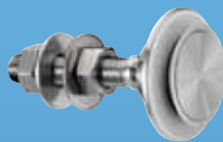


SUMMARY

**Swivel fitting, countersunk head**

Ref: R 1001 > Page 1.05

Ref: R 1101 > Page 1.07

**Swivel fitting, cylindrical head**

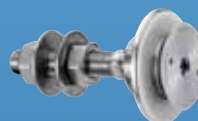
Ref: R 1003 > Page 1.09

Ref: R 1003 SO > Page 1.11

Ref: R 1003 70 > Page 1.13

Ref: R 1003 SO 70 > Page 1.15

Ref: R 1005 > Page 1.17

**Swivel fitting, countersunk head
for installation from the outside**

Ref: R 1008 > Page 1.19

Ref: R 1006 > Page 1.21

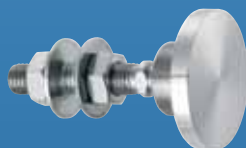
Ref: R 1038 > Page 1.23

**Swivel fitting, cylindrical head
insulating glass unit**

Ref: R 1001A > Page 1.25

Ref: R 1039 > Page 1.27

Ref: R 1003A > Page 1.29

**Special swivel fitting**

Ref: R 1019 > Page 1.31

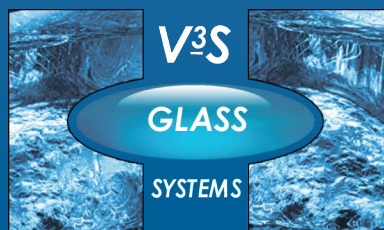
Ref: R 1006UV > Page 1.33

Ref: R 1103 > Page 1.35

Ref: R 1106 > Page 1.37

SWIVEL
FITTINGS ::

Pages 1.03 >> 1.38

www.v3s-glass-systems.be

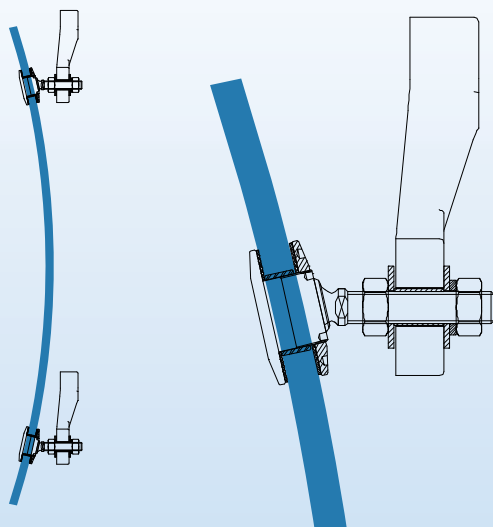
V3S Glass Systems BVBA
 Bossestraat 4
 9420 Erpe
 Tel.: 053 80 87 77
 Fax: 053 80 82 64
 E-mail: info@v3s-glass-systems.be

Technical page for swivel fittings

Fixing of the glasses:

The fixing piece plays a major role in the maintenance of the glasses.
SADEV suggests two solutions to find the most adapted piece for your project.

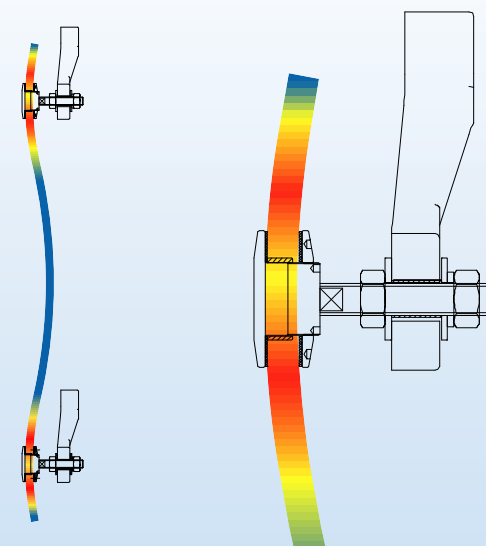
SWIVEL FITTING



Advantages:

- Recovers the loads and the deformations of the glass, therefore no stress in the glass.
- As the glass is not subjected to any stress, the glass thickness can be reduced.

FIXED BOLT



Advantages:

- Product suitable for interior use.

Disadvantages:

- Recovers the loads but not the deformations of the glass, therefore the stress in the glass increases with the applied loads.
- As the glass is under stress, the glass thickness has to be increased.

Standard dimensions:

To be able to answer quickly and at the best cost according to your demand, SADEV proposes fittings with standard dimensions available in stock.

The standard dimensions are M14, length 65 mm, diameter 60 mm. Other dimensions are possible by customized fabrication.

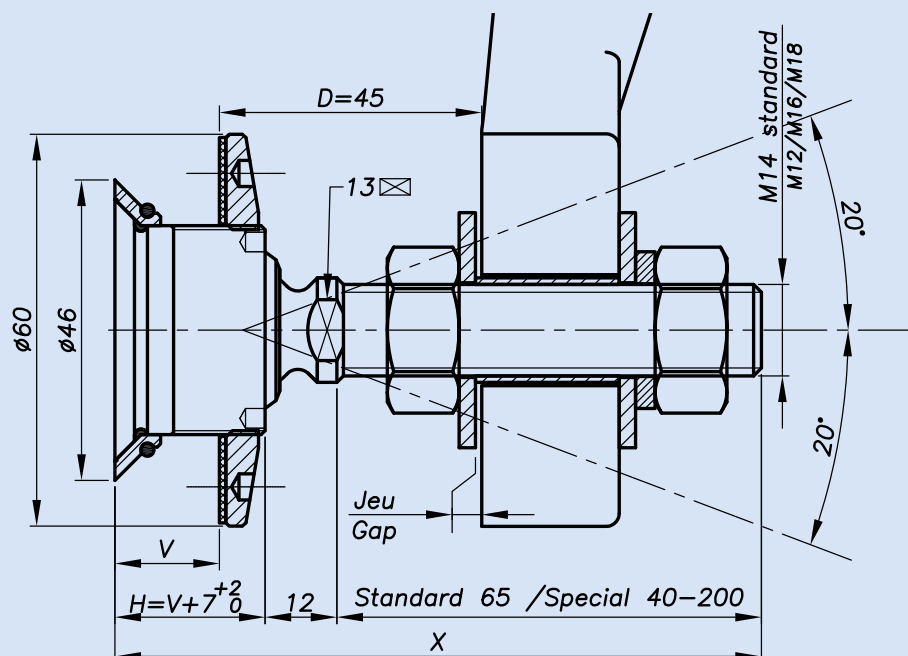
Mainly made out of stainless steel, the fittings are particularly resistant to corrosion and mechanical stress.

Because the security is a major part for this type of product, the most common fittings are subjected to a technical assessment delivered by the CSTB (French Research Institute for buildings).

To ensure maximum reliability for these products, several different tests have been executed: pull out, bending of the threaded axle, water sealing and testing under seismic conditions.

Sadev products need a followed up and regular maintenance device (cleaning once a year). At this occasion, a point shall be made on the aging of the products and all suspicious signs shall be reported to SADEV (abnormal oxidation, defective montage etc.)

Note: the height H and the length X are validated by SADEV at the order confirmation.

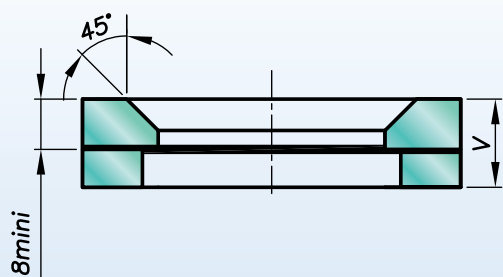


It is important to provide the following information with each request: the glass composition (ex.: 10 mm monolithic, 8.8.4 laminated, 8.8.2-12-10 insulating) / the length and diameter of the threaded axle if not standard dimensions (M14, 65 mm) / the reference of the spider to be used as support, or the thickness of an existing support for the delivery of the spacer.

Glass drilling:

There are two main types of drillings: countersunk and cylindrical. The drilling drawings are included on all technical pages.

COUNTERSUNK DRILLING



Advantages:

- Very esthetical as the head of the countersunk fitting is in the plane of the glass.
- Simplifies the cleaning of the glass.

Disadvantages:

- Highly unrecommended for glass roofs – verify the local regulatory.
- Make sure that your glass supplier is equipped for making countersunk holes in the glass.

CYLINDRICAL DRILLING



Advantages:

- No danger of mistaking the sense of the drilling.

Disadvantages:

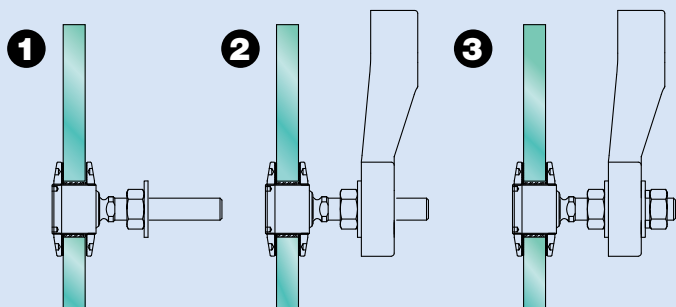
- The head of the fitting is not in the plane of the glass, resulting in a less harmonious render.

The silicone cover:



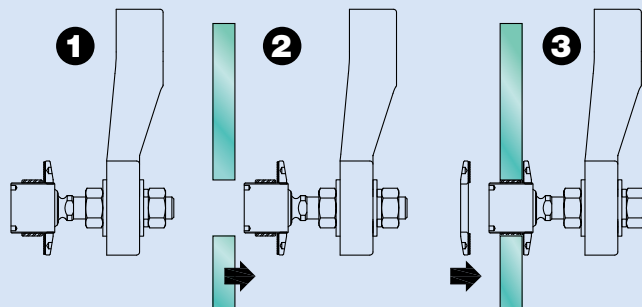
SADEV provides a protection from elements in the form of a silicone cover. Attention, this cover is not a simple option that you can add later. It is imperative to order a swivel fitting marked "SO" for this option since the swivel body is bigger and the glass nut is accordingly adapted.

Mounting type "blind access":



Classical mounting

In this case, the point fitting is inserted into the glass. The glass assembly is then mounted onto the spiders.



"Blind access" mounting

This solution is used when it is impossible to access one side of the glass. Therefore, the fitting is mounted directly on the spider and the glass is installed afterwards.



Technical assessment available online: www.sadev.com

Mounting		Alternate product
Vertical facade	Yes	
Roof/canopy	Possible	R1003 - R1005
Guard rail	Possible	V2003 – see SADEV Decor
*Blind access	No	R1008 - R1006 - R1038
Sloped glazing	Yes	

*Installation from the outside (no access to the structure).

H validated by SADEV depending on availability.

Technical drawing of a stepped shaft. The drawing shows a shaft with a central section of diameter $\varnothing 36^{+0.5}_0$ and two outer sections of diameter $\varnothing 46^{+0.5}_0$. The transition between the sections is a 45-degree chamfer. The minimum length of the central section is indicated as 8 mm.

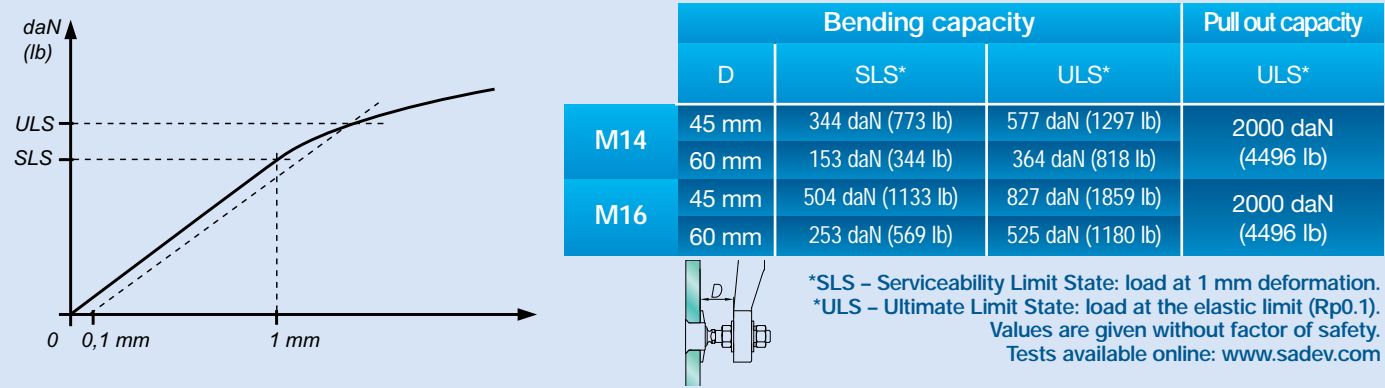
Technical drawing of a shaft with a central hole and chamfers. The shaft has an outer diameter of $\varnothing 46^{+0.5}_0$ mm. The inner hole has a diameter of $\varnothing 36^{+0.5}_0$ mm. The total length is $41^{+0.5}_0$ mm. The chamfers on the ends are 45° . A dimension of 8mm is indicated for the distance from the end face to the start of the hole.

Available for glass thicknesses from 8 to 31.52 mm, for other thicknesses please consult us.

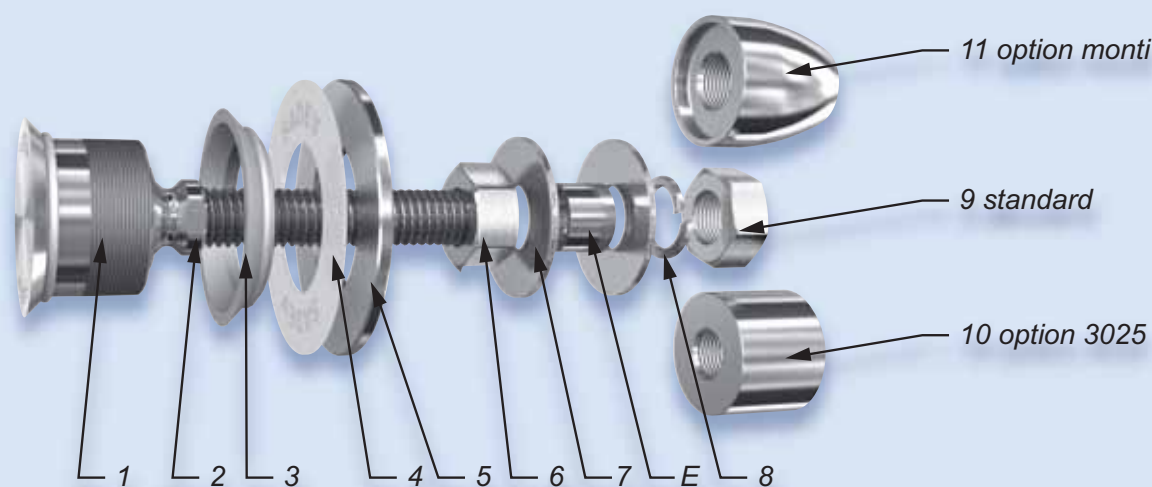
www.sadev.com - info@sadev.com

Reference: R 1001

Mechanical performances:



Components:



Rep	Qty	Designation	Material
1	1	Swivel Body	X2 Cr Ni Mo 17.12.2 as per EN 10088-3
2	1	Threaded Axle	X4 Cr Ni Mo 16.5.1 as per EN 10088-3
3	1	Glass Hole Grommet	AW-1050A as per EN 573-3 / AI 99.5%
4	1	Contact Washer	White polyacetyl / white polyethylene
5	1	Glass Nut Ø 60	X2 Cr Ni Mo 17.12.2 as per EN 10088-3
6	1	Nut DIN 934	A4
7	2	Washer	A4
8	1	Lock Washer DIN127	A4
9	1	Nut DIN 934	A4
10	1	3025 Cap Nut - Option	X2 Cr Ni Mo 17.12.2 as per EN 10088-3
11	1	Monti Cap Nut - Option	X2 Cr Ni Mo 17.12.2 as per EN 10088-3

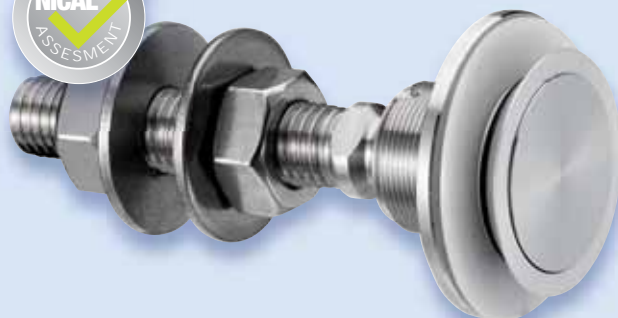
Suggested mounting instruction:

Insert parts No. 1/2 and 3 into the glass.
Mount contact washer No. 4 and nut No. 5 and tighten to 20 Nm (15 ft-lb) for monolithic glass and 10 Nm (7.5 ft-lb) for laminated glass using SADEV tools ref. 097581160 and ref. CLE-DYN-072031.
Mount nut No. 6 and washer No. 7.
Insert the threaded axle into the support with spacer E (available on request), see technical page. Adjust the depth.
Mount washer No.7, lock washer No. 8, and nut No. 9. Tighten to 60 Nm (45 ft-lb) using a 22 mm wrench.

SADEV recommends using thread locking compound whenever possible.

Reference: R 1101

Designation: swivel fitting, countersunk head.



Patent No: 9806556

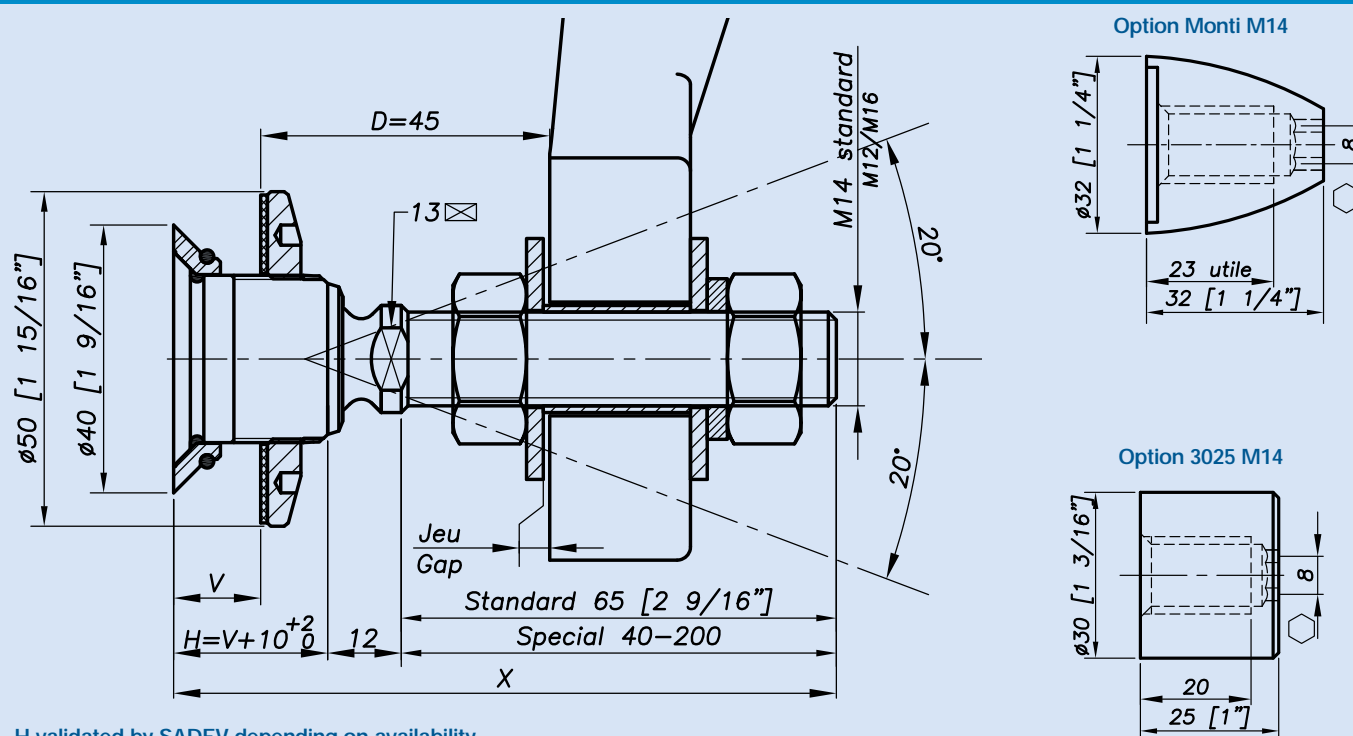
Technical assessment available online: www.sadev.com

Typical applications:

Mounting		Alternate product
Vertical facade	Yes	R1001
Roof	No	Also R1003 - R1005
Guard rail	Possible	V2003 - see SADEV Decor
*Blind access	No	R1008 - R1006 - R1038
Sloped glazing	Possible	R1001- R1003

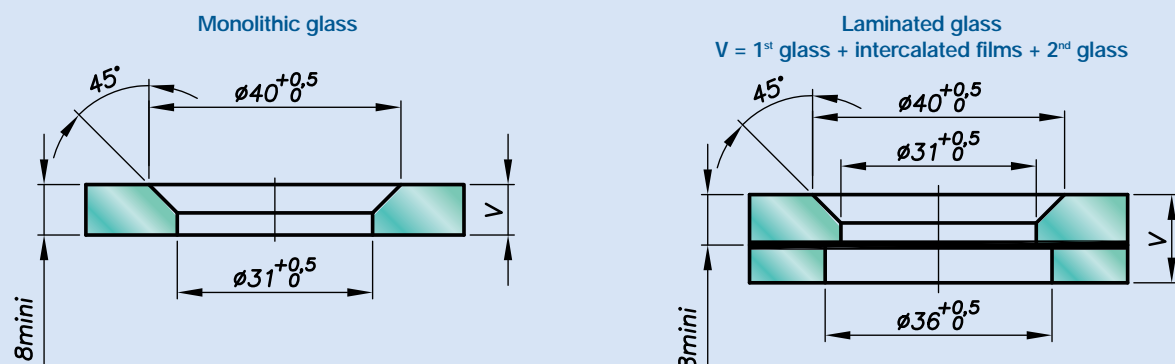
*Installation from the outside (no access to the structure).

Dimensions:



H validated by SADEV depending on availability.

Glass drilling:

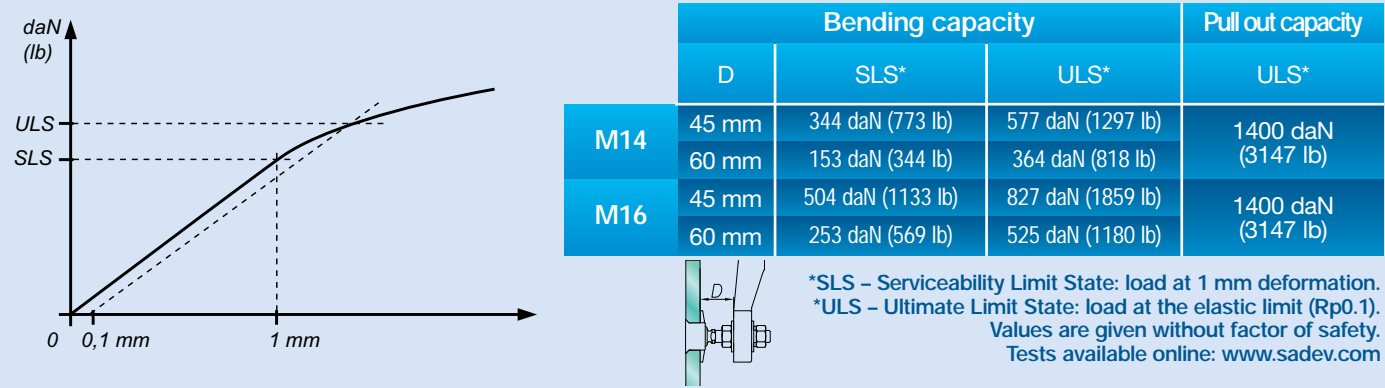


Available for glass thicknesses from 8 to 31.52 mm, for other thicknesses please consult us.

