





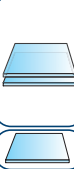







































■ systematics and combination possibilities


			 clamps p. 72	 TRAV fixtures p. 110	 Banano p. 120	 cp-mini p. 104
posts		Ø 33,7 x 2,0	✓	✓	—	—
		Ø 42,4 x 2,0	✓	✓	✓	✓
		Ø 48,3 x 2,0	✓	✓	✓	—
		Ø 60,3 x 2,0	✓	✓	—	—
		30 x 30 x 2,0	✓	✓	✓	✓
		40 x 40 x 2,0	✓	✓	✓	✓
infills		VSG = 2 x ESG	✓   	✓ 	✓ 	✓ 
		VSG = 2 x SPG	✓  	—	—	
		VSG = 2 x TVG	✓  	✓ 		
		ESG-H	✓  	—	—	—
		TRESPA®	✓ 			
hand railing		metal	✓	✓	✓	✓
		plugged on	railings according to TRAV category B on page 234 onward			
		without	 	✓ 	 	 


 possible


 possible on request


 not possible


 european technical approval (ETA-11/0380) - page 194


 national technical approval (AbZ Z-70.2-28) - page 194

 technical rules for the use of safety barrier glazing (TRAV) - page 194

 Banano and cp-mini with an general test certificate from building authorities - page 194

 individual approval (ZiE) - page 194

 ETB proof - page 194

 ETB proof with general test certificate for TRESPA® panels - page 194

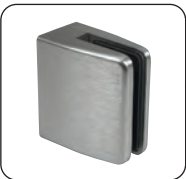


clamp fixtures for glass infills





content



clamp fixtures 72-89

INFO

CURRENT RULES REGARDING CLAMP FIXTURES

Armed with information on the safety aspects of balustrades, you will confidently follow the latest regulations and guidelines when planning your projects. This saves you time and money. We can also extend this service with personal consultation. Talk to us.

wind loads
page 202

certification according
to AbZ/ETA
page 207

design table
from page 208 onwards

checklist
page 214

planning process
page 195

72



clamp fixtures

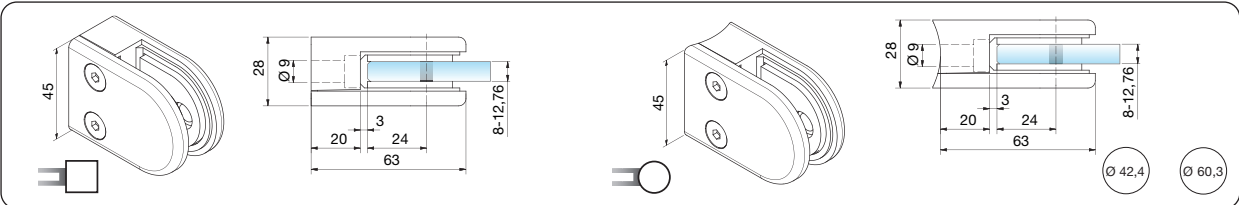
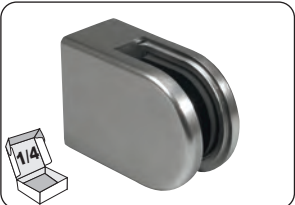


■ clamp fixtures

clamp fixtures for glass infills

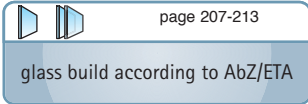
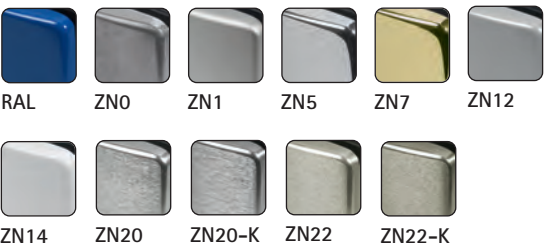


■ zinc (ZN, ZAMAK®)

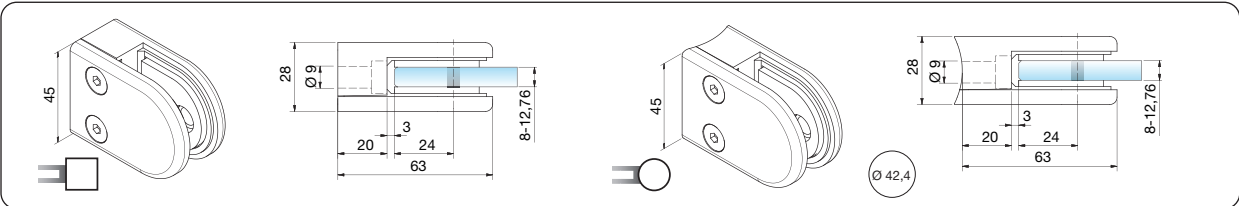
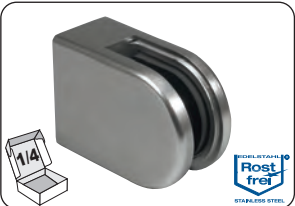


item no.	VSG	Mono	safety		
4808	8,76 mm	8 mm	ETA AbZ	ETA	ETA
4809	9,52 mm		ETA AbZ		
4810	10,76 mm	10 mm	ETA AbZ	ETA	
4811	11,52 mm		ETA AbZ		
4812	12,76 mm	12 mm	ETA AbZ		
4842	8,76 mm	8 mm	ETA AbZ	ETA	ETA
4843	9,52 mm		ETA AbZ		
4852	10,76 mm	10 mm	ETA AbZ	ETA	ETA
4854	11,52 mm		ETA AbZ		
4853	12,76 mm	12 mm	ETA AbZ		

material/finish ZN = zinc

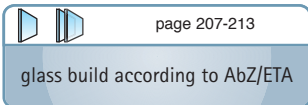
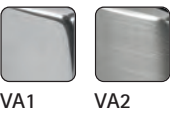


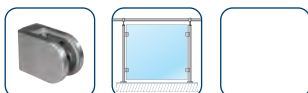
■ stainless steel (A4)



item no.	VSG	Mono	safety		
9302	8,76 mm	8 mm	ETA AbZ	ETA	ETA
9300	9,52 mm		ETA AbZ		
9303	10,76 mm	10 mm	ETA AbZ	ETA	ETA
9301	11,52 mm		ETA AbZ		
9304	12,76 mm	12 mm	ETA AbZ		
9306	8,76 mm	8 mm	ETA AbZ	ETA	ETA
9305	9,52 mm		ETA AbZ		
9307	10,76 mm	10 mm	ETA AbZ	ETA	ETA
9309	11,52 mm		ETA AbZ		
9308	12,76 mm	12 mm	ETA AbZ		

