SADEV®
ARCHITECTURAL GLASS SYSTEMS

SABCO

SADEV BALUSTRADE CONCEPT

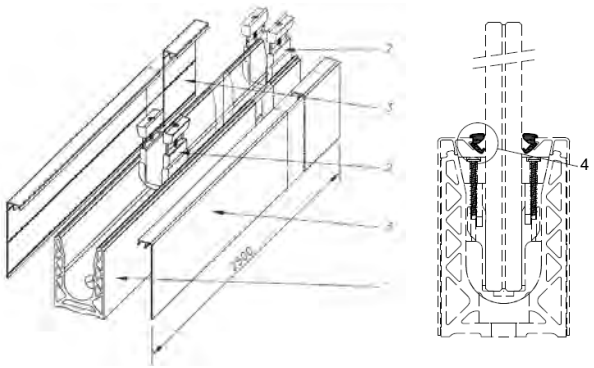
INSTALLATION GUIDE

Introduction

The instructions below must be followed on their entirety to assume the correct implementation of SABCO.
Please refer to the French Technical Assessment SADEV in case of any doubt.

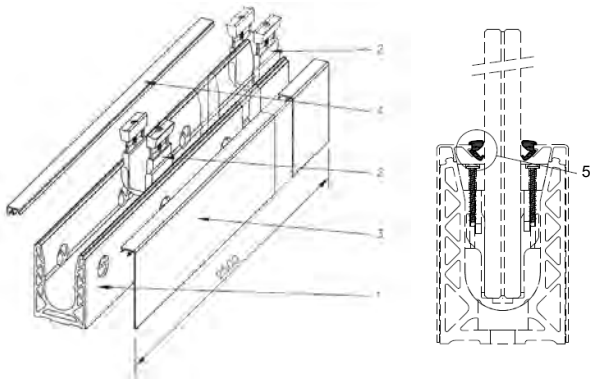
This balustrade System has been engineered and designed to make the installation as easy as possible. SADEV cannot be held responsible for any issues arising if the guidelines in this document are not fully adhered to.

Balustrade Components:



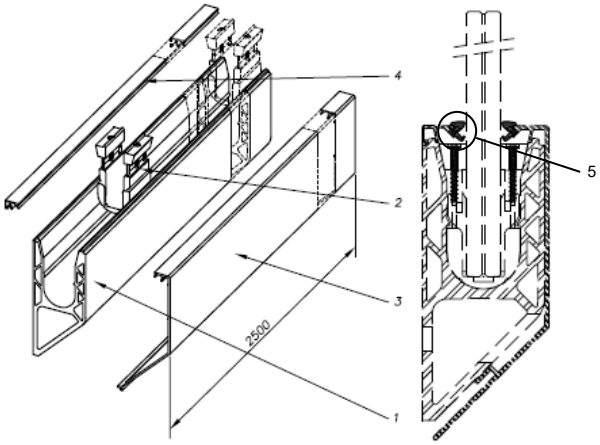
Model SABCO 007010: Base Mount

No.	*Description*
1	Channel
2	Wedges
3	Claddings
4	Gasket



Model SABCO 007011: Side Mount

No.	*Description*
1	Channel
2	Wedges
3	Low cladding
4	Top cladding
5	Gasket



Model SABCO 007013 : Lateral mounting

No.	*Description*
1	Channel
2	Wedge
3	Top cladding
4	Low cladding
5	Gasket

Material necessary for installing the SABCO balustrade:

- Drill (non supplied)
- Screwdriver (non supplied)
- Concrete drill suitable for fixing plugs
- Fixing plugs (supplied on request)
- Ref. SADEV:
- Concrete steel zinc screws : *09HUS3-H10x70*
- Concrete stainless steel screws : *09HUS-HR10x75*
- Anchor fittings : *09HSLM8/20*
- Tapping steel bush for chemical plug : *09HIS-NM12x125*
- Tapping stainless steel bush for chemical plug: *09HIS-RNM12x125*
- Adhesive foil capsules : *09HVUM16x125*
- Tightening socket spanner or *** Ø following type of plug (non supplied)
- Clamping cap tool TORX T-20 (supplied on request)
- Ref. SADEV: *007-TORX-T20/150*

Consult SABCO mounting video by scanning this code

1/ Channel installation (drilling, adjustment, tightening):

Reminder of the distance between channel fixing plugs depending on installation type:

⚠ **Only center distances checked on the calculation note anchors are using (layout, type of concrete, ...)**

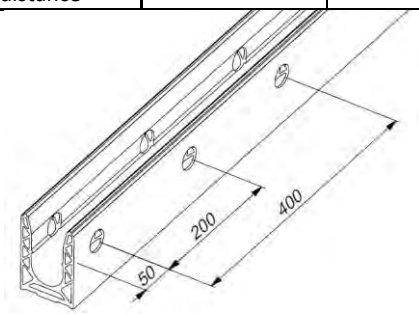
Example for France. Please refer to your national legislation

