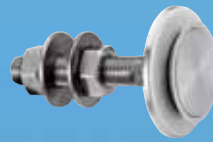
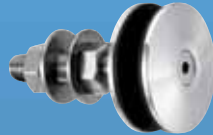
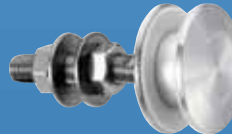


SUMMARY

**Fixed bolt, countersunk head**Ref: V 2001
> Page 2.03**Fixed bolt, countersunk head,
for installation from the outside**Ref: V 2002
> Page 2.05**Fixed bolt, cylindrical head,
for installation from the outside**Ref: V 2003
> Page 2.07**Fixed bolt, cylindrical head,
for installation from the outside**Ref: V 2004
> Page 2.09**Fixed bolt, cylindrical head**Ref: V 2005
> Page 2.11**Fixed bolt, countersunk head**Ref: V 2006
> Page 2.13**Fixed bolt, cylindrical head, Ø 50 mm**Ref: V 2105
> Page 2.15FIXED
BOLTS ::

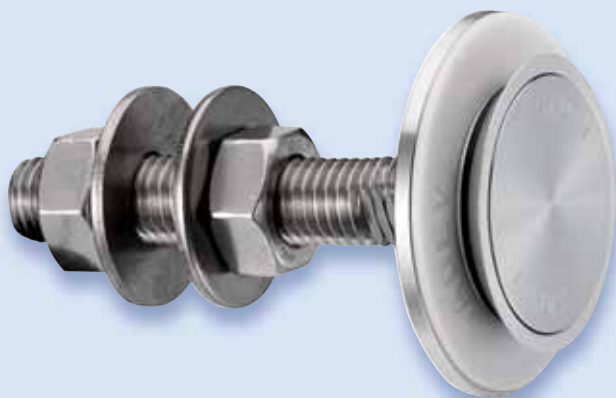
Pages 2.03 >> 2.16

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

Reference: V 2001

Designation: fixed bolt, countersunk head.

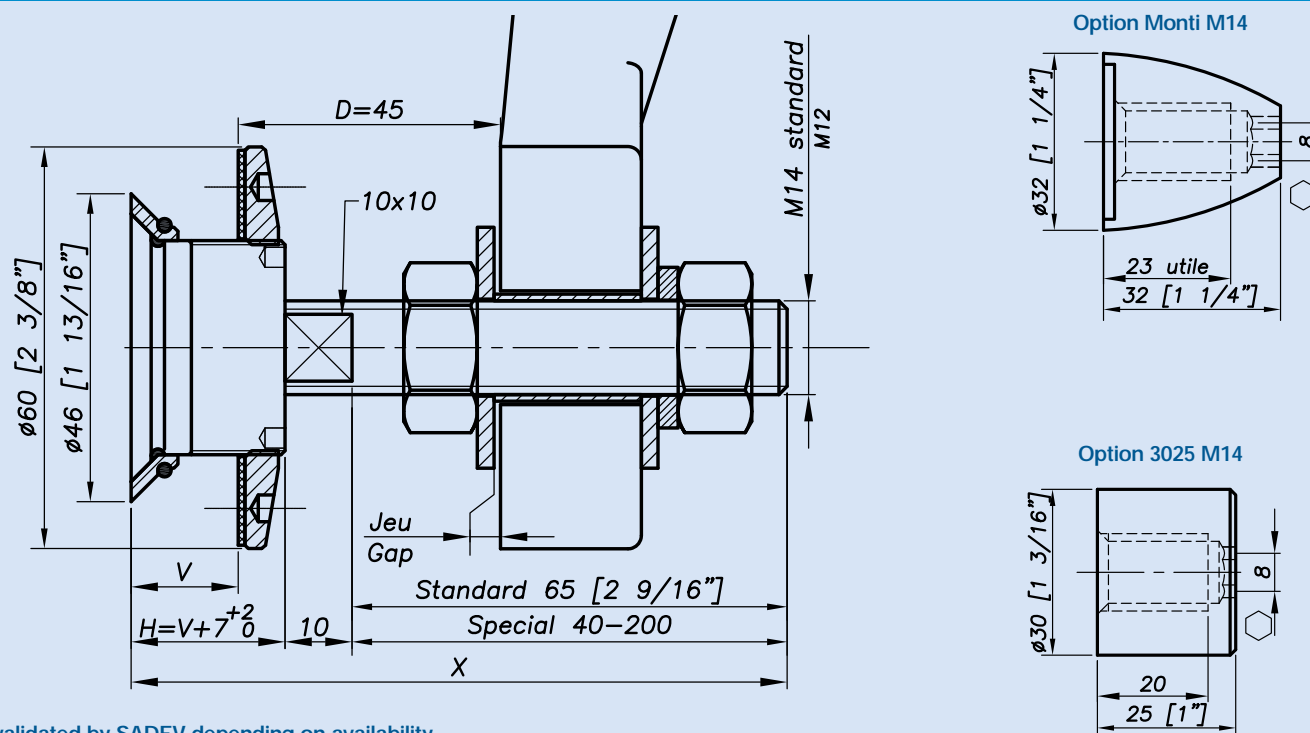


Typical application:

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

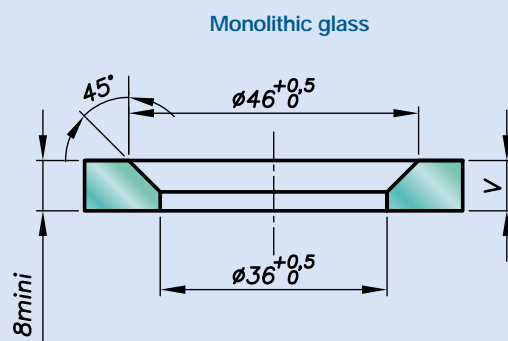
*Installation from the outside (no access to the structure).

Dimensions:

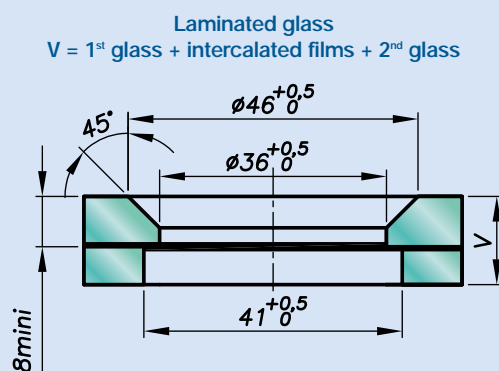


H validated by SADEV depending on availability.

