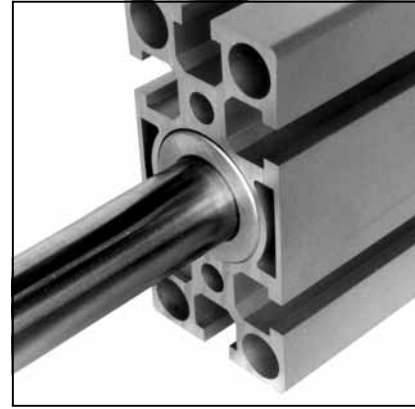
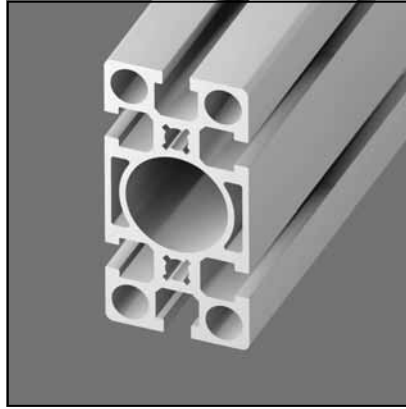
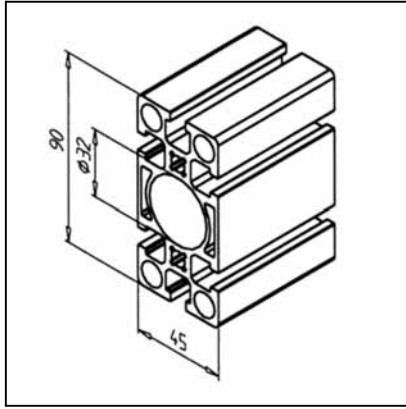


**COMPONENTS
LB**



PROFILE 45 X 90 S

Part. N° 20.1017/0



TECHN. DATA / ITEMS SUPPLIED

- lx =	113,487 cm ⁴
- ly =	30,719 cm ⁴
- wx =	25,219 cm ³
- wy =	13,653 cm ³
- Weight	3,860 kg/m
- Length	6 m
- Packing unit	24 m

APPLICATIONS

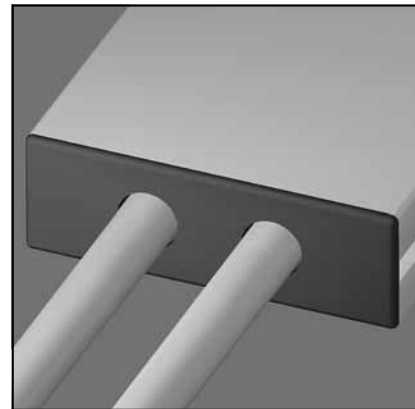
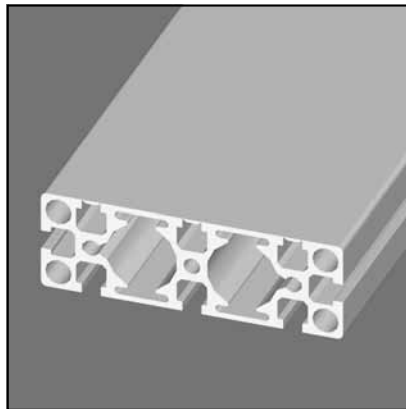
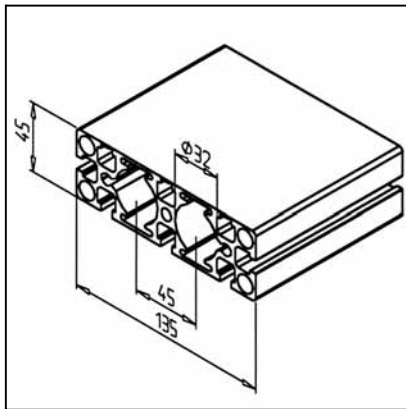
- Universal for general heavy duty constructios
- Linear guides LB
- Linear-guides
- 5 carities for pressed air piping
- Central bore Ø 32 mm for ball-bushings LME 20, for ball-bearings 6201 or 6002, for compressed air piping or guiding of hydraulic add-in cylinders

ASSEMBLY

- MiniTec power-lock fastener
- Cross bolt-fastener
- Angle 45 / 90
- Screw connection

PROFILE 45 X 135 1G

Part. N° 20.1078/0



TECHN. DATA / ITEMS SUPPLIED

- lx =	359,242 cm ⁴
- ly =	47,064 cm ⁴
- wx =	20,618 cm ³
- wy =	53,221 cm ³
- Weight	5,570 kg/m
- Length	6 m
- Packing unit	12 m

APPLICATIONS

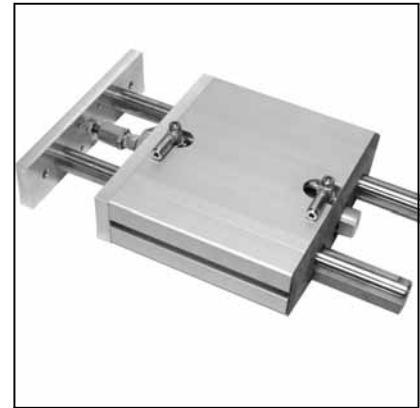
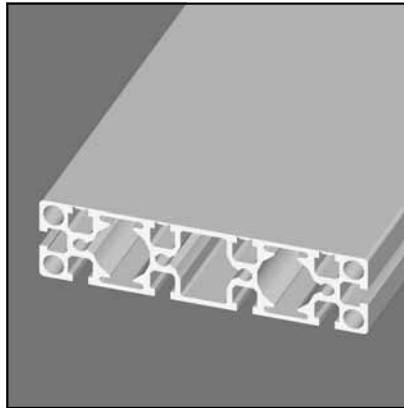
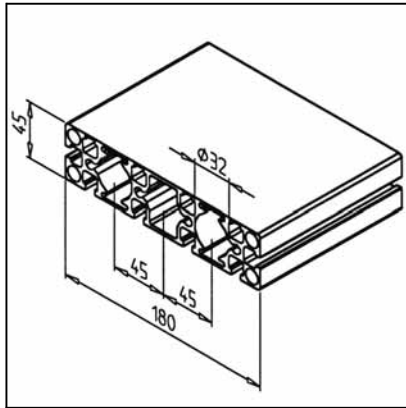
- General engineering structures, particularly for use in the food industry, in medical engineering and for the filling of beverages, where strict hygienic standards are set
- Linear guiding
- Central bore Ø 32 mm for ball-bushings LME 20, for ball-bearings 6201 or 6002, for compressed air piping or guiding of hydraulic dd-in cylinders