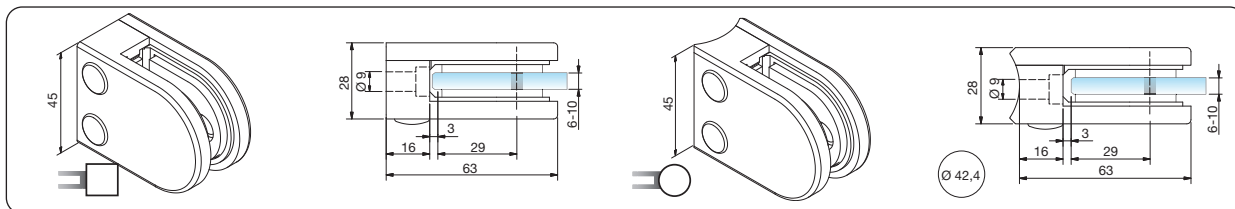
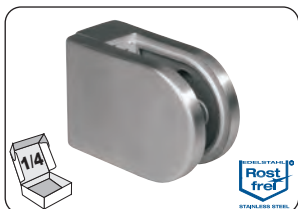
material/finish VA = stainless steel





clamp fixtures

■ stainless steel (A2)



item no.	VSG	Mono	
48 05 00 006 02 02		6 mm	⇒ □
48 05 00 067 02 02	6,76 mm		⇒ □
48 05 00 008 02 02		8 mm	⇒ □
48 05 00 087 02 02	8,76 mm		⇒ □
48 05 00 095 02 02	9,52 mm		⇒ □
48 05 00 010 02 02		10 mm	⇒ □
48 05 21 006 02 02		6 mm	⇒ ○ R21
48 05 21 067 02 02	6,76 mm		⇒ ○ R21
48 05 21 008 02 02		8 mm	⇒ ○ R21
48 05 21 087 02 02	8,76 mm		⇒ ○ R21
48 05 21 095 02 02	9,52 mm		⇒ ○ R21
48 05 21 010 02 02		10 mm	⇒ ○ R21

material/finish

VA = stainless steel

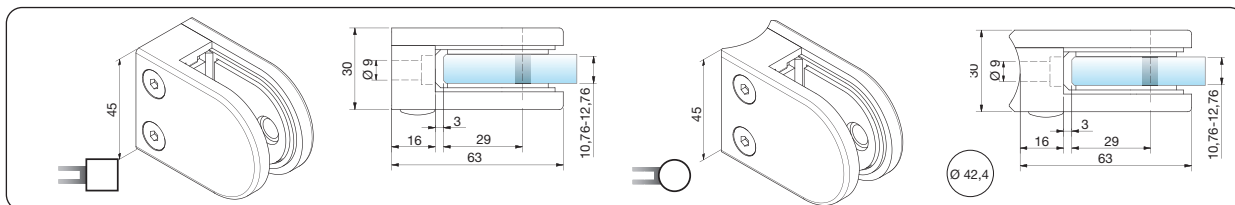
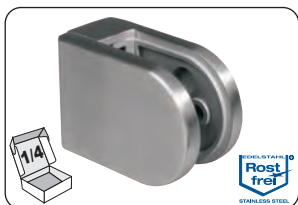


VA2

included



■ stainless steel (A2)



item no.	VSG	Mono	
48 10 00 107 02 02	10,76 mm		⇒ □
48 10 00 115 02 02	11,52 mm		⇒ □
48 10 00 012 02 02		12 mm	⇒ □
48 10 00 127 02 02	12,76 mm		⇒ □
48 10 21 107 02 02	10,76 mm		⇒ ○ R21
48 10 21 115 02 02	11,52 mm		⇒ ○ R21
48 10 21 012 02 02		12 mm	⇒ ○ R21
48 10 21 127 02 02	12,76 mm		⇒ ○ R21

material/finish

VA = stainless steel



VA2

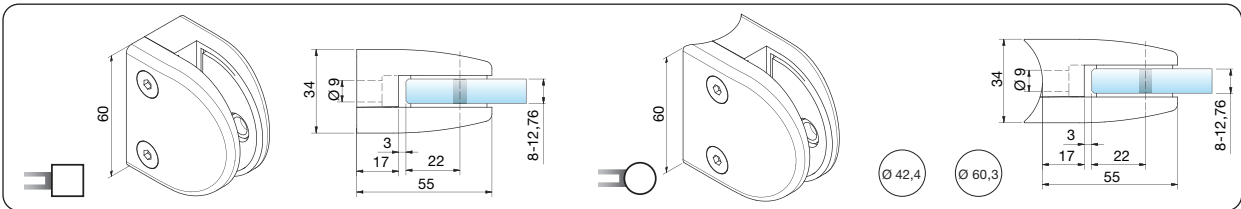
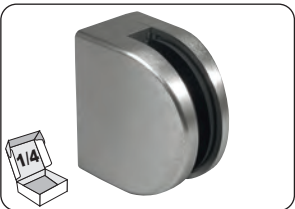
included



clamp fixtures for glass infills



■ zinc (ZN, ZAMAK®)



item no.	VSG	Mono	safety	also approved with	
4813	8,76 mm	8 mm	ETA AbZ		
4821	9,52 mm		ETA AbZ		
4814	10,76 mm	10 mm	ETA AbZ		
9013	11,52 mm		ETA AbZ		
9014	12,76 mm	12 mm	ETA AbZ		
4816	8,76 mm	8 mm	ETA AbZ		R22/R30
4827	9,52 mm		ETA AbZ		R22/R30
4817	10,76 mm	10 mm	ETA AbZ		R22/R30
9016	11,52 mm		ETA AbZ		R22/R30
9017	12,76 mm	12 mm	ETA AbZ		R22/R30

material/finish ZN = zinc

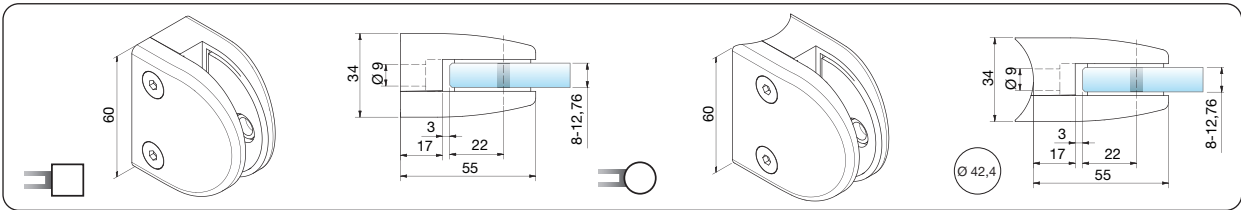
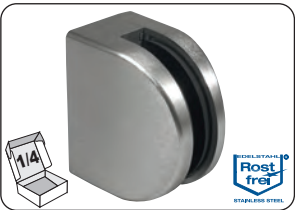


accessories
9320VA

page 207-213
glass build according to AbZ/ETA

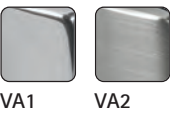


■ stainless steel (A4)



item no.	VSG	Mono	safety	also approved with	
9322	8,76 mm	8 mm	ETA AbZ		
9320	9,52 mm		ETA AbZ		
9323	10,76 mm	10 mm	ETA AbZ		
9321	11,52 mm		ETA AbZ		
9324	12,76 mm	12 mm	ETA AbZ		
9326	8,76 mm	8 mm	ETA AbZ		R22
9325	9,52 mm		ETA AbZ		R22
9327	10,76 mm	10 mm	ETA AbZ		R22
9329	11,52 mm		ETA AbZ		R22
9328	12,76 mm	12 mm	ETA AbZ		R22