Glass drilling:



Monolithic glass



Laminated glass

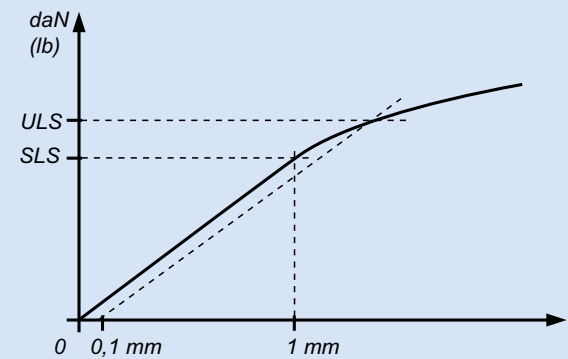
V = 1st glass + intercalated films + 2nd glass

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

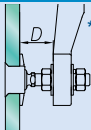
It is important to provide the following information with each request: the glass composition (ex.: 10 mm monolithic, 8.8.4 laminated, 8.8.2-12-10 insulating) / the length and diameter of the swivel threaded axle if not standard dimensions (M14, 65 mm) / the reference of the spider to be used as support,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

Reference: V 2001

Mechanical properties:

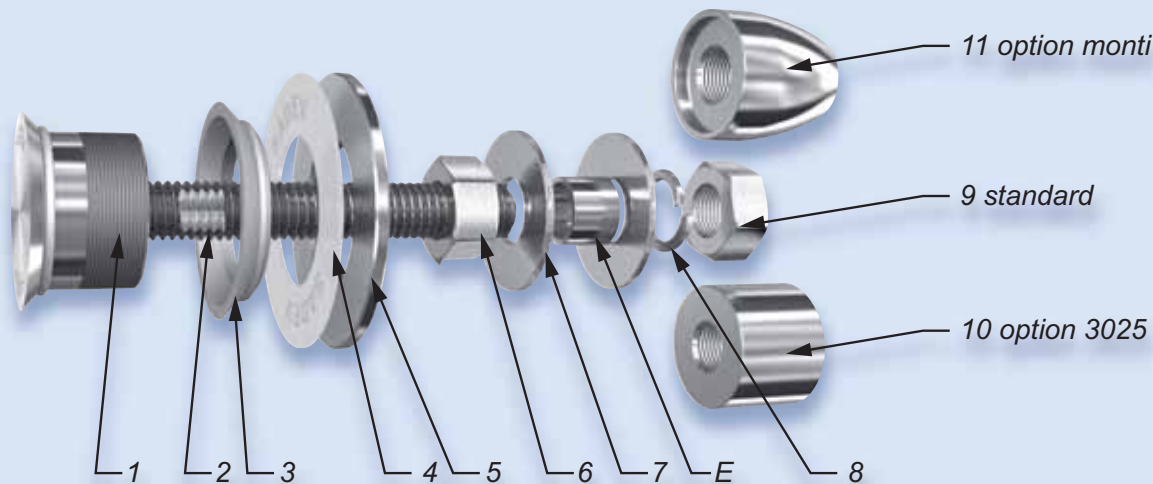


	Bending capacity			Pull out capacity
	D	SLS*	ULS*	ULS*
M14	45 mm	No test available		
	60 mm			
M16	45 mm			
	60 mm			



*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	Body	X2 Cr Ni Mo 17.12.2 per EN 10088-3
2	1	Thread axle	A4
3	1	Glass Hole Grommet	AW-1050A 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 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 per EN 10088-3
11	1	Monti Cap Nut - Option	X2 Cr Ni Mo 17.12.2 per EN 10088-3

Suggested mounting instruction:

Insert parts No. 1/2 and 3 into the glass.
Mount 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 tools ref. 758-11-60 and ref. CLE-DYN-072031.
Mount nut No. 6 and washer No. 7.
Insert the thread 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: V 2002

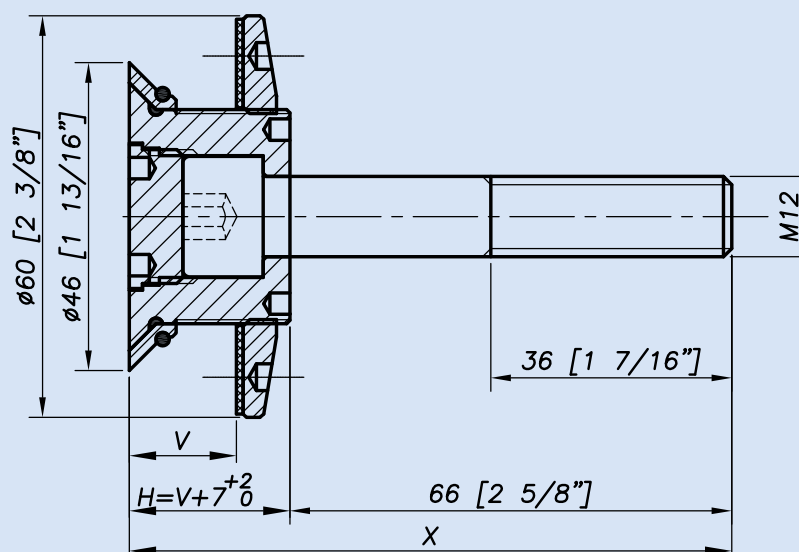
Designation: fixed bolt, countersunk head,
for installation from the outside.

Typical application:

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

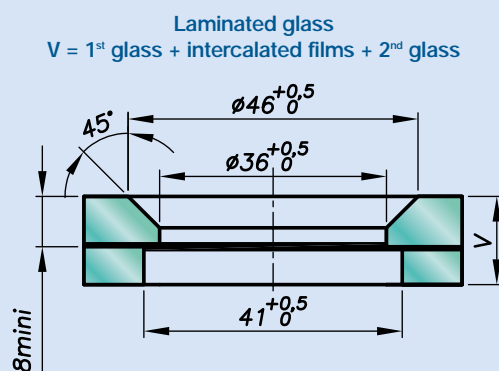
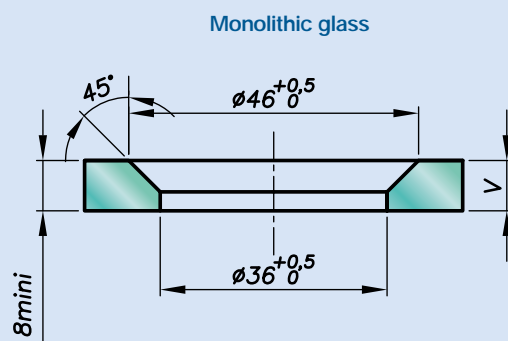
*Installation from the outside (no access to the structure).

Dimensions:



H validated by SADEV depending on availability.

