

Suspension systems

CS-2000 50/60/80

With its large variety of components and different system sizes (50[□], 60[□] and 80[□]), the BERNSTEIN range of suspension systems CS-2000 provides a technically mature solution for numerous applications.

System structure

The following conditions are important for your choice of system:

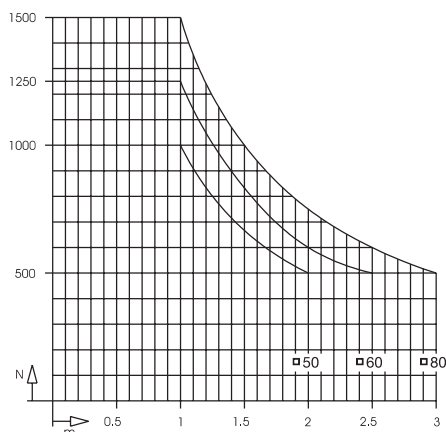
- Load-bearing capacity of the overall system
- Free passage for cables
- Design
- System configuration

Having decided on the right size of the system, you need to select the necessary components and tubes, so that you can put together the desired configuration.

System sizes

This concerns the suspension systems of the sizes 50[□], 60[□] and 80[□]. The figures refer to the dimensions of steel tubes that link up the components.

- System 50[□] – steel tube 50 x 50 mm
- System 60[□] – steel tube 60 x 60 mm
- System 80[□] – steel tube 80 x 80 mm



Selection support for different load capacities are presented on pages 400/401.



Materials

- Gravity-die-cast aluminium components: AlSi12 (Cu)
- Steel-cast components: GGG 40
- Steel welded constructions: St 37
- Suspension tubes: St 37
- Bearings: St/PTFE
- Seals: CR
- Installation opening: AlSi12 (Cu)
- Expansion bellows: PVC

Colours

- Suspension system components: light grey, RAL 7035
- Expansion bellows: light grey, RAL 7035
- Tubes: light grey, RAL 7035

System benefits

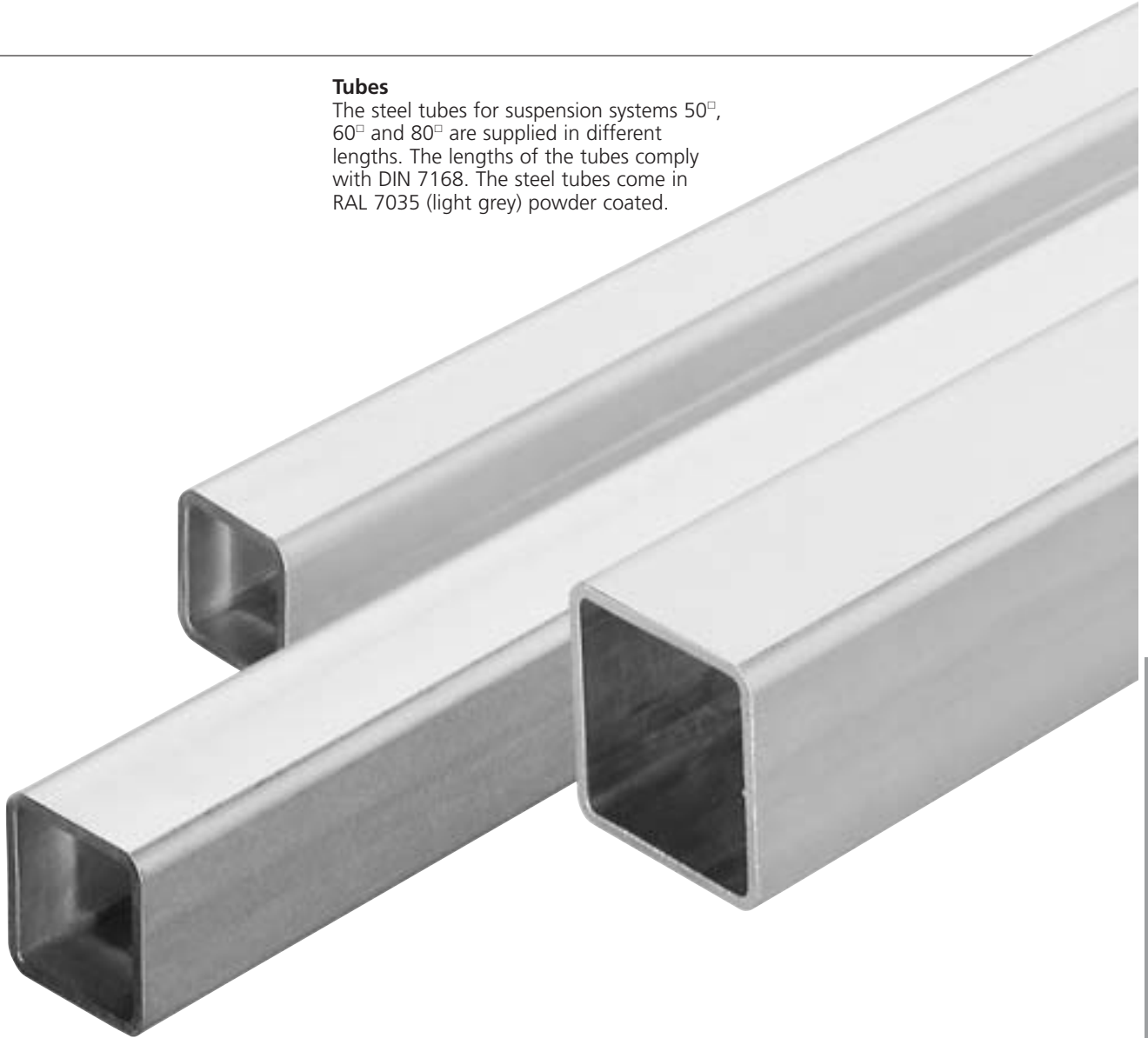
- Cable installation openings at all joints to simplify the installation of cables
- Integrated strain relief to ease the strain on cables
- High variability through the large number of available components
- Broad spectrum of applications through systems with different load-bearing capacities
- Flange coupling with clamping lever at operator face and selectable rotation limiter
- Maintenance-free friction bearings in all joints and couplings
- Adjustment options for the exact adjustment of suspension tubes
- Wall and intermediate joints with clamping lever at operator face and optional rotation limiter (available as accessories).