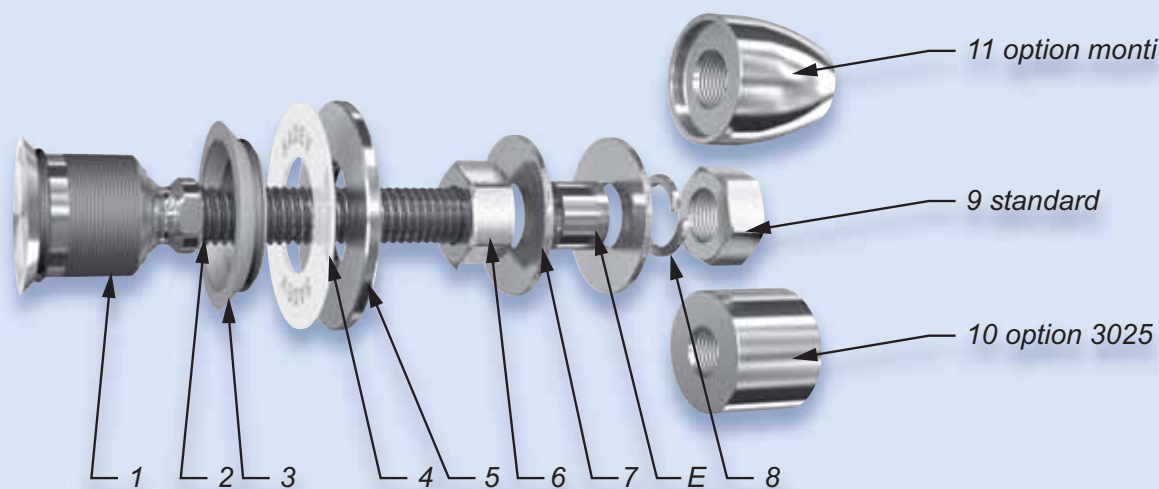
It is important to provide the following information with each request: the glass composition (ex.: 10 mm monolithic, 8.8.4 laminated, 8.8.2-12-10 insulating) / the length and diameter of the threaded axle if not standard dimensions (M14, 65 mm) / the reference of the spider to be used as support, or the thickness of an existing support for the delivery of the spacer.

Reference: R 1101

Mechanical performances:



Components:



Rep	Qty	Designation	Material
1	1	Swivel Body	X2 Cr Ni Mo 17.12.2 as per EN 10088-3
2	1	Threaded Axle	X4 Cr Ni Mo 16.5.1 as per EN 10088-3
3	1	Glass Hole Grommet	AW-1050A as per EN 573-3 / Al 99.5%
4	1	Contact Washer	Polyacetyl /polyethylene
5	1	Glass Nut Ø 50	X2 Cr Ni Mo 17.12.2 as per EN 10088-3
6	1	Nut DIN 934	A4
7	2	Washer	A4
8	1	Lock Washer DIN127	A4
9	1	Nut DIN 934	A4
10	1	3025 Cap Nut - Option	X2 Cr Ni Mo 17.12.2 as per EN 10088-3
11	1	Monti Cap Nut - Option	X2 Cr Ni Mo 17.12.2 as per EN 10088-3

Suggested mounting instruction:

Insert parts No. 1/2 and 3 into the glass hole.
Attach contact washer No. 4 and glass nut No. 5 and tighten to 20 Nm (15 ft-lb) for monolithic glass and 10 Nm (7.5 ft-lb) for laminated glass using SADEV ref. 097581160.
Mount nut No. 6 and washer No. 7.
Insert the threaded axle into the support with spacer E (available on request), see technical page. Adjust the depth.
Mount washer No. 7, lock washer No. 8, and nut No. 9 and tighten to 60 Nm (45 ft-lb) using a 22 mm wrench.

SADEV recommends using thread locking compound whenever possible.

Reference: R 1003

Designation: swivel fitting, cylindrical head.



Typical applications:

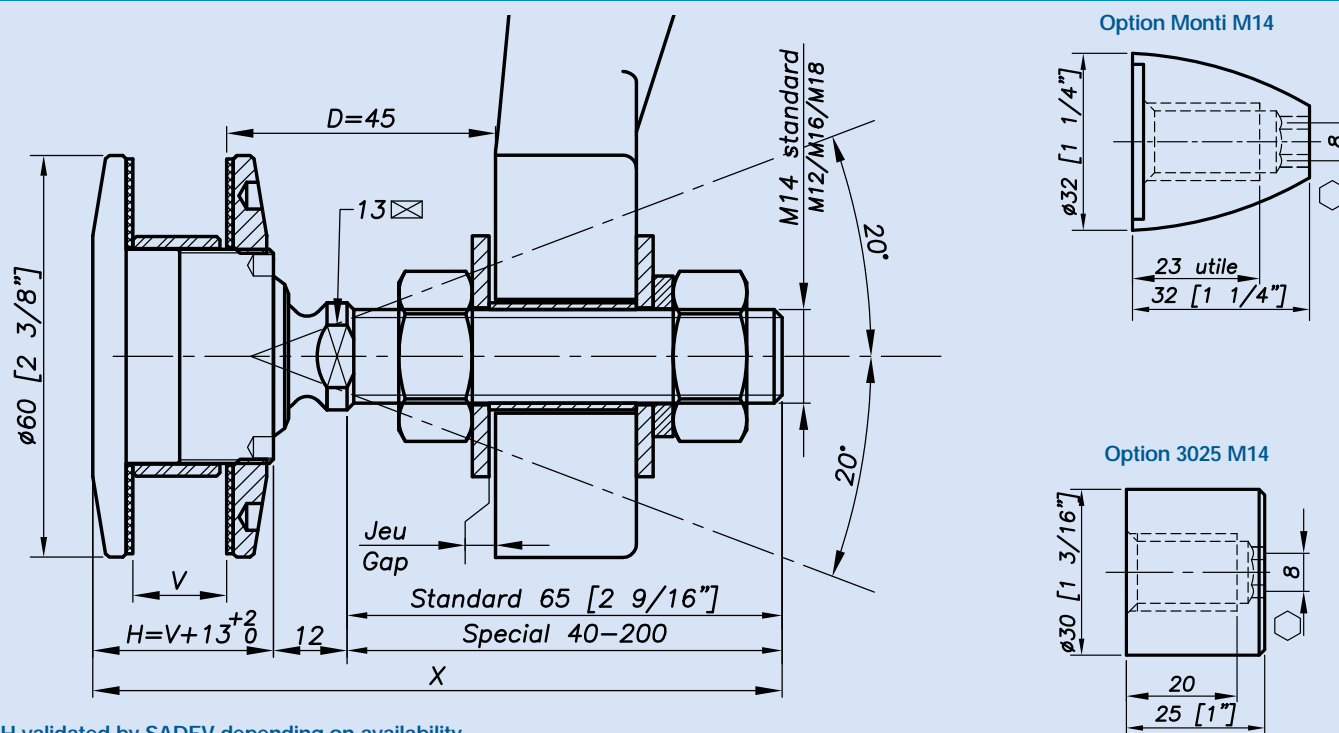
Mounting		Alternate product
Vertical facade	Yes	
Roof/canopy	Yes	
Guard rail	Possible	V2003 - see SADEV Decor
*Blind access	No	R1008 - R1006 - R1038
Sloped glazing	Yes	

Patent No: 9806556

Technical assessment available online: www.sadev.com

*Installation from the outside (no access to the structure).

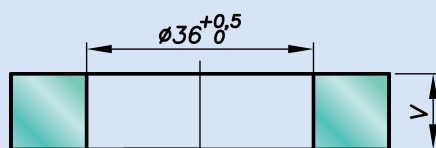
Dimensions:



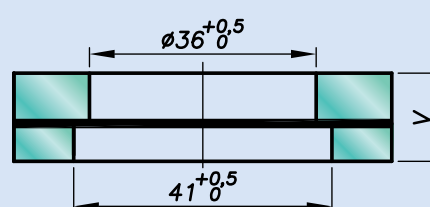
H validated by SADEV depending on availability.

Glass drilling:

Monolithic glass



Laminated glass

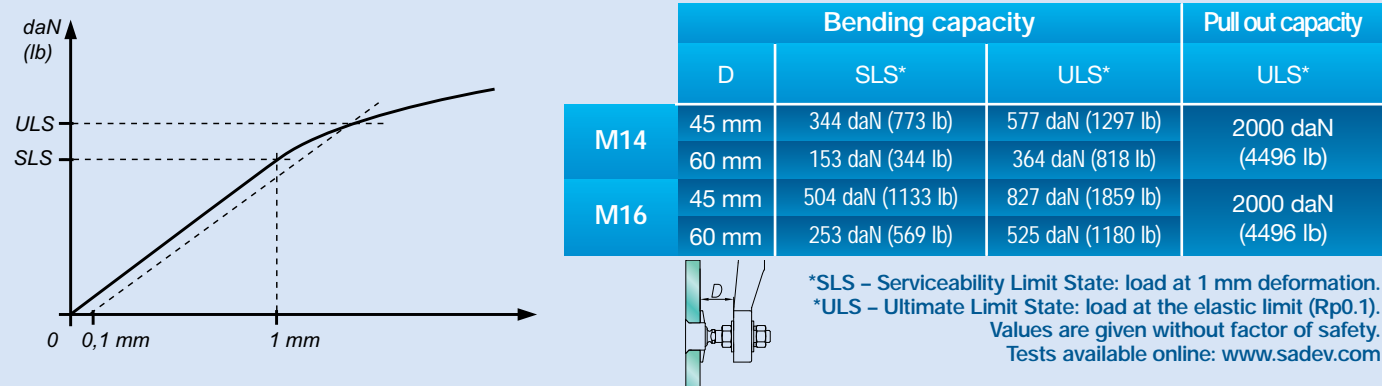
V = 1st glass + intercalated films + 2nd glass

Available for glass thicknesses from 8 to 31.52 mm, for other thicknesses please consult us.

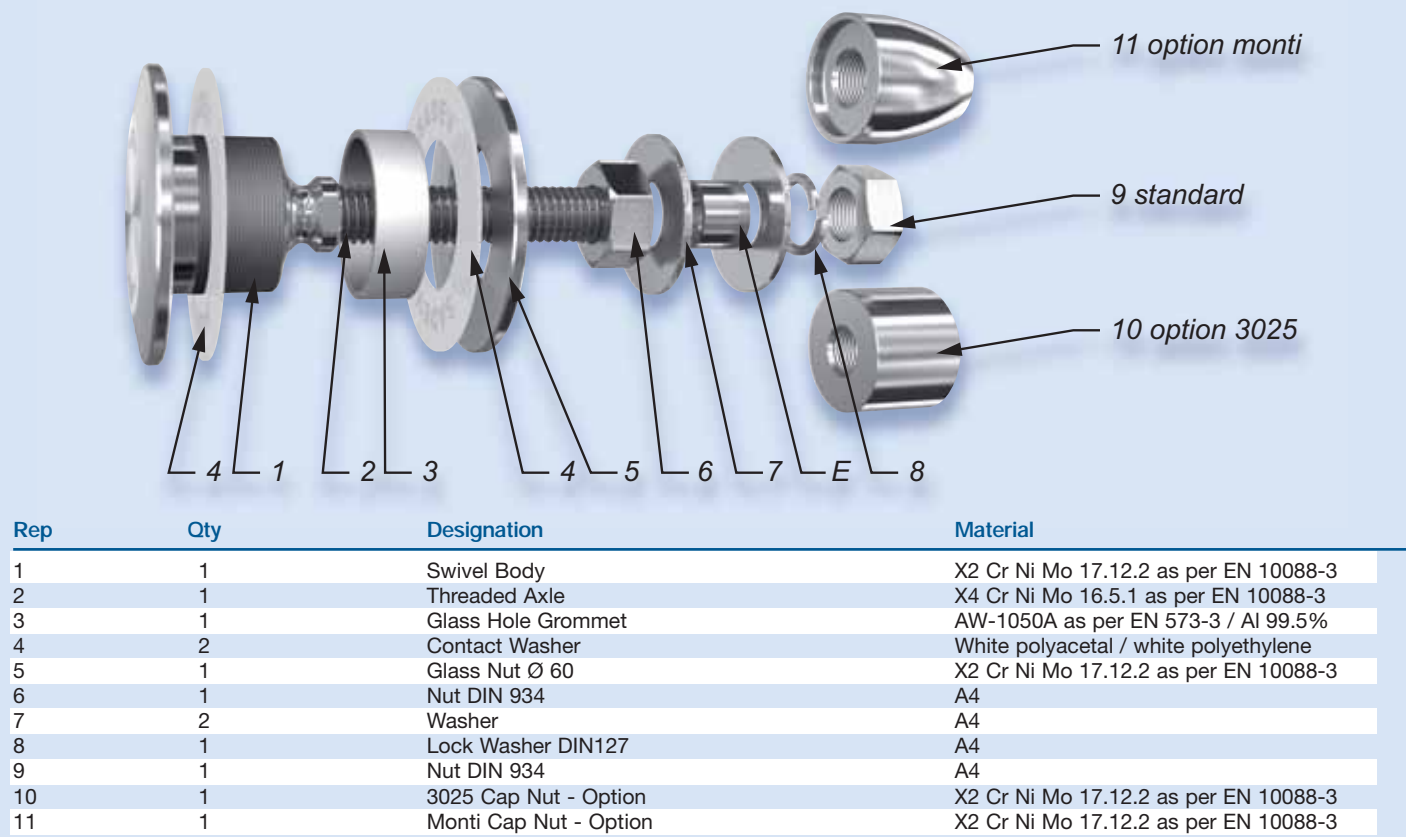
It is important to provide the following information with each request: the glass composition (ex.: 10 mm monolithic, 8.8.4 laminated, 8.8.2-12-10 insulating) / the length and diameter of the threaded axle if not standard dimensions (M14, 65 mm) / the reference of the spider to be used as support, or the thickness of an existing support for the delivery of the spacer.

Reference: R 1003

Mechanical performances:



Components:



Suggested mounting instruction:

Insert parts No. 1/2, 4, and 3 into the glass hole.
Mount the second contact washer No. 4 and nut No. 5 and tighten to 20 Nm (15 ft-lb) for monolithic glass and 10 Nm (7.5 ft-lb) for laminated glass using SADEV tools ref. 097581160 and ref. CLE-DYN-072031.
Thread on nut No. 6 and apply washer No. 7.
Insert the threaded axle into the support with spacer E (available on request), see technical page. Adjust the depth.
Mount the second washer No. 7, lock washer No. 8, and nut No. 9. Tighten to 60 Nm (45 ft-lb) using a 22 mm wrench.

SADEV recommends using thread locking compound whenever possible.

Reference: R 1003 SO

Designation: swivel fitting, cylindrical head, with silicone cover.



Typical applications:

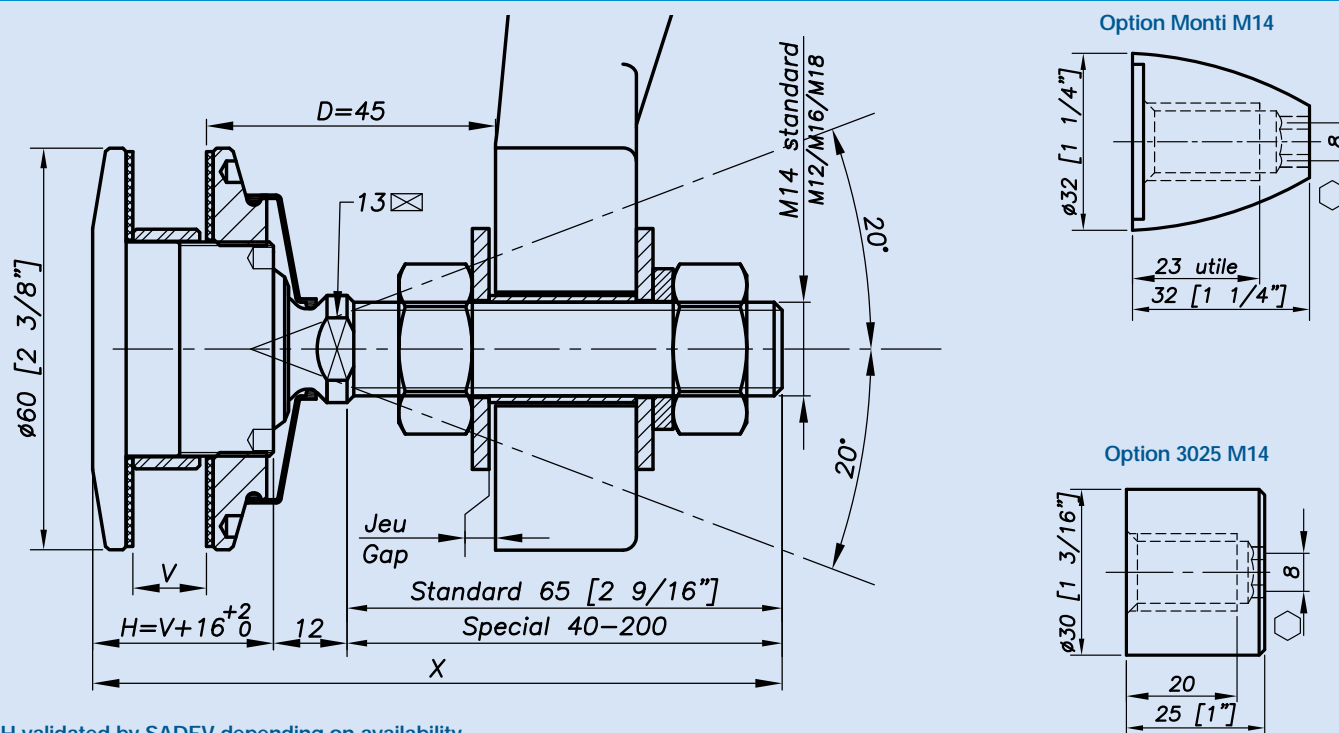
Mounting		Alternate product
Vertical facade	Yes	V2003 - see SADEV Decor R1008 - R1006 - R1038
Roof/canopy	Yes	
Guard Rail	Possible	
*Blind access	No	
Sloped glazing	Yes	

Patent No: 9806556

Technical assessment available online: www.sadev.com

*Installation from the outside (no access to the structure).

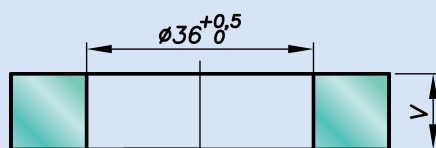
Dimensions:



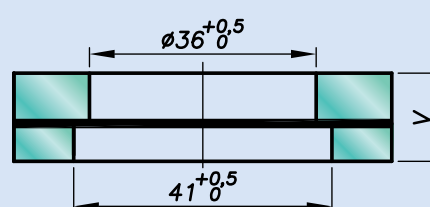
H validated by SADEV depending on availability.

Glass drilling:

Monolithic glass



Laminated glass

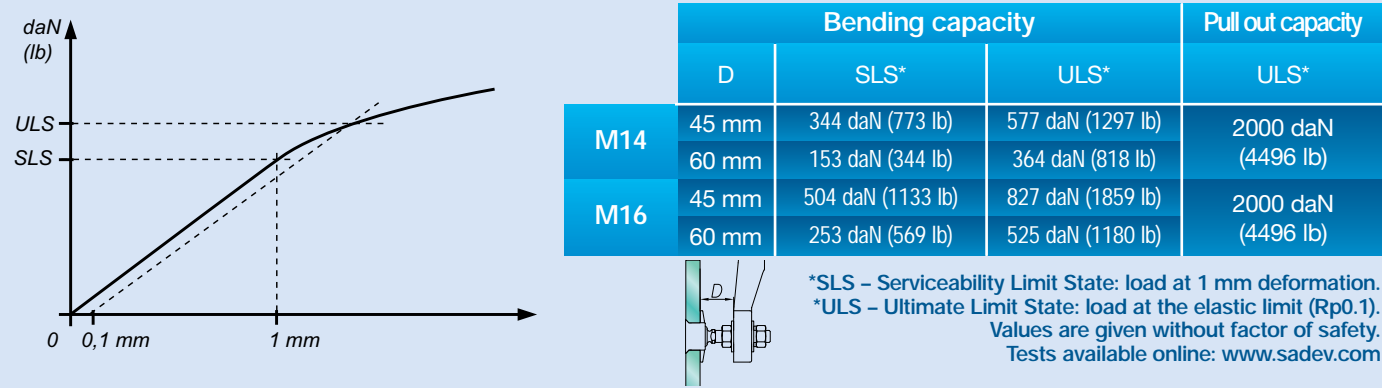
V = 1st glass + intercalated films + 2nd glass

Available for glass thicknesses from 8 to 31.52 mm, for other thicknesses please consult us.

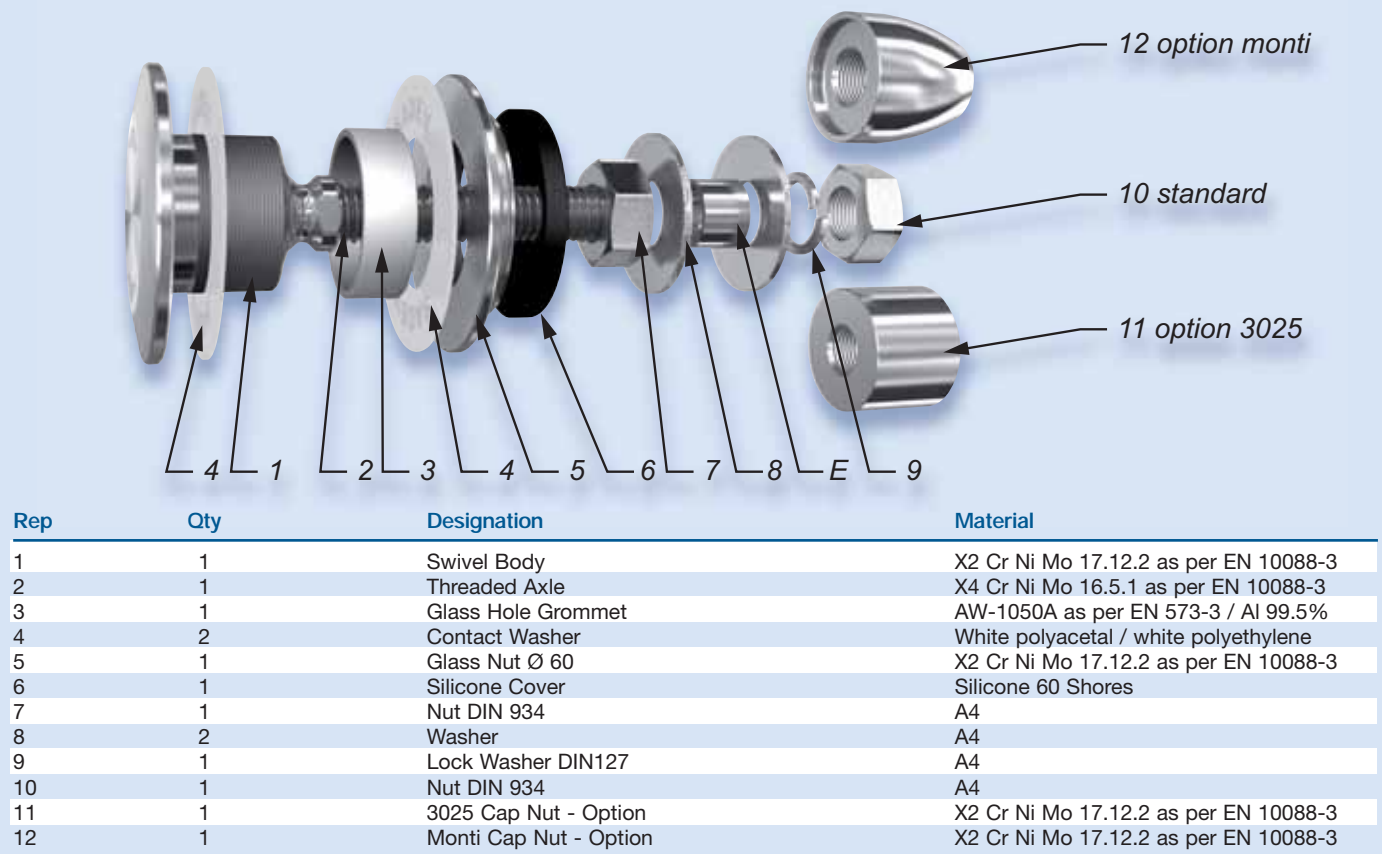
It is important to provide the following information with each request: the glass composition (ex.: 10 mm monolithic, 8.8.4 laminated, 8.8.2-12-10 insulating) / the length and diameter of the threaded axle if not standard dimensions (M14, 65 mm) / the reference of the spider to be used as support, or the thickness of an existing support for the delivery of the spacer.