- Floor mounting :
  - *SABCO model ref. 007010*

	France Cahier 3034		
SLS	Private 0,6 KN	Public 1,0KN	Public 1,7 KN (stadium)
ULS	1,8 KN	3 KN	5,1 KN
Hole fixing distance	400 mm	400 mm	200 mm

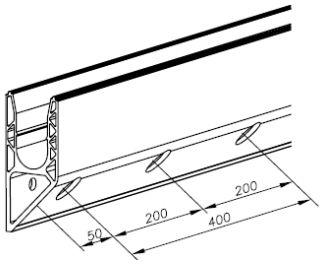
- Lateral mounting :
  - *SABCO Model ref. 007011*

	France Cahier 3034	
SLS	Private 0,6 KN	Public 1,0KN
ULS	1,8 KN	3 KN
Hole fixing distance	200 mm	200 mm



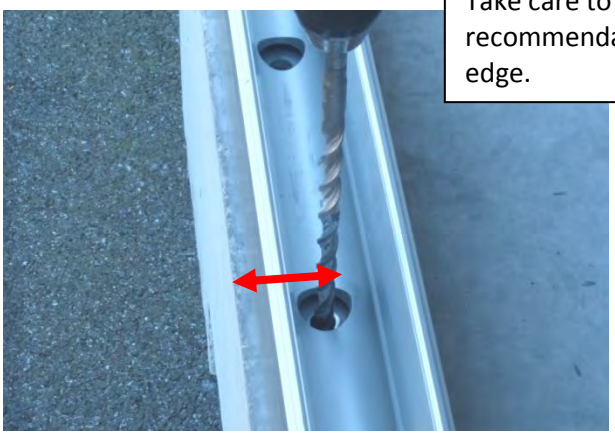
  - *SABCO Model ref. 007013*

	France Cahier 3034		
SLS	Private 0,6 KN	Public 1,0KN	Public 1,7 KN (stadium)
ULS	1,8 KN	3 KN	5,1 KN
Hole fixing distance	400 mm	400 mm	200 mm



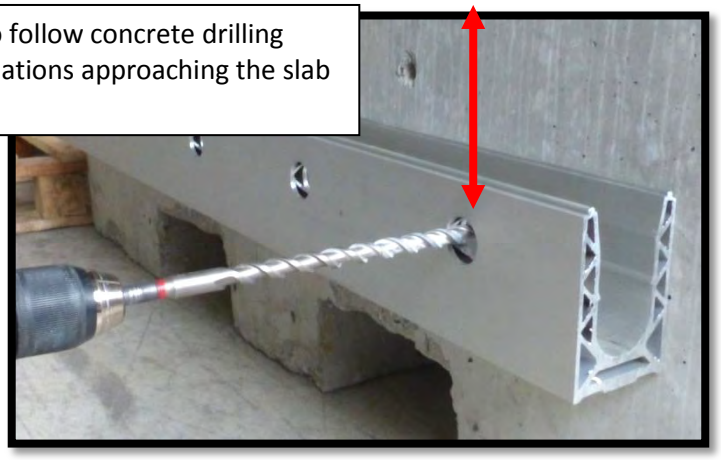
After locating your balustrade channels,

1 : Use the correct size and type of drill Bit for the fixings being installed.



On floor mounting

Take care to follow concrete drilling recommendations approaching the slab edge.



Lateral mounting

Channel joints at corners/angles will require on-site mitre preparation

2:2 : Fix and adjust channels (prop up the channel if necessary) using a torque wrench up to the torque recommended by fixing's manufacturer.

Floor Mounting

Slab Mounting

3 : Link-up between channels

Insert 2 jointing pins Ø8 x 50 ref. SADEV: *D1481A2-8-50* into the channel profile and then hammer the channels together using a soft mallet.

Consult SABCO mounting video by scanning this code

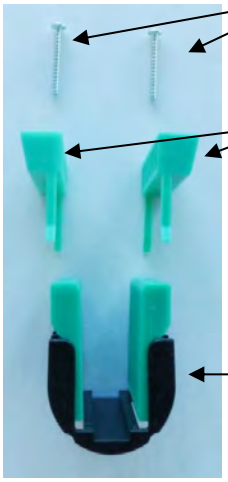
2/ Installation of lower wedges in the channel and installation up of the glass

Wedges mounted with components

Box of 10 sets of wedges

Reference:

- *For glass 8.8 : 00709KIT10CALE0808*
- *For glass 10.10 : 00709KIT10CALE1010*
- *For glass 12.12 : 00709KIT10CALE1212*