Connecting tubes

CS-2000 50/60/80

Tubes

The steel tubes for suspension systems 50[□], 60[□] and 80[□] are supplied in different lengths. The lengths of the tubes comply with DIN 7168. The steel tubes come in RAL 7035 (light grey) powder coated.



Weights

System 50 [□]	6.3 kg/m
System 60 [□]	8.1 kg/m
System 80 [□]	11.0 kg/m

Available lengths of tubes

Length (mm)	System 50 [□]	System 60 [□]	System 80 [□]
	Part number	Part number	Part number
250	952.5.0520.00	952.6.0390.00	952.7.1140.00
500	952.5.0530.00	952.6.0400.00	952.7.1150.00
750	952.5.0540.00	952.6.0410.00	952.7.1160.00
1000	952.5.0550.00	952.6.0420.00	952.7.1170.00
1250	952.5.0560.00	952.6.0430.00	952.7.1180.00
1500	952.5.0570.00	952.6.0440.00	952.7.1190.00
2000	952.5.0590.00	952.6.0460.00	952.7.1210.00
3000	952.5.0610.00	952.6.0480.00	952.7.1230.00

System components

Suspension system for medium loads

Type CS-2000 System size 50[□]

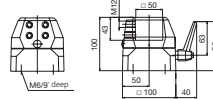


Part	
Weight	(g)
Material	
Part number	RAL 7035 light grey

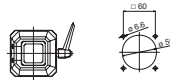
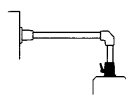
For enclosure mounting
Standard coupling, flange, CS-2000

1550 **Dimensions** in mm
Aluminium
101.6.7000.00

Angle of rotation 320°
with limiter
Clamping lever at
operator face
Complete with seals and
fixing screws



Detail



Accessories, can be retro-fitted

Rotation limiter (see page 426)

Light adapter (see page 426)

980.5.1760.00

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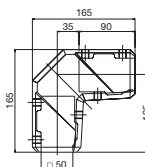


Part	
Weight	(g)
Material	
Part number	RAL 7035 light grey

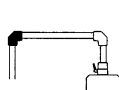
Elbow for moment load CS-2000

4500 **Dimensions** in mm
GGG
101.6.7090.00

Increased strength
Access cover
Complete with seals



Detail



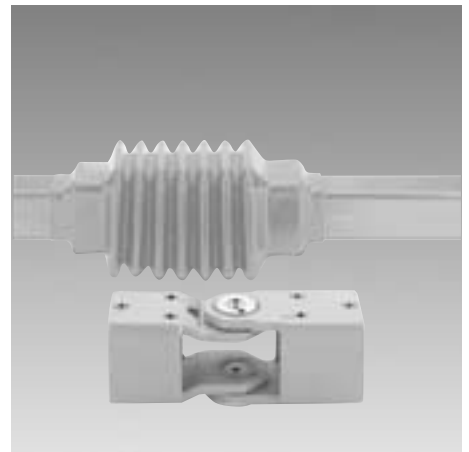
Accessories, can be retro-fitted

Rotation limiter (see page 427)