ASSEMBLY

- MiniTec power-lock fastener
- 3 closed grooves can be opened up to the desired length, by means of the tear-off lever **Part N° 26.0815/0**

PROFILE 45 X 180 1G

Part. N° 20.1079/0



TECHN. DATA / ITEMS SUPPLIED

- lx =	810,885 cm ⁴
- ly =	61,015 cm ⁴
- wx =	90,097 cm ³
- wy =	26,704 cm ³
- Weight	6,954 kg/m
- Length	6 m
- Packing unit	12 m

APPLICATIONS

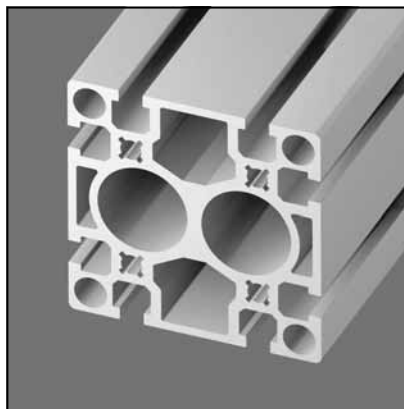
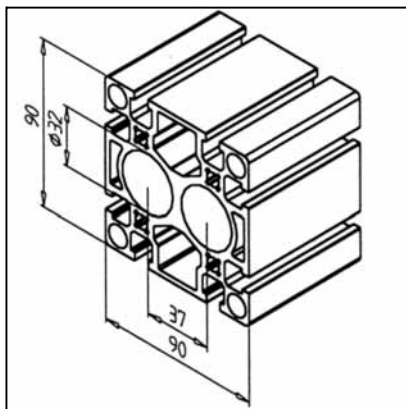
- General engineering structures, particularly for use in the food industry, in medical engineering and for the filling of beverages, where strict hygienic standards are set
- Linear guiding
- Central bore Ø 32 mm for ball-bushings LME 20, for ball-bearings 6201 or 6002, for compressed air piping or guiding of hydraulic dd-in cylinders

ASSEMBLY

- MiniTec power-lock fastener
- 4 closed grooves can be opened up to the desired length, by means of the tear-off lever Part N° 26.0815/0

PROFILE 90 X 90 S

Part. N° 20.1019/0



TECHN. DATA / ITEMS SUPPLIED

- lx =	223,949 cm ⁴
- ly =	208,888 cm ⁴
- wx =	49,766 cm ³
- wy =	46,419 cm ³
- Weight	7,514 kg/m
- Length	6 m
- Packing unit	12 m

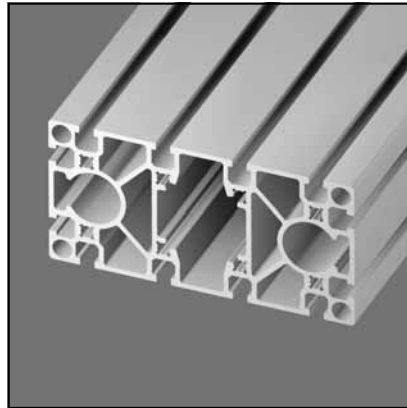
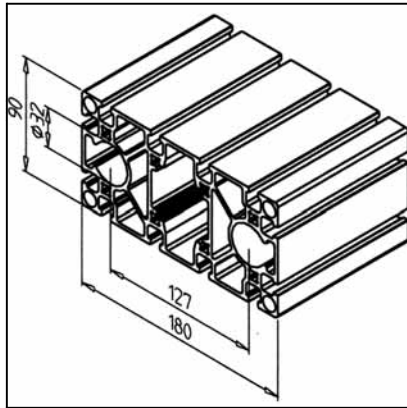
APPLICATIONS

- Universal for general heavy duty constructions
- Linear guiding
- Central bore Ø 32 mm for ball-bushings LME 20, for ball-bearings 6201 or 6002, for compressed air piping or guiding of hydraulic dd-in cylinders

ASSEMBLY

- MiniTec power-lock fastener
- Angle 45 or 90
- Screw connection

PROFILE 90 X 180 S



Part. N° 20.1013/0

TECHN. DATA / ITEMS SUPPLIED

- Ix =	1421,865 cm ⁴
- Iy =	376,784 cm ⁴
- wx =	157,983 cm ³
- wy =	83,729 cm ³
- Weight	11,482 kg/m
- Length	6 m
- Packing unit	6 m

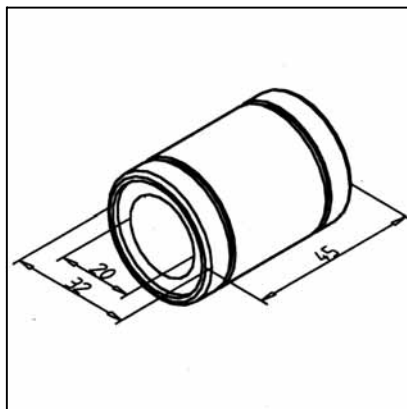
APPLICATIONS

- Universal for general heavy duty constructions
- Linear guiding LB as slide
- Central bore Ø 32 mm for ball-bushings LME 20, for ball-bearings 6201 or 6002, for compressed air piping or guiding of hydraulic dd-in cylinders

ASSEMBLY

- MiniTec power-lock fastener
- Angle 45 or 90
- Screw connection

BALL BUSHING LME 20 UU



Part. N° 10.1745/0

TECHN. DATA / ITEMS SUPPLIED

- Housing	100 Cr6
-	2 integrated sealing rings, heat resistant up to 110°C, for higher temperatures up to 180°C use ball bushing with steel cage
- Load:	
- dyn. C =	880 N
- stat. C° =	1.400 N
- Weight	0,090 kg