2x Screw

2x Top wedge

1x Set:
Low wedge
+
Intermediary wedge

Table showing the wedges colors per glass thickness with tolerances:

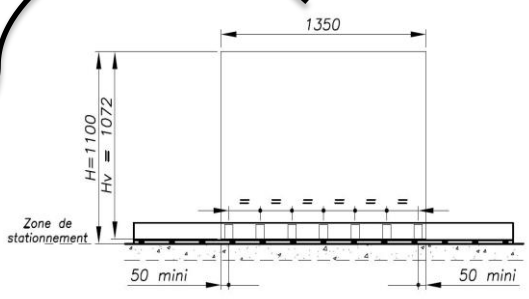
Wedges colors	Size of wedges	Glass thickness
GREY 	15	$15^{0}_{-0.5}$
WHITE 	8.8	$16{,}76^{0}_{-0.5}$
		$17{,}52^{0}_{-0.5}$
GREEN 	10.10	$20{,}76^{0}_{-0.5}$
		$21{,}52^{0}_{-0.5}$
		13/16" ($20{,}6375^{0}_{-0.5}$)
YELLOW 	12.12	$24{,}76^{0}_{-0.5}$
		$25^{0}_{-0.5}$
		$25{,}52^{0}_{-0.5}$

Table showing the distribution of wedges following the type of application of SABCO balustrade and the type of glazing

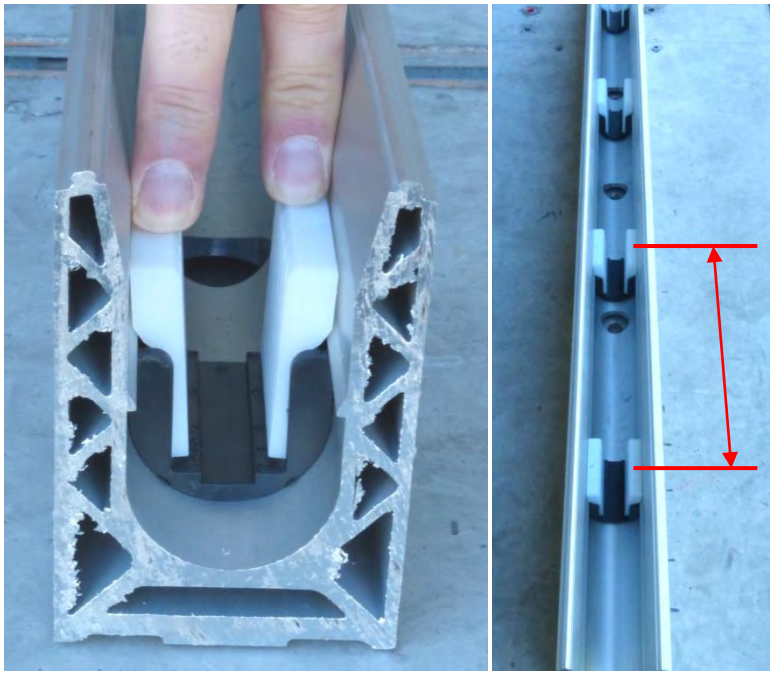
Example for France. Please refer to your national legislation

SABCO balustrade	Glass layer	Application	Wedges quantity (L : glass width)	
			0,5m ≤ L < 1m	L ≥ 1m
007010 007011 007012 007013	PVB Trosifol ES DG41 EVA	Private ERP	4 wedges	4 wedges / lm
	SERAC	Private	5 wedges	5 wedges / lm
007010 007013	PVB Trosifol ES EVA SERAC	Stadium	5 wedges	5 wedges / lm

Example of installation
Wedges quantity calculation:
1,35*5=6,75 (hence 7 wedges)

