

BALCONIES - GLASS BALUSTRADE RAILS



- FLOOR MOUNTED GLASS BALUSTRADE RAIL
INAL[®] B1712075
- FLOOR MOUNTED GLASS BALUSTRADE RAIL
INAL[®] B1710570
- FLOOR MOUNTED GLASS BALUSTRADE RAIL
INAL[®] B179050
- FLOOR MOUNTED GLASS BALUSTRADE RAIL
INAL[®] B1780
- INFLOOR MOUNTED GLASS BALUSTRADE RAIL
INAL[®] U1780
- SIDE MOUNTED GLASS BALUSTRADE RAIL
INAL[®] S1780

- FLOOR MOUNTED GLASS BALUSTRADE RAIL
INAL[®] B1785
- FLOOR MOUNTED GLASS BALUSTRADE RAIL
INAL[®] B1790
- FLOOR MOUNTED GLASS BALUSTRADE RAIL
INAL[®] B1735
- FLOOR MOUNTED GLASS BALUSTRADE RAIL
INAL[®] B1705
- FLOOR MOUNTED BASE PROFILES
& SLOT TUBES
- SPACERS FOR GLASS BALUSTRADES

floor mounted glass balustrade rail



INTERMETAL SA DESIGN

! Combine WITH INAL®



HANDRAIL
PROFILE «Q»
5022.25



HANDRAIL
PROFILE «П»
5026.25

ALWAYS USE SAFETY GLASS.
ALL FIGURES ARE CALCULATED WITH TEMPERED-LAMINATED GLASS.
ALWAYS FOLLOW THE REGULATIONS OF THE GLASS FABRICATORS.

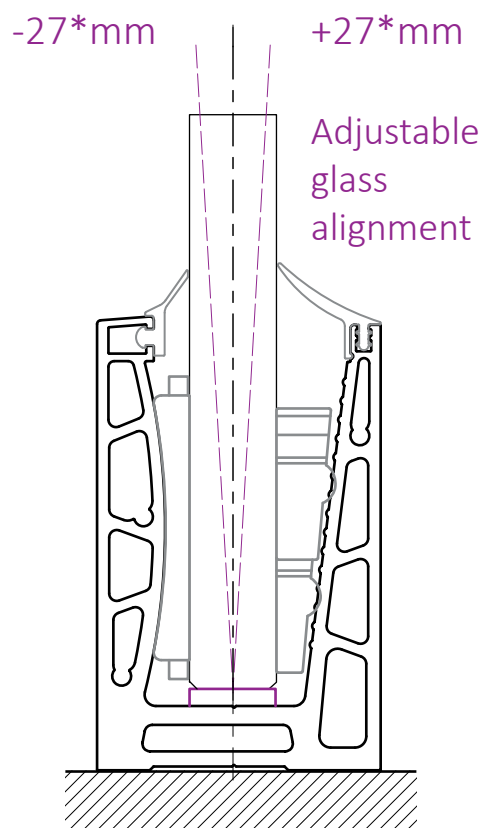
The new **B1712075** glass railing system from INAL® is designed especially for crowded public spaces, such as stadium, shopping malls, museums and office buildings.

Able to absorb a line load of **3,10 kN** to the glass at **1,40m** high, the **B1712075** meets worldwide safety and building regulations. Extremely robust and easy to assemble, the system is available for top mount installation and glass thicknesses of 21,52 mm to 31,52 mm.