Reference: R 1003 SO

Mechanical performances:



Components:



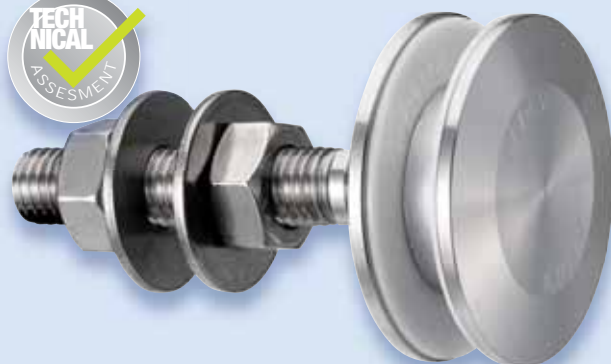
Suggested mounting instruction:

Insert parts No. 1/2, 4, and 3 into the glass hole.
Mount the second contact washer No. 4 and nut No. 5 and tighten to 20 Nm (15 ft-lb) for monolithic glass and 10 Nm (7.5 ft-lb) for laminated glass using SADEV tools ref. 097581160 and ref. CLE-DYN-072031.
Ensure that the silicone cover No. 6 is secured and not stretched too tightly or it may come loose.
Thread on nut No. 6 and apply washer No. 7.
Insert the threaded axle into the support with spacer E (available on request), see technical page. Adjust the depth.
Mount the second washer No. 7, lock washer No. 8, and nut No. 9. Tighten to 60 Nm (45 ft-lb) using a 22 mm wrench.

SADEV recommends using thread locking compound whenever possible.

Reference: R 1003 Ø 70

Designation: swivel fitting, cylindrical head, Ø 70 mm.



Typical applications:

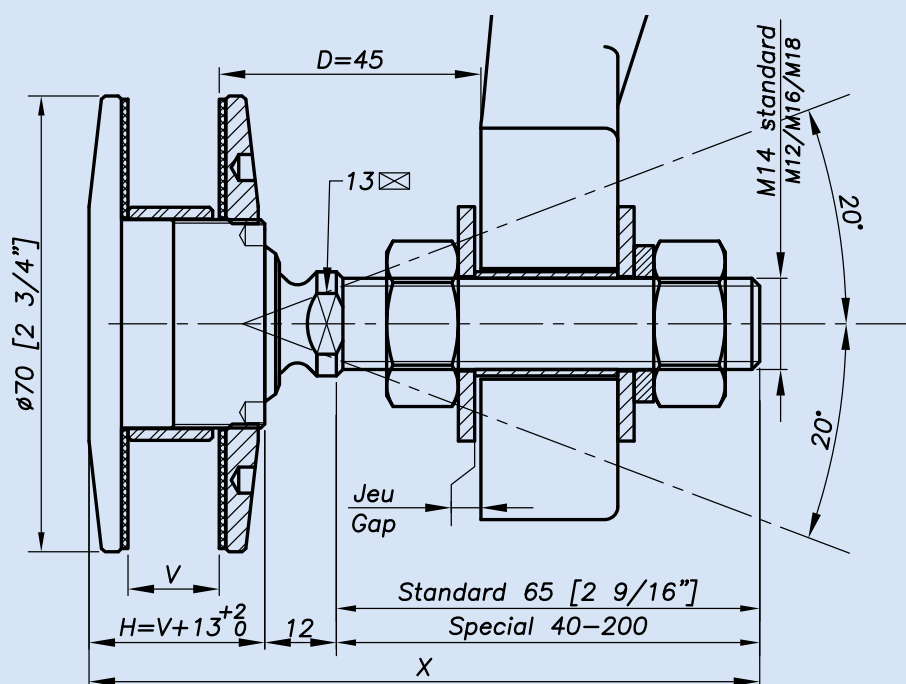
Mounting		Alternate product
Vertical facade	Yes	
Roof/canopy	Yes	
Guard rail	Possible	V2003 - see SADEV Decor
*Blind access	No	R1008 - R1006 - R1038
Sloped glazing	Yes	

Patent No: 9806556

Technical assessment available online: www.sadev.com

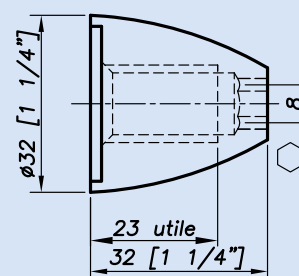
*Installation from the outside (no access to the structure).

Dimensions:

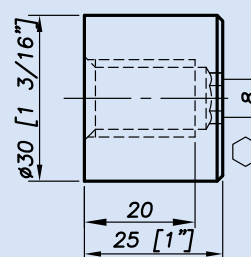


H validated by SADEV depending on availability.

Option Monti M14

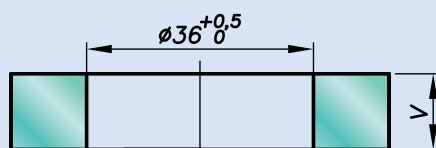


Option 3025 M14

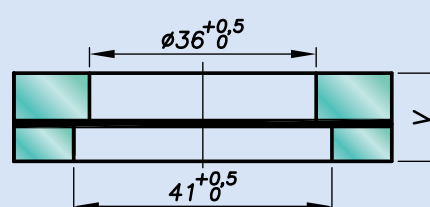


Glass drilling:

Monolithic glass



Laminated glass

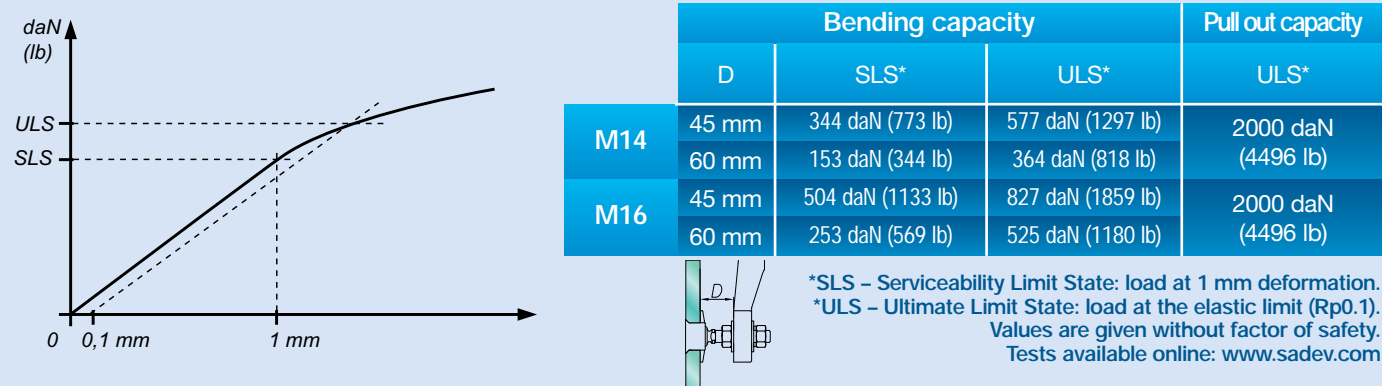
V = 1st glass + intercalated films + 2nd glass

Available for glass thicknesses from 8 to 31.52 mm, for other thicknesses please consult us.

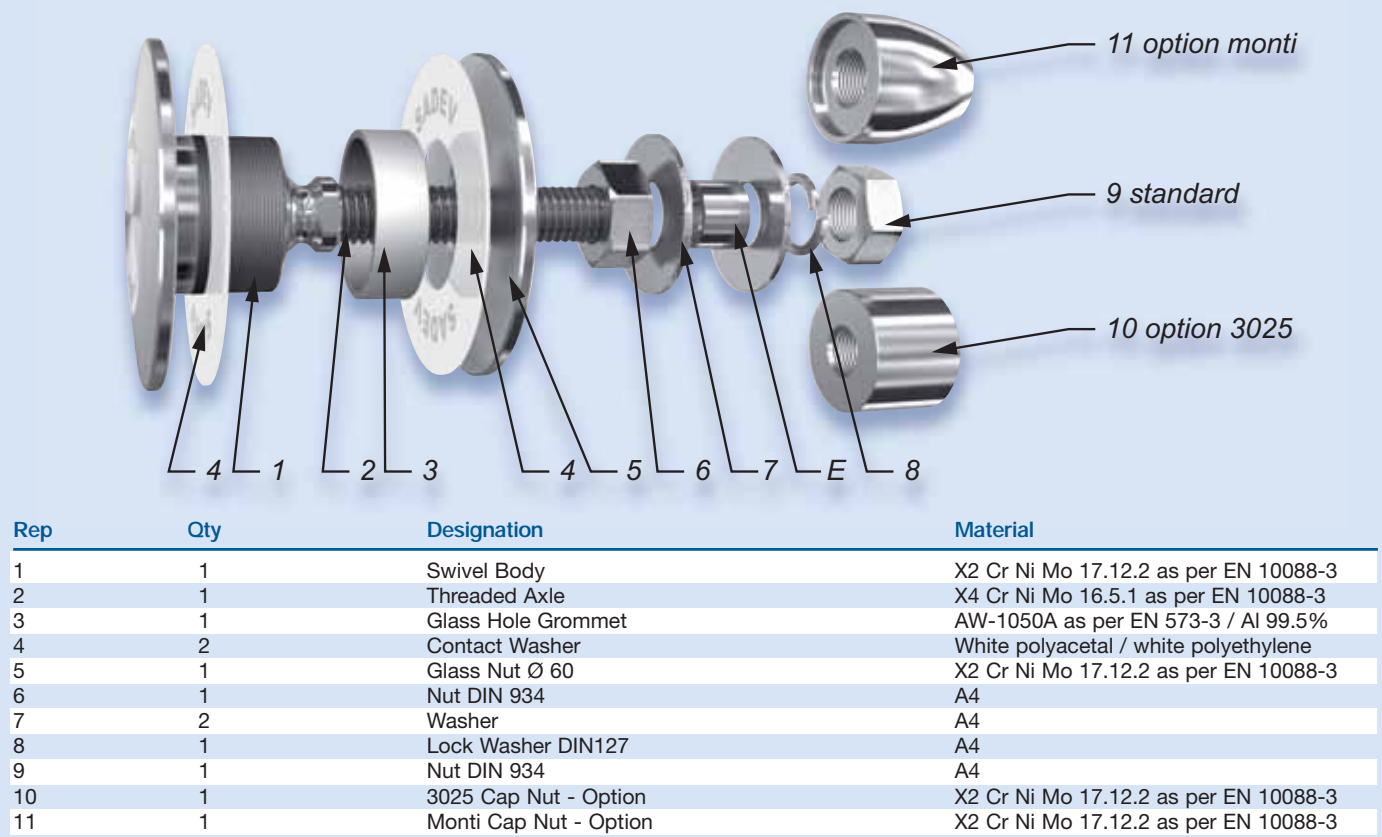
It is important to provide the following information with each request: the glass composition (ex.: 10 mm monolithic, 8.8.4 laminated, 8.8.2-12-10 insulating) / the length and diameter of the threaded axle if not standard dimensions (M14, 65 mm) / the reference of the spider to be used as support, or the thickness of an existing support for the delivery of the spacer.

Reference: R 1003 Ø 70

Mechanical performances:



Components:



Suggested mounting instruction:

Insert parts No. 1/2, 4, and 3 into the glass hole.
Mount the second contact washer No. 4 and nut No. 5 and tighten to 20 Nm (15 ft-lb) for monolithic glass and 10 Nm (7.5 ft-lb) for laminated glass using SADEV tools ref. 097581160 and ref. CLE-DYN-072031.
Thread on nut No. 6 and apply washer No. 7.
Insert the threaded axle into the support with spacer E (available on request), see technical page. Adjust the depth.
Mount the second washer No. 7, lock washer No. 8, and nut No. 9. Tighten to 60 Nm (45 ft-lb) using a 22 mm wrench.

SADEV recommends using thread locking compound whenever possible.

Reference: R 1003 Ø 70 SO

Designation: swivel fitting, cylindrical head, Ø 70 mm, with silicone cover.



Typical applications:

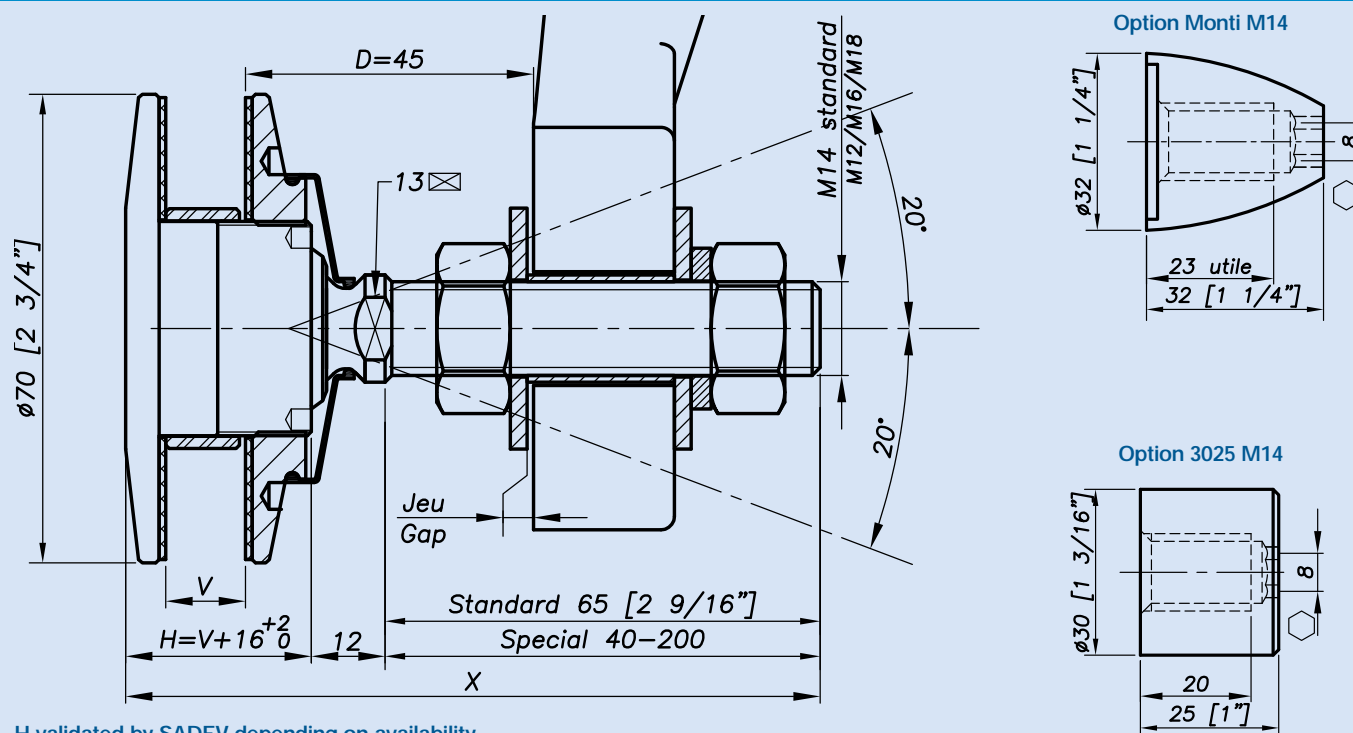
Mounting		Alternate product
Vertical facade	Yes	V2003 - see SADEV Decor R1008 - R1006 - R1038
Roof/canopy	Yes	
Guard rail	Possible	
*Blind access	No	
Sloped glazing	Yes	

Patent No: 9806556

Technical assessment available online: www.sadev.com

*Installation from the outside (no access to the structure).

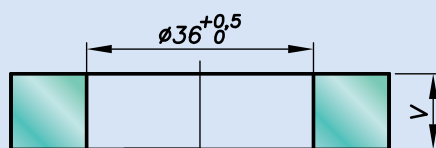
Dimensions:



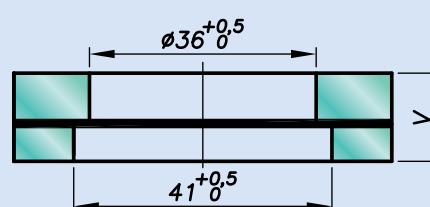
H validated by SADEV depending on availability.

Glass drilling:

Monolithic glass



Laminated glass

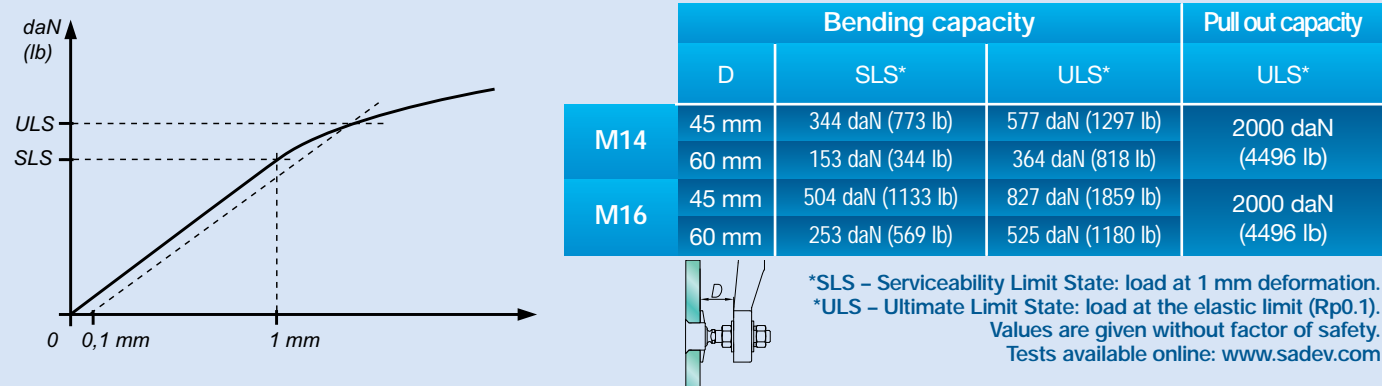
V = 1st glass + intercalated films + 2nd glass

Available for glass thicknesses from 8 to 31.52 mm, for other thicknesses please consult us.

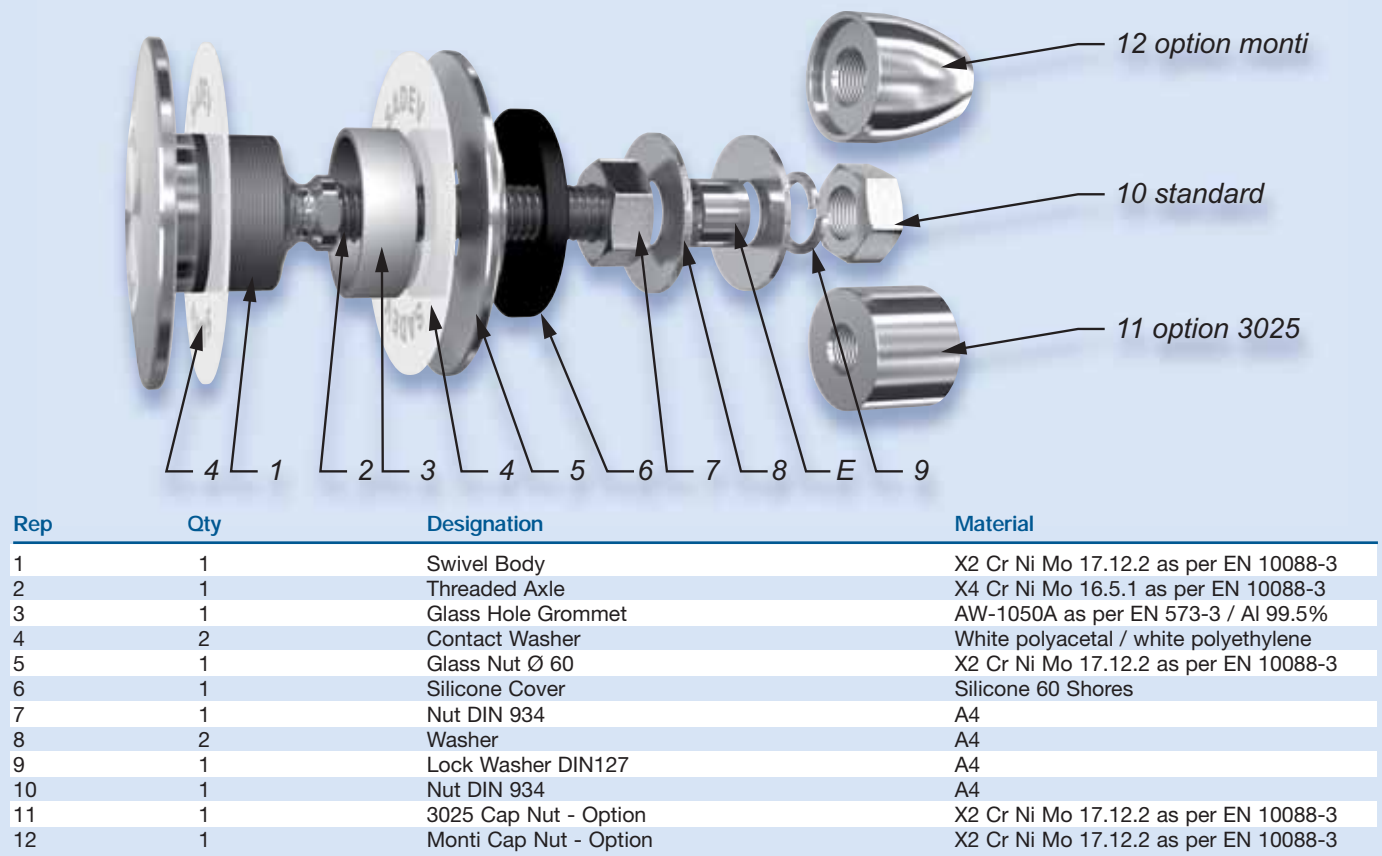
It is important to provide the following information with each request: the glass composition (ex.: 10 mm monolithic, 8.8.4 laminated, 8.8.2-12-10 insulating) / the length and diameter of the threaded axle if not standard dimensions (M14, 65 mm) / the reference of the spider to be used as support, or the thickness of an existing support for the delivery of the spacer.

Reference: R 1003 Ø 70 SO

Mechanical performances:



Components:



Suggested mounting instruction:

Insert parts No. 1/2, 4, and 3 into the glass hole.
Mount the second contact washer No. 4 and nut No. 5 and tighten to 20 Nm (15 ft-lb) for monolithic glass and 10 Nm (7.5 ft-lb) for laminated glass using SADEV tools ref. 097581160 and ref. CLE-DYN-072031.
Ensure that the silicone cover No. 6 is secured and not stretched too tightly or it may come loose.
Thread on nut No. 6 and apply washer No. 7.
Insert the threaded axle into the support with spacer E (available on request), see technical page. Adjust the depth.
Mount the second washer No. 7, lock washer No. 8, and nut No. 9. Tighten to 60 Nm (45 ft-lb) using a 22 mm wrench.

SADEV recommends using thread locking compound whenever possible.

Reference: R 1005

Designation : swivel fitting, cylindrical head, Ø 70 mm, with silicone cover.