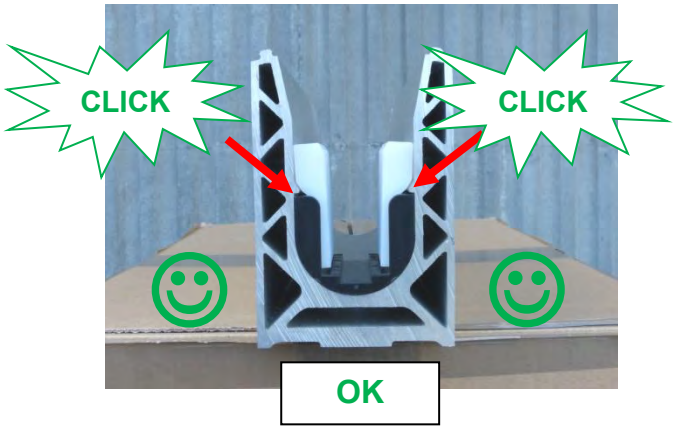


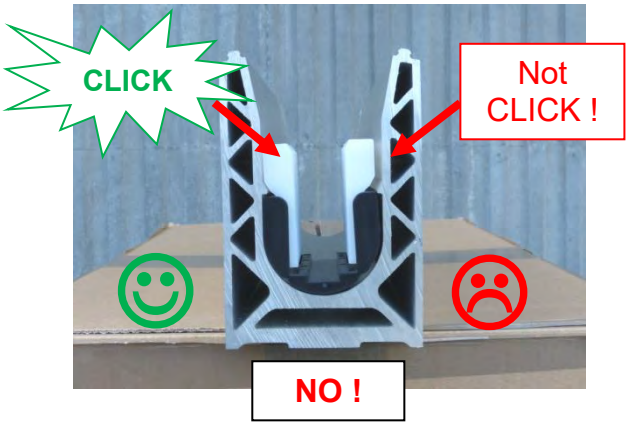
1: Install the lower wedges into the channel following the number of wedges recommended for the specific balustrade application, type and dimensions of glazing.



Spacing should follow that recommended. See table page 6.

Warning! Wedges must be correctly positioned; you must hear a "click" when you insert the lower wedges.





Consult SABCO mounting video by scanning this code

2: Glass Installation inside the channel:

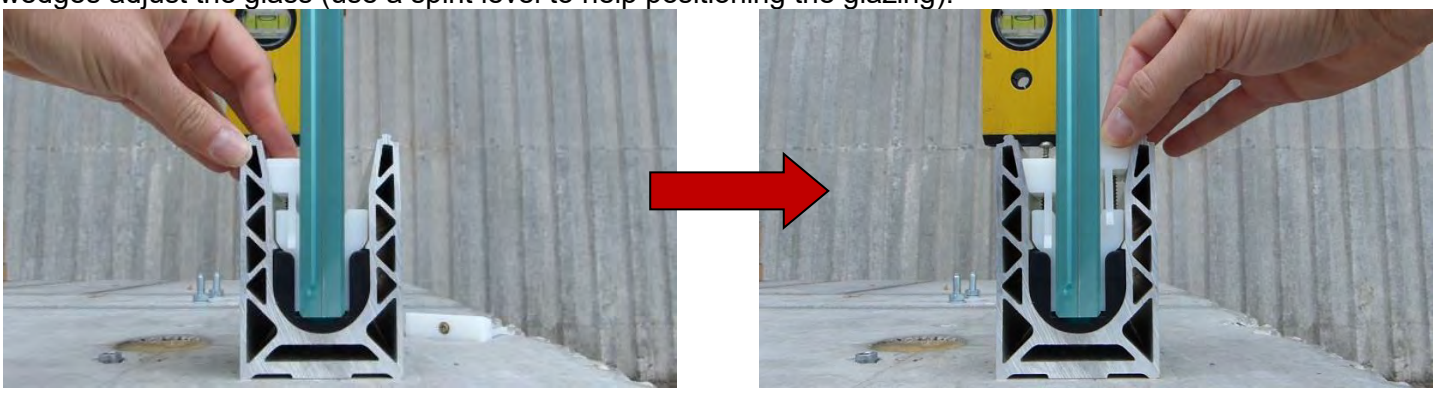
Double check that the glass thickness matches the wedges inserted before installing the glass inside the channel

Possible balustrade adjustment to achieve the perpendicularity of the glass with the floor.

3/ Installation of top wedges, adjustment and clamping of the wedges

Consult SABCO mounting video by scanning this code

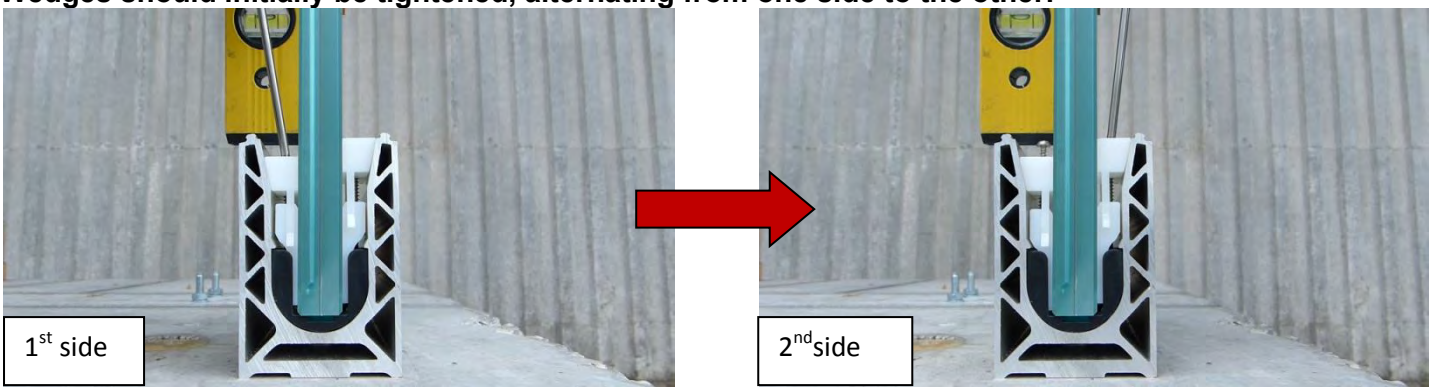
1: Insert the top wedges complete with TORX T-20 screws to each side of the glazing. While stabilizing the top wedges adjust the glass (use a spirit level to help positioning the glazing).