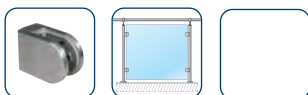
material/finish VA = stainless steel



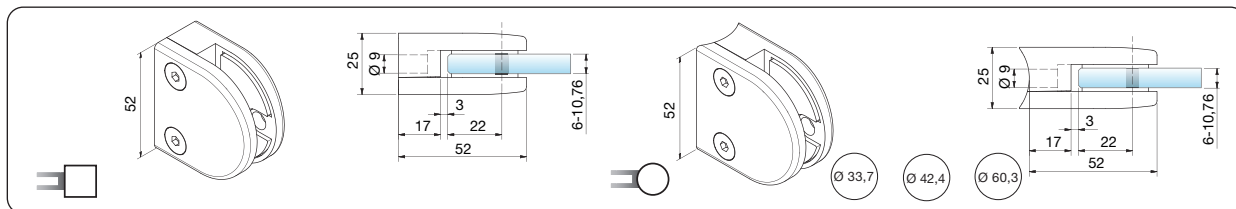
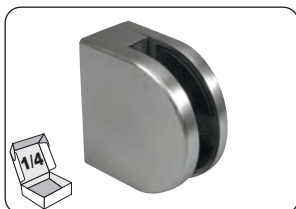
accessories
9320VA

page 207-213
glass build according to AbZ/ETA





■ zinc (ZN, ZAMAK®)

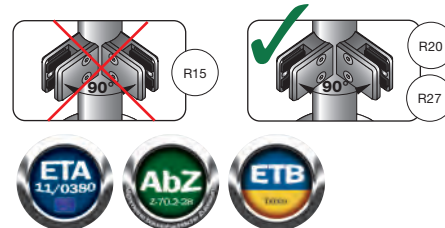


item no.	VSG	Mono	safety		
11111	6,76 mm	6 mm		□	
11110	9,52 mm		ETA AbZ	□	
11112	8,76 mm	8 mm	ETA AbZ ETB	□	
11113	10,76 mm	10 mm	ETA AbZ	□	
11116	6,76 mm	6 mm		○	R15/R20/R27
11117	8,76 mm	8 mm	ETA AbZ ETB	○	R15/R20/R27
11119	9,52 mm		ETA AbZ	○	R15/R20/R27
11118	10,76 mm	10 mm	ETA AbZ	○	R15/R20/R27

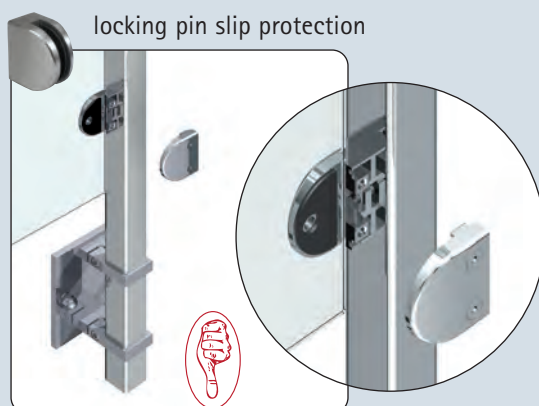
material/finish ZN = zinc



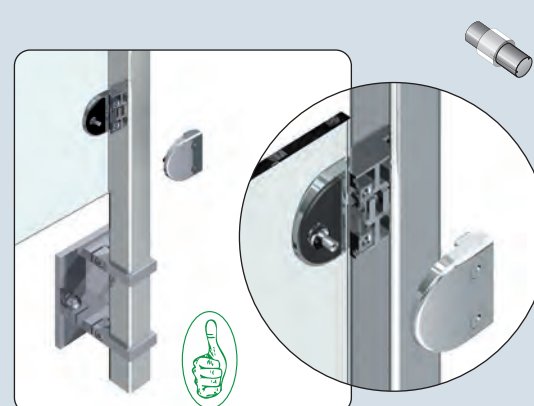
page 207-213
glass build according to AbZ/ETA



■ INFO



The use of the locking pin provides the prescribed level of mechanical protection needed to ensure that the fascia-mounted glass panel does not slip.

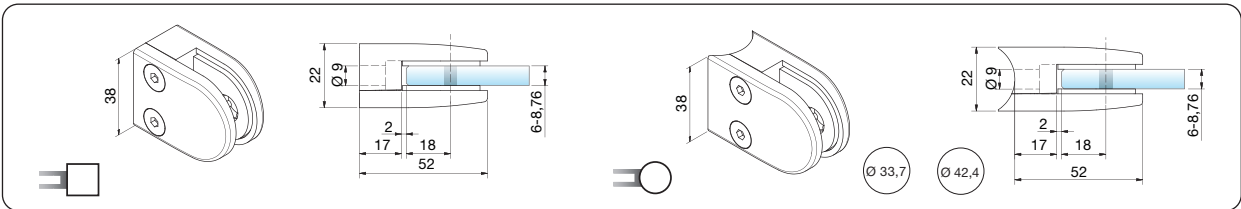
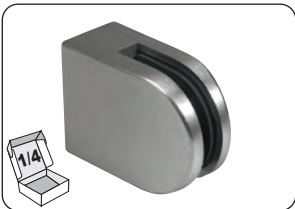


For further details and a list of approved clamps, please see page 210.

clamp fixtures for glass infills










■ zinc (ZN, ZAMAK®)




item no.	VSG	Mono	safety	
4819	6,76 mm	6 mm		
4818	8,76 mm	8 mm		
4823	6,76 mm	6 mm		
4822	8,76 mm	8 mm		


material/finish ZN = zinc


      