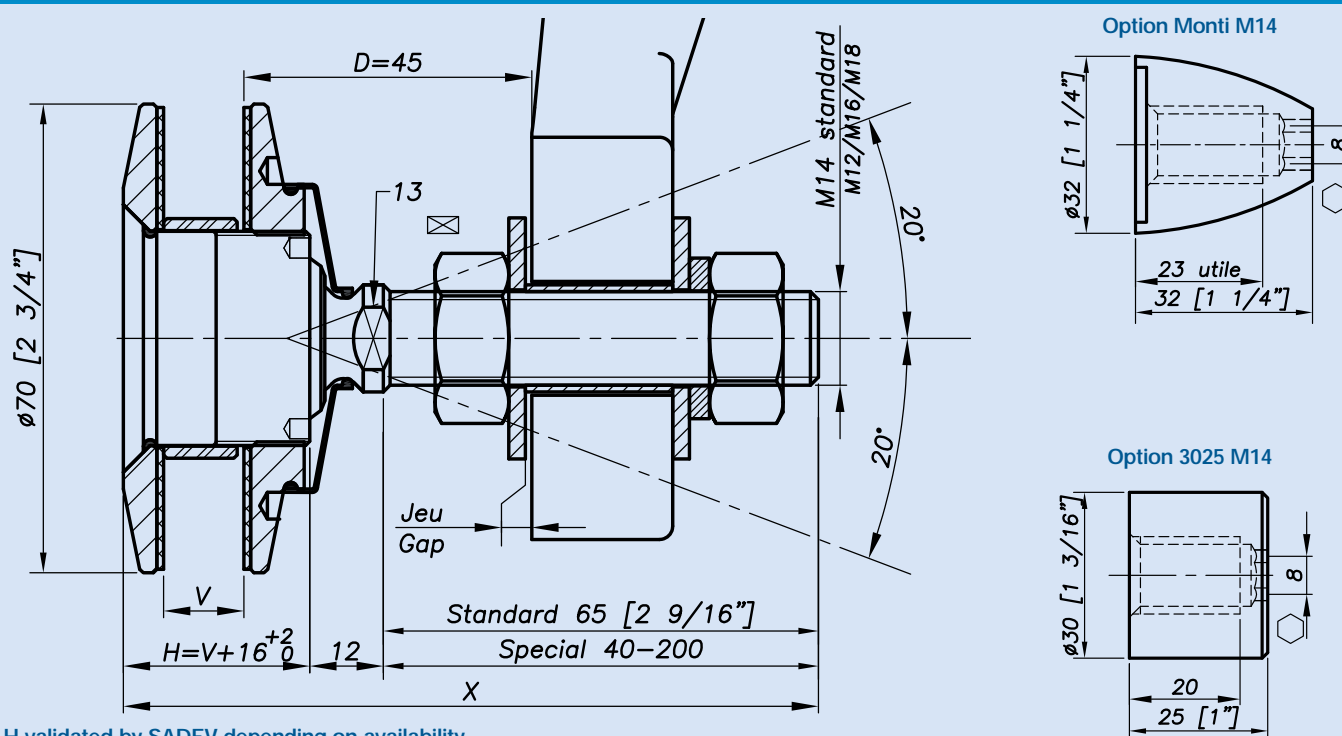
Patent No: 9806556

Typical applications:

Mounting		Alternate product
Vertical facade	Possible	R1001
Roof	Yes	
Guard rail	No	V2003 – see SADEV Decor
*Blind access	No	R1008 - R1006 – R1038
Sloped glazing	Yes	

*Installation from the outside (no access to the structure).

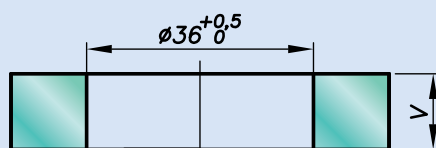
Dimensions:



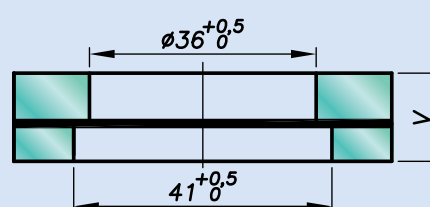
H validated by SADEV depending on availability.

Glass drilling:

Monolithic glass



Laminated glass

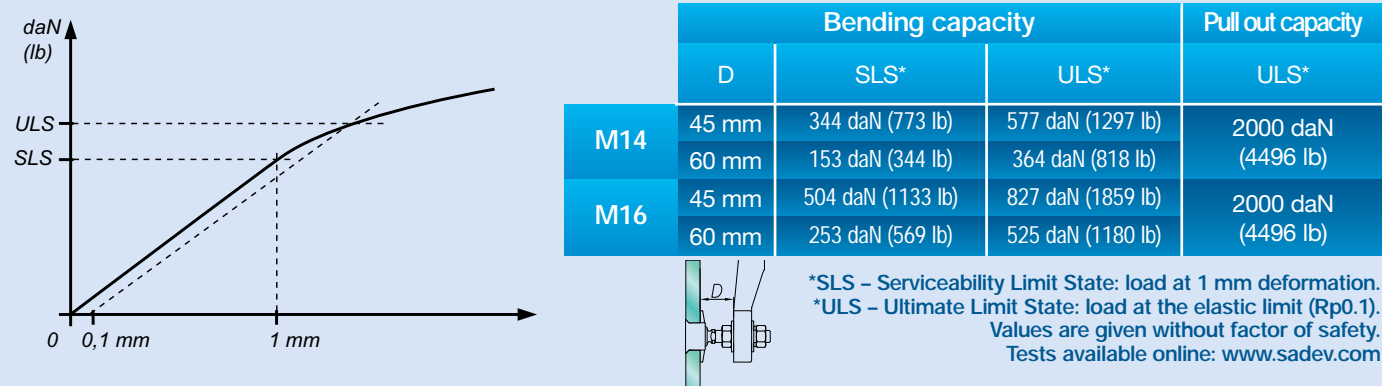
V = 1st glass + intercalated films + 2nd glass

Available for glass thicknesses from 8 to 31.52 mm, for other thicknesses please consult us.

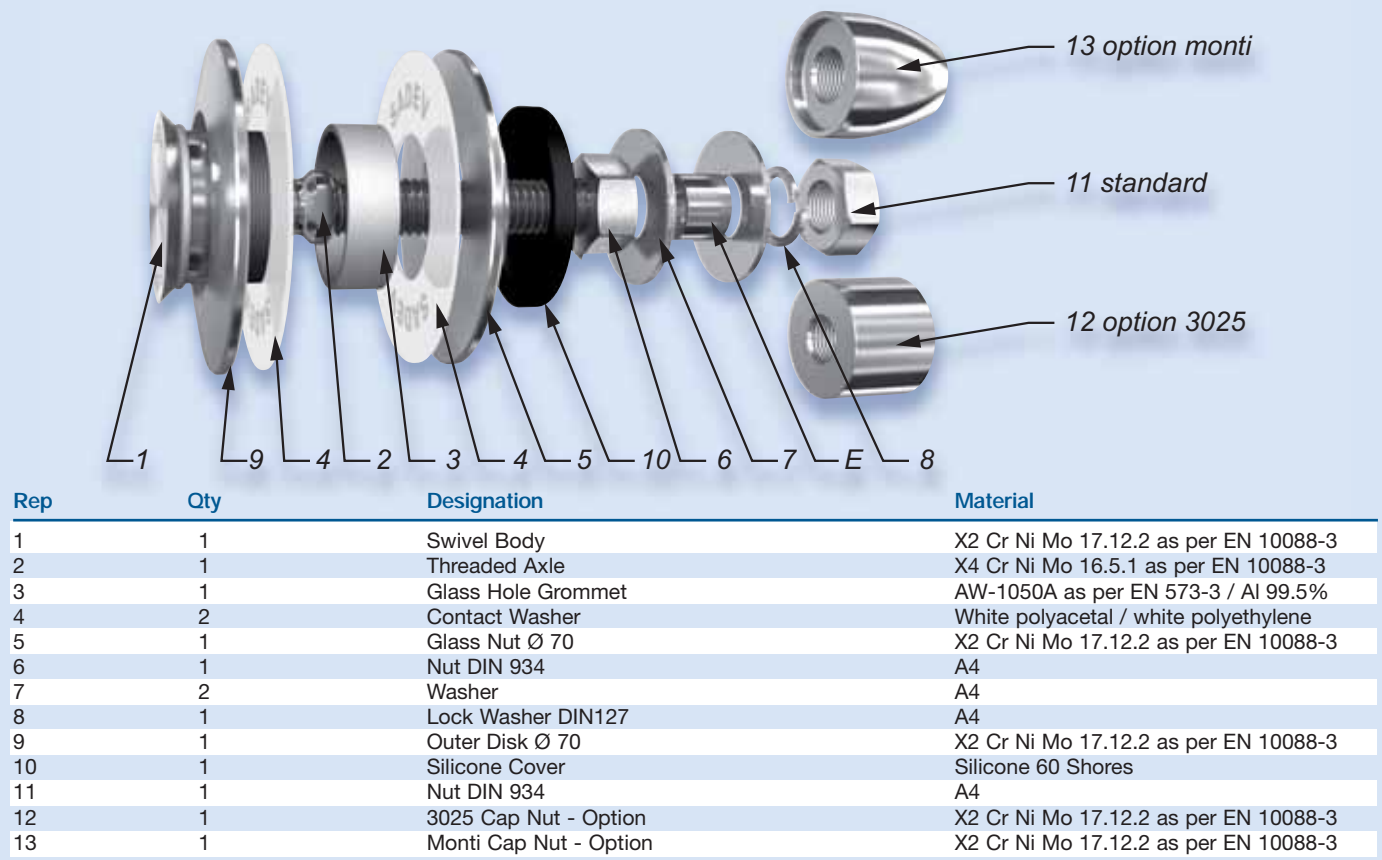
It is important to provide the following information with each request: the glass composition (ex.: 10 mm monolithic, 8.8.4 laminated, 8.8.2-12-10 insulating) / the length and diameter of the threaded axle if not standard dimensions (M14, 65 mm) / the reference of the spider to be used as support, or the thickness of an existing support for the delivery of the spacer.

Reference: R 1005

Mechanical performances:



Components:



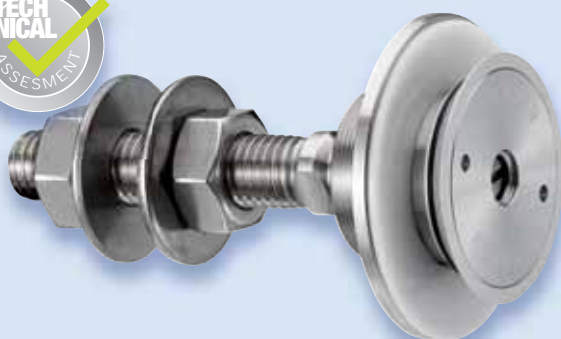
Suggested mounting instruction:

Insert parts No. 1/2, 9, 4, and 3 into the glass hole.
Mount the second contact washer No. 4 and nut No. 5 and tighten to 20 Nm (15 ft-lb) for monolithic glass and 10 Nm (7.5 ft-lb) for laminated glass using SADEV tools ref. 097581160 and ref. CLE-DYN-072031.
Ensure that the silicone cover No. 10 is secured and not stretched too tightly or it may come loose.
Thread on nut No. 6 and apply washer No. 7.
Insert the threaded axle into the support with spacer E (available on request), see technical page. Adjust the depth.
Mount the second washer No. 7, lock washer No. 8, and nut No. 11. Tighten to 60 Nm or (45 ft-lb) using a 22 mm wrench.

SADEV recommends using thread locking compound whenever possible.

Reference: R 1008

Designation: swivel fitting, countersunk head, for installation from the outside.



Typical applications:

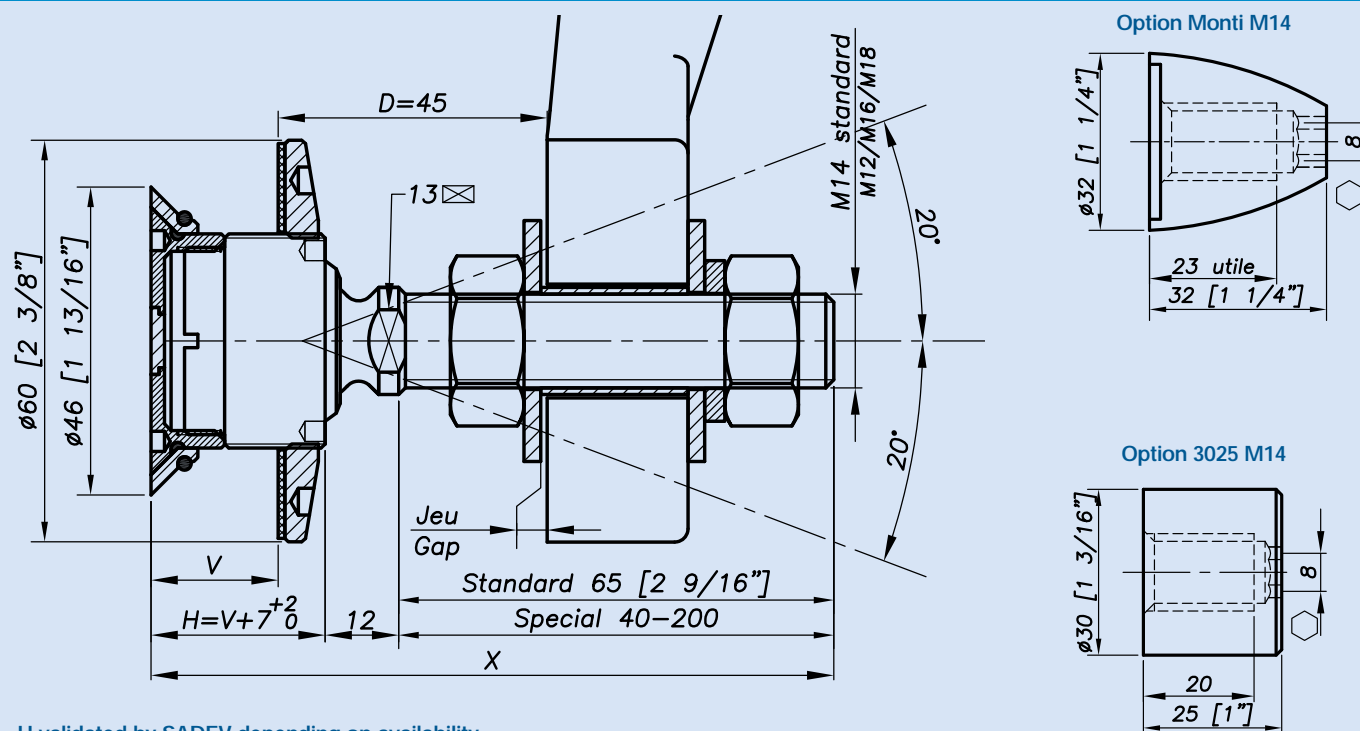
Mounting		Alternate product
Vertical facade	Yes	
Roof	No	R1006 - R1038
Guard rail	No	V2003 - see SADEV Decor
*Blind access	Yes	
Sloped glazing	Possible	

Patent No: 9806556

Technical assessment available online: www.sadev.com

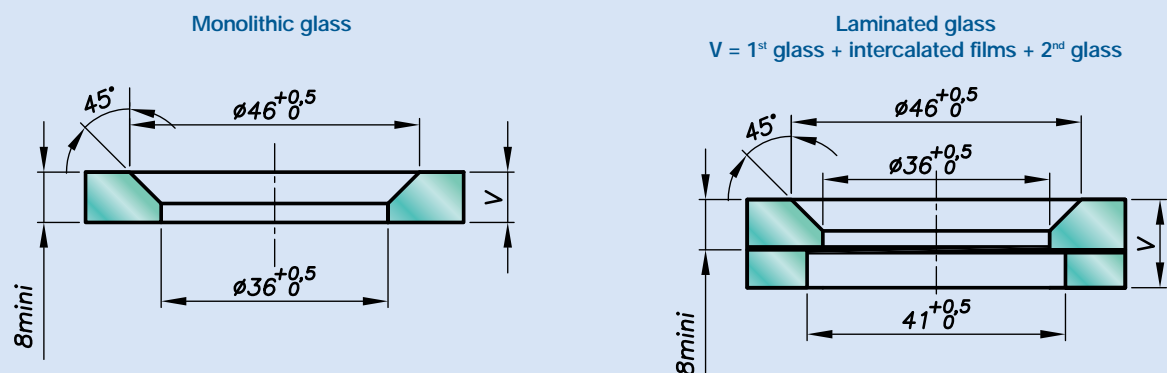
*Installation from the outside (no access to the structure).

Dimensions:



H validated by SADEV depending on availability.

Glass drilling:

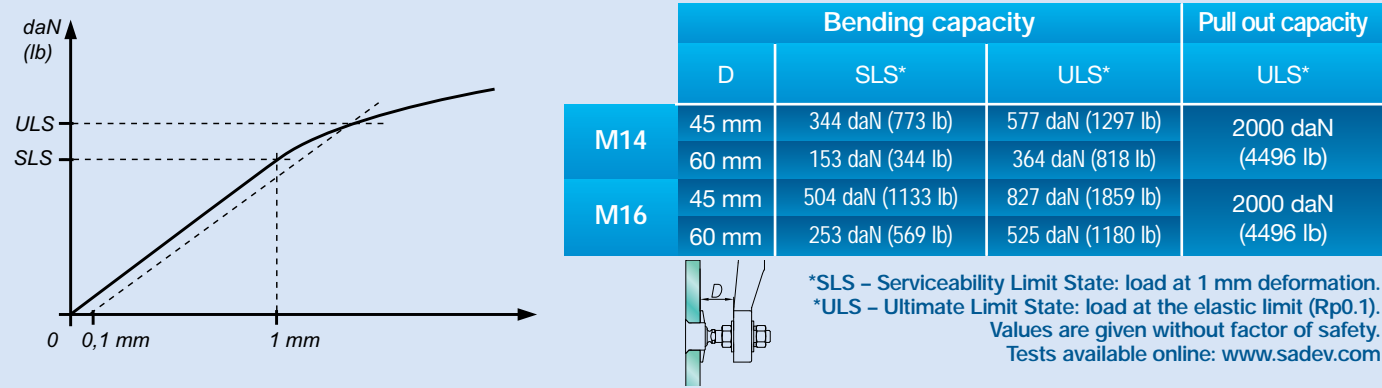


Available for glass thicknesses from 8 to 31.52 mm, for other thicknesses please consult us.

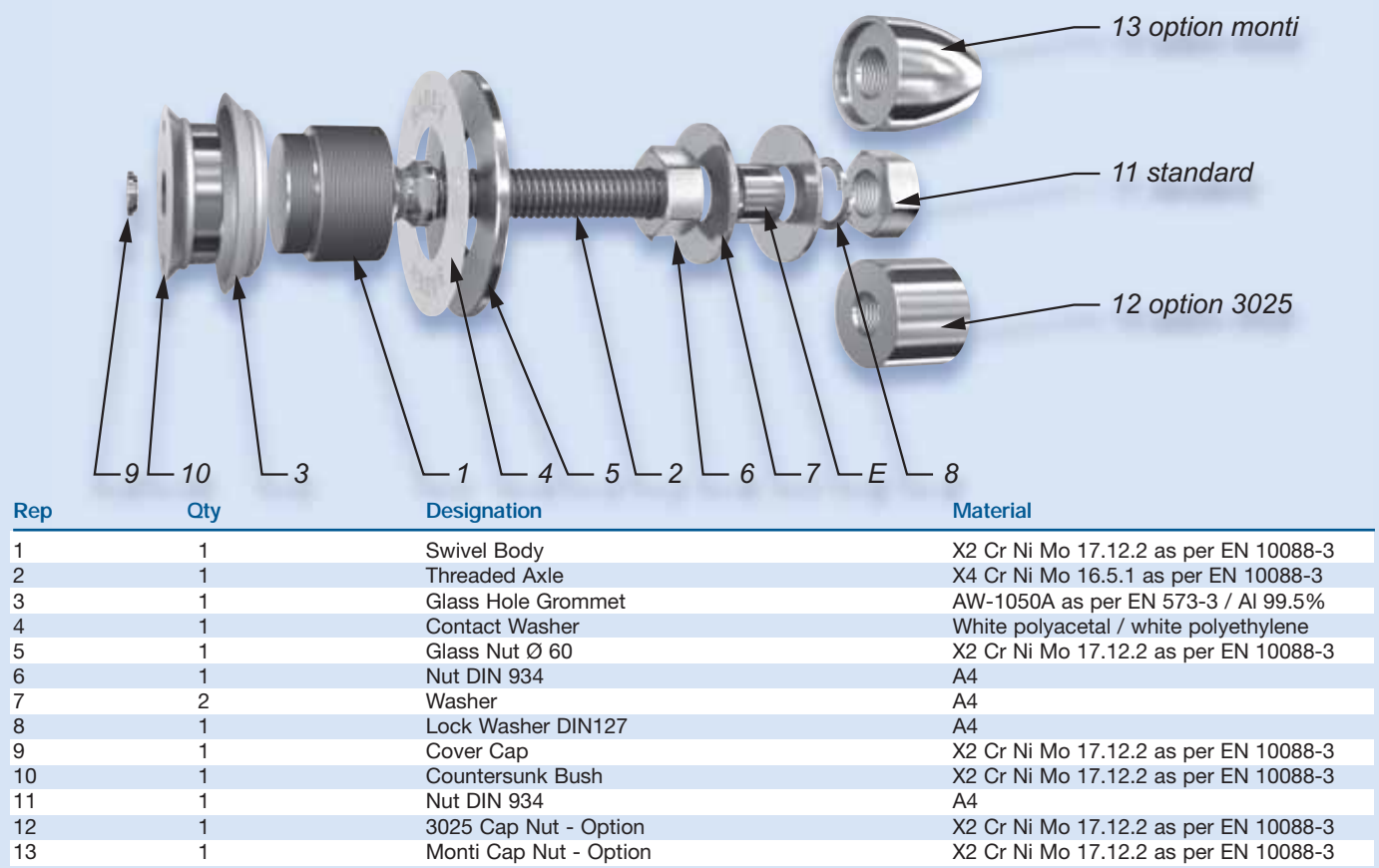
It is important to provide the following information with each request: the glass composition (ex.: 10 mm monolithic, 8.8.4 laminated, 8.8.2-12-10 insulating) / the length and diameter of the threaded axle if not standard dimensions (M14, 65 mm) / the reference of the spider to be used as support, or the thickness of an existing support for the delivery of the spacer.

Reference: R 1008

Mechanical performances:

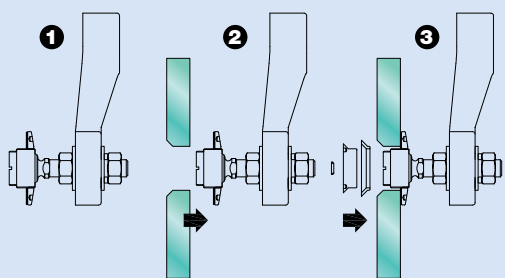


Components:

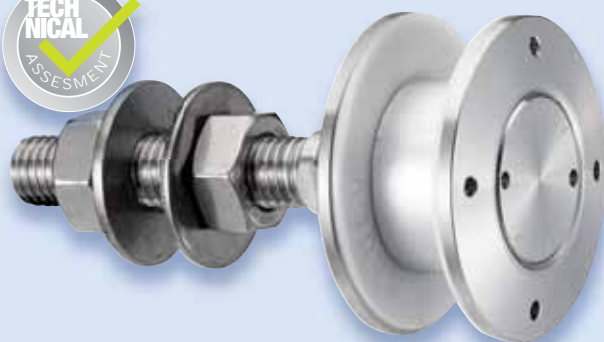


Suggested mounting instruction:

Mount nut No. 6 and washer No. 7 onto parts No. 1/2.
Insert the threaded axle into the support with spacer E (available on request), see technical page. Adjust the depth. Mount washer No. 7, lock washer No. 8 and nut No. 11. Tighten to 60 Nm (45 ft-lb) using a 22 mm wrench. Apply contact washer No. 4 and glass nut No. 5 onto parts No. 1/2. Adjust to desired position. Mount the glass onto the assembly.
Thread on the countersunk bush No. 10 with grommet No. 3 onto parts No. 1/2.
Tighten to 20 Nm (15 ft-lb) for monolithic glass and 10 Nm (7.5 ft-lb) for laminated glass using SADEV catalog ref. 097581160 and ref. CLE-DYN-072031. The swivel fitting is maintained with a flat screw driver while fixing part No. 10. Glue in the cover cap No. 9 into the countersunk bush No. 10 using silicone.