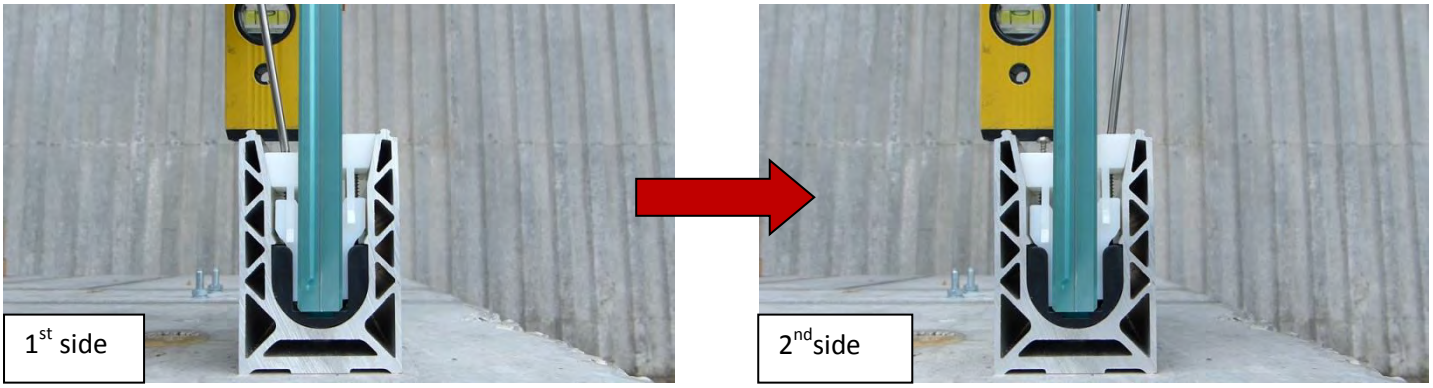
2 : Tightening of the wedges :

- 1st tighten wedges on each side of the glass in order to remove lateral movement. Equally **balance the tightening of each side in order to keep the glass in position.**
  Tightening is achieved using a cordless screw driver equipped with an end tool piece TORX T-20

Please adjust the torque on your screwdriver to avoid damage to the screws'head.
Wedges should initially be tightened, alternating from one side to the other:



- Final tightening should follow the same pattern until there is no movement and the glass is set vertical.



Minimum tightening: 1,5 Nm
Maximum tightening: 3 Nm

3: Control:
Using a torque screwdriver calibrated at 1.5Nm minimum and 3Nm maximum, check the final tightening of wedges.

For all types and thicknesses of glass, the top wedge must be firmly in contact with the lower wedge.

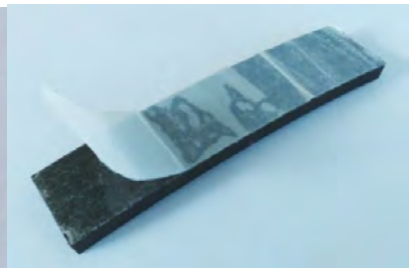
**Tightening torque:
1.5Nm min.
to 3Nm max**

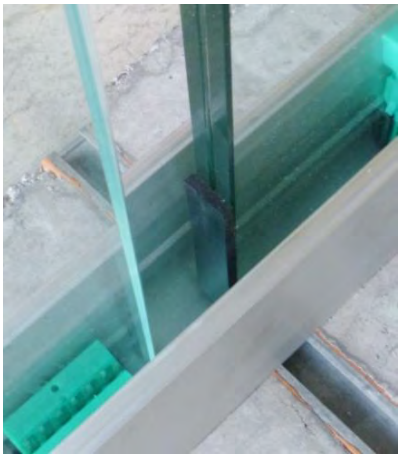
4/ Space between glasses

Spacers between glasses:
Reference SADEV :

- *For glass 8.8 : 007090ESPAC0808*
- *For glass 10.10 : 007090ESPAC1010*
- *For glass 12.12 : 007090ESPAC1212*

Spacers have to be glued on the side of the glass on the lower edge near to the corner and serve to equally space out each glass panel.
The standard spacer thickness is 5mm. In the case that space required between glasses is higher than 5mm, it is possible to stick spacers to each other in order to make a 10mm or 15 mm.