RAL ZN0 ZN1 ZN5 ZN12 ZN22 ZN22-K

accessories

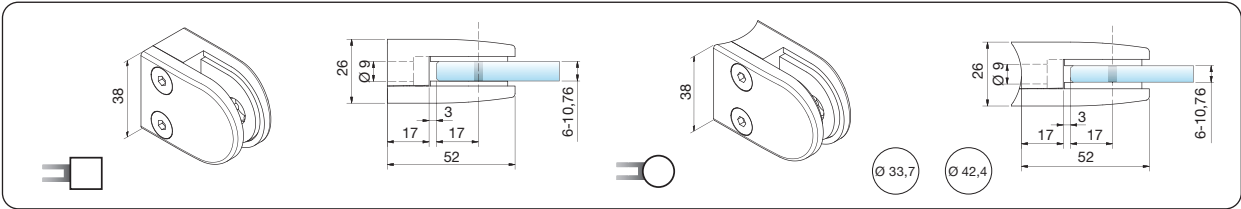
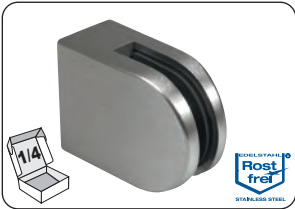
 4824VA

 R15

 R20





■ Aço inox (AISI 316)




item no.	VSG	Mono		
9312	6,76 mm	6 mm		
9313	8,76 mm	8 mm		
9314	10,76 mm	10 mm		
9316	6,76 mm	6 mm		
9317	8,76 mm	8 mm		
9318	10,76 mm	10 mm		


material/finish VA = stainless steel


  9316VA, 9317VA, 9318VA
radius R21 only available in VA2!

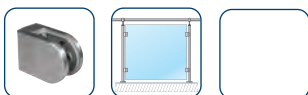
VA1 VA2

accessories

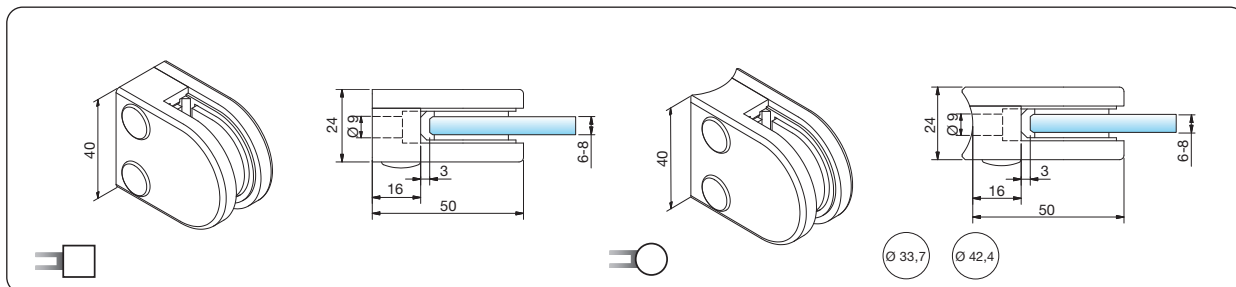
 4820VA

 R16

 R21



■ stainless steel (A2)



item no.	VSG	Mono		
48 01 00 006 02 02		6 mm		
48 01 00 067 02 02	6,76 mm			
48 01 00 008 02 02		8 mm		
48 01 17 006 02 02		6 mm		R17
48 01 17 067 02 02	6,76 mm			R17
48 01 17 008 02 02		8 mm		R17
48 01 21 006 02 02		6 mm		R21
48 01 21 067 02 02	6,76 mm			R21
48 01 21 008 02 02		8 mm		R21

material/finish VA = stainless steel



VA2

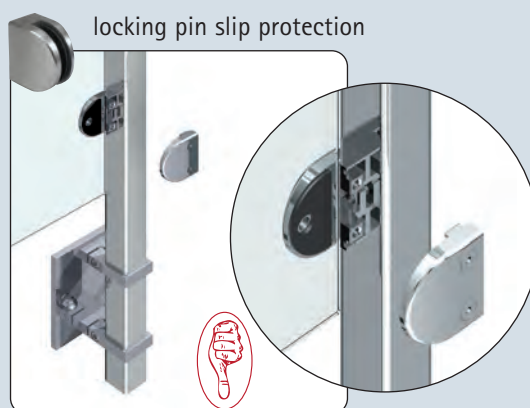


■ INFO

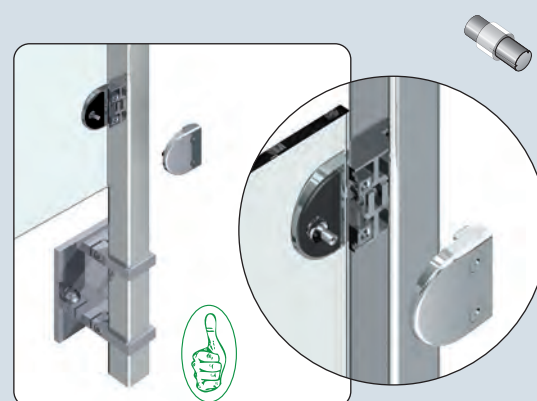


VA1

VA2



The use of the locking pin provides the prescribed level of mechanical protection needed to ensure that the fascia-mounted glass panel does not slip.

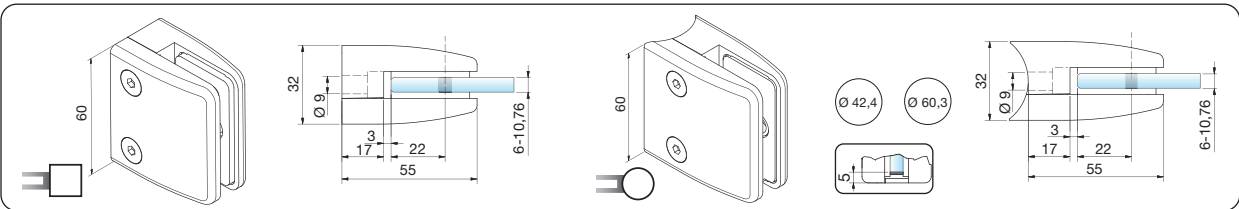
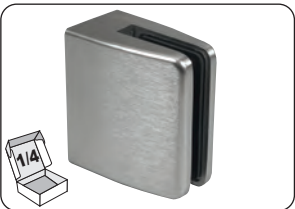


For further details and a list of approved clamps, please see page 210.