Glass drilling:

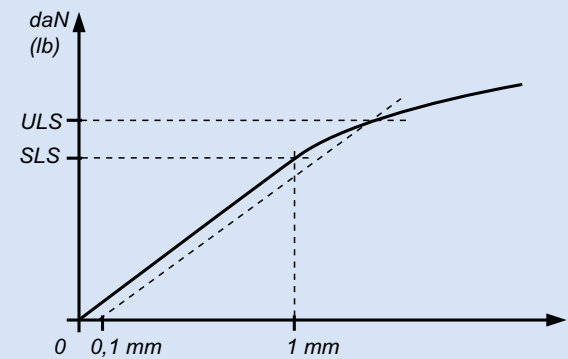


Available for glass thicknesses from 8 to 31.52 mm, for other thicknesses please consult us.

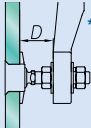
It is important to provide the following information with each request: the glass composition (ex.: 10 mm monolithic, 8.8.4 laminated, 8.8.2-12-10 insulating) / the length and diameter of the swivel threaded axle if not standard dimensions (M14, 65 mm) / the reference of the spider to be used as support,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

Reference: V 2002

Mechanical properties:

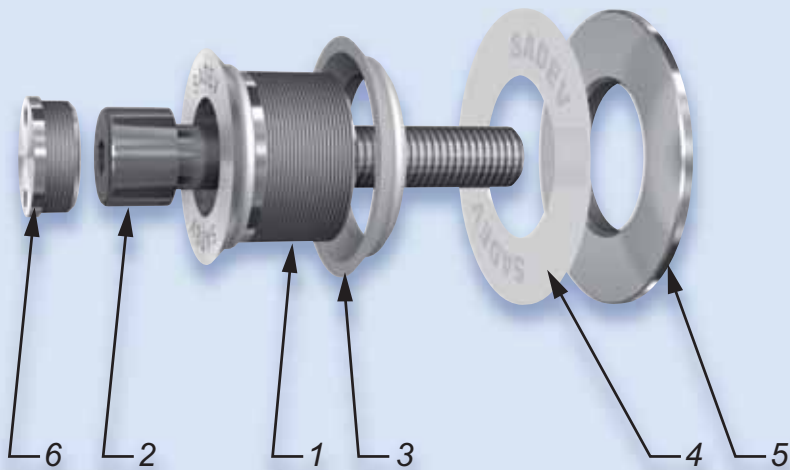


	Bending capacity		Pull out capacity
	D	SLS*	ULS*
M14	45 mm	No test available	
	60 mm		
M16	45 mm		
	60 mm		



*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	Body	X2 Cr Ni Mo 17.12.2 per EN 10088-3
2	1	Bolt DIN912 M12-70	A4
3	1	Glass Hole Grommet	AW-1050A 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 per EN 10088-3
6	1	Cover Cap	X2 Cr Ni Mo 17.12.2 per EN 10088-3

Suggested mounting instruction:

Insert parts No. 1 and 3 into the glass hole.
Mount 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 tools ref. 758-11-60 and ref. CLE-DYN-072031.
Mount into the support with bolt No. 2, tighten in function of the support with a 10 mm hex key.
Mount cover cap No. 6 using SADEV tool ref. 758-11-60.

SADEV recommends using thread locking compound whenever possible.

Reference: V 2003

Designation: **fixed bolt, cylindrical head,
for installation from the outside.**

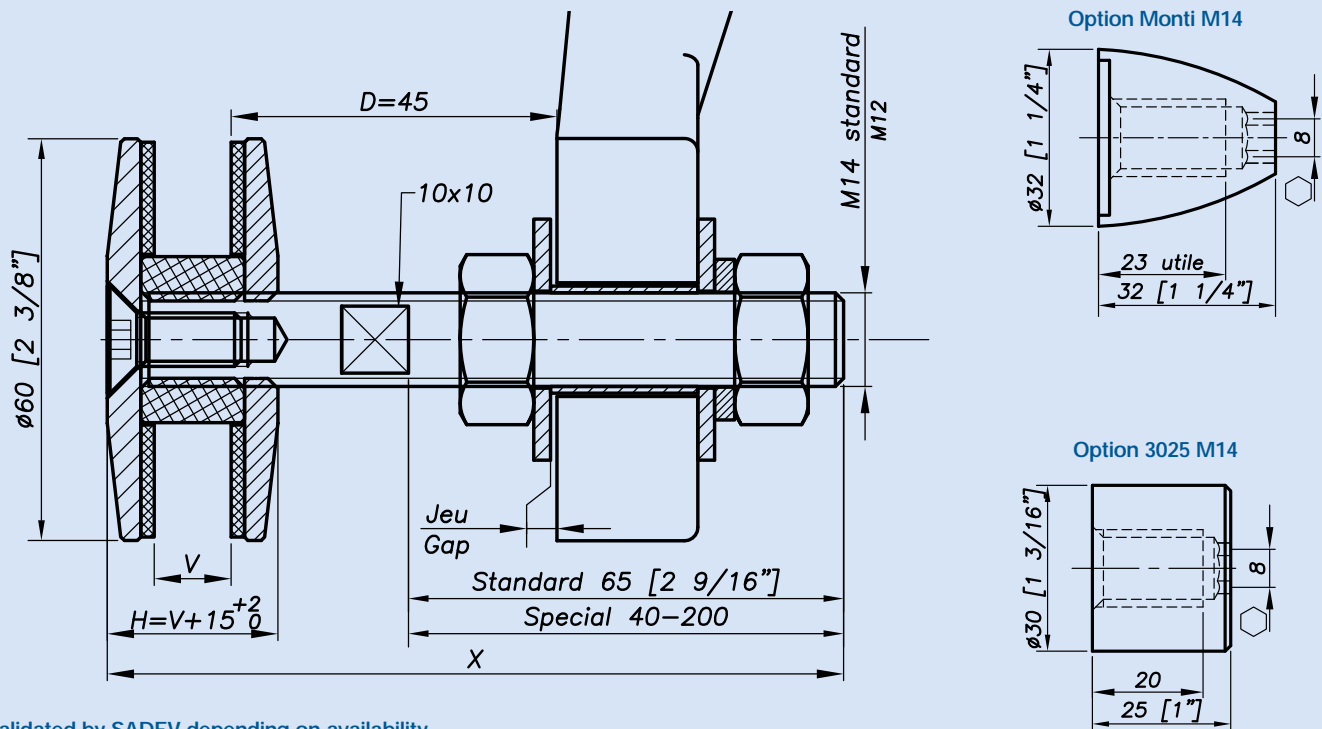


Typical application:

Mounting		Alternate product
Vertical facade	Yes	V2005 see SADEV Decor
Roof/canopy	Possible	
Guard rail	Yes	
*Blind access	Yes	
Sloped glazing	Yes	

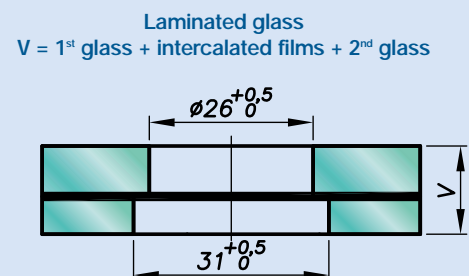
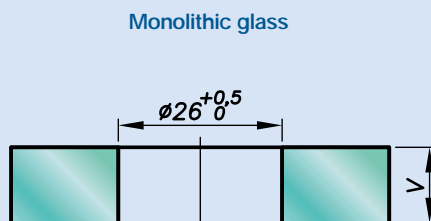
*Installation from the outside (no access to the structure).