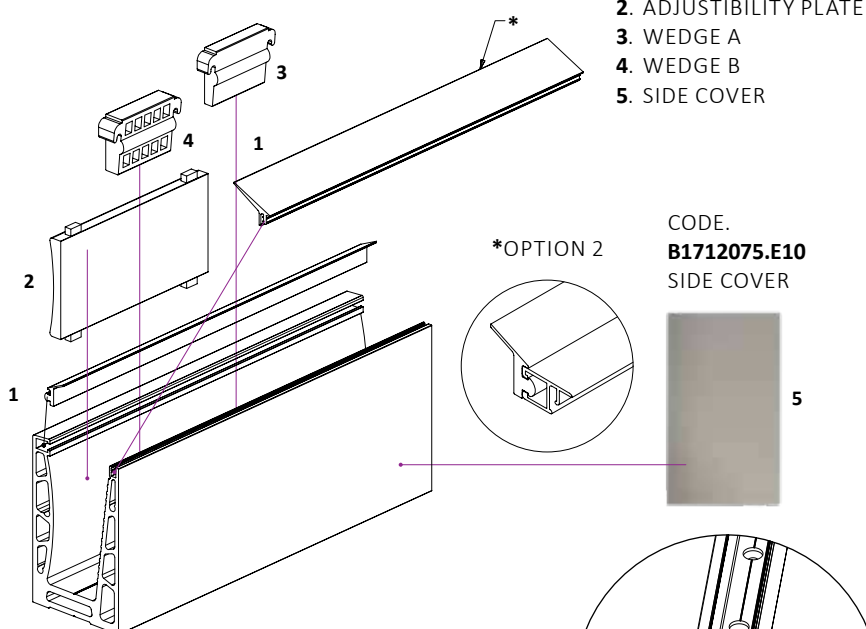
technical specifications

WIDTH	75mm	
HEIGHT	120mm	
GLASS THICKNESS	20,4mm- 31,52mm	
LENGTH	4,10m	
MATERIAL	ALUMINUM	
FINISHING	NATURAL / SATIN ANODIZED, RAL POWDER COATING, INOX MAT	
	WIND LOAD	LINE LOAD
1,40m HEIGHT	7,35 kN/m ²	3,10 kN/m
1,30m HEIGHT	8,00 kN/m ²	3,40 kN/m
1,20m HEIGHT	8,80 kN/m ²	3,70 kN/m ²

glass alignment

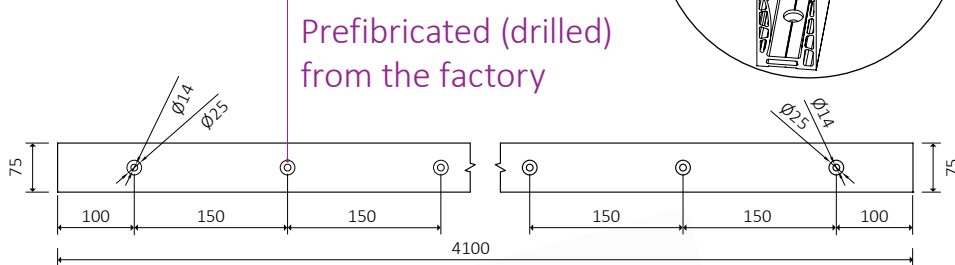
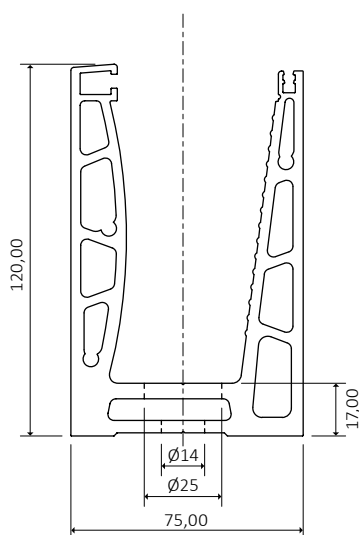


accessories



GLASS HEIGHT	GLASS ALIGNMENT
1,20m	± 22mm
1,30m	± 25mm
1,40m	± 27mm

cross sections



tools

CODE **B1780.E50.D1.31**
TOOL EXTRACTOR
OF WEDGES FOR CLAMP PROFILES B1712075/
B1710570/B179050/ B1780/B1790/B1785



Dimensions mm

floor mounted glass balustrade rail



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INAL® floor mounted glass balustrade base rail solution for balconies. An innovative, patented aluminum rail profile with **adjusting alignment** for the easiest installation of the glass. A durable and secure glass balustrading application combined either with 8mm+8mm (16,40mm- 17,52mm) or 10mm+10mm (20,40mm- 21,52mm) safety glass up to 1,20m height from the floor level (finished floor) without any vertical supports or connectors.