Light adapter (see page 426)

980.5.1870.00

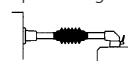
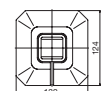
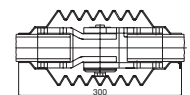
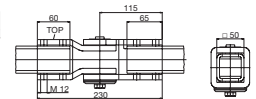
-



Intermediate joint CS-2000

4360 **Dimensions** in mm
Steel
101.6.4540.00

Expansion bellows can
be zipped on at a later
stage
Rotation angle 180° with
limiter on either side
Integrated rotation tor-
que setting



980.5.0630.00

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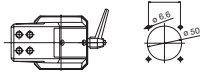
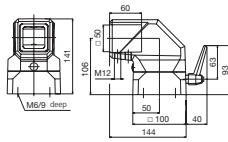


For enclosure mounting
Elbow coupling, flange CS-2000

2000 **Dimensions in mm**

101.6.7030.00

Angle of rotation 320° with limiter
Clamping lever at operator face
Complete with seals and fixing screws



980.5.1760.00
980.5.1870.00

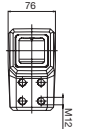
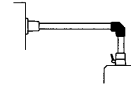
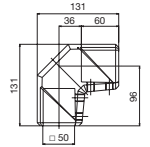


Elbow CS-2000

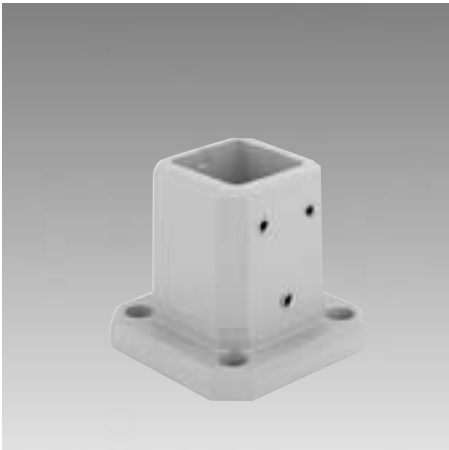
1100 **Dimensions in mm**

101.6.7060.00

Access cover
Complete with seals



980.5.1870.00

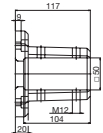
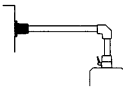
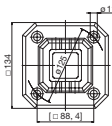


Wall flange CS-2000

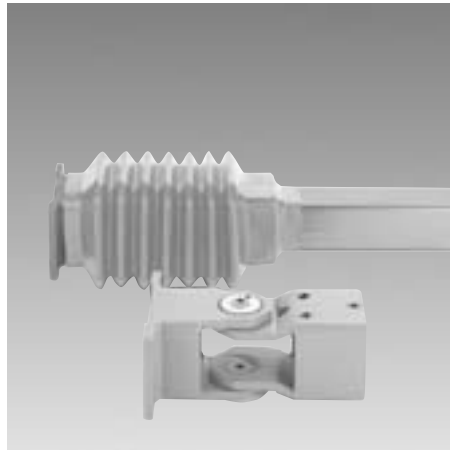
4260 **Dimensions in mm**

101.6.4550.00

Complete with seals



980.5.0630.00



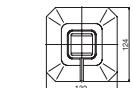
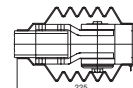
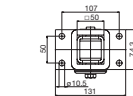
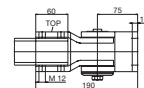
Wall joint CS-2000

3940 **Dimensions in mm**

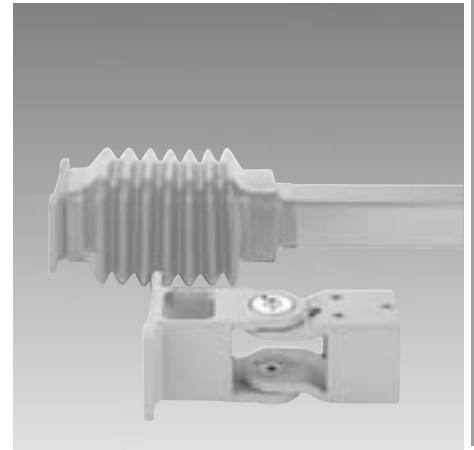
101.6.4560.00

Expansion bellows can be zipped on at a later stage
Rotation angle 180° with limiter on either side
Integrated rotation torque setting

Dimensions in mm



980.5.0630.00

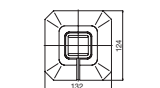
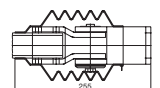
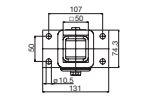
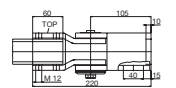