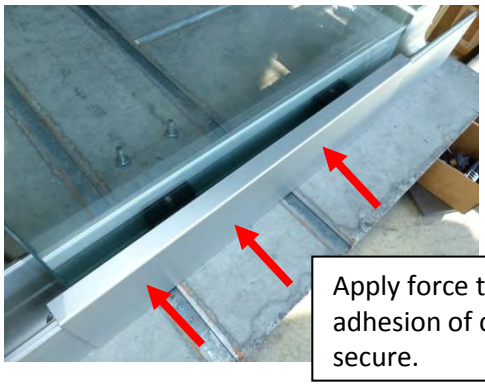


5/ Finally: Installation of claddings and gasket

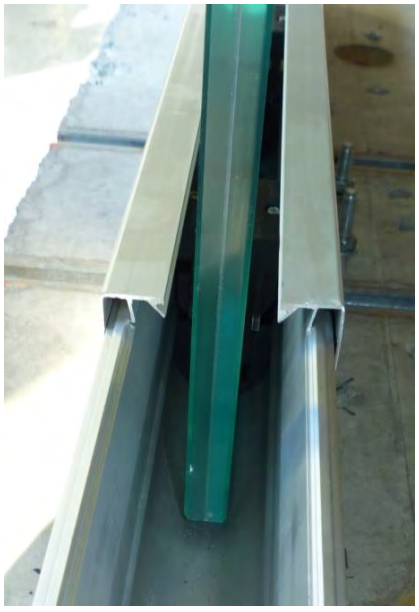
1: Remove the adhesive's protective film.

If the profile is dirty, clean it with water

2: Installation of the claddings
Clip the top of the cladding and glue the bottom of the cladding



Apply force to ensure adhesion of cladding is secure.



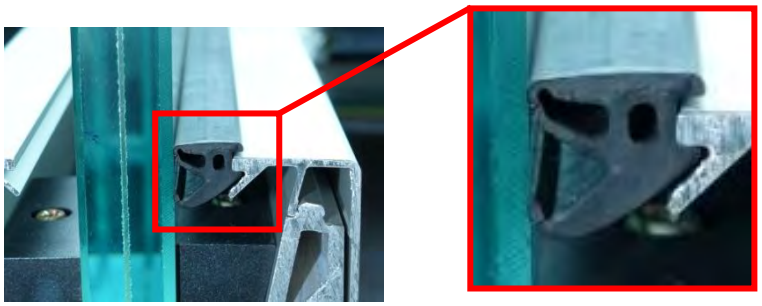
Clip the small top cladding on the slab side for Face fixed applications (*007011* and *007013*)

3: **Installation of the sealing gasket**:

Sealing Gasket range:
Reference SADEV:

- *For glass 8.8 : 007090JOIN0808*
- *For glass 10.10 : 007090JOIN1010*
- *For glass 12.12 : 007090JOIN1212*

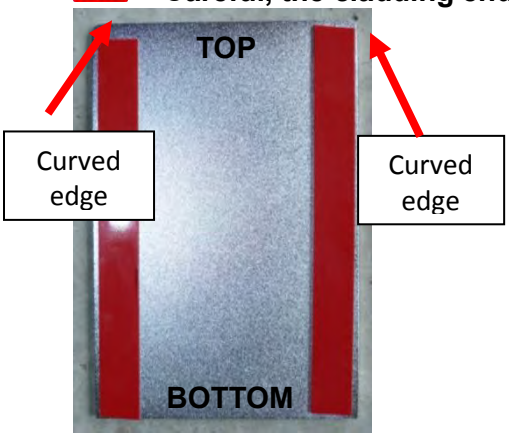
⚠ **Warning, the Gasket must be inserted correctly.**



⚠ **Install the gasket applying a vertical force. The length required may vary due to temperature.**

4: Installation of the cladding end cap

⚠ **Careful, the cladding end caps have a top and bottom with curves at the top.**