APPLICATIONS

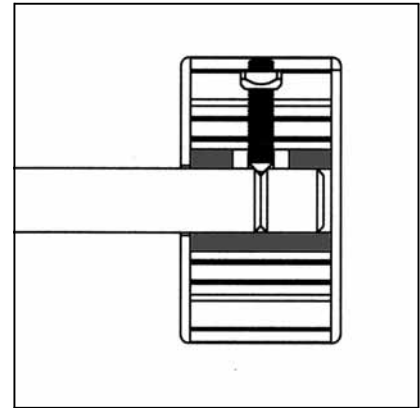
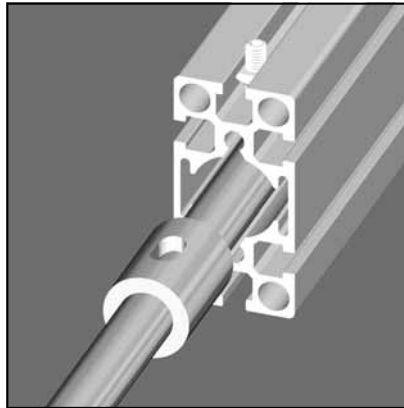
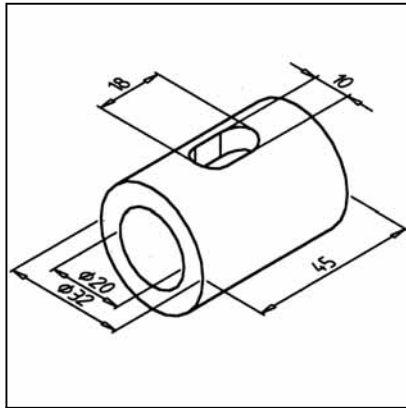
- Precision linear guides
- Linear slide system LB
- Lifting-tables
- Quattro-units

ASSEMBLY

- Push in bore 32 of the profile
- Axial securing with housing adhesive

CENTERING BUSH

Part. N° 28.0146/0



TECHN. DATA / ITEMS SUPPLIED

- Aluminium, natural
- Weight 0,067 kg

APPLICATIONS

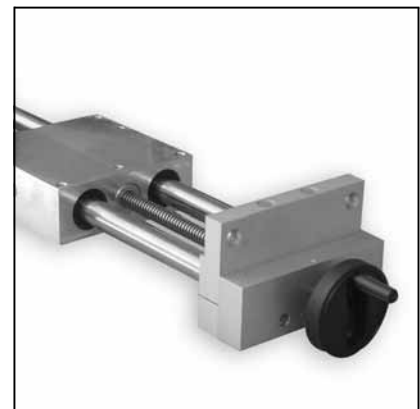
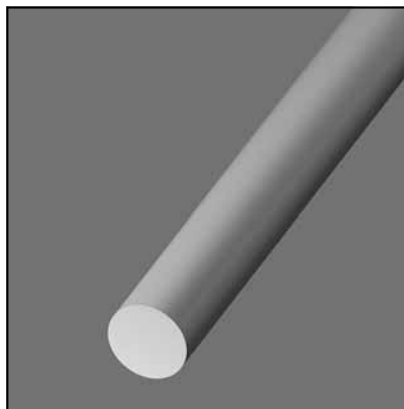
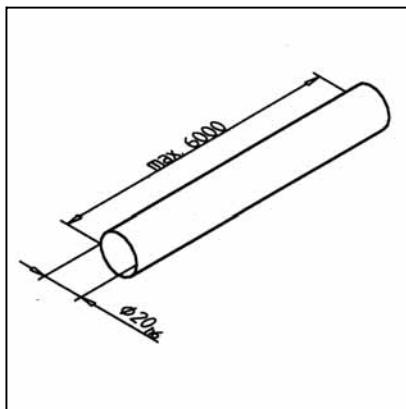
- Central clamping of shafts for all shaft supporting blocks of the MiniTec-linear system LB

ASSEMBLY

- Insert centering bush in bore $\varnothing 32$ mm
- Insert shaft
- Attachment with set screw M8 x 35

SHAFT 20

Part. N° 17.1744/0



TECHN. DATA / ITEMS SUPPLIED

- Cf53, inductive hardened 60 +5 HRC ground h6
- Weight 2,466 kg/m
- Length 6 m

APPLICATIONS

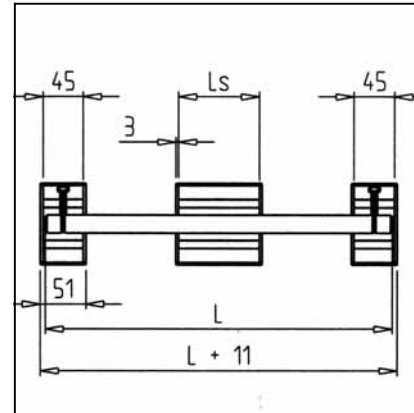
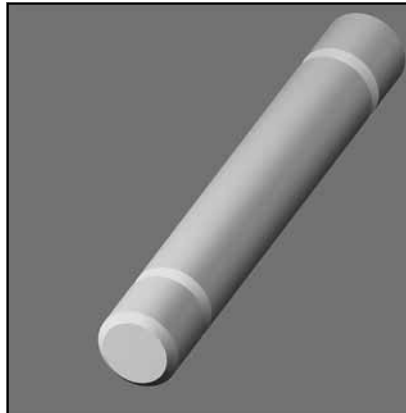
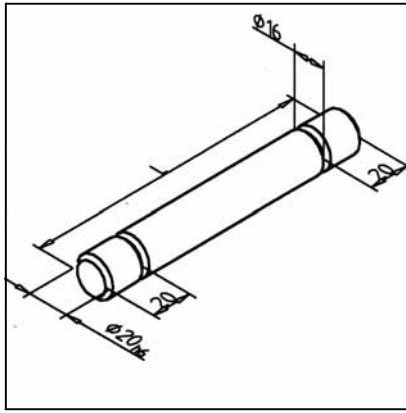
- Linear guide system LB

ASSEMBLY

- With centering bush in shaft support block

SHAFT 20 FOR LB-SYSTEM

Part. N° 28.0154/0



TECHN. DATA / ITEMS SUPPLIED

- Steel Cf53, inductive hardened 60 +5 HRC grinded
- Tolerance h6
- Processed for shaft support block WB
- Weight 0,067 kg/m
- Please indicate measure L

APPLICATIONS

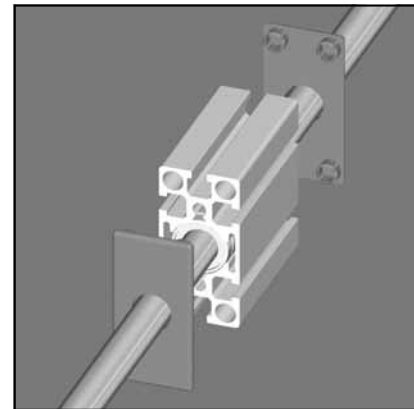
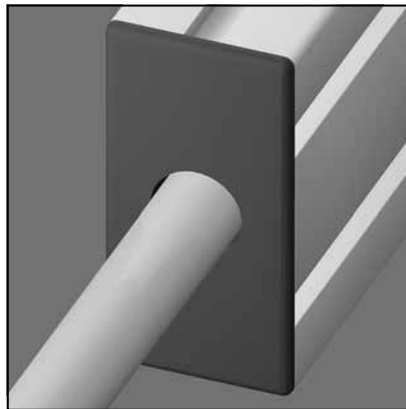
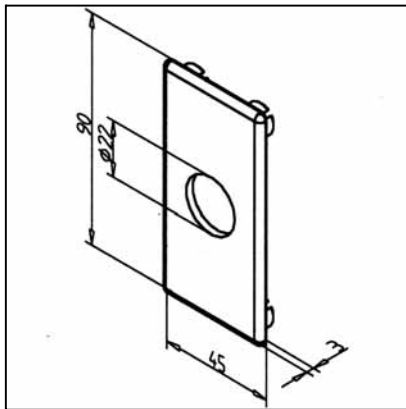
- MiniTec linear guides LB
- In each direction usable