Dimensions:



H validated by SADEV depending on availability.

Glass drilling:

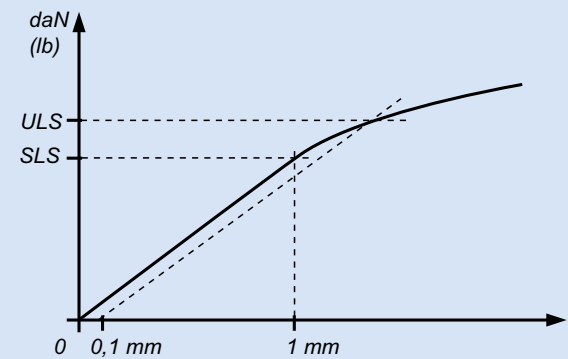


Available for glass thicknesses from 8 to 31.52 mm, for other thicknesses please consult us.

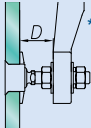
It is important to provide the following information with each request: the glass composition (ex.: 10 mm monolithic, 8.8.4 laminated, 8.8.2-12-10 insulating) / the length and diameter of the swivel threaded axle if not standard dimensions (M14, 65 mm) / the reference of the spider to be used as support,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

Reference: V 2003

Mechanical properties:

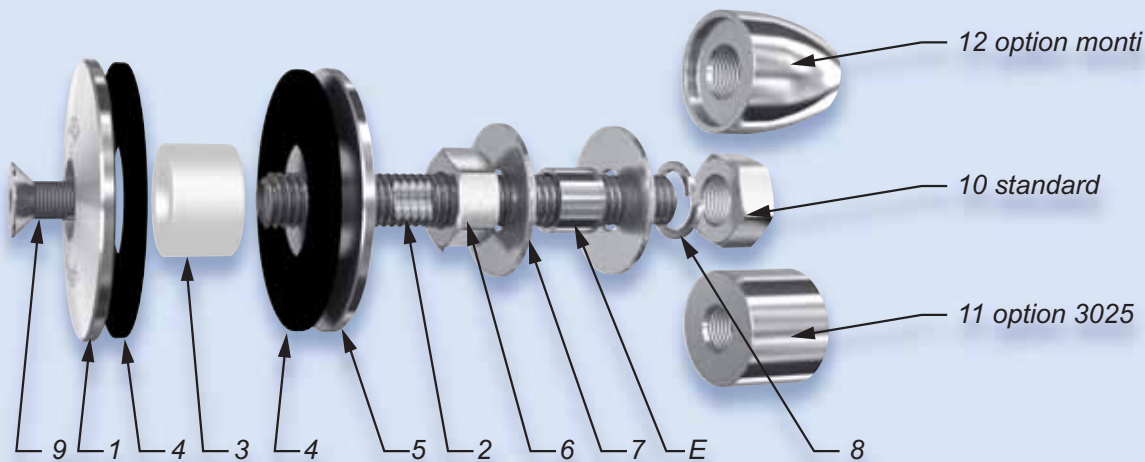


	Bending capacity			Pull out capacity
	D	SLS*	ULS*	ULS*
M14	45 mm	No test available		
	60 mm			
M16	45 mm			
	60 mm			



*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	External Plate	X2 Cr Ni Mo 17.12.2 per EN 10088-3
2	1	Thread axle	A4
3	1	Spacer Ø 25	Polyacetal
4	2	Contact Washer	EPDM
5	1	Glass Nut Ø 60	X2 Cr Ni Mo 17.12.2 per EN 10088-3
6	1	Nut DIN 934	A4
7	2	Washer	A4
8	1	Lock Washer DIN127	A4
9	1	Bolt DIN7991 M8x20	A4
10	1	Nut DIN 934	A4
11	1	3025 Cap Nut - Option	X2 Cr Ni Mo 17.12.2 per EN 10088-3
12	1	Monti Cap Nut - Option	X2 Cr Ni Mo 17.12.2 per EN 10088-3

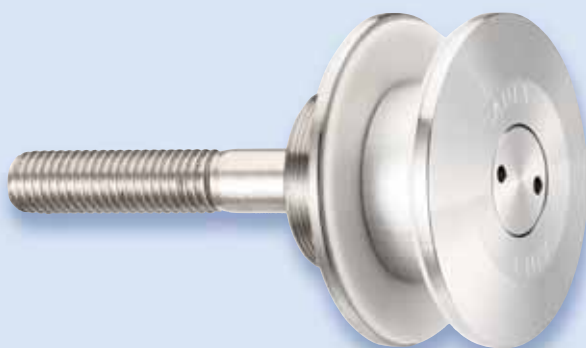
Suggested mounting instruction:

A – Classic mounting
Insert parts No. 2/3/4/5 into the glass hole. Mount the second contact washer No. 4, external plate No. 1, and bolt No. 9 and tighten to 20 Nm (15 ft-lb) for monolithic glass and 10 Nm (7.5 ft-lb) for laminated glass. 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. 10. 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 parts No. 2/3/4/5. 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. 10. Tighten to 60 Nm (45 ft-lb) using a 22 mm wrench. Set the glass onto the assembly, be careful not to put unprotected glass edges in contact with bare metal parts. Mount parts No. 1/4 and 9 onto parts No. 2/3/4/5 and tighten to 20 Nm (15 ft-lb) for monolithic glass and 10 Nm (7.5 ft-lb) for laminated glass using a 10 mm wrench and a 5 mm hex key.

SADEV recommends using thread locking compound whenever possible.