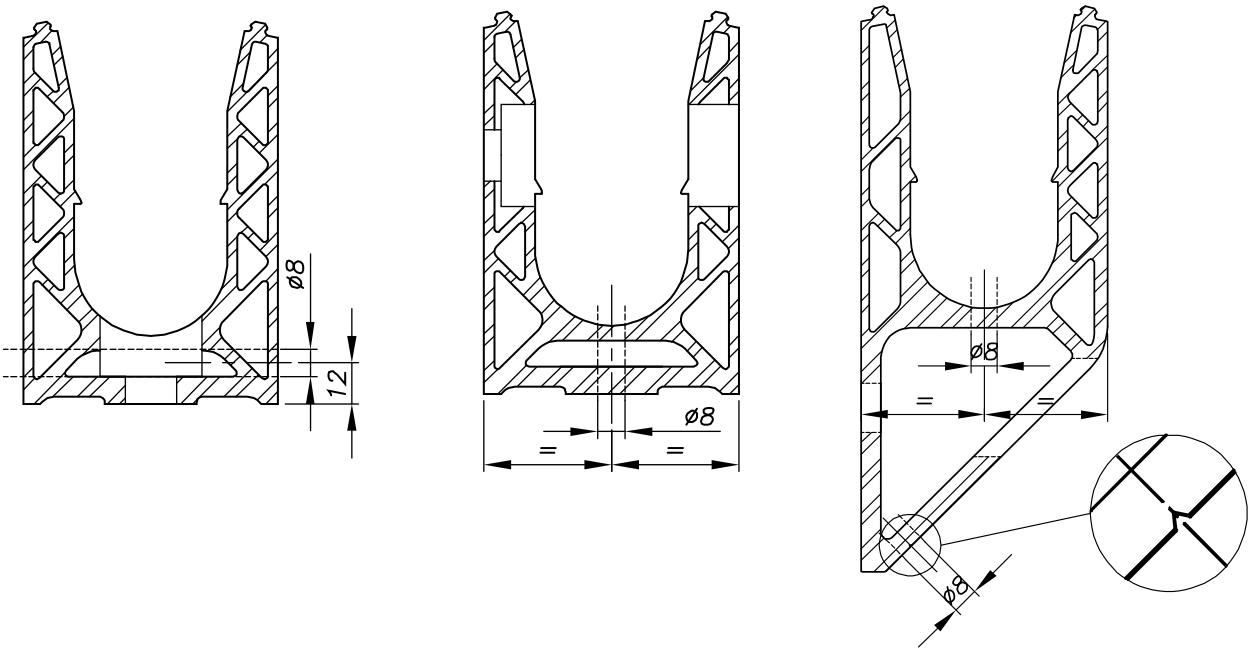


Remove the adhesive protective film and glue the end cap at the extremity of the channel.

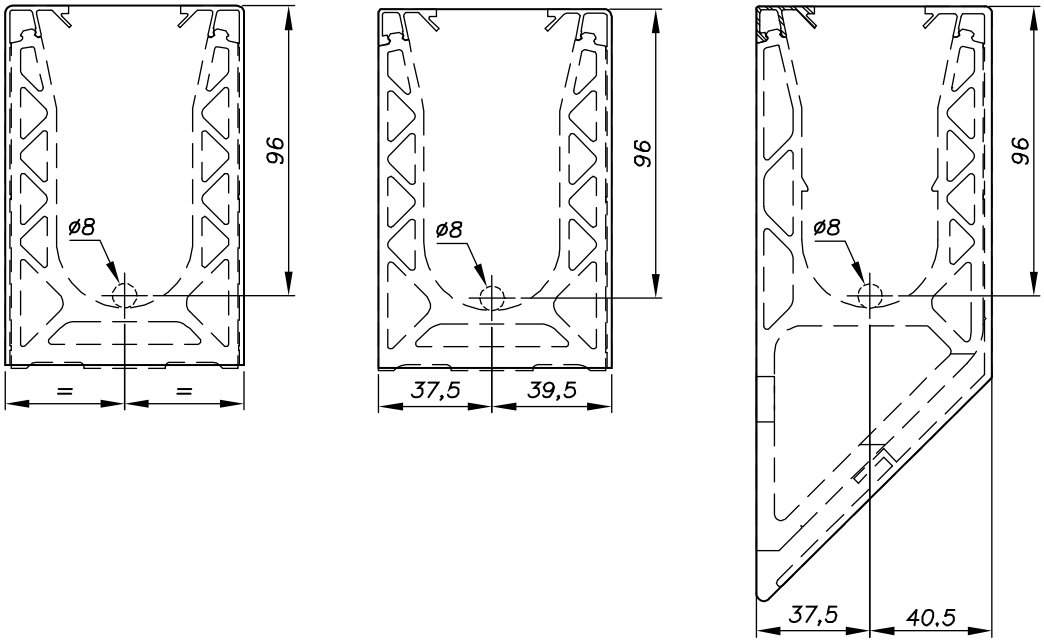
5/ Drainage

The achievement of drainage in the balustrade is made by drilling the aluminium profile and the end cap claddings following drawings hereunder.
The profile should be mounted straight and without bends, the water escape naturally from each parts of the profile.
Holes of Ø8mm can be drilled in the end cap cladding and/or in the profile on the site for water evacuation depending on the scenario.