SADEV recommends using thread locking compound whenever possible.



Mounting		Alternate product
Vertical facade	Possible	R1001
Roof	Possible	R1003
Guard rail	No	V2003 - see SADEV Decor
*Blind access	Yes	
Sloped glazing	Possible	

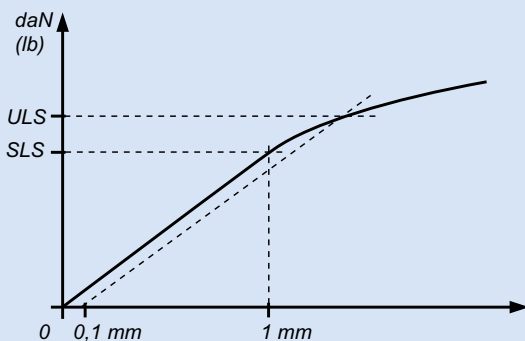
*Installation from the outside (no access to the structure).

H validated by SADEV depending on availability.

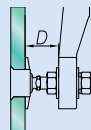
www.sadev.com - info@sadev.com

Reference: R 1006

Mechanical performances:

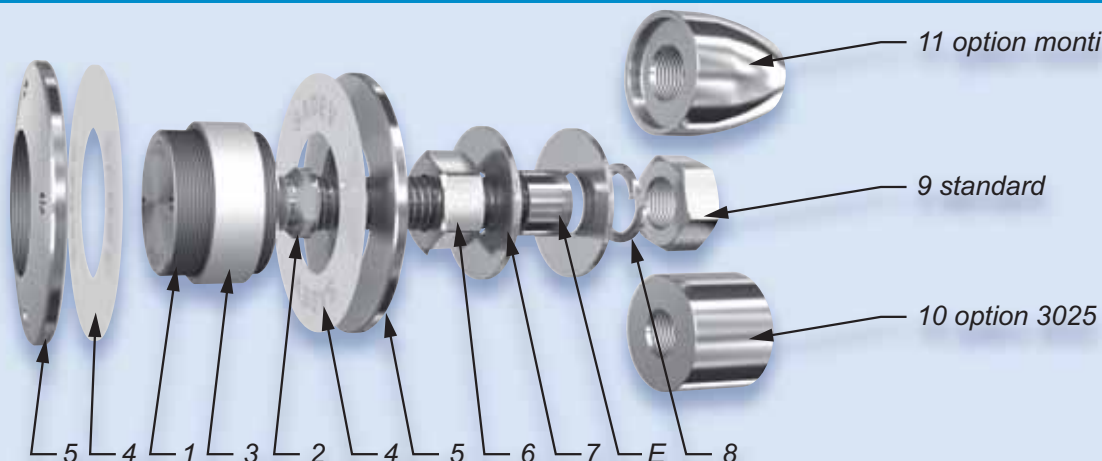


	D	Bending capacity		Pull out capacity
		SLS*	ULS*	ULS*
M14	45 mm	344 daN (773 lb)	577 daN (1297 lb)	2000 daN (4496 lb)
	60 mm	153 daN (344 lb)	364 daN (818 lb)	
M16	45 mm	504 daN (1133 lb)	827 daN (1859 lb)	2000 daN (4496 lb)
	60 mm	253 daN (569 lb)	525 daN (1180 lb)	



*SLS – Serviceability Limit State: load at 1mm deformation.
 *ULS – Ultimate Limit State: load at the elastic limit (Rp0.1).
 Values are given without factor of safety.
 Tests available online: www.sadev.com

Components:



Rep	Qty	Designation	Material
1	1	Swivel Body	X2 Cr Ni Mo 17.12.2 as per EN 10088-3
2	1	Threaded Axle	X4 Cr Ni Mo 16.5.1 as per EN 10088-3
3	1	Glass Hole Grommet	AW-1050A as per EN 573-3 / Al 99.5%
4	2	Contact Washer	White polyacetal / white polyethylene
5	2	Glass Nut Ø 60	X2 Cr Ni Mo 17.12.2 as per EN 10088-3
6	1	Nut DIN 934	A4
7	2	Washer	A4
8	1	Lock Washer DIN127	A4
9	1	Nut DIN 934	A4
10	1	3025 Cap Nut - Option	X2 Cr Ni Mo 17.12.2 as per EN 10088-3
11	1	Monti Cap Nut - Option	X2 Cr Ni Mo 17.12.2 as per EN 10088-3

Suggested mounting instruction:

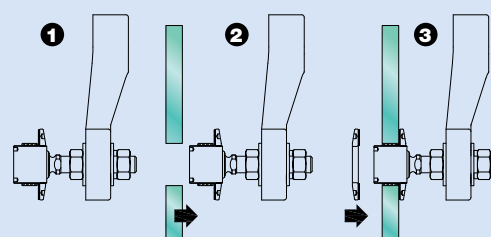
A – Classic mounting

Insert parts No. 1/2, 5, 4 and 3 into the glass hole. Mount the second contact washer No. 4 and nut No. 5 and tighten to 20 Nm (15 ft-lb) for monolithic glass and 10 Nm (7.5 ft-lb) for laminated glass using SADEV tools ref. 097581160 and ref. CLE-DYN-072031. Thread on nut No. 6 and apply washer No. 7. Insert the threaded axle into the support with spacer E (available on request), see technical page. Adjust the depth. Mount the second washer No. 7, lock washer No. 8, and nut No. 9. Tighten to 60 Nm (45 ft-lb) using a 22 mm wrench.

B – Blind mounting: installation from the outside (no access to the structure)

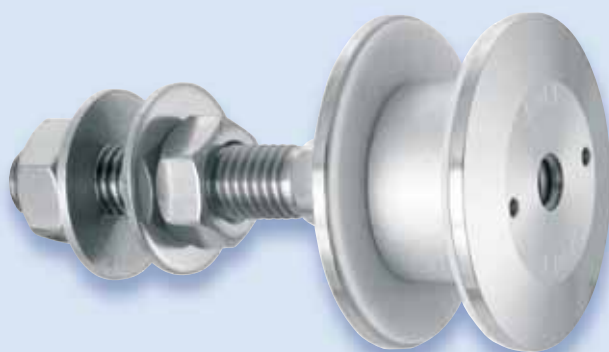
Mount nut No. 6 and washer No. 7 onto assembly No. 1/2. Insert the threaded axle into the support with spacer E (available on request), see technical page. Adjust the depth. Mount the second washer No. 7, lock washer No. 8, and nut No. 9. Tighten to 60 Nm (45 ft-lb) using a 22 mm wrench. Slide contact washer No. 4 and grommet No. 3 onto swivel body No. 1. Set the glass onto the swivel body, be careful to not contact unprotected glass edges with bare metal parts. Mount the second contact washer No. 4 and nut No. 5 and tighten to 20 Nm (15 ft-lb) for monolithic glass and 10 Nm (7.5 ft-lb) for laminated glass using SADEV tools ref. 097581160 and ref. CLE-DYN-072031.

SADEV recommends using thread locking compound whenever possible.



Reference: R 1038

Designation: swivel fitting, cylindrical head, for installation from the outside.



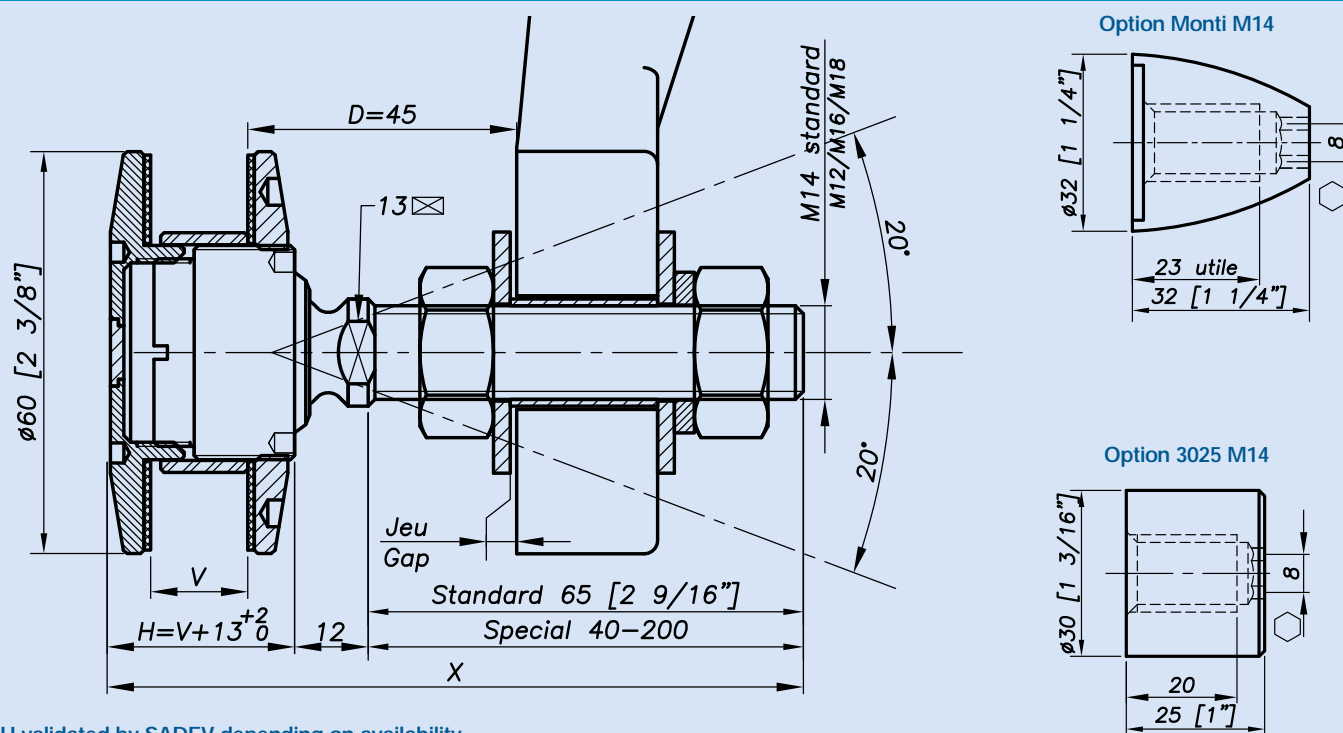
Typical applications:

Mounting		Alternate product
Vertical facade	Yes	
Roof	Possible	
Guard rail	No	V2003 - see SADEV Decor
*Blind access	Yes	
Sloped glazing	Possible	V2005

*Installation from the outside (no access to the structure).

Patent No: 9806556

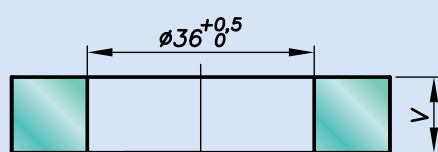
Dimensions:



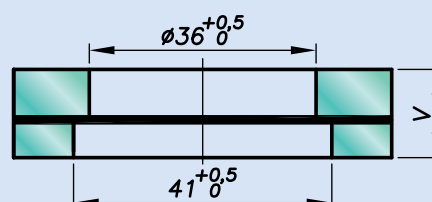
H validated by SADEV depending on availability.

Glass drilling:

Monolithic glass



Laminated glass

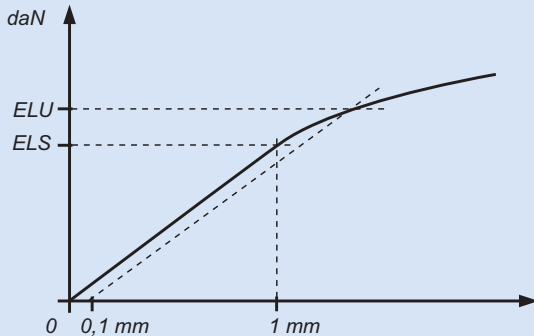
V = 1st glass + intercalated films + 2nd glass

Available for glass thicknesses from 8 to 31.52 mm, for other thicknesses please consult us.

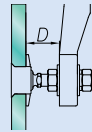
It is important to provide the following information with each request: the glass composition (ex.: 10 mm monolithic, 8.8.4 laminated, 8.8.2-12-10 insulating) / the length and diameter of the threaded axle if not standard dimensions (M14, 65 mm) / the reference of the spider to be used as support, or the thickness of an existing support for the delivery of the spacer.

Reference: R 1038

Mechanical performances:



	D	Bending capacity		Pull out capacity
		SLS*	ULS*	ULS*
M14	45 mm	Performances equivalent with R1008.		
	60 mm			
M16	45 mm			
	60 mm			



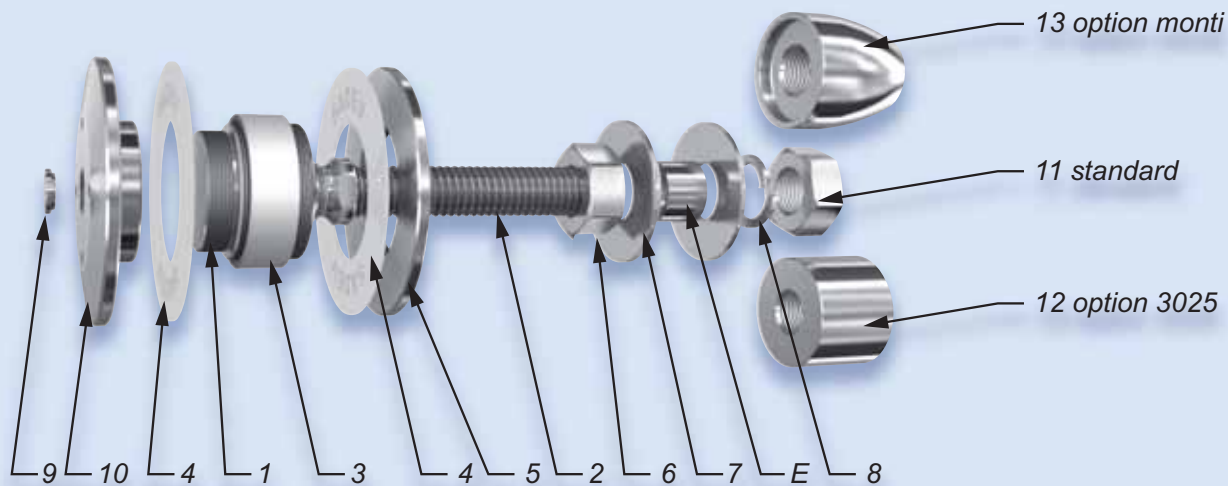
*SLS – Serviceability Limit State: load at 1 mm deformation.

*ULS – Ultimate Limit State: load at the elastic limit (Rp0.1).

Values are given without factor of safety.

Tests available online: www.sadev.com

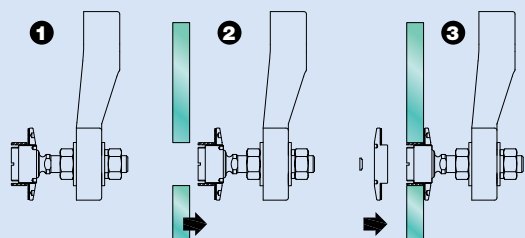
Components:



Rep	Qty	Designation	Material
1	1	Swivel Body	X2 Cr Ni Mo 17.12.2 as per EN 10088-3
2	1	Threaded Axle	X4 Cr Ni Mo 16.5.1 as per EN 10088-3
3	1	Glass Hole Grommet	AW-1050A as per EN 573-3 / Al 99.5%
4	2	Contact Washer	White polyacetal / white polyethylene
5	1	Glass Nut Ø 60	X2 Cr Ni Mo 17.12.2 as per EN 10088-3
6	1	Nut DIN 934	A4
7	2	Washer	A4
8	1	Lock Washer DIN127	A4
9	1	Cover Cap	X2 Cr Ni Mo 17.12.2 as per EN 10088-3
10	1	Countersunk Bush	X2 Cr Ni Mo 17.12.2 as per EN 10088-3
11	1	Nut DIN 934	A4
12	1	3025 Cap Nut - Option	X2 Cr Ni Mo 17.12.2 as per EN 10088-3
13	1	Monti Cap Nut - Option	X2 Cr Ni Mo 17.12.2 as per EN 10088-3

Suggested mounting instruction:

Mount nut No. 6 and washer No. 7 onto parts No. 1/2.
 Insert the threaded axle into the support with spacer E (available on request), see technical page.
 Adjust the depth. Mount washer No. 7, lock washer No. 8, and nut No. 11 and tighten to 60 Nm (45 ft-lb) using a 22 mm wrench. Apply contact washer No. 4 and glass nut No. 5.
 Adjust to the desired location. Mount the glass onto the assembly.
 Mount parts No. 10 and 3 onto parts No. 1/2. Tighten to 20 Nm (15 ft-lb) for monolithic glass and 10 Nm (7.5 ft-lb) for laminated glass using SADEV ref. 097581160 and ref. CLE-DYN-072031.
 Insert cover cap No. 9 into the countersunk bush No. 10.



SADEV recommends using thread locking compound whenever possible.

Reference: R 1001A

Designation: swivel fitting, countersunk head – insulated glass unit.



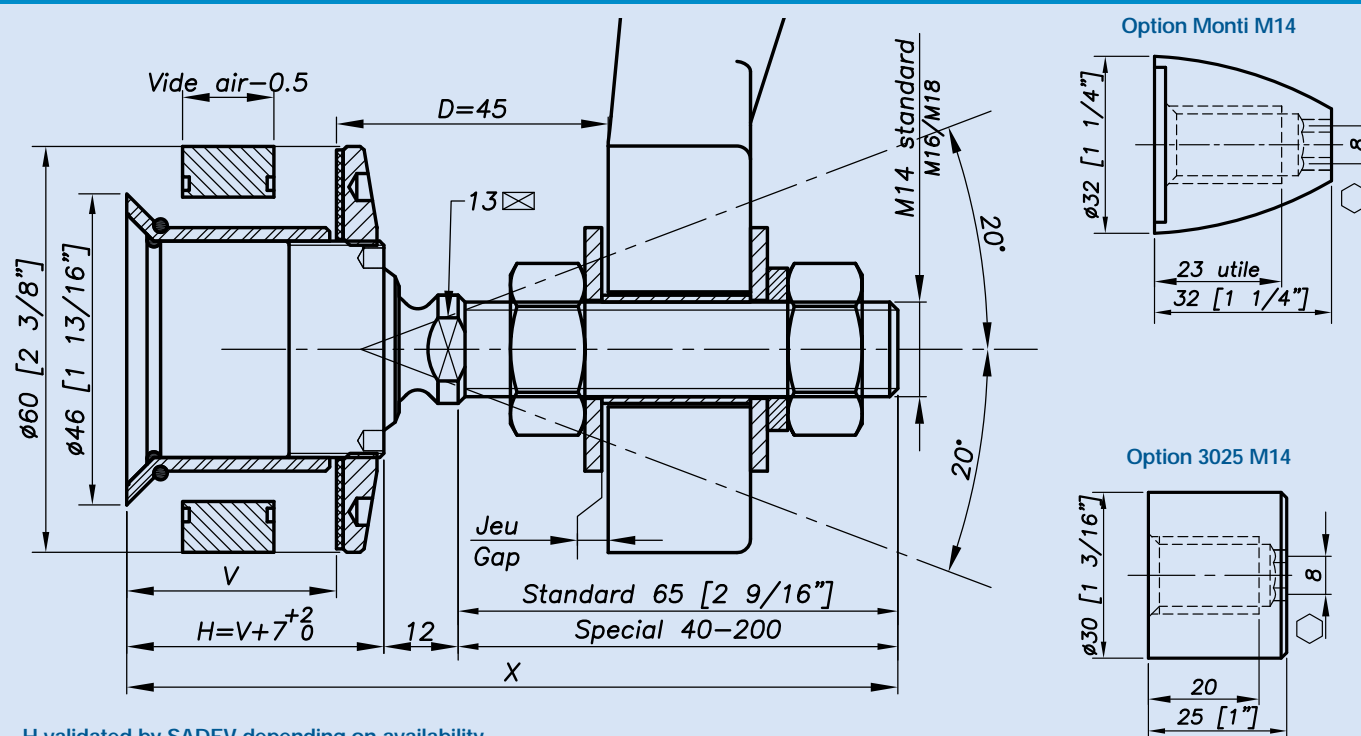
Typical applications:

Mounting		Alternate product
Vertical facade	Yes	R1003A
Roof/canopy	Possible	
Guard rail	No	
*Blind access	No	
Sloped glazing	Yes	

*Installation from the outside (no access to the structure).

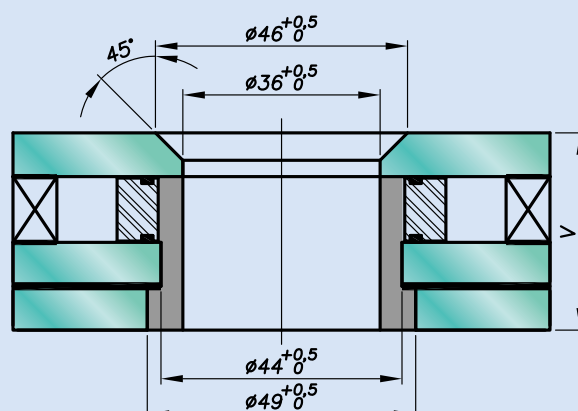
Patent No: 9806556

Dimensions:



H validated by SADEV depending on availability.

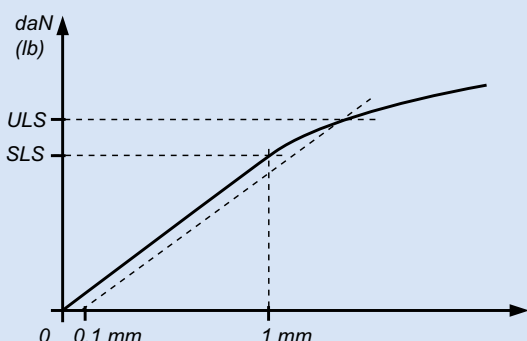
Glass drilling:



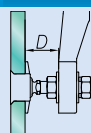
It is important to provide the following information with each request: the glass composition (ex.: 10 mm monolithic, 8.8.4 laminated, 8.8.2-12-10 insulating) / the length and diameter of the threaded axle if not standard dimensions (M14, 65 mm) / the reference of the spider to be used as support, or the thickness of an existing support for the delivery of the spacer.