Reference: V 2004

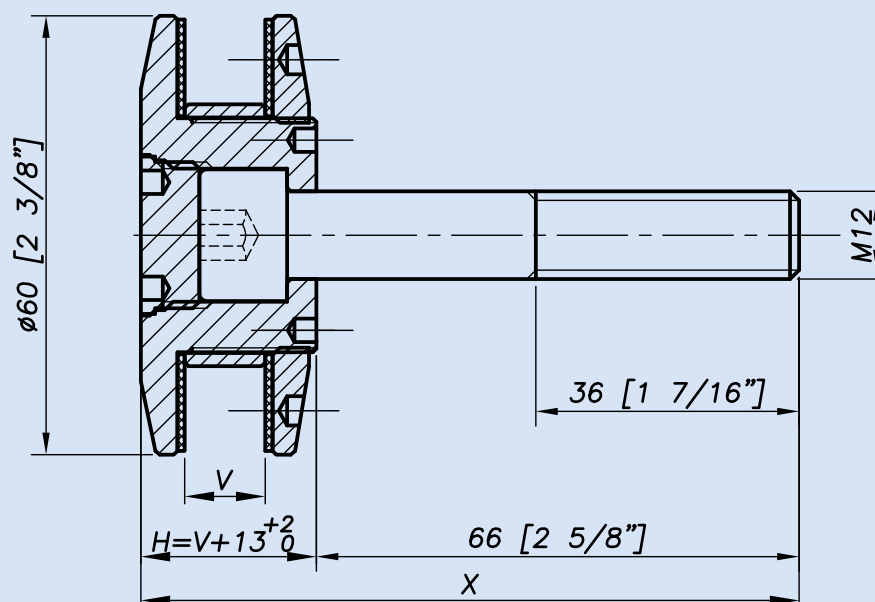
Designation: fixed bolt, cylindrical head,
for installation from the outside.

Typical application:

Mounting		Alternate product
Vertical facade	Yes	see SADEV Decor
Roof/canopy	Yes	
Guard rail	Possible	
*Blind access	Yes	
Sloped glazing	Yes	

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

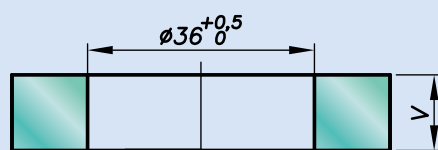
Dimensions:



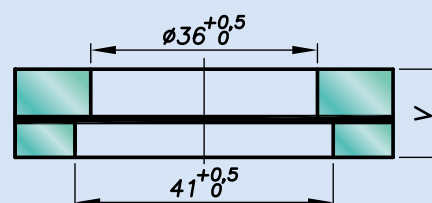
H validated by SADEV depending on availability.

Glass drilling:

Monolithic glass



Laminated glass

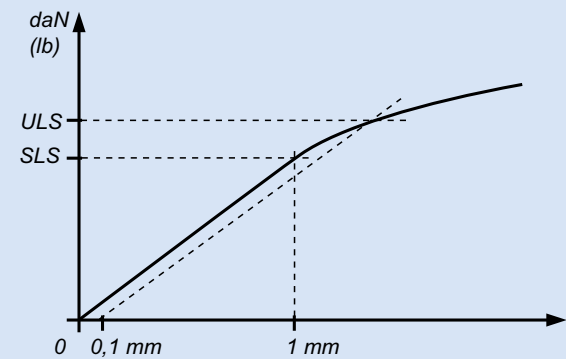
V = 1st glass + intercalated films + 2nd glass

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

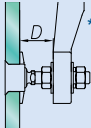
It is important to provide the following information with each request: the glass composition (ex.: 10 mm monolithic, 8.8.4 laminated, 8.8.2-12-10 insulating) / the length and diameter of the swivel threaded axle if not standard dimensions (M14, 65 mm) / the reference of the spider to be used as support,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

Reference: V 2004

Mechanical properties:

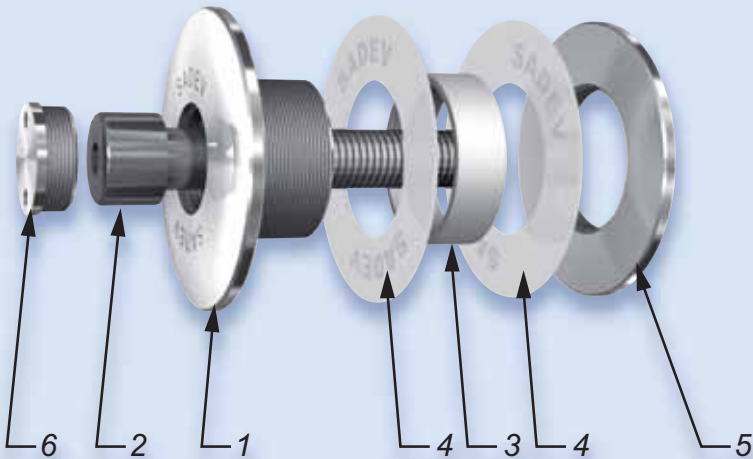


	Bending capacity		Pull out capacity
	D	SLS*	ULS*
M14	45 mm	No test available	
	60 mm		
M16	45 mm		
	60 mm		



*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	Body	X2 Cr Ni Mo 17.12.2 per EN 10088-3
2	1	Bolt DIN912 M12-70	A4
3	1	Glass Hole Grommet	AW-1050A 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 per EN 10088-3
6	1	Cover Cap	X2 Cr Ni Mo 17.12.2 per EN 10088-3

Suggested mounting instruction:

Insert parts No. 1, 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 SADEV tools ref. 758-11-60 and ref. CLE-DYN-072031.
Mount into the support with bolt No. 2, tighten in function of the support with a 10 mm hex key.
Mount cover cap No. 6 using SADEV tool ref. 758-11-60.

SADEV recommends using thread locking compound whenever possible.

Reference: V 2005

Designation: fixed bolt, cylindrical head.

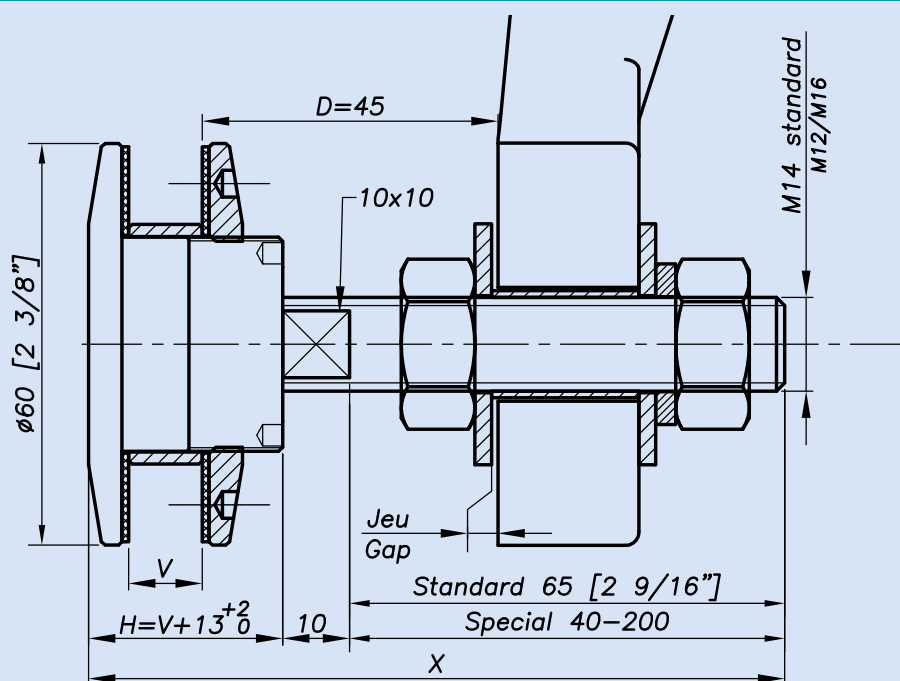


Typical application:

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

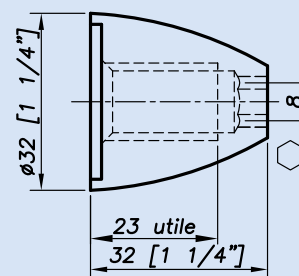
*Installation from the outside (no access to the structure).