ASSEMBLY

- Insert in shaft support
- Clamp with set screw M8 x 35

END CAP LB 45

Part. N° 28.0094/1



TECHN. DATA / ITEMS SUPPLIED

- ABS, non-aging and oil resistant, grey
- On request also deliverable in black
- 1 centric bore \varnothing 22 mm
- Weight 0,095 kg/m

APPLICATIONS

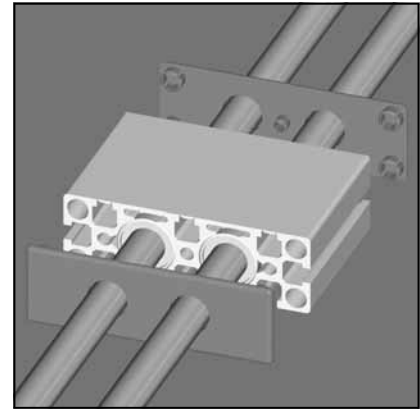
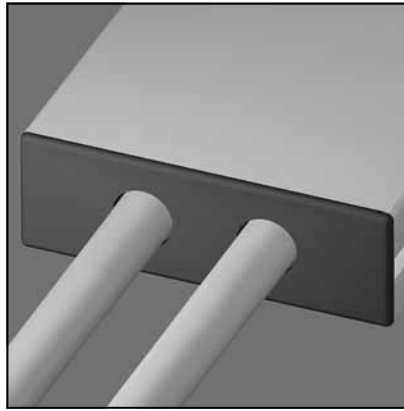
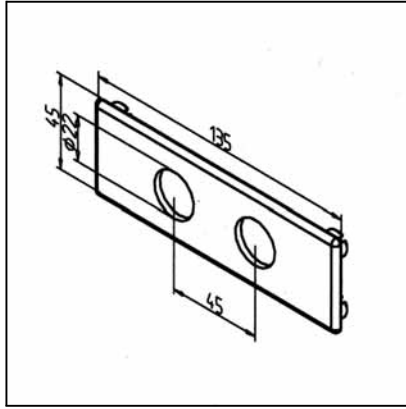
- Face covering of linear slides LB 45
- Face covering of shaft support block WB 45 (shaft side)

ASSEMBLY

- Press into profile bores

END CAP LB 45 X 135

Part. N° 28.0101/1



TECHN. DATA / ITEMS SUPPLIED

- ABS, non-aging and oil resistant, grey
- On request also deliverable in black
- 2 bores Ø 22 mm
- Weight 0,017 kg

APPLICATIONS

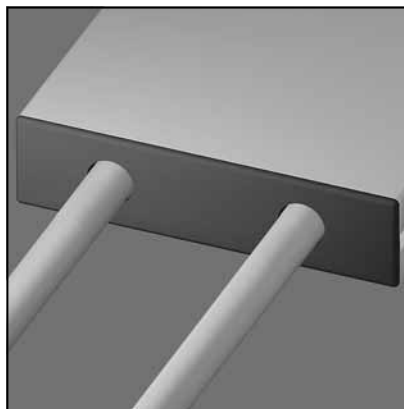
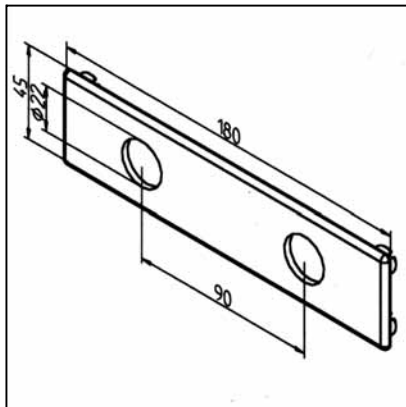
- Face covering of linear slides LB 45 x 135
- Face covering of shaft support blocks WB 45 x 135

ASSEMBLY

- Press into profile bores

END CAP LB 45 X 180

Part. N° 28.0102/1



TECHN. DATA / ITEMS SUPPLIED

- ABS, non-aging and oil resistant, grey
- On request also deliverable in black
- 2 bores Ø 22 mm
- Weight 0,020 kg

APPLICATIONS

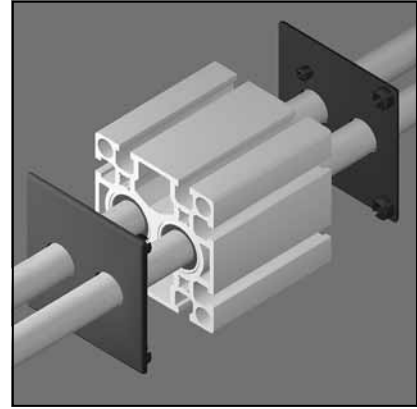
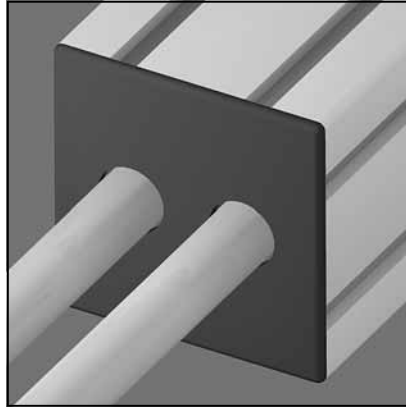
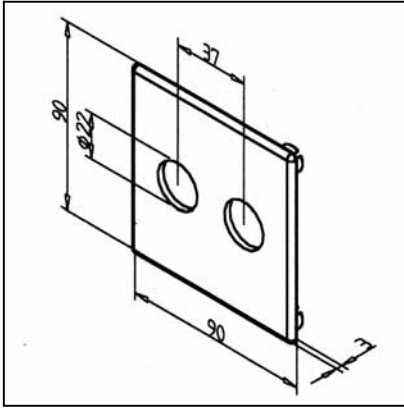
- Face covering of linear slides LB 45 x 180
- Face covering of shaft support blocks WB 45 x 180