Reference: R 1001A

Mechanical performances:

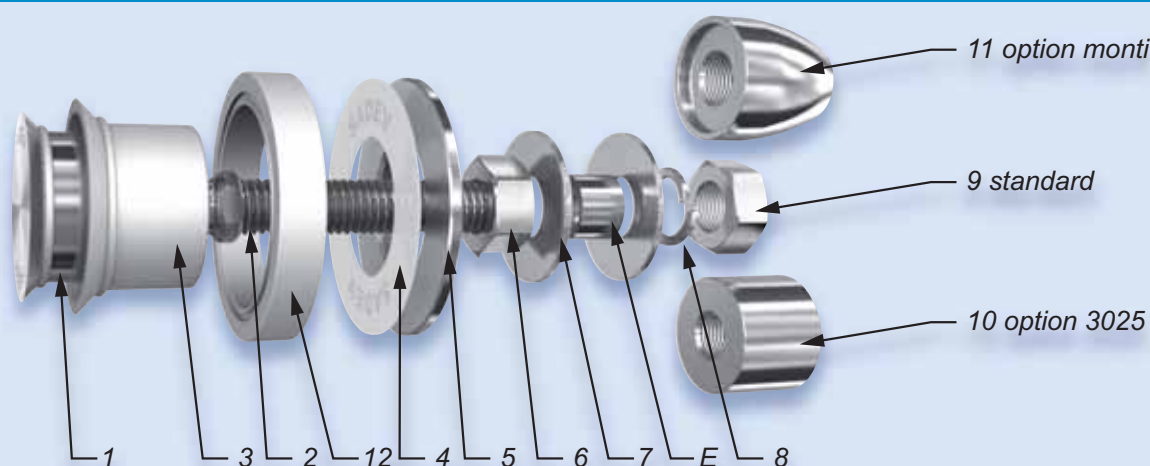


	D	Bending capacity		Pull out capacity
		SLS*	ULS*	ULS*
M14	45 mm	344 daN (773 lb)	577 daN (1297 lb)	2000 daN (4496 lb)
	60 mm	153 daN (344 lb)	364 daN (818 lb)	
M16	45 mm	504 daN (1133 lb)	827 daN (1859 lb)	2000 daN (4496 lb)
	60 mm	253 daN (569 lb)	525 daN (1180 lb)	



*SLS – Serviceability Limit State: load at 1 mm deformation.
 *ULS – Ultimate Limit State: load at the elastic limit (Rp0.1).
 Values are given without factor of safety.
 Tests available online: www.sadev.com

Components:



Rep	Qty	Designation	Material
1	1	Swivel Body	X2 Cr Ni Mo 17.12.2 as per EN 10088-3
2	1	Threaded Axle	X4 Cr Ni Mo 16.5.1 as per EN 10088-3
3	1	Glass Hole Grommet	AW-1050A as per EN 573-3 / Al 99.5%
4	1	Contact Washer	White polyacetal / white polyethylene
5	1	Glass Nut Ø 60	X2 Cr Ni Mo 17.12.2 as per EN 10088-3
6	1	Nut DIN 934	A4
7	2	Washer	A4
8	1	Lock Washer DIN127	A4
9	1	Nut DIN 934	A4
10	1	3025 Cap Nut - Option	X2 Cr Ni Mo 17.12.2 as per EN 10088-3
11	1	Monti Cap Nut - Option	X2 Cr Ni Mo 17.12.2 as per EN 10088-3
12	1	Spacing Ring	AlCu4MgSi/2017A (AU4G) as per EN 573-3

Suggested mounting instruction:

1 – In factory: assembly of glass

Suggested method only, not considered to replace the recommendations of the glass manufacturer.

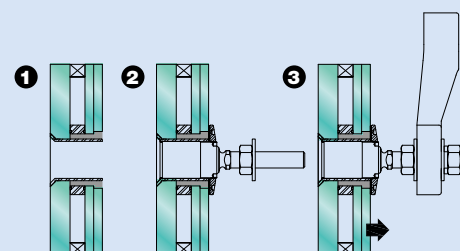
Mount spacing ring No. 12 between the two pieces of glass using 3 mm butyl cord applied into the grooves.

Assemble the IG unit. Insert glass hole grommet No. 3 and secure using a neutral cure silicone.

2 – On site

Insert parts No. 1/2 into the glass hole. Place the contact washer No. 4 over assembly No. 1/2 and thread on the glass nut No. 5. Tighten to 10 Nm (7.5 ft-lb) for tempered glass using SADEV catalog ref. 097581160 and ref. CLE-DYN-072031. Thread on nut No. 6 and apply washer No. 7. Insert the threaded axle into the support with spacer E (available on request), see technical page. Adjust the depth. Mount the second washer No. 7, lock washer No. 8, and nut No. 9. Tighten to 60 Nm (45 ft-lb) using a 22 mm wrench.

SADEV recommends using thread locking compound whenever possible.



Reference: R 1039

Designation: swivel fitting, cylindrical head – insulated glass unit.
Fixed on one layer of glass only.

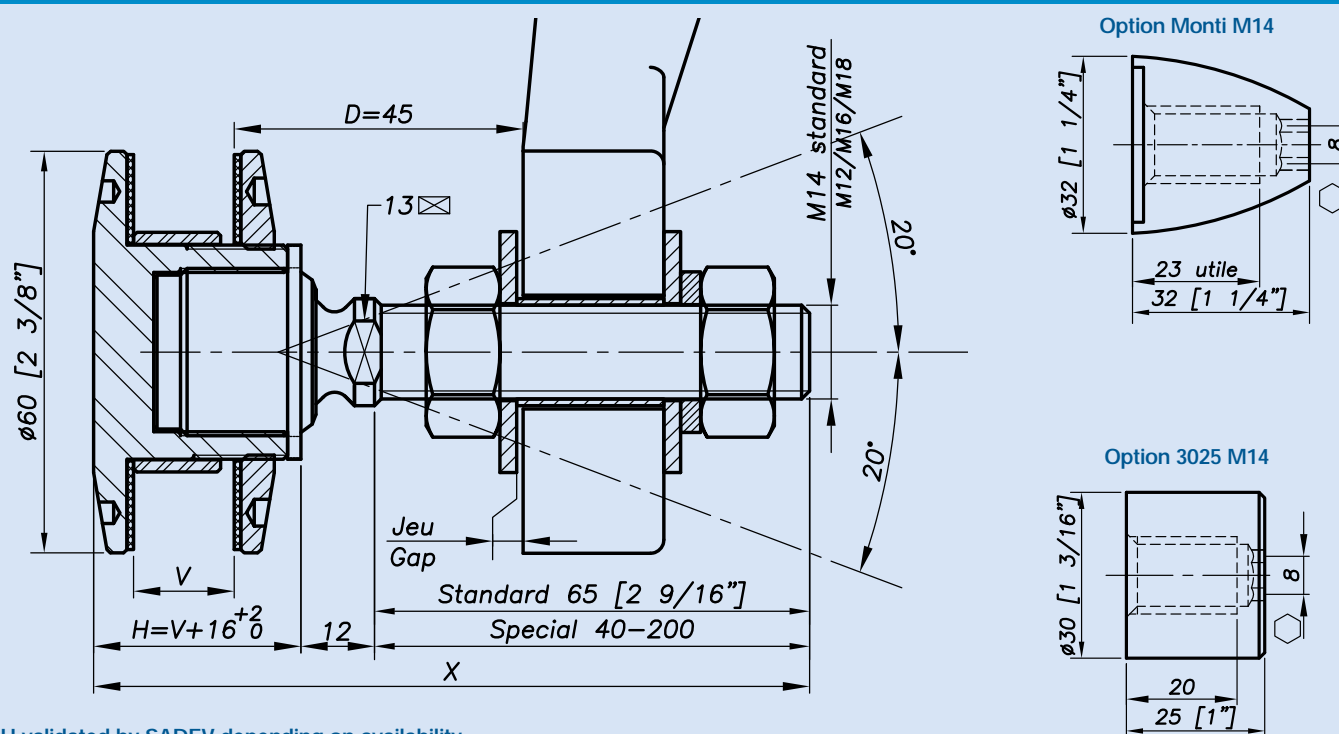
Typical applications:

Mounting		Alternate product
Vertical facade	Yes	
Roof	No	R1003A
Guard rail	No	V2003 - see SADEV Decor
*Blind access	No	R1008 - R1038 - R1006
Sloped glazing	Possible	

*Installation from the outside (no access to the structure).
The first glass layer is obligatory laminated.

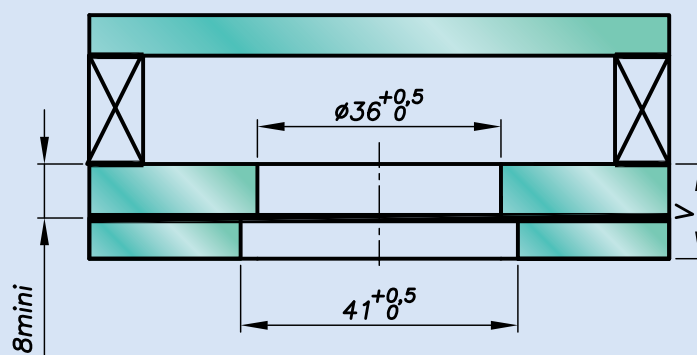
Patent No: 9806556

Dimensions:



H validated by SADEV depending on availability.

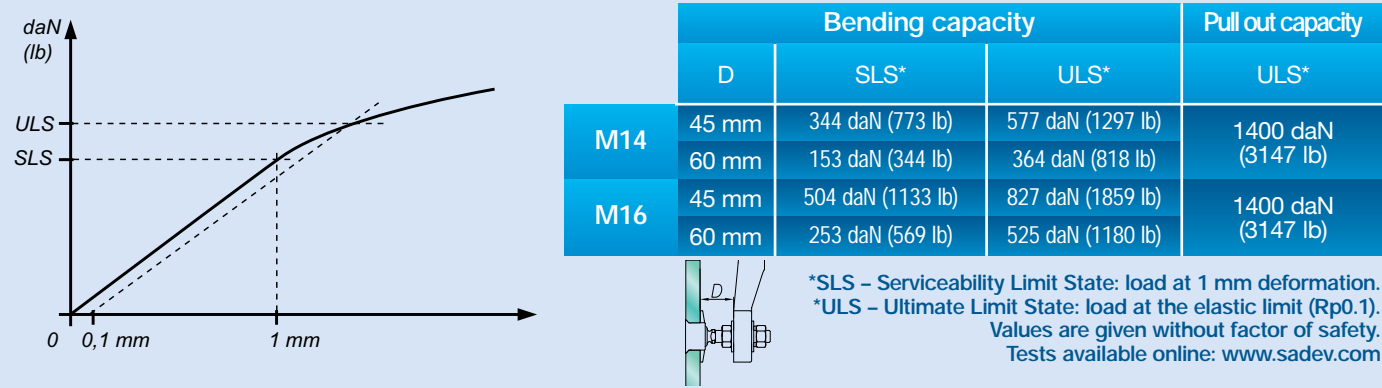
Glass drilling:



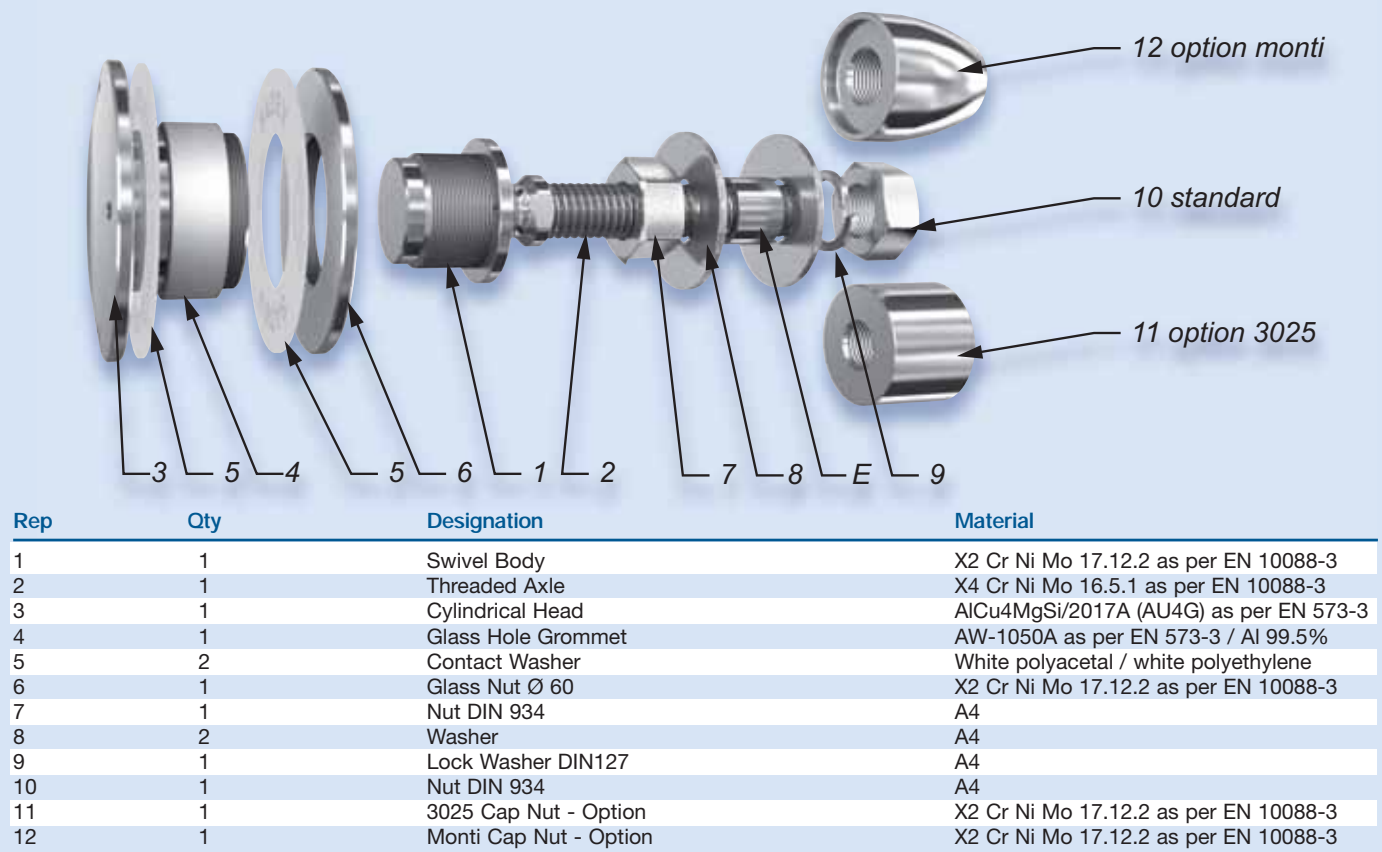
It is important to provide the following information with each request: the glass composition (ex.: 10 mm monolithic, 8.8.4 laminated, 8.8.2-12-10 insulating) / the length and diameter of the threaded axle if not standard dimensions (M14, 65 mm) / the reference of the spider to be used as support, or the thickness of an existing support for the delivery of the spacer.

Reference: R 1039

Mechanical performances:



Components:

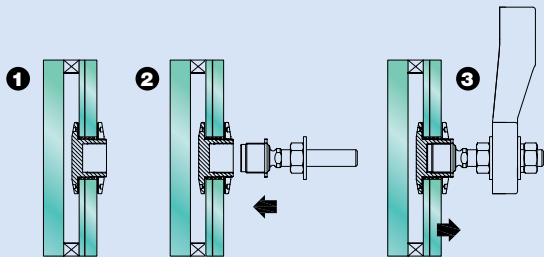


Suggested mounting instruction:

1 – In factory: assembly of glass
Mount the cylindrical head No. 3, contact washer No. 5, and grommet No. 4 to the inside glass lite. Attach contact washer No. 5 and glass nut No. 6 and tighten to 10 Nm (7.5 ft-lb) for laminated glass using SADEV ref. 097581160 and ref. CLE-DYN-072031. Assemble the insulated glass unit. Butyl cord applied between item 3 and the glass.

2 – On site
Thread parts No. 1/2 into the cylindrical head No. 3. Mount nut No. 7 and washer No. 8 onto parts No. 1/2. Insert the threaded axle into the support with spacer E (available on request), see technical page. Adjust the depth. Mount washer No. 8, lock washer No. 9, and nut No. 10 and tighten to 60 Nm (45 ft-lb) using a 22 mm wrench.

SADEV recommends using thread locking compound whenever possible.



Reference: R 1003A

Designation: swivel fitting, cylindrical head - insulating glass unit.



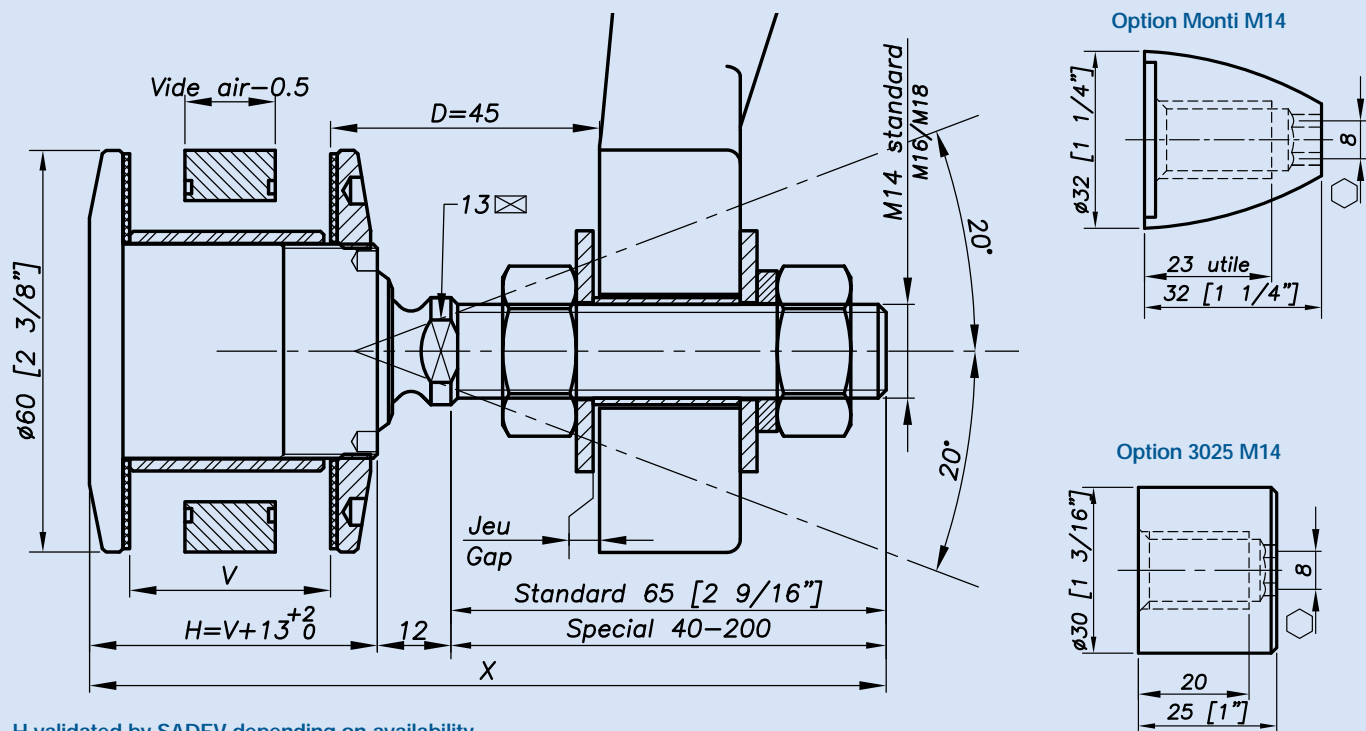
Typical applications:

Mounting		Alternate product
Vertical facade	Yes	1001A
Roof	Yes	
Guard rail	No	
*Blind access	No	
Sloped glazing	Yes	

*Installation from the outside (no access to the structure).

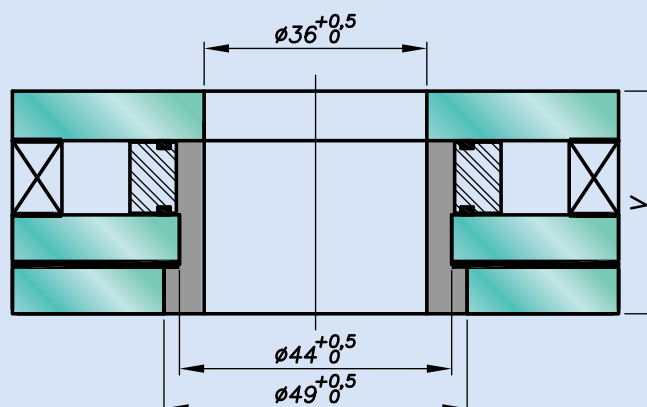
Patent No: 9806556

Dimensions:



H validated by SADEV depending on availability.

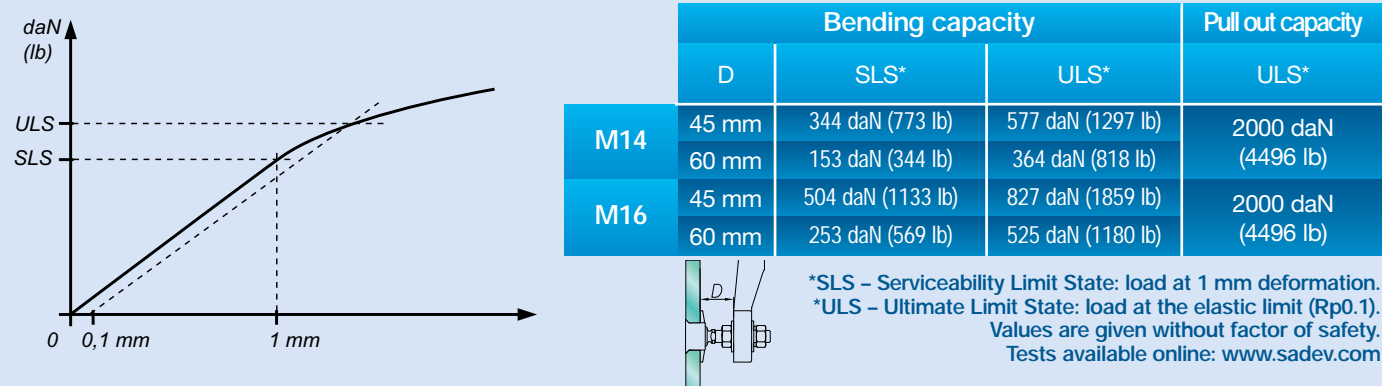
Glass drilling:



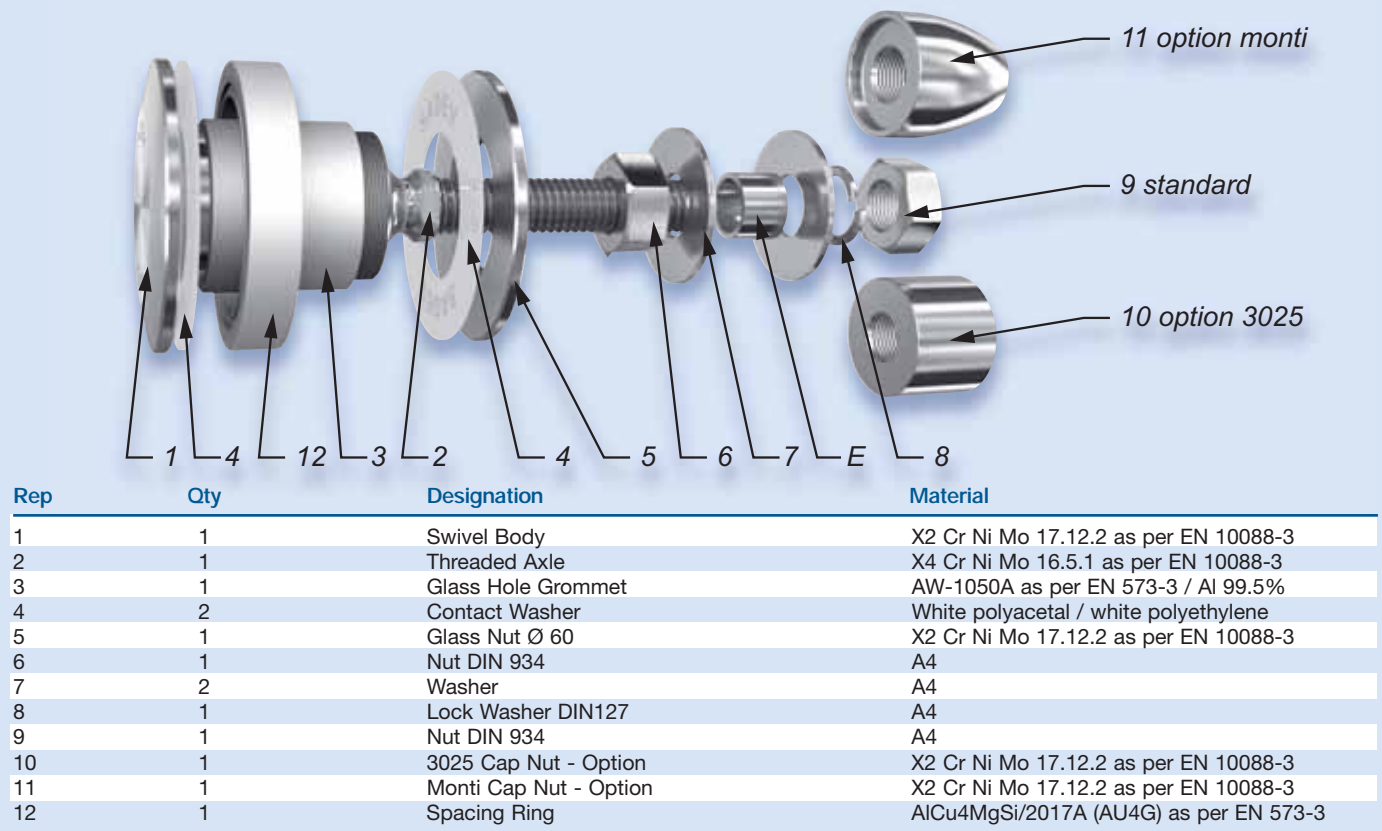
It is important to provide the following information with each request: the glass composition (ex.: 10 mm monolithic, 8.8.4 laminated, 8.8.2-12-10 insulating) / the length and diameter of the threaded axle if not standard dimensions (M14, 65 mm) / the reference of the spider to be used as support, or the thickness of an existing support for the delivery of the spacer.