clamp fixtures for glass infills



■ zinc (ZN, ZAMAK®)



item no.	VSG	Mono	safety	also approved with	
9001	6,76 mm	6 mm			
4804	8,76 mm	8 mm			
9002	9,52 mm				
4805	10,76 mm	10 mm			
9005	6,76 mm	6 mm			R20/R33
4806	8,76 mm	8 mm			R20/R33
9006	9,52 mm				R20/R33
4807	10,76 mm	10 mm			R20/R33

material/finish ZN = zinc

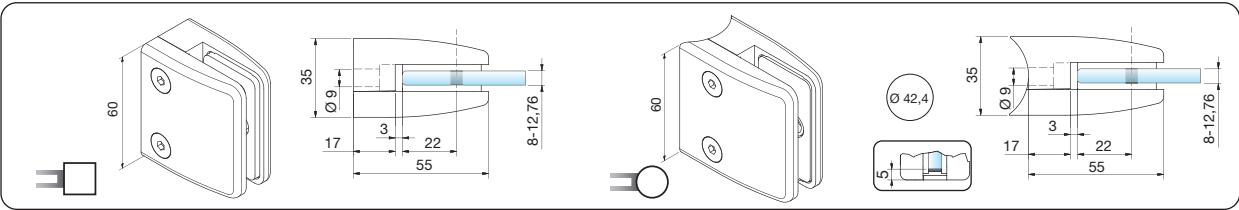
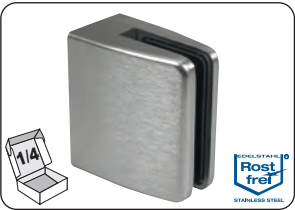


accessories

page 207-213
glass build according to AbZ/ETA

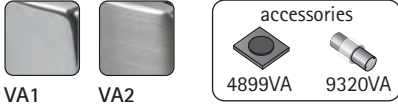


■ stainless steel (A4)



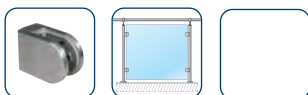
item no.	VSG	Mono	safety	also approved with	
9332	8,76 mm	8 mm			
9330	9,52 mm				
9333	10,76 mm	10 mm			
9331	11,52 mm				
9334	12,76 mm	12 mm			
9336	8,76 mm	8 mm			R22
9335	9,52 mm				R22
9337	10,76 mm	10 mm			R22
9339	11,52 mm				R22
9338	12,76 mm	12 mm			R22

material/finish VA = stainless steel

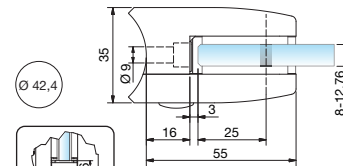
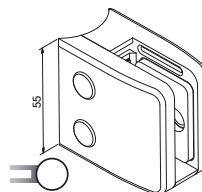
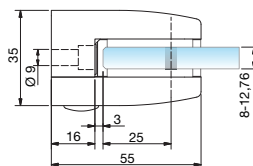
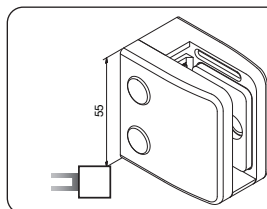
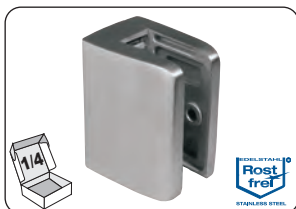


page 207-213
glass build according to AbZ/ETA





■ stainless steel (A2)



item no.	VSG	Mono	
48 25 00 008 02 02		8 mm	
48 25 00 087 02 02	8,76 mm		
48 25 00 095 02 02	9,52 mm		
48 25 00 010 02 02		10 mm	
48 25 00 107 02 02	10,76 mm		
48 25 00 115 02 02	11,52 mm		
48 25 00 012 02 02		12 mm	
48 25 00 127 02 02	12,76 mm		
48 25 21 008 02 02		8 mm	R21
48 25 21 087 02 02	8,76 mm		R21
48 25 21 095 02 02	9,52 mm		R21
48 25 21 010 02 02		10 mm	R21
48 25 21 107 02 02	10,76 mm		R21
48 25 21 115 02 02	11,52 mm		R21
48 25 21 012 02 02		12 mm	R21
48 25 21 127 02 02	12,76 mm		R21

material/finish

VA = stainless steel



VA2

included



■ INFO



treatment products
page 183

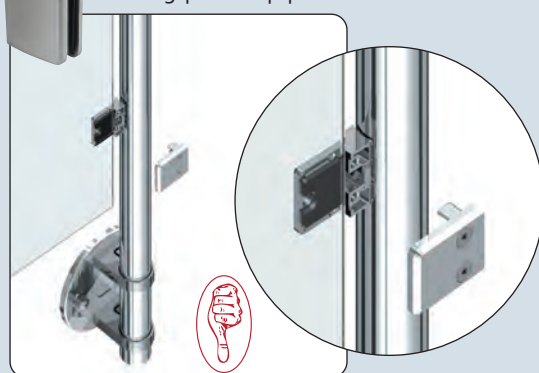


VA1

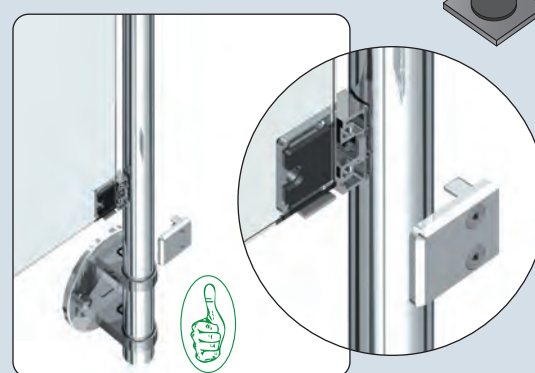


VA2

locking plate slip protection



The use of the locking plate provides the prescribed level of mechanical protection needed to ensure that the fascia-mounted glass panel

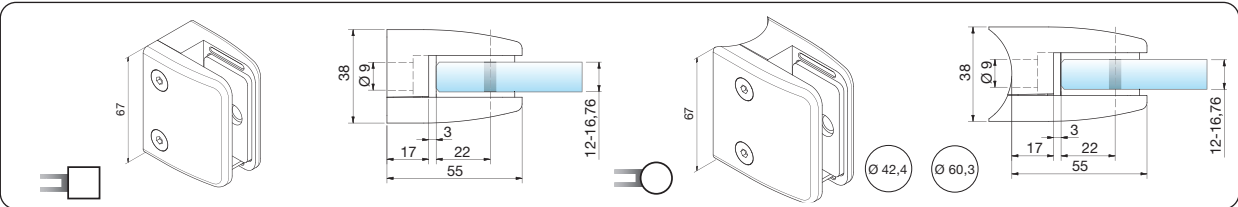
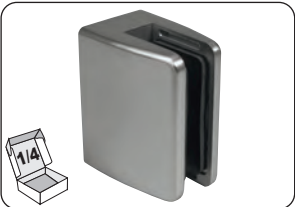


does not slip. For further details and a list of approved clamps, please see page 212.

clamp fixtures for glass infills

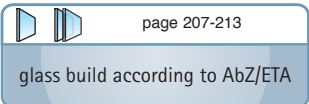
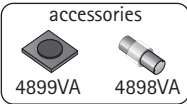