ASSEMBLY

- Press into profile bores

END CAP LB 90

Part. N° 28.0095/1



TECHN. DATA / ITEMS SUPPLIED

- ABS, non-aging and oil resistant, grey
- On request also deliverable in black
- 2 bores Ø 22 mm
- Weight 0,0165 kg

APPLICATIONS

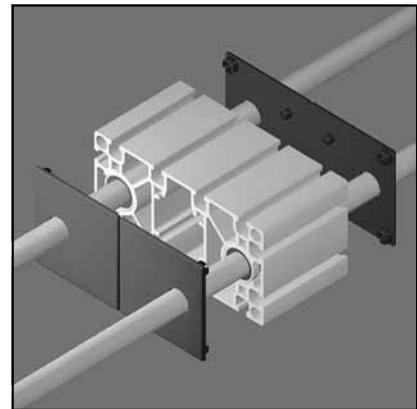
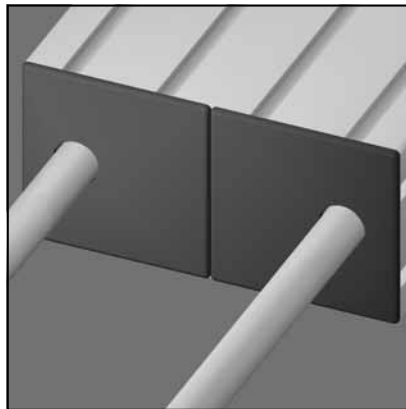
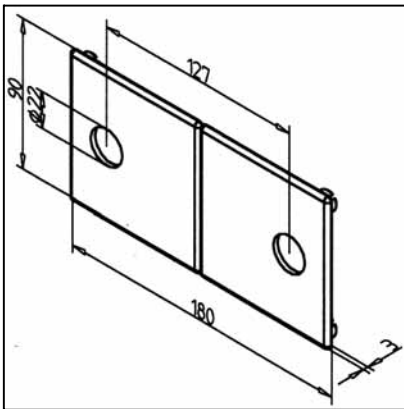
- Face covering of linear slides LB 90
- Face covering of shaft support blocks WB 90

ASSEMBLY

- Press into profile bores

END CAP LB 180

Part. N° 28.0103/1



TECHN. DATA / ITEMS SUPPLIED

- ABS, non-aging and oil resistant, grey
- On request also deliverable in black
- 2 bores Ø 22 mm
- Weight 0,037 kg

APPLICATIONS

- Face covering of linear slides LB 180
- Face covering of shaft support blocks WB 180

ASSEMBLY

- Press into profile bores

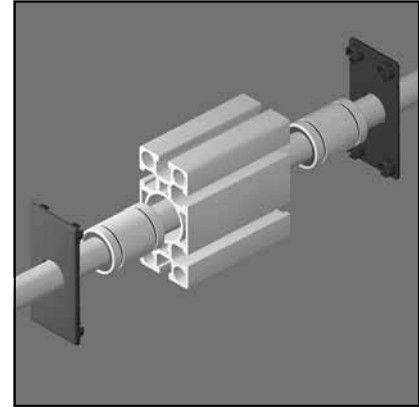
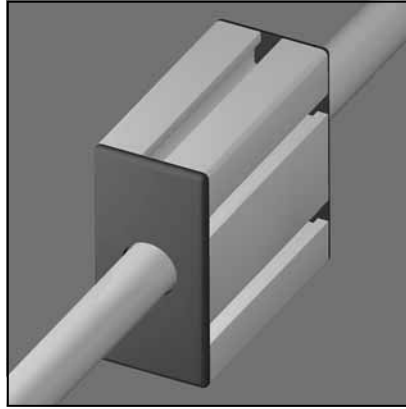
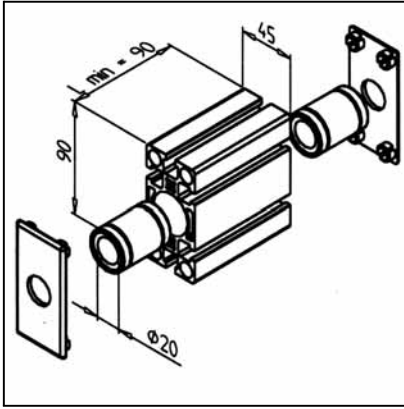


**SYSTEM LB -
READY FOR USE
MODULES LB**



SLIDE LB 45

Part. N° 28.0150/0



TECHN. DATA / ITEMS SUPPLIED

- Profile 45 x 90 S
- Completely assembled with 2 ball bushings LME 20 UU
- Profile face covered with end caps LB 45, grey
- Weight 0,550 kg
- Other length on request

APPLICATIONS

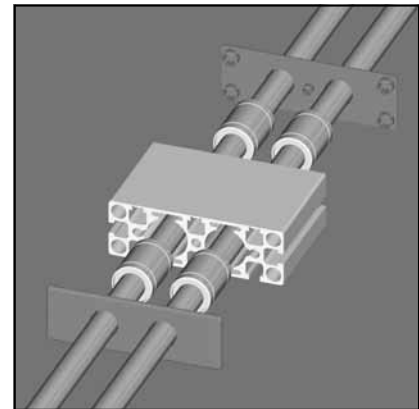
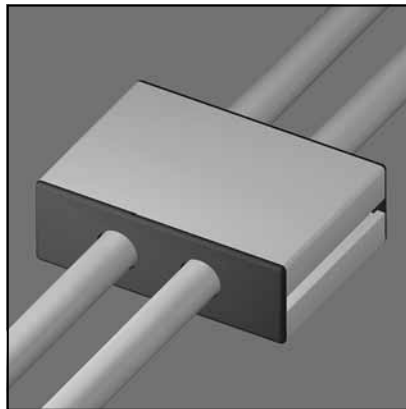
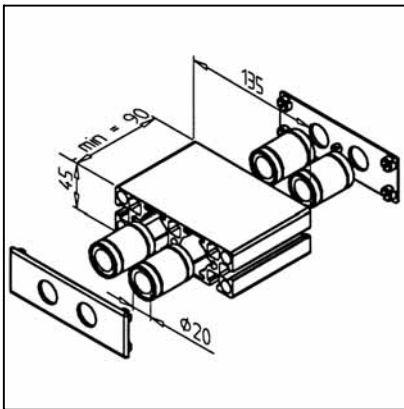
- All MiniTec linear systems LB

ASSEMBLY

- Lead shaft through slide

SLIDE LB 45 X 135

Part. N° 28.0155/0



TECHN. DATA / ITEMS SUPPLIED

- Profile 45 x 135
- Completely assembled with 2 ball bushings LME 20 UU
- Profile face covered with end caps LB 45 x 135, grey
- Weight 0,865 kg
- Other length on request