Dimensions:

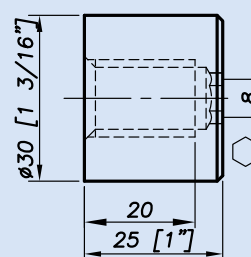


H validated by SADEV depending on availability.

Option Monti M14

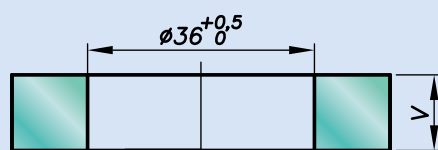


Option 3025 M14

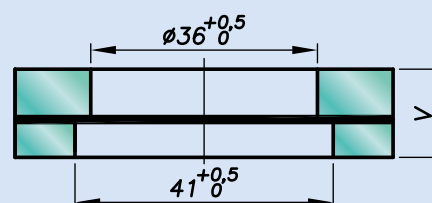


Glass drilling:

Monolithic glass



Laminated glass

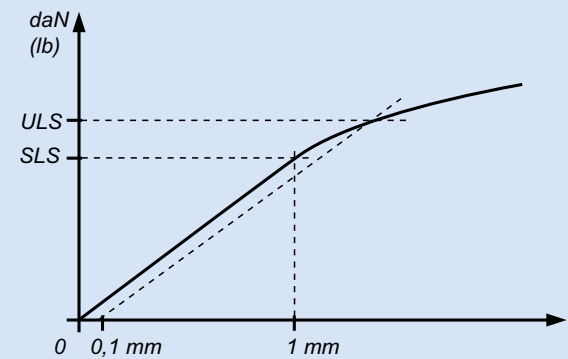
V = 1st glass + intercalated films + 2nd glass

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

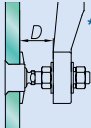
It is important to provide the following information with each request: the glass composition (ex.: 10 mm monolithic, 8.8.4 laminated, 8.8.2-12-10 insulating) / the length and diameter of the swivel threaded axle if not standard dimensions (M14, 65 mm) / the reference of the spider to be used as support,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

Reference: V 2005

Mechanical properties:

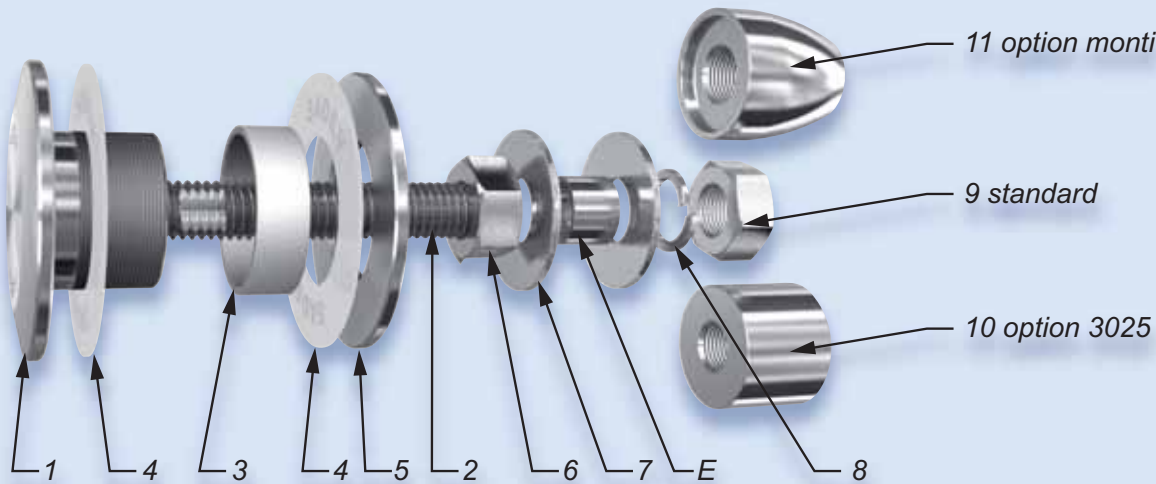


	Bending capacity			Pull out capacity
	D	SLS*	ULS*	ULS*
M14	45 mm	No test available		
	60 mm			
M16	45 mm			
	60 mm			



*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	Body	X2 Cr Ni Mo 17.12.2 per EN 10088-3
2	1	Thread axle	A4
3	1	Glass Hole Grommet	AW-1050A per EN 573-3 / AI 99.5%
4	2	Contact Washer	White polyacetal / white polyethylene
5	1	Glass Nut Ø 60	X2 Cr Ni Mo 17.12.2 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 per EN 10088-3
11	1	Monti Cap Nut - Option	X2 Cr Ni Mo 17.12.2 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 SADEV tools ref. 758-11-60 and ref. CLE-DYN-072031.
Thread on nut No. 6 and apply washer No. 7.
Insert the thread 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 60Nm (45 ft-lb) using a 22 mm wrench.

SADEV recommends using thread locking compound whenever possible.

Reference: V 2006

Designation: fixed bolt, countersunk head.

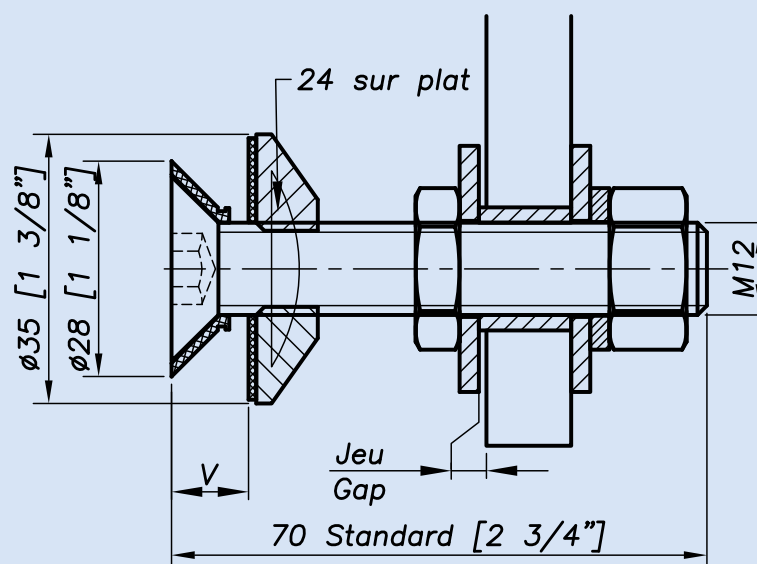


Typical application:

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

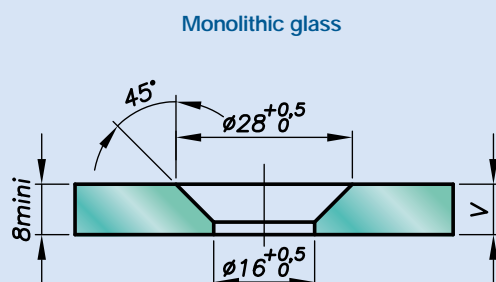
*Installation from the outside (no access to the structure).