Wall joint with cable inlet CS-2000

4720 **Dimensions in mm**

101.6.4570.00

Expansion bellows can be zipped on at a later stage
Rotation angle 180° with limiter on either side
Integrated rotation torque setting



980.5.0630.00

System components

Suspension system for medium loads

Type CS-2000 System size 50[□]

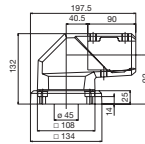


Part	
Weight	(g)
Material	
Part number	RAL 7035 light grey

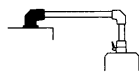
Set-up joint CS-2000

9240
GGG
101.6.7120.00
Angle of rotation 306° with limiter
Complete with seals

Dimensions in mm

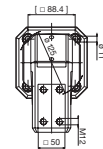


Detail



Accessories, can be retro-fitted

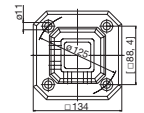
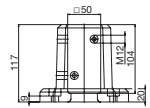
Rotation limiter (see page 426)	980.5.1770.00
Light adapter (see page 426)	980.5.1870.00



Base bracket CS-2000

4320
GGG
101.6.4580.00
Complete with seals

Dimensions in mm





Angle adapter CS-2000

15° = 460 30° = 600 60° = 800

Aluminium

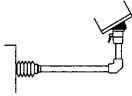
15° = 101.6.4590.00 30° = 101.6.4600.00 60° = 101.6.4610.00

The angle adapter is fixed firmly onto the flange or angle flange coupling Complete with seals and fixing screws

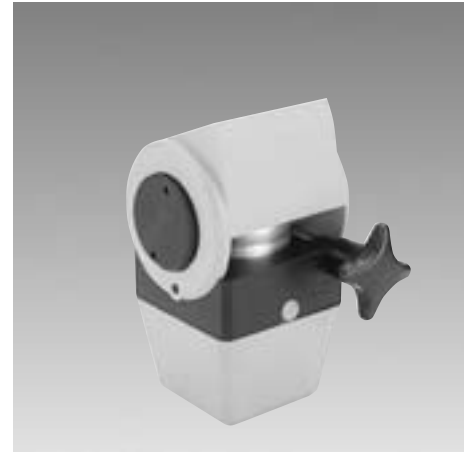
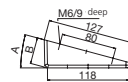
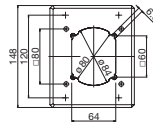
101.6.4590.00: A = 15°, B = 39

101.6.4600.00: A = 30°, B = 66

101.6.4610.00: A = 60°, B = 111



Dimensions in mm



Swivel tilt coupling CS-2000

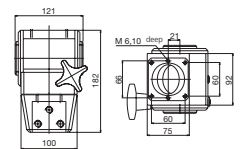
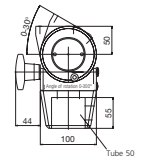
3000

Aluminium and PA

101.6.3190.00

Angle of rotation 300° with limiter
Inclination angle infinitely adjustable 0–30°
Complete with gaskets, fixing screws

Dimensions in mm



980.5.1300.00

System components

Suspension system for medium loads

Type CS-2000 System size 60[□]

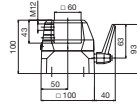


Part	
Weight	(g)
Material	
Part number	RAL 7035 light grey

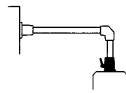
For enclosure mounting
Standard coupling, flange CS-2000

2380	Dimensions in mm
Aluminium	
101.6.7010.00	

Angle of rotation 320°
with limiter
Clamping lever at
operator face
Complete with gaskets
and fixing screws



Detail



Accessories , can be retro-fitted	
Rotation limiter (see page 426)	
Light adapter (see page 426)	

980.5.1760.00	
-	

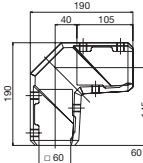


Part	
Weight	(g)
Material	
Part number	RAL 7035 light grey

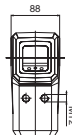
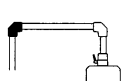
Elbow for momentum load/stress CS-2000

6000	Dimensions in mm
GGG	
101.6.7100.00	

Higher density
Unscrewable mounting
opening
Complete with gaskets

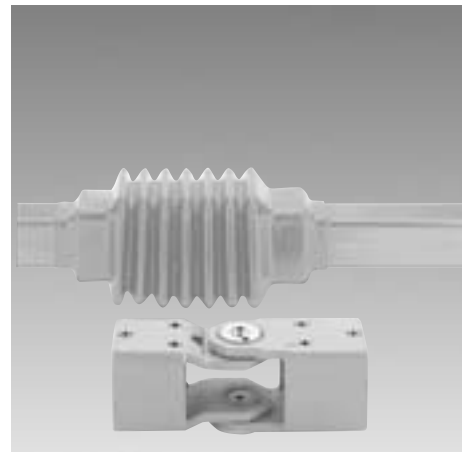


Detail



Accessories , can be retro-fitted	
Rotation limiter (see page 427)	
Light adapter (see page 426)	