APPLICATIONS

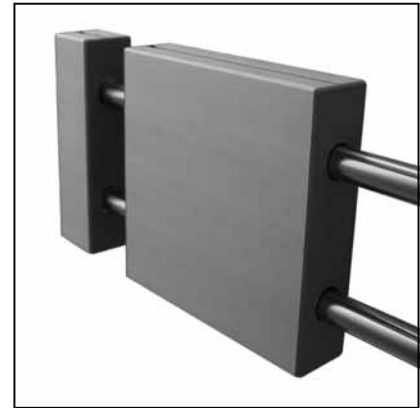
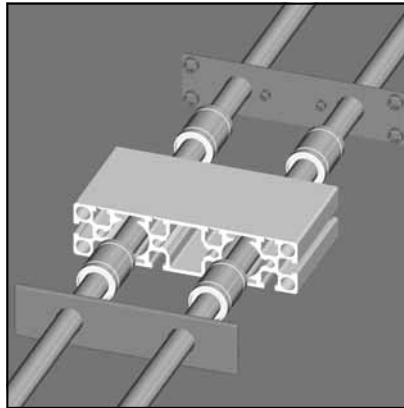
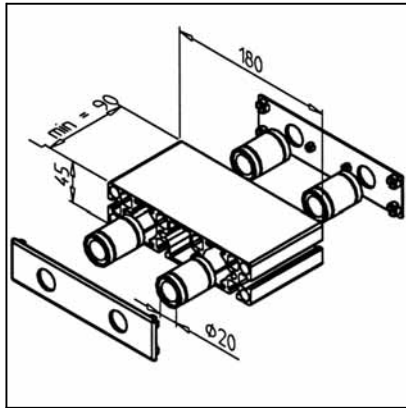
- All MiniTec linear systems LB

ASSEMBLY

- Lead shaft through slide

SLIDE LB 45 X 180

Part. N° 28.0156/0



TECHN. DATA / ITEMS SUPPLIED

- Profile 45 x 180
- Completely assembled with 2 ball bushings LME 20 UU
- Profile face covered with end caps LB 45 x 180, grey
- Weight 1,007 kg
- **Other length on request**

APPLICATIONS

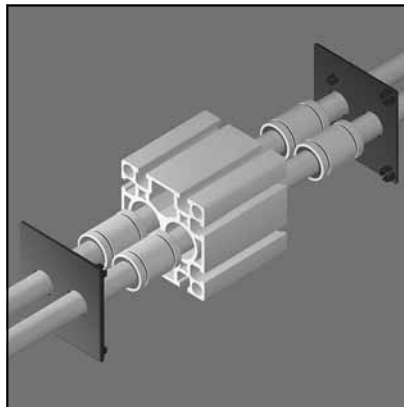
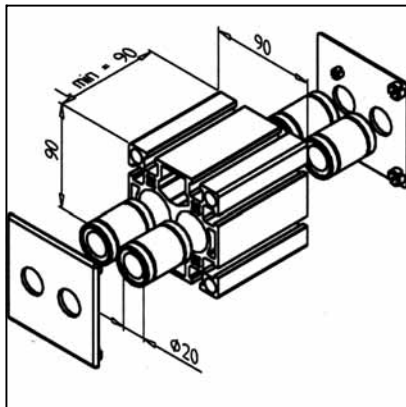
- All MiniTec linear systems LB

ASSEMBLY

- Lead shaft through slide

SLIDE LB 90

Part. N° 28.0152/0



TECHN. DATA / ITEMS SUPPLIED

- Profile 90 x 90 S
- Completely assembled with 4 ball bushings LME 20 UU
- Profile face covered with end caps LB 90, grey
- Weight 1,070 kg
- **Other length on request**

APPLICATIONS

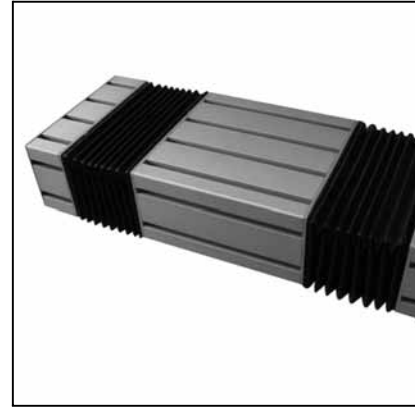
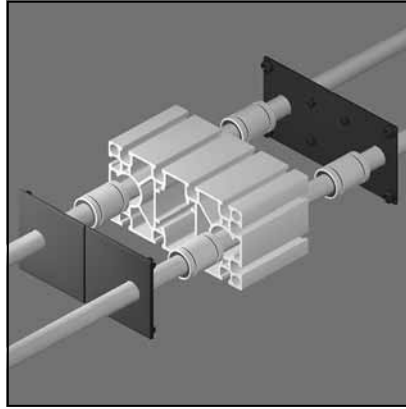
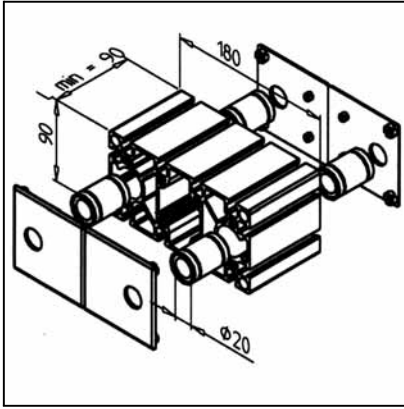
- All MiniTec linear systems LB

ASSEMBLY

- Lead shaft through slide

SLIDE LB 180

Part. N° 28.0143/0



TECHN. DATA / ITEMS SUPPLIED

- Profile 90 x 180 S
- Completely assembled with 4 ball bushings LME 20 UU
- Profile face covered with end caps LB 180, grey
- Weight 1,500 kg
- Other length on request