■ zinc (ZN, ZAMAK®)

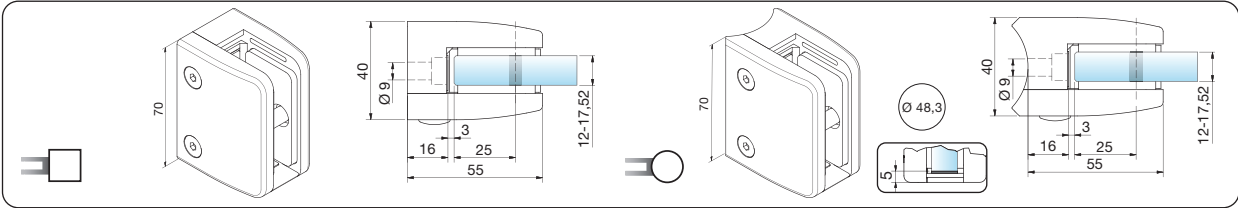


item no.	VSG	Mono	safety	also approved with
4891	12,76 mm	12 mm	ETA, AbZ, ETB	⇒
4890	13,52 mm		ETA, AbZ	⇒
4892		14 mm	ETA, AbZ	⇒
9082		15 mm	ETA, AbZ	⇒
4893	16,76 mm		ETA, AbZ, ETB	⇒
4894	12,76 mm	12 mm	ETA, AbZ, ETB	⇒ R22/R30
4897	13,52 mm		ETA, AbZ	⇒ R22/R30
4895		14 mm	ETA, AbZ	⇒ R22/R30
9086		15 mm	ETA, AbZ	⇒ R22/R30
4896	16,76 mm		ETA, AbZ	⇒ R22/R30

material/finish ZN = zinc

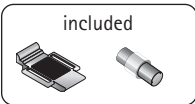
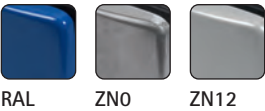


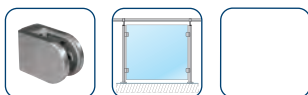
■ zinc (ZN, ZAMAK®)



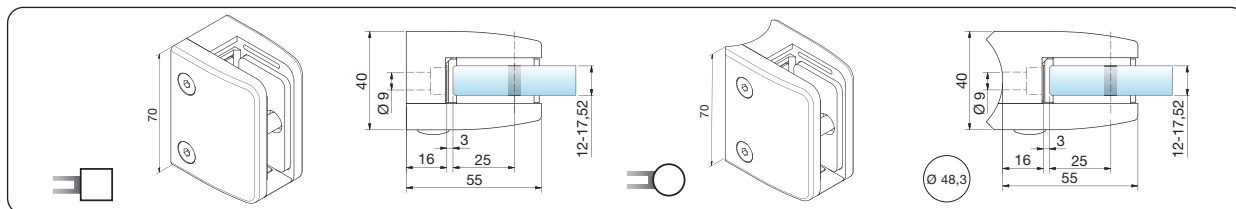
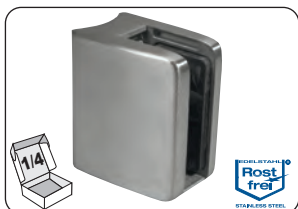
item no.	VSG	Mono	
9090		12 mm	⇒
9091	12,76 mm		⇒
9092		16 mm	⇒
9093	16,76 mm		⇒
9094	17,52 mm		⇒
9095		12 mm	⇒ R24
9096	12,76 mm		⇒ R24
9097		16 mm	⇒ R24
9098	16,76 mm		⇒ R24
9099	17,52 mm		⇒ R24

material/finish ZN = zinc





■ stainless steel (A4)

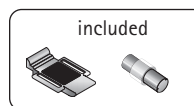


item no.	VSG	Mono		
9390		12 mm		
9391	12,76 mm			
9392		16 mm		
9393	16,76 mm			
9394	17,52 mm			
9395		12 mm		R24
9396	12,76 mm			R24
9397		16 mm		R24
9398	16,76 mm			R24
9399	17,52 mm			R24

material/finish	VA = stainless steel
-----------------	----------------------



VA2



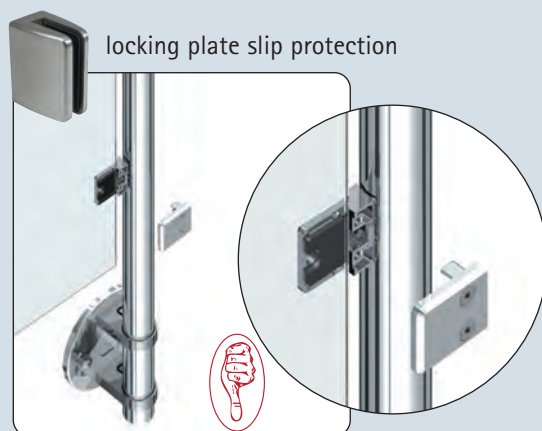
included

■ INFO

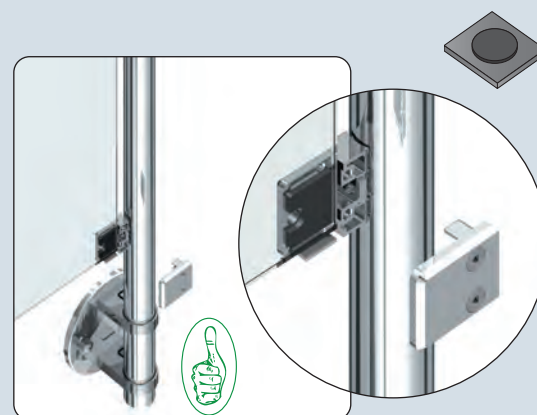


VA1

VA2



The use of the locking plate provides the prescribed level of mechanical protection needed to ensure that the fascia-mounted glass panel

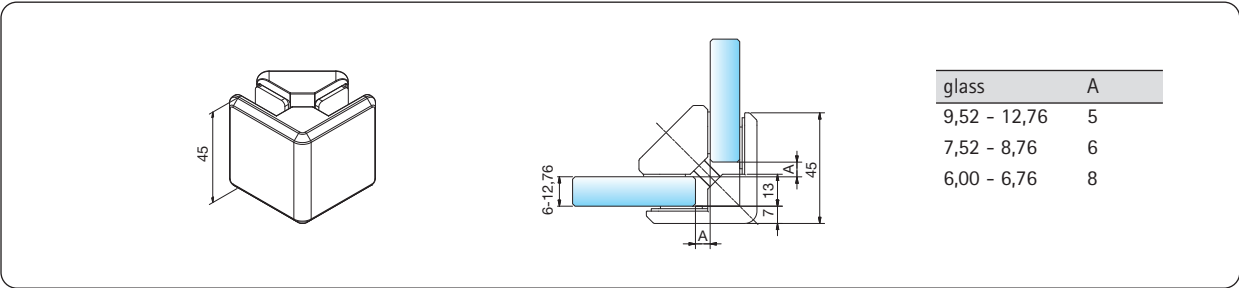
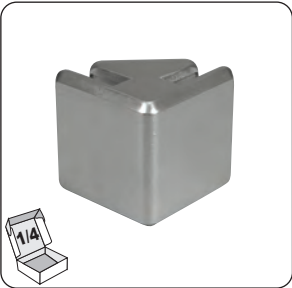




does not slip. For further details and a list of approved clamps, please see page 212.