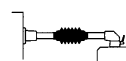
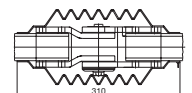
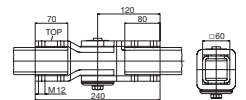
980.5.1880.00	
-	



Intermediate joint CS-2000

5920	Dimensions in mm
Steel	
101.6.4640.00	

Expansion bellows can
be zipped on at a later
stage
Pivotal angle 180° with
limiter on either side
Rotation moment setting





For enclosure mounting
Elbow coupling, flange CS-2000

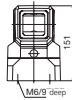
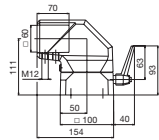
2950

Aluminium

101.6.7040.00

Angle of rotation 320°
with limiter
Unscrewable installation
opening
Clamping lever at
operator face
Complete with seals and
fixing screws

Dimensions in mm



980.5.1760.00

980.5.1880.00



Elbow CS-2000

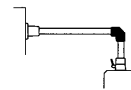
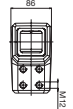
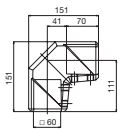
1850

Aluminium

101.6.7070.00

Unscrewable installation
opening
Complete with seals

Dimensions in mm



980.5.1880.00



Wall flange CS-2000

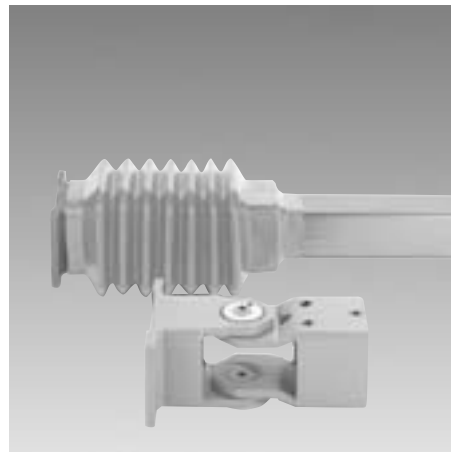
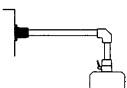
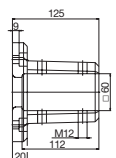
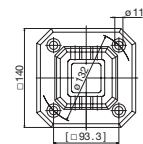
4900

GGG

101.6.4650.00

Complete with gaskets

Dimensions in mm



Wall joints CS-2000

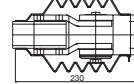
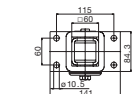
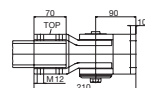
5360

Steel

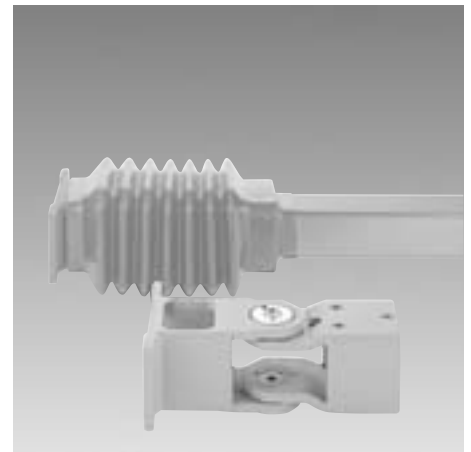
101.6.4660.00

Expansion bellows can
be zipped on at a later
stage
Pivotal angle 180° with
limiter on either side
Rotation moment setting

Dimensions in mm



980.5.0630.00



Wall joint for cable inlet CS-2000

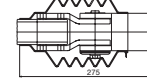
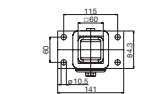
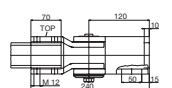
5620

Steel

101.6.4670.00

Expansion bellows can
be zipped on at a later
stage
Pivotal angle 180° with
limiter on either side
Rotation moment setting

Dimensions in mm



980.5.0630.00

System components

Suspension system for medium loads

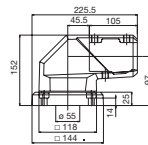
Type CS-2000 System size 60[□]



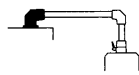
Part	
Weight	(g)
Material	
Part number	RAL 7035 light grey