Dimensions:

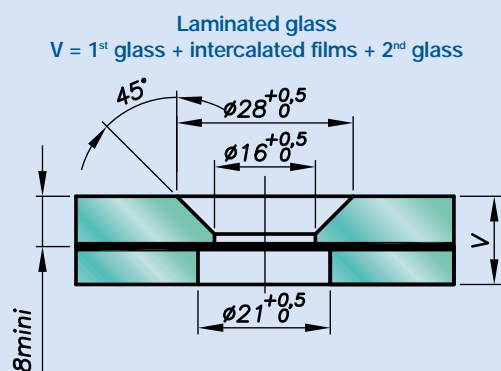


H validated by SADEV depending on availability.

Glass drilling:



Monolithic glass



Laminated glass

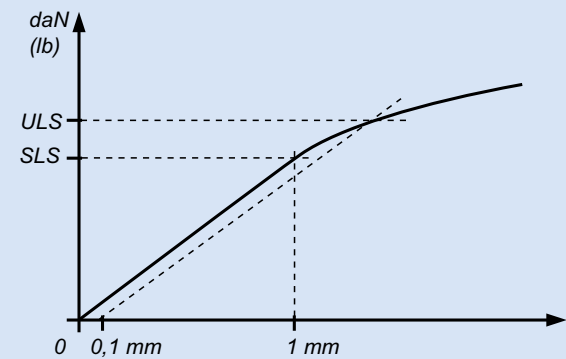
V = 1st glass + intercalated films + 2nd glass

Available for glass thicknesses from 8 to 17.52 mm, for other thicknesses please consult us.

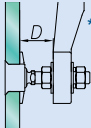
It is important to provide the following information with each request: the glass composition (ex.: 10 mm monolithic, 8.8.4 laminated, 8.8.2-12-10 insulating) / the length and diameter of the swivel threaded axle if not standard dimensions (M14, 65 mm) / the reference of the spider to be used as support,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

Reference: V 2006

Mechanical properties:

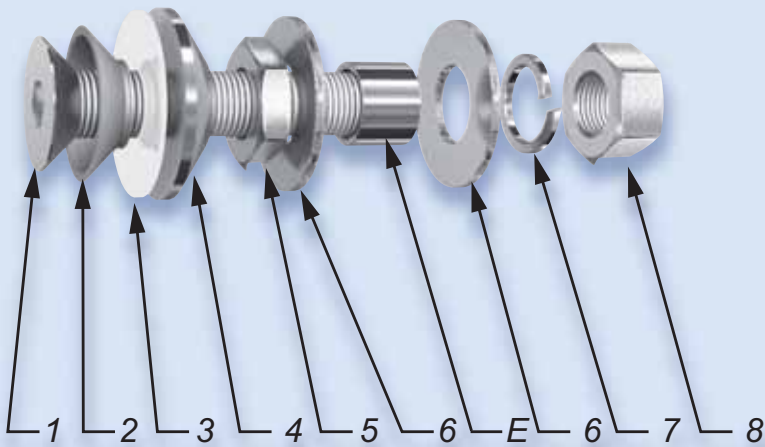


	Bending capacity			Pull out capacity
	D	SLS*	ULS*	ULS*
M14	45 mm	No test available		
	60 mm			
M16	45 mm			
	60 mm			



*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	Bolt DIN 7991 M12-70	A4
2	1	Glass Hole Grommet	AW-1050A per EN 573-3 / Al 99.5%
3	1	Contact Washer	White polyacetal / white polyethylene
4	1	Glass Nut Ø 35	X2 Cr Ni Mo 17.12.2 per EN 10088-3
5	1	Nut DIN 439 M12	A4
6	2	Washer Ø 32	A4
7	1	Lock Washer DIN127 B12	A4
8	1	Nut DIN 934 M12	A4

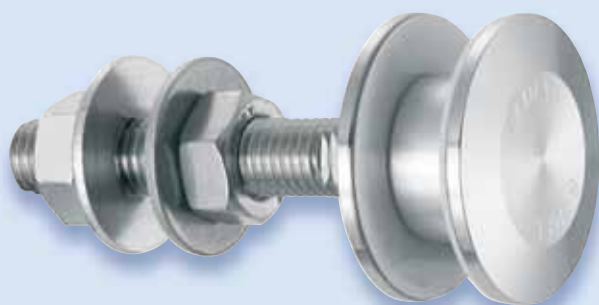
Suggested mounting instruction:

Insert parts No. 1 and 2 into the glass.
Mount contact washer No. 3 and glass nut No. 4 and tighten to 20 Nm (15 ft-lb) for monolithic glass and 10 Nm (7.5 ft-lb) for laminated glass using a 8 mm hex key and a 24 mm wrench.
Mount nut No. 5 and washer No. 6.
Insert the thread axle into the support with spacer E (available on request), see technical page. Adjust the depth.
Mount the second washer No. 6, lock washer No. 7, and nut No. 8. Tighten to 60 Nm (45 ft-lb) using a 19 mm wrench.

SADEV recommends using thread locking compound whenever possible.

Reference: V 2105

Designation: fixed bolt, cylindrical head, Ø 50 mm.