APPLICATIONS

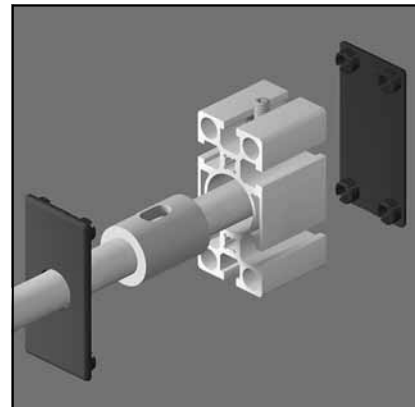
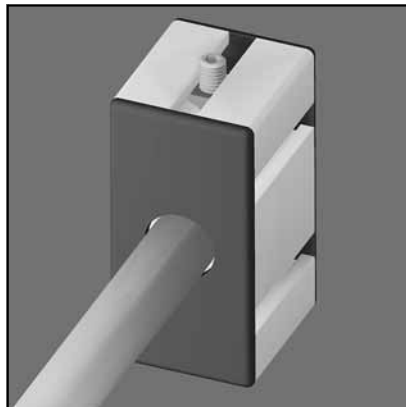
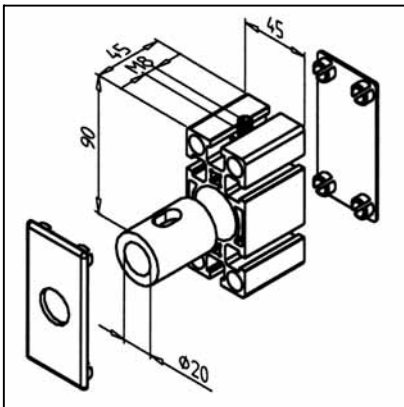
- All MiniTec linear systems LB

ASSEMBLY

- Lead shaft through slide

SHAFT SUPPORT BLOCK WB 45

Part. N° 28.0151/0



TECHN. DATA / ITEMS SUPPLIED

- Profile 45 x 90 S
- Completely assembled with centering bush
- Shaft side with end cap LB 45, grey
- Outer side with end cap 45 x 90, grey
- Weight 0,526 kg

APPLICATIONS

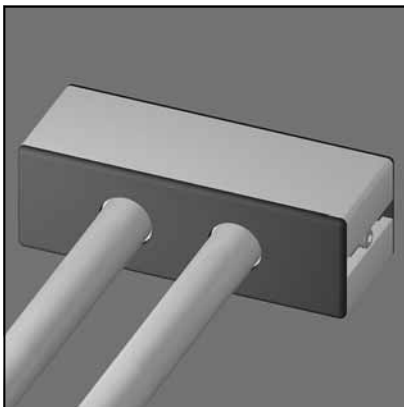
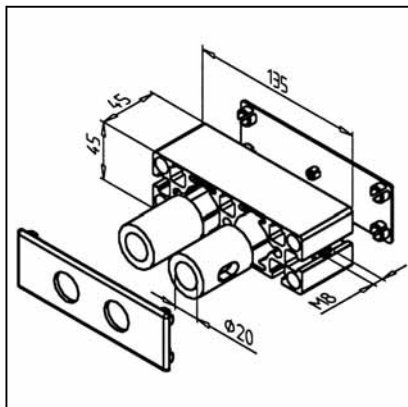
- Fastening shafts Ø 20 in MiniTec linear systems LB 45

ASSEMBLY

- Insert shaft
- Tighten with set screw M8 x 35

SHAFT SUPPORT BLOCK WB 45 X 135

Part. N° 28.0157/0



TECHN. DATA / ITEMS SUPPLIED

- Profile 45 x 135
- Completely assembled with centering bush
- Shaft side with end cap LB 45 x 135, grey
- Outer side with end cap 45 x 135, grey
- Weight 0,530 kg

APPLICATIONS

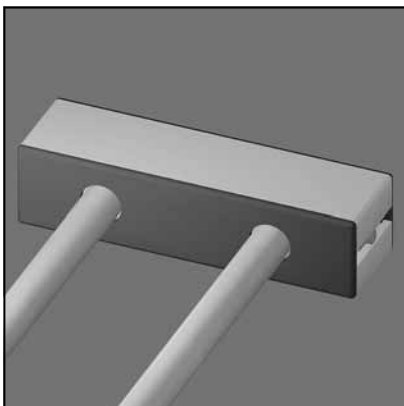
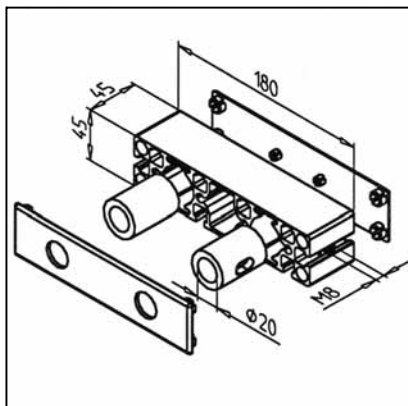
- Fastening shafts Ø 20 in MiniTec linear systems LB 45

ASSEMBLY

- Insert shaft
- Tighten with set screw M8 x 35

SHAFT SUPPORT BLOCK WB 45 X 180

Part. N° 28.0159/0



TECHN. DATA / ITEMS SUPPLIED

- Profile 45 x 180
- Completely assembled with centering bush
- Shaft side with end cap LB 45 x 180, grey
- Outer side with end cap 45 x 180, grey
- Weight 0,770 kg

APPLICATIONS

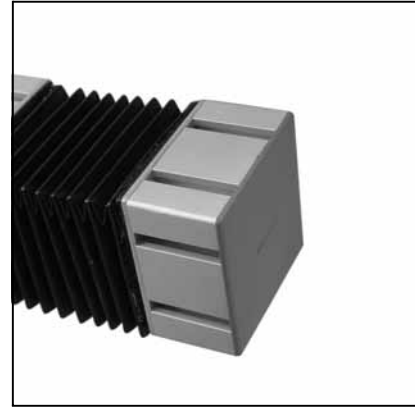
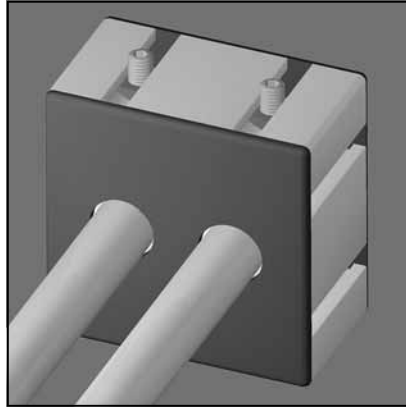
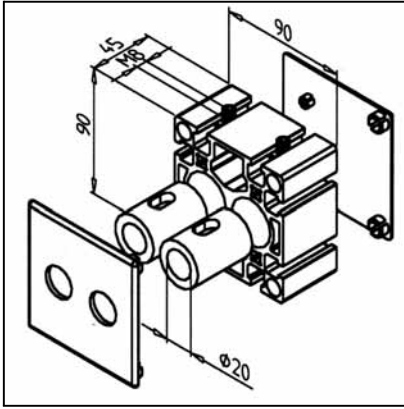
- Fastening shafts Ø 20 in MiniTec linear systems LB 45