Slip-on joint CS-2000
12740
GGG
101.6.7130.00
Angle of rotation 306°
with limiter
Complete with seals

Dimensions in mm



Detail



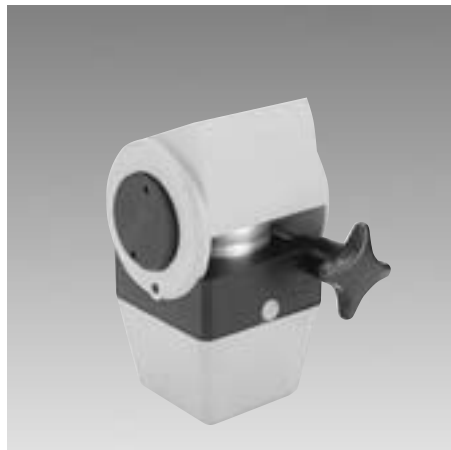
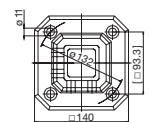
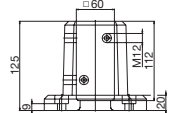
Accessories, can be retro-fitted
Rotation limiter (see page 426)
Light adapter (see page 426)

980.5.1770.00
980.5.1880.00

Base bracket CS-2000
4800
GGG
101.6.4680.00

Dimensions in mm

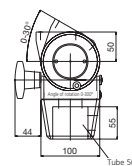
Complete with seals



Part	
Weight	(g)
Material	
Part number	RAL 7035 light grey

Swivel tilt coupling CS-2000
2900
Aluminium und PA
101.6.3200.00
Angle of rotation 300°
with limiter
Inclination angle infinitely
adjustable 0–30°
Complete with gaskets,
fixing screws

Dimensions in mm

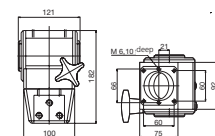


Detail

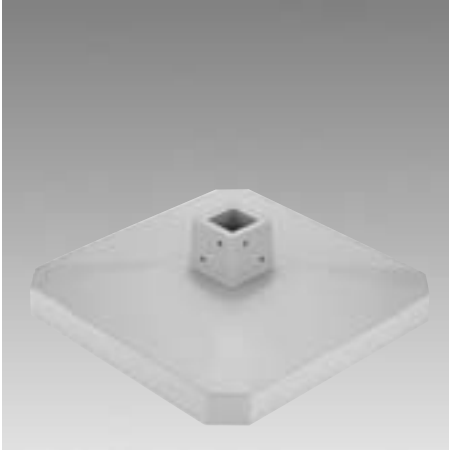


Accessories, can be retro-fitted
Rotation limiter (see page 426)

980.5.1300.00



Housing: max 300 N



Self-supporting base bracket CS-2000

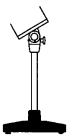
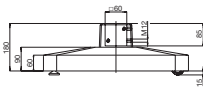
14000

Aluminium

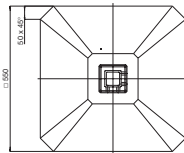
101.6.3220.00

Large-surface foot for self-supporting applications

Dimensions in mm



Fixed rollers, guide rolls,
Feet see page 427



Indication adapter CS-2000

15° = 460

30° = 600

60° = 800

Aluminium

15° = 101.6.4590.00

30° = 101.6.4600.00

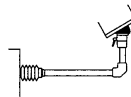
60° = 101.6.4610.00

The indication adapter is fixed firmly onto the flange or flange angle coupling
Complete with seals and fixing screws

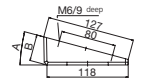
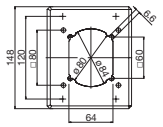
101.6.4590.00: A = 15°, B = 39

101.6.4600.00: A = 30°, B = 66

101.6.4610.00: A = 60°, B = 111



Dimensions in mm



System components

Suspension system for medium loads

Type CS-2000 System size 80[□]



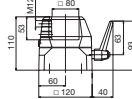
Part	
Weight	(g)
Material	
Part number	RAL 7035 light grey

For enclosure mounting
Standard coupling, flange CS-2000

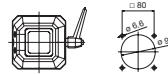
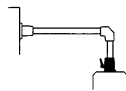
3270
Aluminium
101.6.7020.00

Dimensions in mm

Angle of rotation 320°
with limiter
Clamping lever at
operator face
Complete with seals and
fixing screws



Detail



Accessories, can be retro-fitted

Rotation limiter (see page 426)

Light adapter (see page 426)

980.5.1760.00

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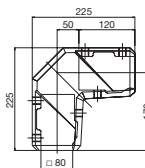
Part	
Weight	(g)
Material	
Part number	RAL 7035 light grey