Reference: R 1003A

Mechanical performances:



Components:

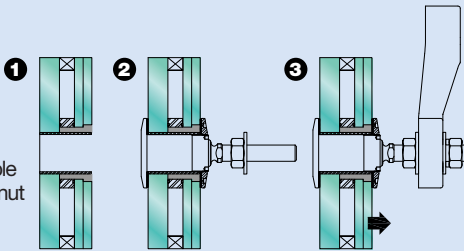


Suggested mounting instruction:

1 – In factory: assembly of glass
Suggested method only, not considered to replace the recommendations of the glass manufacturer.
Mount spacing ring No. 12 between the two pieces of glass using 3mm butyl cord applied in the grooves.
Assemble the insulated glass unit. Insert glass hole grommet No. 3 and secure using a neutral cure silicone.

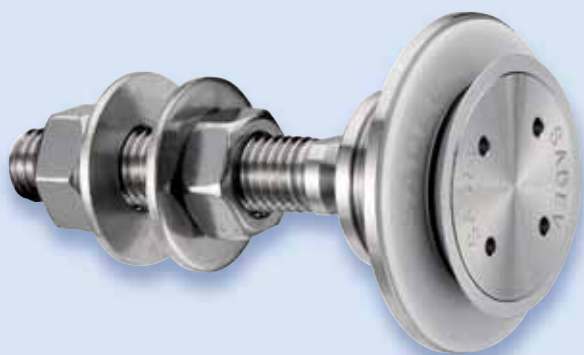
2 – On site
Insert parts No. 1/2 and 4 into the glass hole.
Place the second contact washer No. 4 over assembly No. 1/2 and thread on glass nut No. 5. Tighten to 10 Nm (7.5 ft-lb) for tempered glass using SADEV catalog ref. 097581160 and ref. CLE-DYN-072031.
Thread on nut No. 6 and apply washer No. 7. Insert the threaded axle into the support with spacer E (available on request), see technical page. Adjust the depth. Mount the second washer No. 7, lock washer No. 8, and nut No. 9. Tighten to 60 Nm (45 ft-lb) using a 22 mm wrench.

SADEV recommends using thread locking compound whenever possible.



Reference: R 1019

Designation: swivel fitting, countersunk head.
The head is laminated between layers of glass.



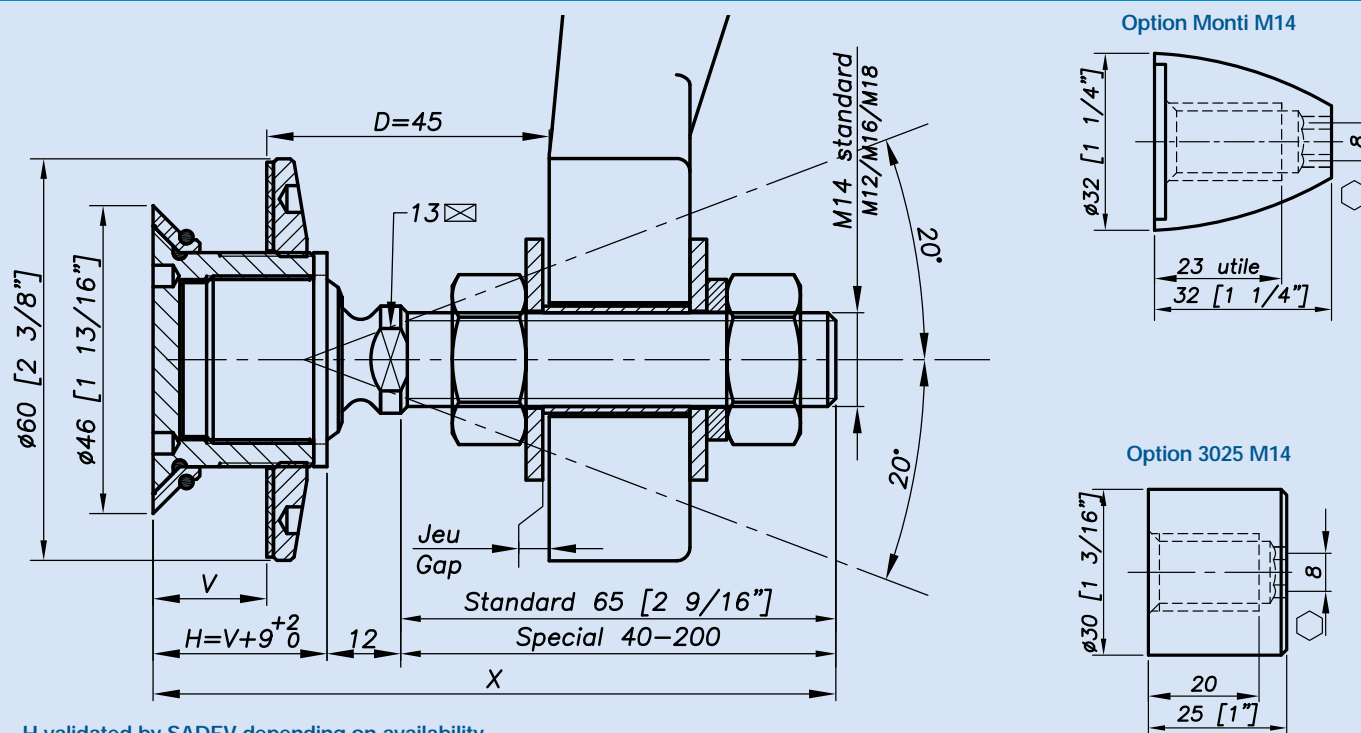
Typical applications:

Mounting		Alternate product
Vertical facade	Yes	
Roof	No	R1003
Guard rail	No	V2003 – see SADEV Decor
*Blind access	No	R1008 - R1038
Sloped glazing	No	R1001 - R1003

*Installation from the outside (no access to the structure).

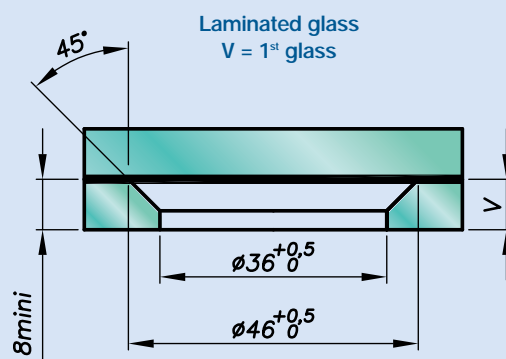
Patent No: 9806556

Dimensions:



H validated by SADEV depending on availability.

Glass drilling:

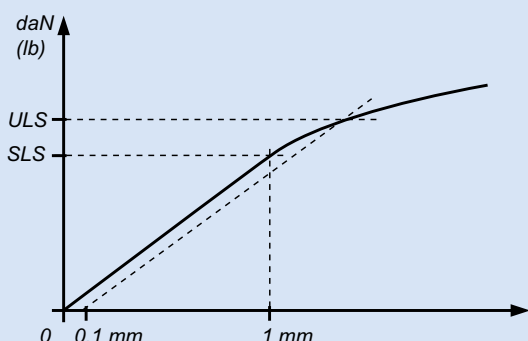


Available for glass thicknesses from 8 to 31.52 mm, for other thicknesses please consult us.

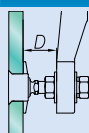
It is important to provide the following information with each request: the glass composition (ex.: 10 mm monolithic, 8.8.4 laminated, 8.8.2-12-10 insulating) / the length and diameter of the threaded axle if not standard dimensions (M14, 65 mm) / the reference of the spider to be used as support, or the thickness of an existing support for the delivery of the spacer.

Reference: R 1019

Mechanical performances:

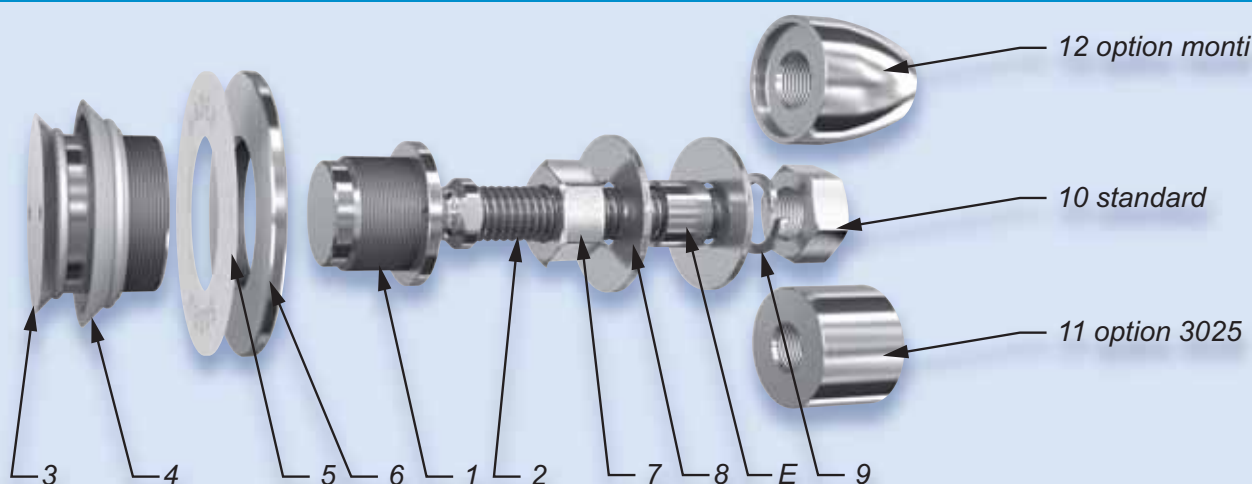


	D	Bending capacity		Pull out capacity
		SLS*	ULS*	ULS*
M14	45 mm	344 daN (773 lb)	577 daN (1297 lb)	1400 daN (3147 lb)
	60 mm	153 daN (344 lb)	364 daN (818 lb)	
M16	45 mm	504 daN (1133 lb)	827 daN (1859 lb)	1400 daN (3147 lb)
	60 mm	253 daN (569 lb)	525 daN (1180 lb)	



*SLS – Serviceability Limit State: load at 1 mm deformation.
 *ULS – Ultimate Limit State: load at the elastic limit (Rp0.1).
 Values are given without factor of safety.
 Tests available online: www.sadev.com

Components:



Rep	Qty	Designation	Material
1	1	Swivel Body	X2 Cr Ni Mo 17.12.2 as per EN 10088-3
2	1	Threaded Axle	X4 Cr Ni Mo 16.5.1 as per EN 10088-3
3	1	Countersunk Head	X2 Cr Ni Mo 17.12.2 as per EN 10088-3
4	1	Glass Hole Grommet	AW-1050A as per EN 573-3 / Al 99.5%
5	1	Contact Washer	White polyacetal / white polyethylene
6	1	Glass Nut Ø 60	X2 Cr Ni Mo 17.12.2 as per EN 10088-3
7	1	Nut DIN 934	A4
8	2	Washer	A4
9	1	Lock Washer DIN127	A4
10	1	Nut DIN 934	A4
11	1	3025 Cap Nut - Option	X2 Cr Ni Mo 17.12.2 as per EN 10088-3
12	1	Monti Cap Nut - Option	X2 Cr Ni Mo 17.12.2 as per EN 10088-3

Suggested mounting instruction:

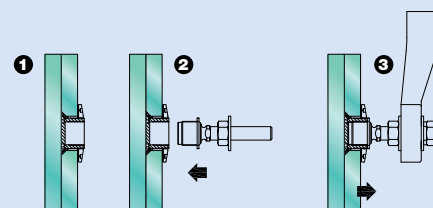
1 – In factory: assembly of glass

Insert the countersunk head No. 3 and grommet No. 4 into the glass hole. Mount the contact washer No. 5 and glass nut No. 6 and tighten to 20 Nm (15 ft-lb) for monolithic tempered glass using SADEV ref. 097581160 and ref. CLE-DYN-072031. Assemble the second layer of glass.

2 – On site

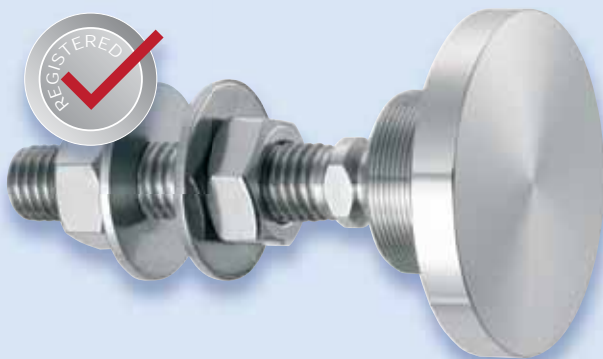
Mount parts No. 1/2 into the countersunk head No. 3 using SADEV ref. 097581160. Thread on nut No. 7 and washer No. 8. Insert the threaded axle into the support with spacer E (available on request), see technical page. Adjust the depth. Mount the second washer No. 8, lock washer No. 9, and nut No. 10. Tighten to 60 Nm (45 ft-lb) using a 22 mm wrench.

SADEV recommends using thread locking compound whenever possible.



Reference: R 1006 UV

Designation: swivel fitting, Ø 60 mm, for UV bonding to glass.



Patent No: 9806556

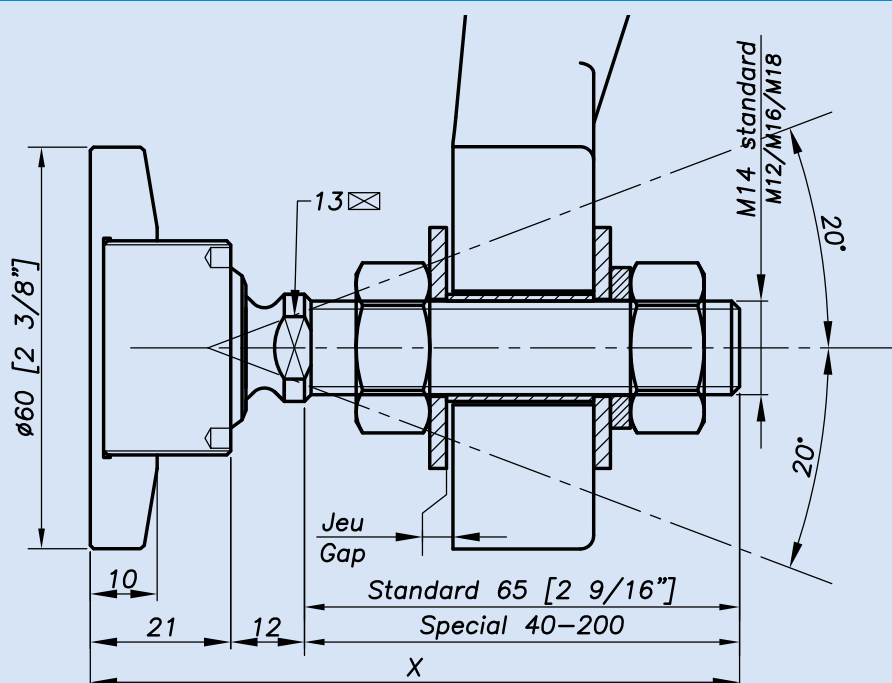
Typical applications:

Mounting		Alternate product
Vertical facade	Yes	
Roof	Possible*	
Guard rail	No	
**Blind access	No	
Sloped glazing	Possible	

*With head facing upward, glass not suspended.

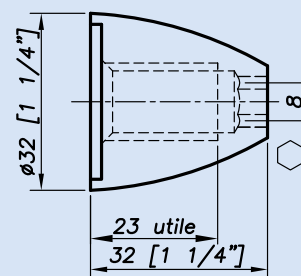
**Installation from the outside (no access to the structure).

Dimensions:

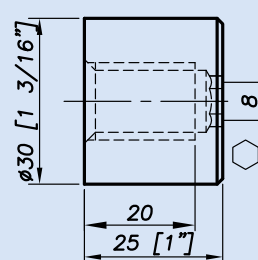


H validated by SADEV depending on availability.

Option Monti M14



Option 3025 M14

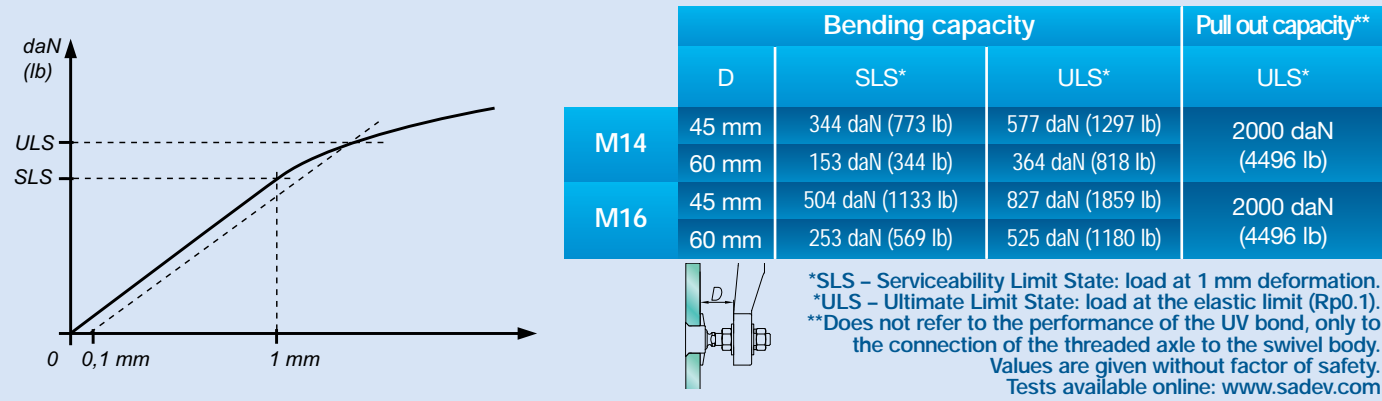


No glass drilling:

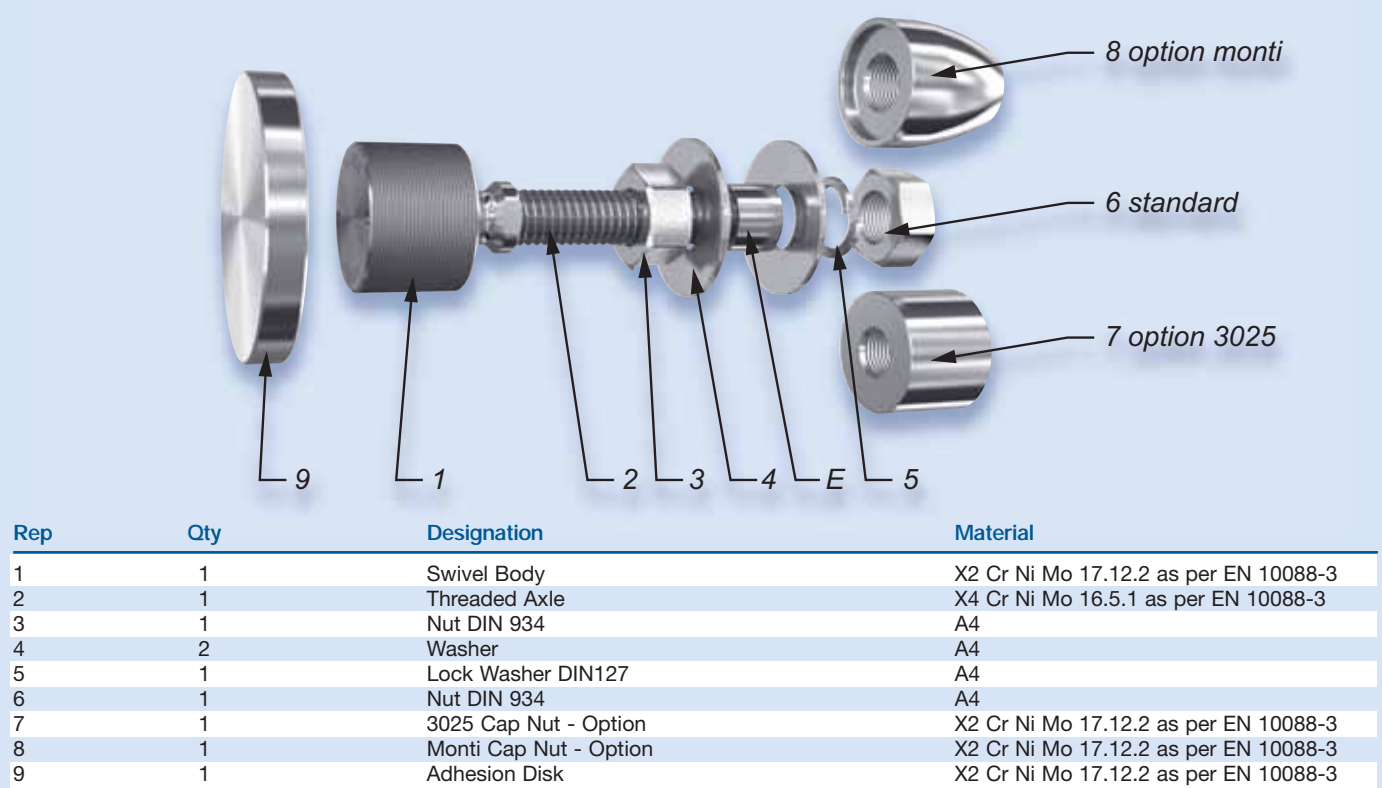
It is important to provide the following information with each request: the glass composition (ex.: 10 mm monolithic, 8.8.4 laminated, 8.8.2-12-10 insulating) / the length and diameter of the threaded axle if not standard dimensions (M14, 65 mm) / the reference of the spider to be used as support, or the thickness of an existing support for the delivery of the spacer.

Reference: R 1006 UV

Mechanical performances:



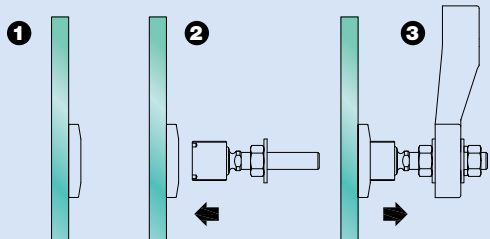
Components:



Suggested mounting instruction:

Attach adhesion disk No. 9 onto the glass in accordance with technical specifications of UV glue manufacturer and glass fabricator (Can be adhered in the factory).
Mount parts No. 1/2 into part No. 9.
Thread on nut No. 3 and apply washer No. 4.
Insert the threaded axle into the support with spacer E (available on request), see technical page. Adjust the depth. Mount the second washer No. 4, lock washer No. 5, and nut No. 6.
Tighten to 60 Nm (45 ft-lb) using a 22 mm wrench.