clamp fixtures for glass infills



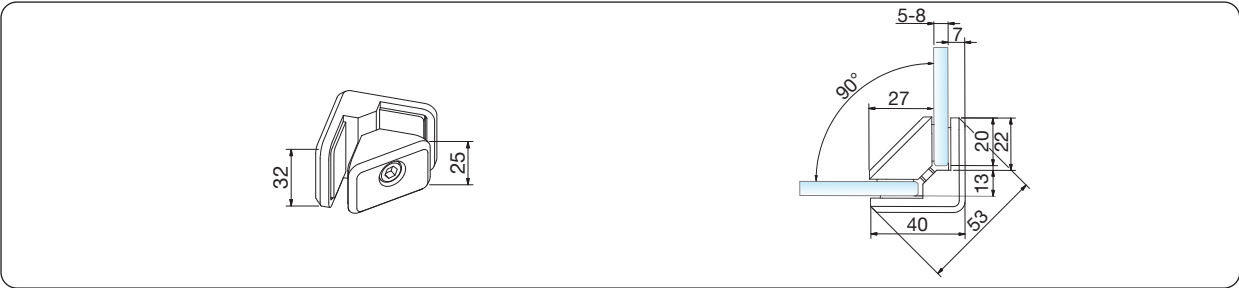
■ zinc (ZN, ZAMAK®)






item no.	VSG 	Mono 
4830	6,76 - 12,76 mm	6 - 12 mm

material/finish						ZN = zinc
						
RAL	ZN0	ZN1	ZN5	ZN12	ZN22	ZN22-K

■ zinc (ZN, ZAMAK®)



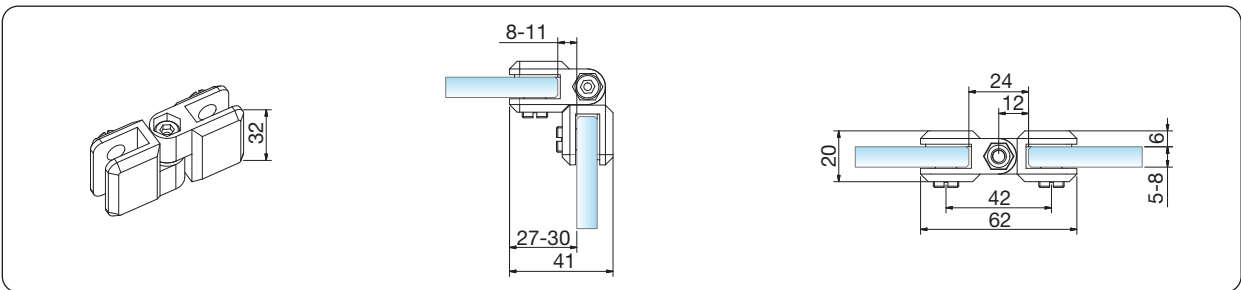
item no.	info	Mono 
4880	corner bracket 90°	5 - 8 mm


material/finish						ZN = zinc
						
RAL	ZN0	ZN1	ZN5	ZN12	ZN22	ZN22-K




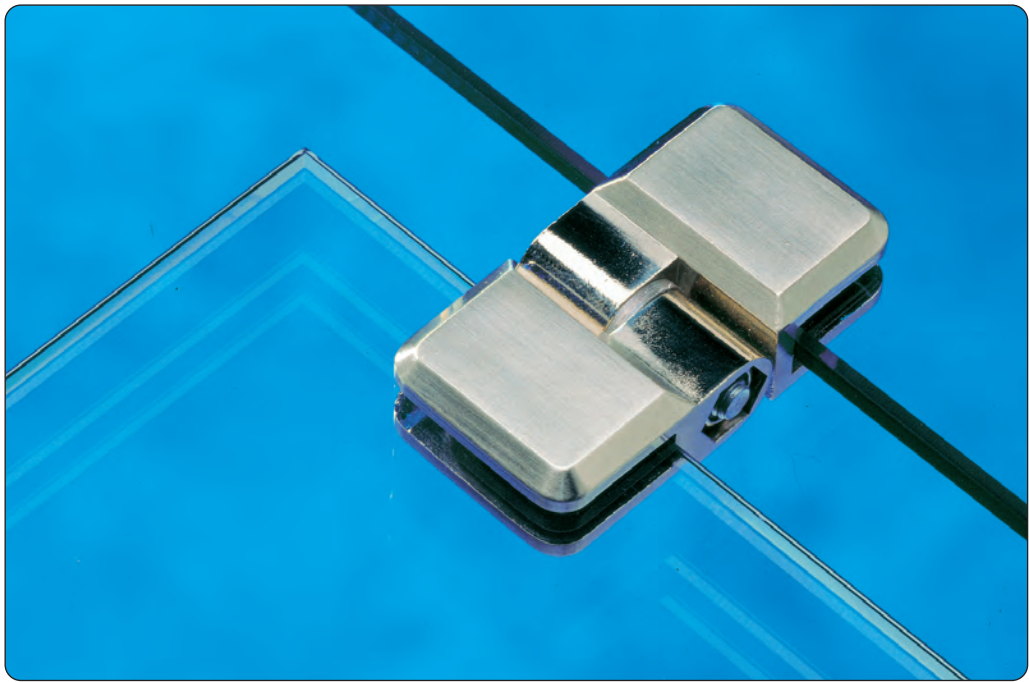
clamp fixtures for fascia mounting

■ zinc (ZN, ZAMAK®)