Elbow formomentum stress CS-2000

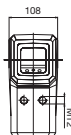
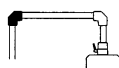
8500
GGG
101.6.7110.00

Dimensions in mm

High density
Unscrewable mounting
opening
Complete with gaskets



Detail



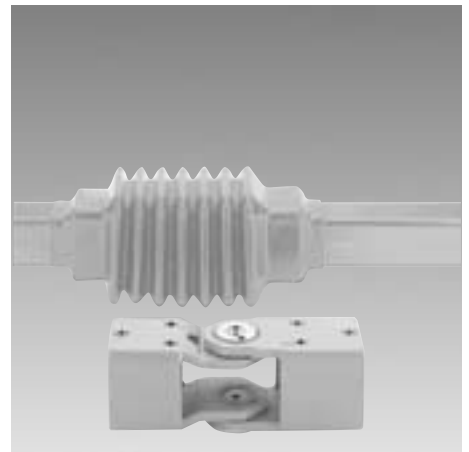
Accessories, can be retro-fitted

Rotation limiter (see page 426/427)

Light adapter (see page 426)

980.5.1890.00

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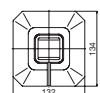
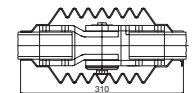
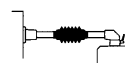
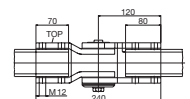


Intermediate joint CS-2000

9700
Steel
101.6.4710.00

Dimensions in mm

Expansion bellows can
be zipped on at a later
stage
Pivotal angle 180° with
limiter on either side
Rotation moment setting



Accessories, can be retro-fitted

Rotation limiter (see page 426/427)

Light adapter (see page 426)

980.5.0620.00

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For enclosure mounting
Elbow coupling, flange CS-2000

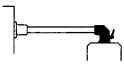
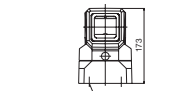
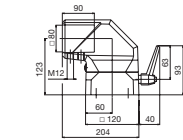
4100

Dimensions in mm

Aluminium

101.6.7050.00

Angle of rotation 320°
with limiter
Clamping lever at
operator face
Complete with seals and
fixing screws



980.5.1760.00

980.5.1890.00



Elbow CS-2000

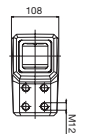
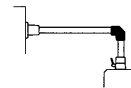
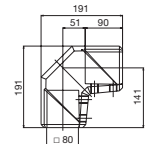
2900

Dimensions in mm (inch)

Aluminium

101.6.7080.00

Installation opening
Complete with gaskets



980.5.1890.00



Wall flange CS-2000

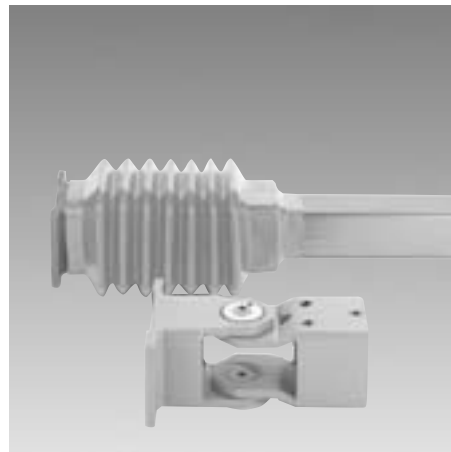
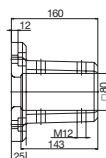
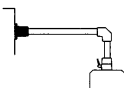
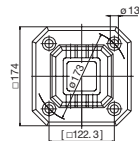
9100

Dimensions in mm

GGG

101.6.4720.00

Complete with gaskets



Wall joint CS-2000

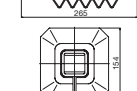
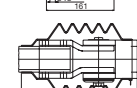
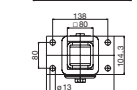
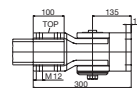
9250

Dimensions in mm

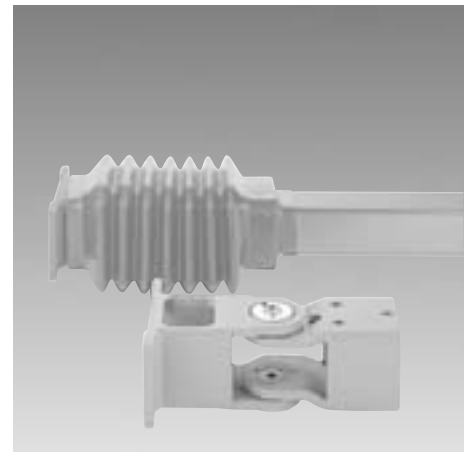
Steel

101.6.4730.00

Expansion bellows can
be zipped on at a later
stage
Pivotal angle 180° with
limiter on either side
Rotation moment setting