SADEV recommends using thread locking compound whenever possible.



Reference: R 1103

Designation: swivel fitting, cylindrical head, Ø 50 mm.



Typical applications:

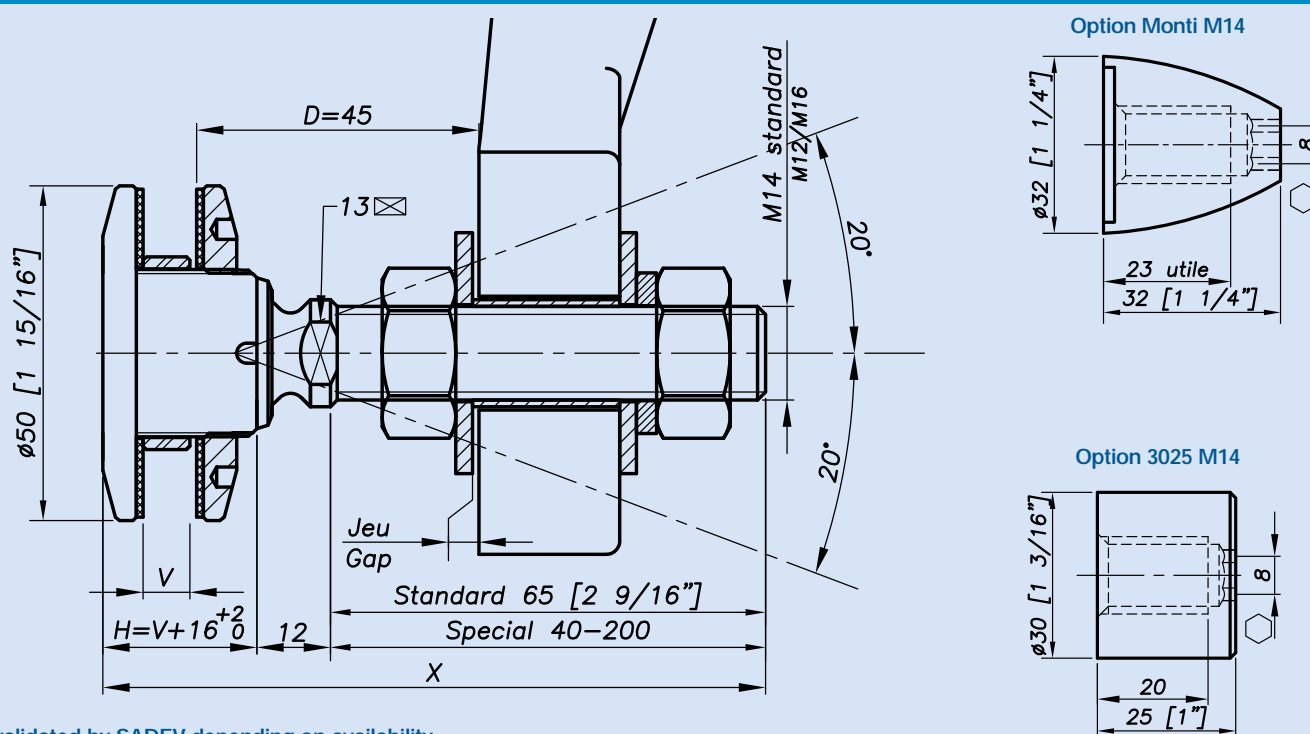
Mounting

Alternate product

This is a substitute product for smaller drilling or in scenarios where the glass hole is undersized (ex. laminated glass slip).

Patent No: 9806556

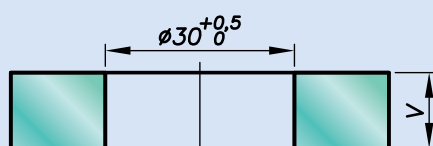
Dimensions:



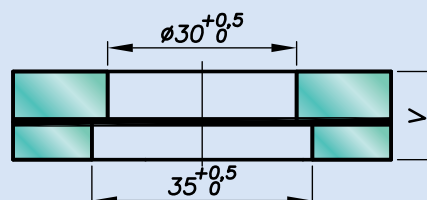
H validated by SADEV depending on availability.

Glass drilling:

Monolithic glass



Laminated glass

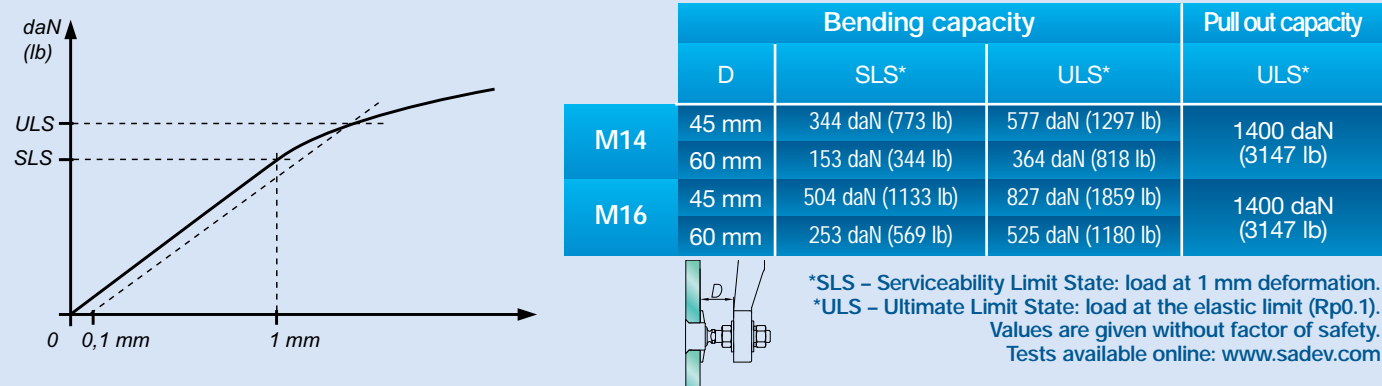
V = 1st glass + intercalated films + 2nd glass

Available for glass thicknesses from 8 to 31.52 mm, for other thicknesses please consult us.

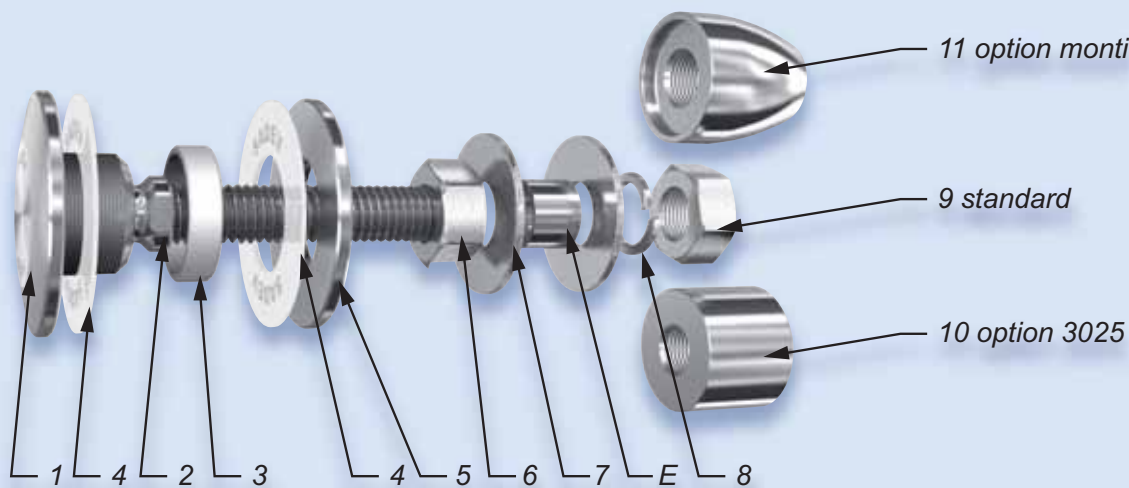
It is important to provide the following information with each request: the glass composition (ex.: 10 mm monolithic, 8.8.4 laminated, 8.8.2-12-10 insulating) / the length and diameter of the threaded axle if not standard dimensions (M14, 65 mm) / the reference of the spider to be used as support, or the thickness of an existing support for the delivery of the spacer.

Reference: R 1103

Mechanical performances:



Components:



Rep	Qty	Designation	Material
1	1	Swivel Body	X2 Cr Ni Mo 17.12.2 as per EN 10088-3
2	1	Threaded Axle	X4 Cr Ni Mo 16.5.1 as per EN 10088-3
3	1	Glass Hole Grommet	AW-1050A as per EN 573-3 / Al 99.5%
4	2	Contact Washer	Polyacetyl /polyethylene
5	1	Glass Nut Ø 50	X2 Cr Ni Mo 17.12.2 as per EN 10088-3
6	1	Nut DIN 934	A4
7	2	Washer	A4
8	1	Lock Washer DIN127	A4
9	1	Nut DIN 934	A4
10	1	3025 Cap Nut - Option	X2 Cr Ni Mo 17.12.2 as per EN 10088-3
11	1	Monti Cap Nut - Option	X2 Cr Ni Mo 17.12.2 as per EN 10088-3

Suggested mounting instruction:

Insert parts No. 1/2, 4, and 3 into the glass hole.
Mount the second contact washer No. 4 and glass nut No. 5 and tighten to 20 Nm (15 ft-lb) for monolithic glass and 10 Nm (7.5 ft-lb) for laminated glass using tools SADEV ref. 097581160.
Mount nut No. 6 and washer No. 7 onto parts No. 1/2.
Insert the threaded axle into the support with spacer E (available on request), see technical page. Adjust the depth.
Mount washer No. 7, lock washer No. 8, and nut No. 9 and tighten to 60 Nm (45 ft-lb) using a 22 mm wrench.

SADEV recommends using thread locking compound whenever possible.

Reference: R 1106

Designation: swivel fitting, cylindrical head, Ø 50 mm.



Typical applications:

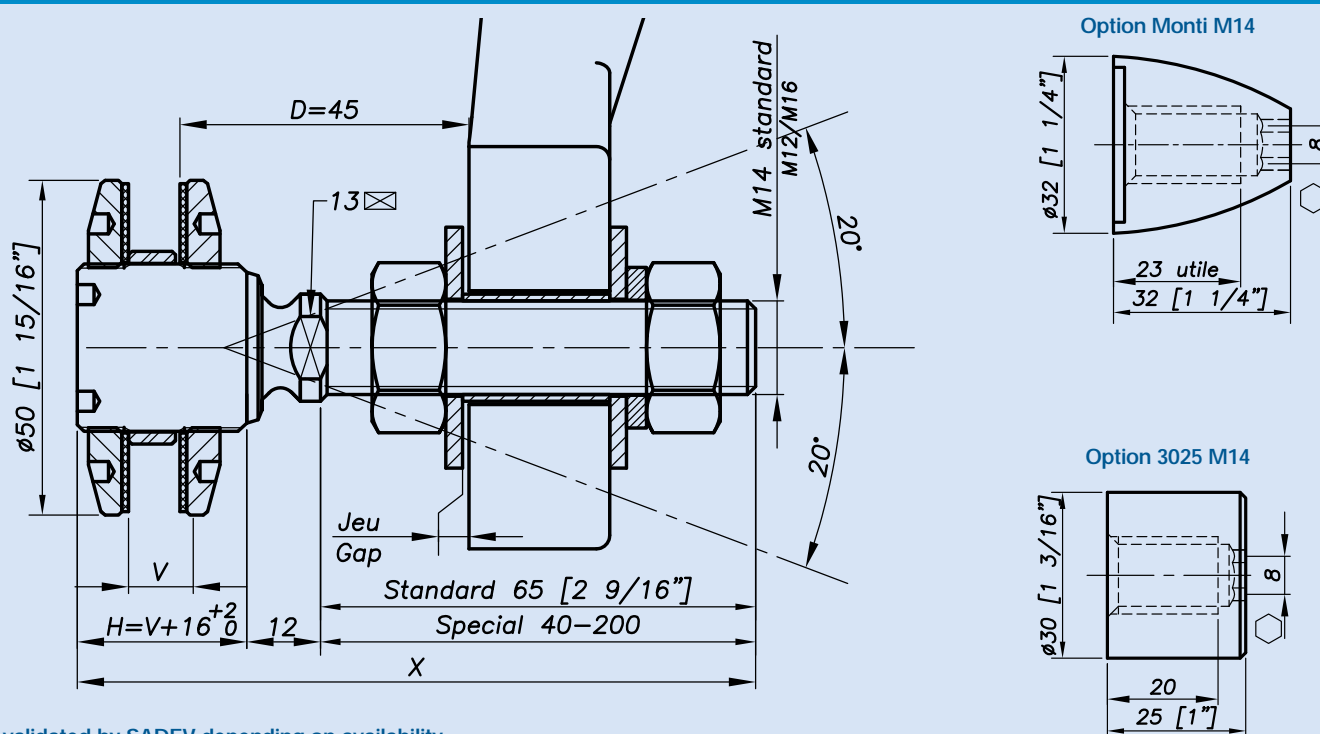
Mounting

Alternate product

This is a Substitute product for smaller drilling or in scenarios where hole is undersize (ex. laminated glass slip).

Patent No: 9806556

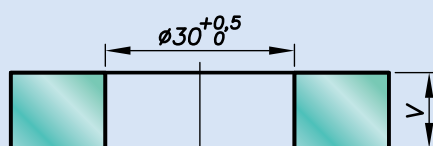
Dimensions:



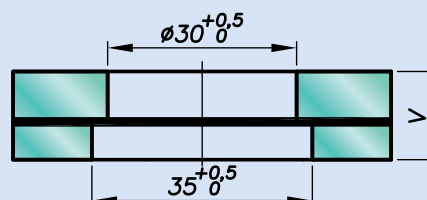
H validated by SADEV depending on availability.

Glass drilling:

Monolithic glass



Laminated glass

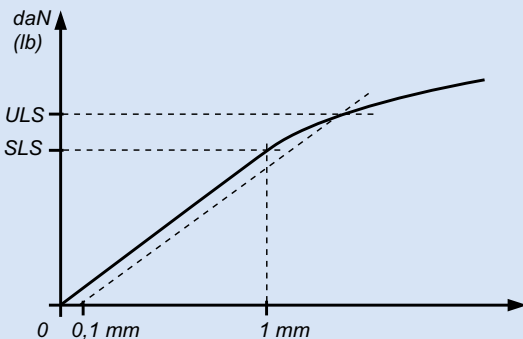
 $V = 1^{\text{st}} \text{ glass} + \text{intercalated films} + 2^{\text{nd}} \text{ glass}$ 

Available for glass thicknesses from 8 to 31.52 mm, for other thicknesses please consult us.

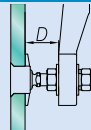
It is important to provide the following information with each request: the glass composition (ex.: 10 mm monolithic, 8.8.4 laminated, 8.8.2-12-10 insulating) / the length and diameter of the threaded axle if not standard dimensions (M14, 65 mm) / the reference of the spider to be used as support, or the thickness of an existing support for the delivery of the spacer.

Reference: R 1106

Mechanical performances:

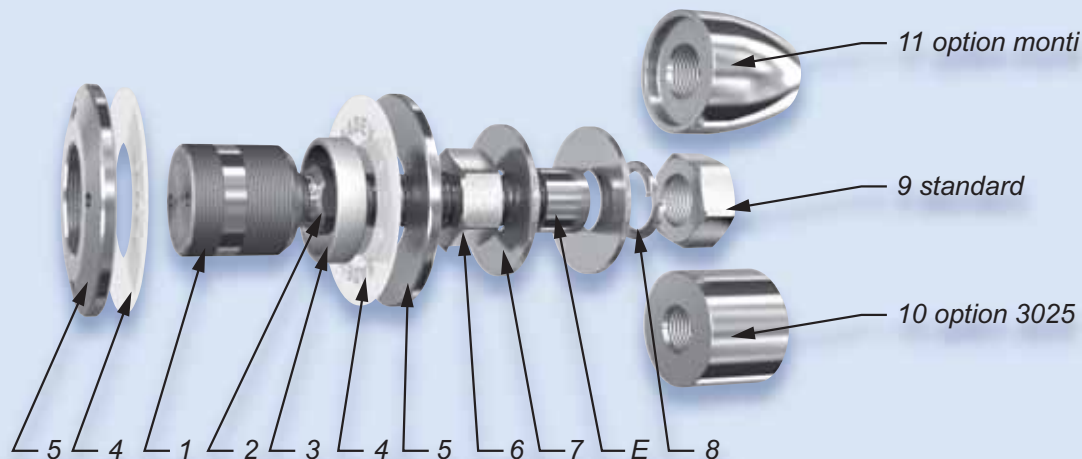


	D	Bending capacity		Pull out capacity
		SLS*	ULS*	ULS*
M14	45 mm	344 daN (773 lb)	577 daN (1297 lb)	1200 daN (2698 lb)
	60 mm	153 daN (344 lb)	364 daN (818 lb)	
M16	45 mm	504 daN (1133 lb)	827 daN (1859 lb)	1200 daN (2698 lb)
	60 mm	253 daN (569 lb)	525 daN (1180 lb)	



*SLS – Serviceability Limit State: load at 1 mm deformation.
 *ULS – Ultimate Limit State: load at the elastic limit (Rp0.1).
 Values are given without factor of safety.
 Tests available online: www.sadev.com

Components:



Rep	Qty	Designation	Material
1	1	Swivel Body	X2 Cr Ni Mo 17.12.2 as per EN 10088-3
2	1	Threaded Axle	X4 Cr Ni Mo 16.5.1 as per EN 10088-3
3	1	Glass Hole Grommet	AW-1050A as per EN 573-3 / Al 99.5%
4	2	Contact Washer	Polyacetyl / polyethylene
5	1	Glass Nut Ø 50	X2 Cr Ni Mo 17.12.2 as per EN 10088-3
6	1	Nut DIN 934	A4
7	2	Washer	A4
8	1	Lock Washer DIN127	A4
9	1	Nut DIN 934	A4
10	1	3025 Cap Nut - Option	X2 Cr Ni Mo 17.12.2 as per EN 10088-3
11	1	Monti Cap Nut - Option	X2 Cr Ni Mo 17.12.2 as per EN 10088-3

Suggested mounting instruction:

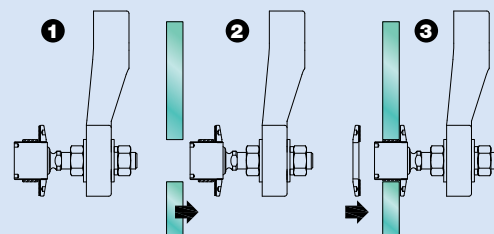
A – Classic mounting

Insert parts No. 1/2, 5, 4 and 3 into the glass hole. Place the second contact washer No. 4 over assembly No. 1/2 and thread on glass nut No. 5. Tighten to 10 Nm (7.5 ft-lb) for tempered glass using SADEV catalog ref. 097581160. Thread on nut No. 6 and apply washer No. 7. Insert the threaded axle into the support with spacer E (available on request), see technical page. Adjust the depth. Mount the second washer No. 7, lock washer No. 8, and nut No. 9. Tighten to 60 Nm (45 ft-lb) using a 22 mm wrench.

B – Blind mounting: installation from the outside (no access to the structure)

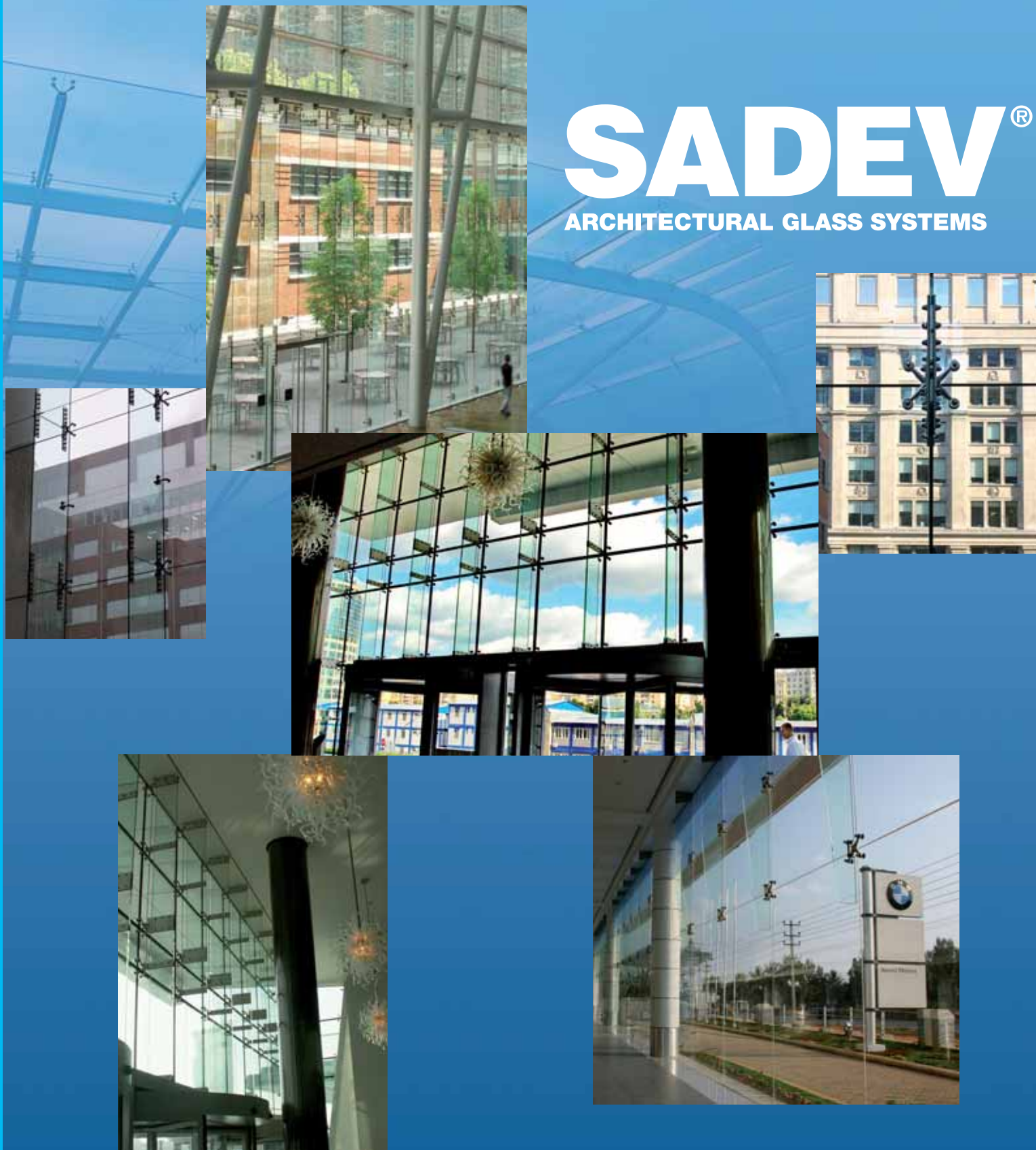
Mount nut No. 6 and washer No. 7 onto assembly No. 1/2. Insert the threaded axle into the support with spacer E (available on request), see technical page. Adjust the depth. Mount the second washer No. 7, lock washer No. 8, and nut No. 9. Tighten to 60 Nm (45 ft-lb) using a 22 mm wrench. Slide contact washer No. 4 and grommet No. 3 onto swivel body No. 1. Set the glass onto the swivel body, careful not to contact unprotected glass edges with bare metal parts. Place the second contact washer No. 4 over assembly No. 1/2 and thread on glass nut No. 5. Tighten to 10 Nm (7.5 ft-lb) for tempered glass using SADEV catalog ref. 097581160.

SADEV recommends using thread locking compound whenever possible.



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