1: Drilling of the SABCO balustrade channel for drainage:



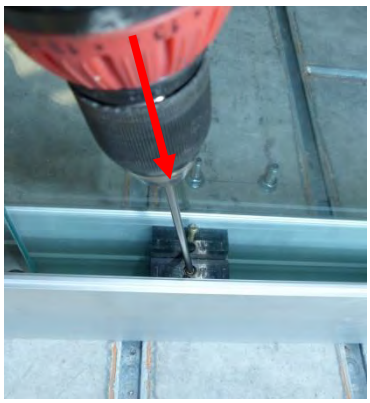
2: Drilling of the end cap cladding of SABCO balustrade for drainage:



6/ Dismounting the clamping wedges / maintenance

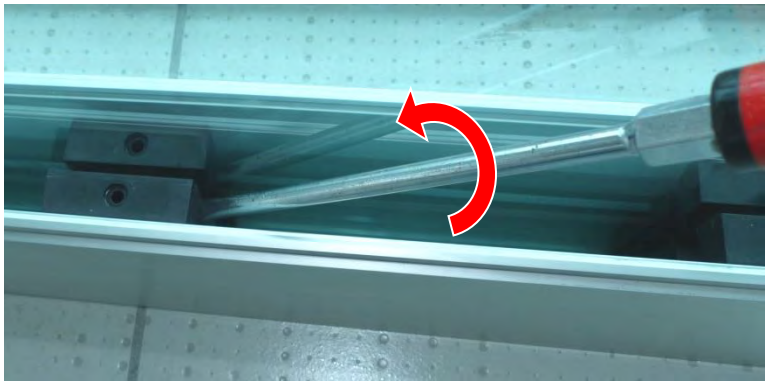
1: After removing the cladding and gaskets, unscrew the screw by 1 cm then apply a force onto the screw with the cordless screwdriver allowing the intermediary wedge drop.

Untighten the screw from around 1 cm high



Apply a force on the screw using the cordless tool.

2: Finish releasing the screw and remove it, then with the help of a screwdriver, make a lever movement between the intermediary and the top wedge in order to remove the top wedge.



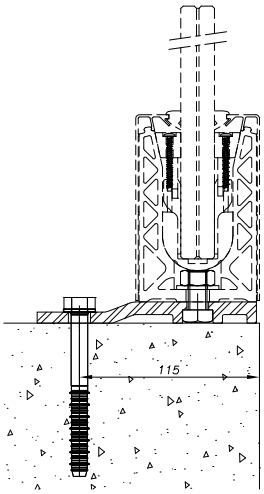
3 : Once the top wedge has been removed from the channel, take out the glass

4 : Replace all the wedges as these are not designed to be re-used.

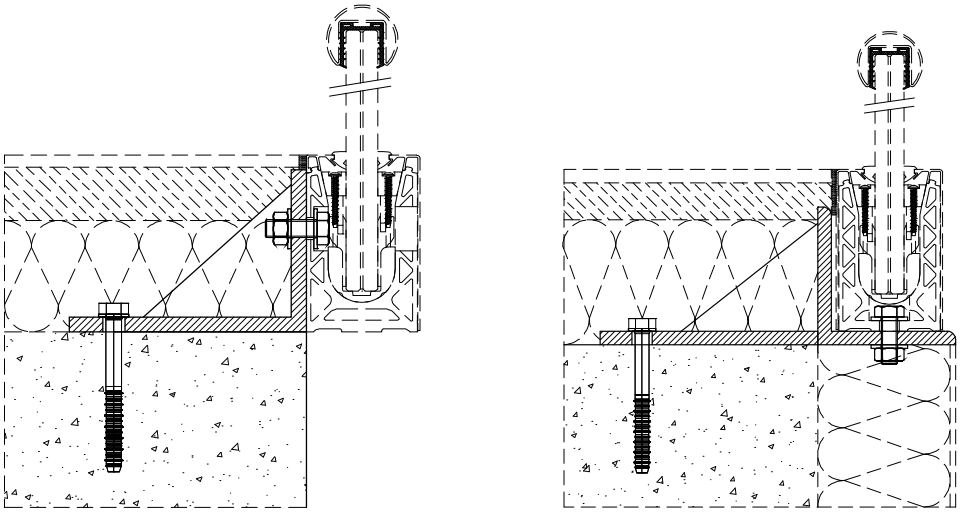
Consult SABCO mounting video by scanning this code

7/ Optional possible applications

1 : Offset fixings with SADEV sole, ref. SADEV: *007090SEM01*.



2 : Offset fixings with custom bracket:



3 : 2 possible alternative configurations :