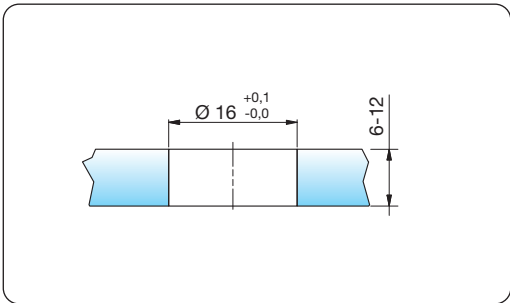
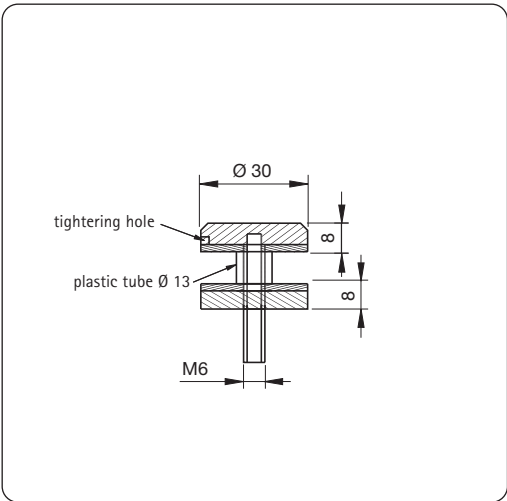
item no.	info	Mono 
4885	hinge and variable connector, opening angle 90° - 270°	5 - 8 mm

material/finish		ZN = zinc						
								
RAL	ZN0	ZN1	ZN5	ZN12	ZN22	ZN22-K		





■ zinc point fixing



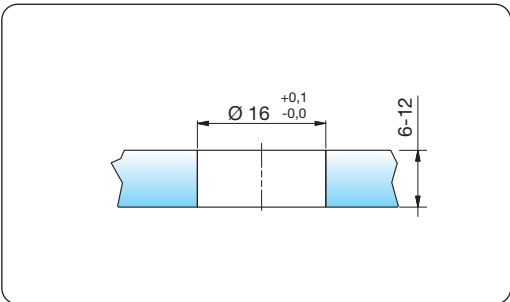
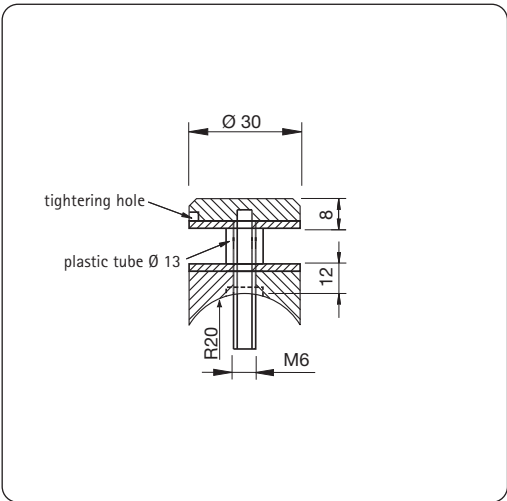
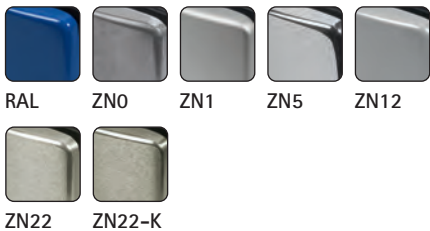
item no.: 4870 / 4872

point fixing Ø 30 raised head

material/finish ZN = zinc

accessories
Z057

includes
4870ZN M6 x 60 mm 4872ZN M6 x 60 mm, hanger bolt



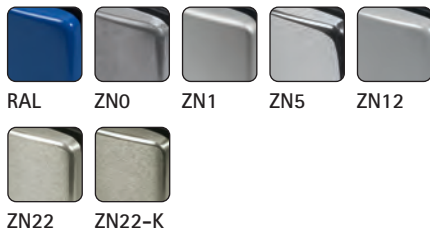
item no.: 4871

point fixing Ø 30 raised head

material/finish ZN = zinc

accessories
Z057

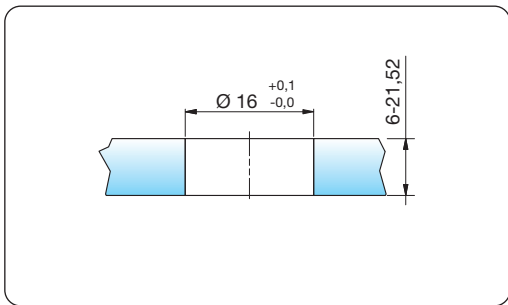
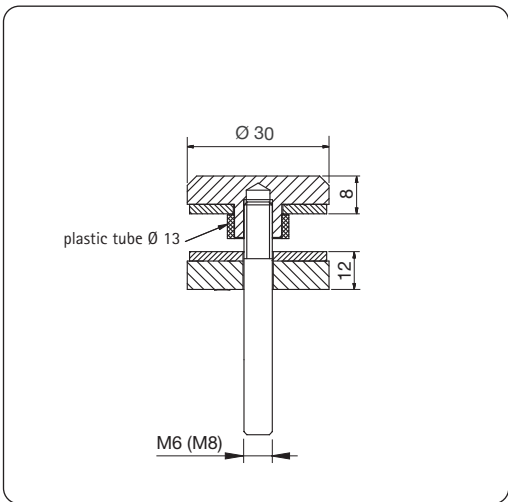
includes
M6 x 60 mm





clamp fixtures for fascia mounting

■ stainless steel



item no.: 1341 / 1341-M8 / 1351		
point fixing	Ø 30	raised head
material/finish		VA = stainless steel



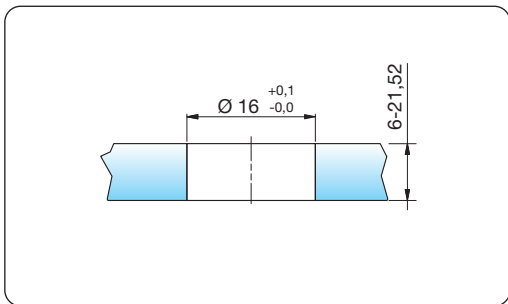
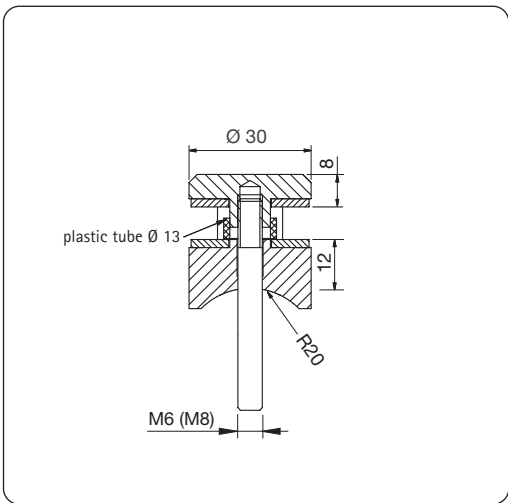
accessories

Z057

includes

1341VA M6(M8) x 60 mm

1351VA M6 x 60 mm, hanger bolt



item no.: 1339 / 1339-M8		
point fixing	Ø 30	raised head
material/finish		VA = stainless steel



accessories

Z057

includes

1339VA M6(M8) x 60 mm