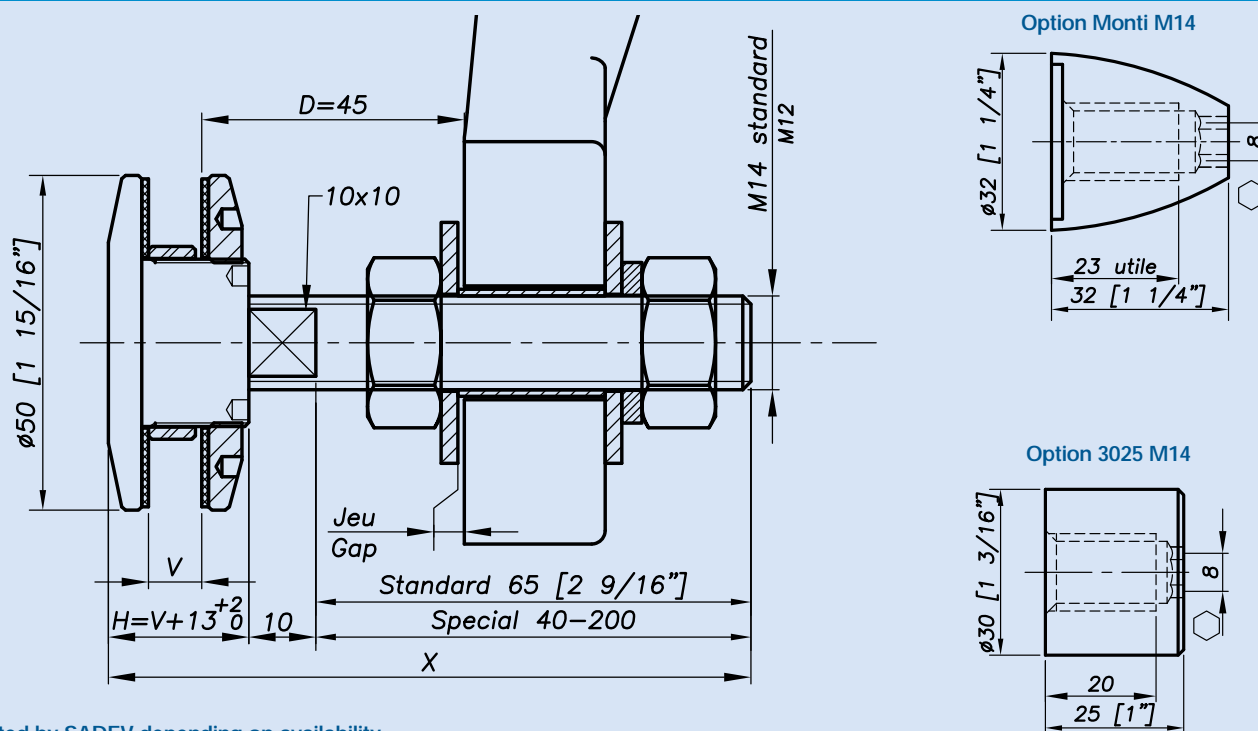
Typical application:

Mounting

Alternate product

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

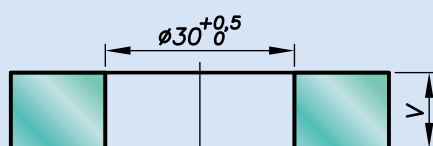
Dimensions:



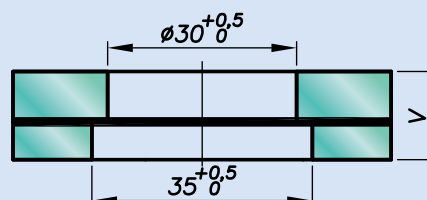
H validated by SADEV depending on availability.

Glass drilling:

Monolithic glass



Laminated glass

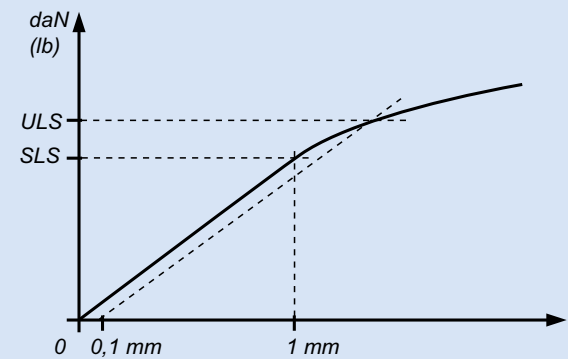
V = 1st glass + intercalated films + 2nd glass

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

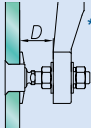
It is important to provide the following information with each request: the glass composition (ex.: 10 mm monolithic, 8.8.4 laminated, 8.8.2-12-10 insulating) / the length and diameter of the swivel threaded axle if not standard dimensions (M14, 65 mm) / the reference of the spider to be used as support,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

Reference: V 2105

Mechanical properties:

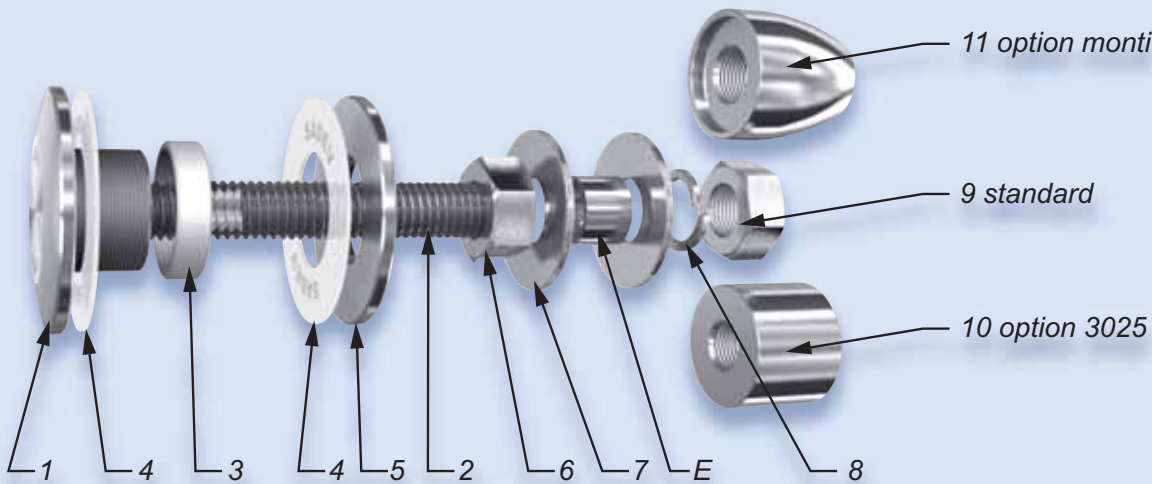


	Bending capacity			Pull out capacity
	D	SLS*	ULS*	ULS*
M14	45 mm	No test available		
	60 mm			
M16	45 mm			
	60 mm			



*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	Body	X2 Cr Ni Mo 17.12.2 per EN 10088-3
2	1	Thread axle	A4
3	1	Glass Hole Grommet	AW-1050A per EN 573-3 / Al 99.5%
4	2	Contact Washer	White polyacetal / white polyethylene
5	1	Glass Nut Ø 50	X2 Cr Ni Mo 17.12.2 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 per EN 10088-3
11	1	Monti Cap Nut - Option	X2 Cr Ni Mo 17.12.2 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. 758-11-60.
Mount nut No. 6 and washer No. 7 onto parts No. 1/2.
Insert the thread 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 and tighten to 60 Nm (45 ft-lb) using a 22 mm wrench.

SADEV recommends using thread locking compound whenever possible.