980.5.0620.00



Wall joint for cable inlet CS-2000

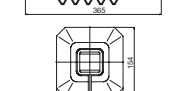
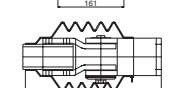
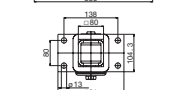
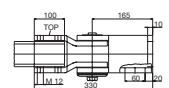
9500

Dimensions in mm

Steel

101.6.4740.00

Expansion bellows can
be zipped on at a later
stage
Pivotal angle 180° with
limiter on either side
Rotation moment setting



980.5.0620.00

System components

Suspension system for medium loads

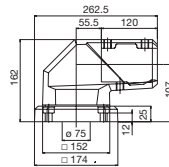
Type CS-2000 System size 80[□]



Part	
Weight	(g)
Material	
Part number	RAL 7035 light grey

Slip-on joint CS-2000
20620
GGG
101.6.7140.00
Pivotal angle 306° with limiter on either side

Dimensions in mm

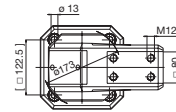


Detail



Accessories, can be retro-fitted
Rotation limiter (see page 426)
Light adapter (see page 426)

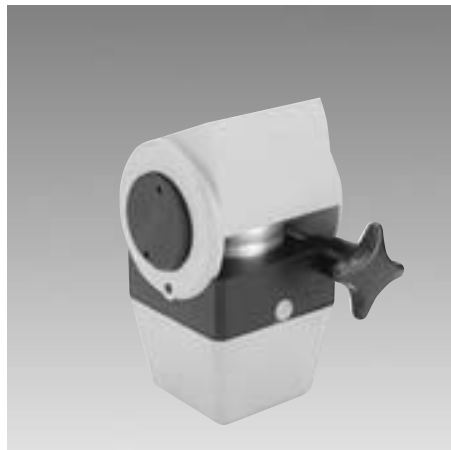
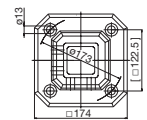
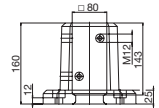
980.5.1770.00
980.5.1880.00



Base bracket CS-2000
9240
GGG
101.6.4750.00

Complete with seals

Dimensions in mm

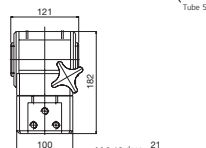
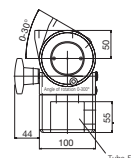


Part	
Weight	(g)
Material	
Part number	RAL 7035 light grey

Swivel tilt coupling CS-2000
2900
Aluminium and PA
101.6.3210.00

Pivotal angle 300° with buffer
Inclination continuously adjustable 0–30°
Complete with gaskets, mounting screws

Dimensions in mm

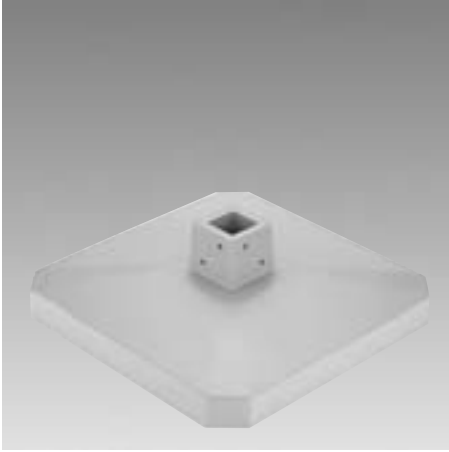


Detail

Accessories, can be retro-fitted
Rotation limiter (see page 426)

980.5.1300.00





Self-supporting base bracket CS-2000

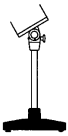
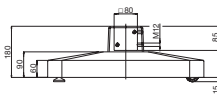
14300

Aluminium

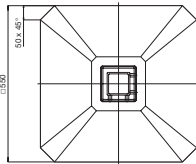
101.6.3230.00

Large-surface foot for self-supporting applications

Dimensions in mm



Fixed rollers, guide rolls,
Feet see oage 427



Inclination adapter CS-2000

15° = 460

30° = 600

60° = 800

Aluminium

15° = 101.6.4590.00

30° = 101.6.4600.00

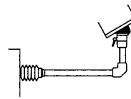
60° = 101.6.4610.00

The inclination adapter is fixed firmly onto the flange or flange angle-coupling
Complete withseals and fixing screws

101.6.4590.00: A = 15°, B = 39

101.6.4600.00: A = 30°, B = 66

101.6.4610.00: A = 60°, B = 111



Dimensions in mm