ASSEMBLY

- Insert shaft
- Tighten with set screw M8 x 35

SHAFT SUPPORT BLOCK WB 90

Part. N° 28.0153/0



TECHN. DATA / ITEMS SUPPLIED

- Profile 90 x 90 S
- Completely assembled with 2 centering bush
- Shaft side with end cap LB 90, grey
- Outer side with end cap 90 x 90, grey
- Weight 0,410 kg

APPLICATIONS

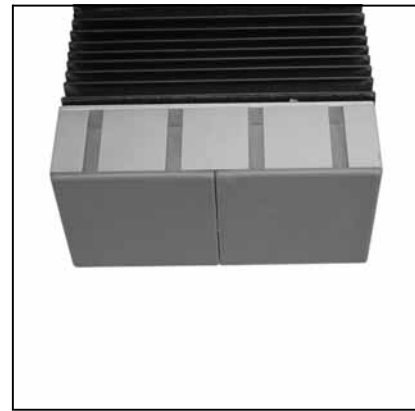
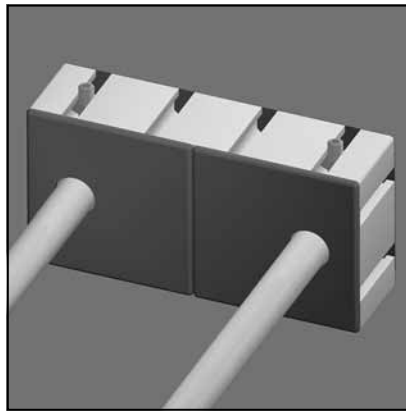
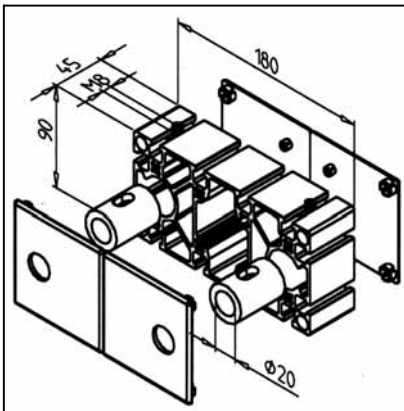
- Fastening shafts Ø 20 in MiniTec linear systems LB 90

ASSEMBLY

- Insert shaft
- Tighten with set screw M8 x 35

SHAFT SUPPORT BLOCK WB 180

Part. N° 28.0144/0



TECHN. DATA / ITEMS SUPPLIED

- Profile 90 x 180 S
- Completely assembled with 2 centering bush
- Shaft side with end cap LB 180, grey
- Outer side with 2 end cap 90 x 90, grey
- Weight 0,650 kg

APPLICATIONS

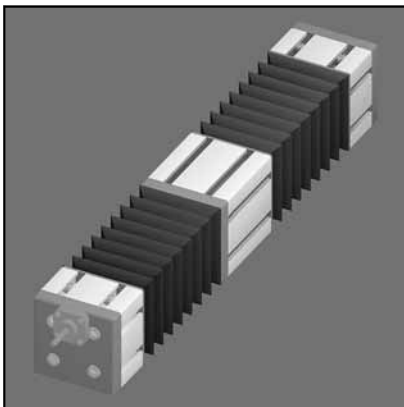
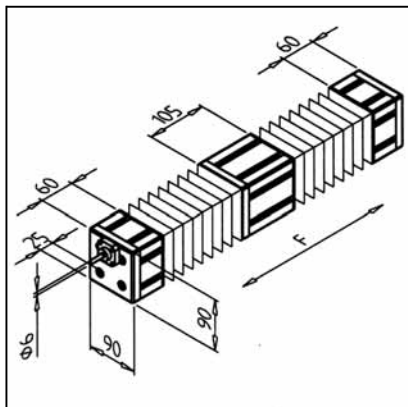
- Fastening shafts Ø 20 in MiniTec linear systems LB 180

ASSEMBLY

- Insert shaft
- Tighten with set screw M8 x 35

LINEAR MODULE LB 90

Part. N° 28.0178/0



TECHN. DATA / ITEMS SUPPLIED

- Linear module made of profile 90 x 90; ready for use
- Drive unit with rolled circulating ball spindle RNCT 1003 Ø 10 mm, incline 3
- Incline fault / 300: 12 µm (class C3)
- Slide guidance on 4 linear ball bearings with hardened ground precision shafts Ø 20 mm, total length 760 mm

TECHN. DATA / ITEM SUPPLIED

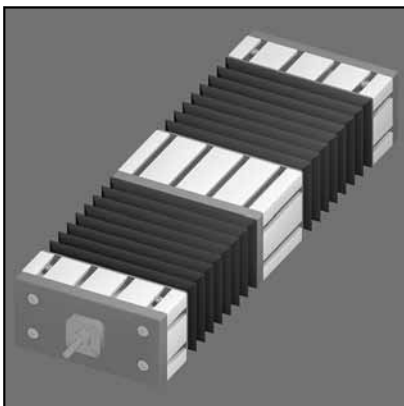
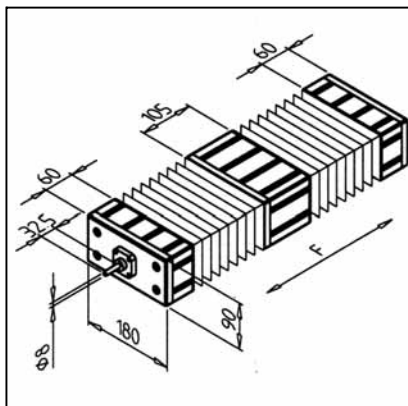
- Shaft end processed at fixed bearing side according to customer specification for motor and crank connection
- Shafts and spindles covered with protective bellows
- Positioning accuracy: ± 0,1 mm

ASSEMBLY

- Handling systems
- z-axis in portals
- Multiple axis systems
- Grabbing units

LINEAR MODULE LB 180

Part. N° 28.0179/0



MULTIPLE AXIS SYSTEMS

- Linear module made of profile 90 x 180; ready for use
- Drive unit with rolled circulated ball spindle RNCT 1404-3,4 Ø 14 mm, incline 4
- Incline fault / 300: 12 µm (class C3)
- Slide guidance on 4 linear ball bearings with hardened ground precision shafts Ø 20 mm, total length 950 mm

TECHN. DATA / ITEM SUPPLIED

- Shaft end processed at fixed bearing side according to customer specification for motor and crank connection
- Shafts and spindles covered with protective bellows
- Positioning accuracy: ± 0,1 mm

APPLICATIONS

- Handling systems
- Z-axis in portals
- Multiple axis systems
- Grabbing units