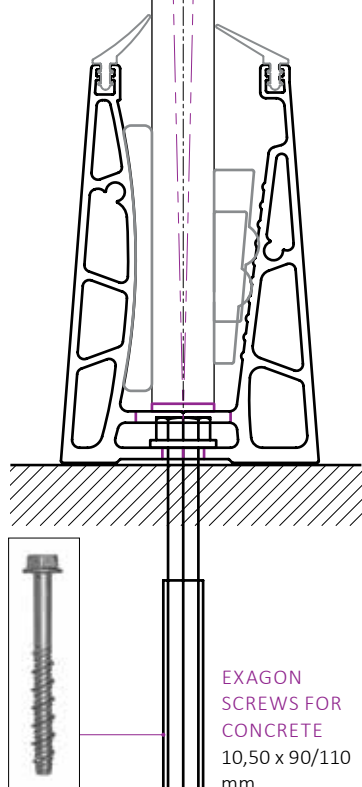
technical specifications

WIDTH	68mm	
HEIGHT	105mm	
GLASS THICKNESS	12,4mm- 13,52mm	
	16,4mm- 17,52mm	
	20,4mm- 21,52mm	
LENGTH	6m	
MATERIAL	ALUMINUM	
FINISHING	NATURAL / SATIN ANODIZED, RAL POWDER COATING, INOX MAT	
	WIND LOAD	LINE LOAD
1,20m HEIGHT	8,17 kN/m ²	2,72 kN/m
1,10m HEIGHT	10,22 kN/m ²	3,00 kN/m
1,00m HEIGHT	12,40 kN/m ²	3,31 kN/m ²

glass alignment

-37*mm +37*mm

Adjustable
glass
alignment

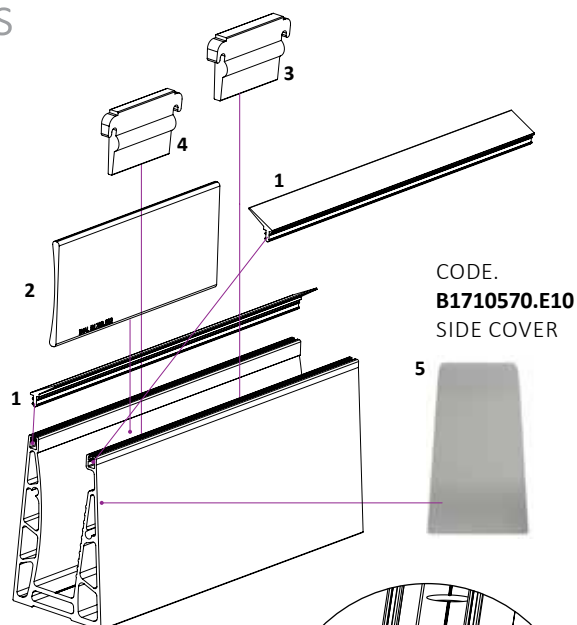


GLASS HEIGHT	GLASS ALIGNMENT
1,0m	± 30mm
1,10m	± 33mm
1,20m	± 37mm

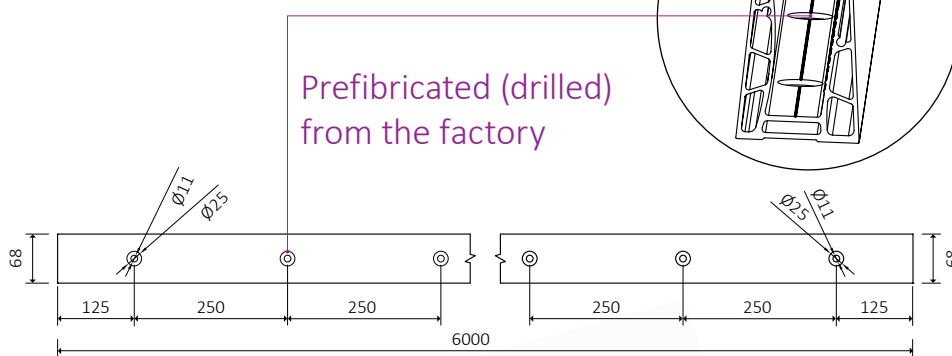
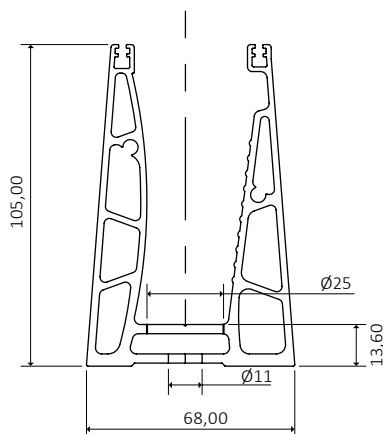


accessories

1. GASKET
2. ADJUSTABILITY PLATE
3. WEDGE A
4. WEDGE B
5. SIDE COVER



cross sections



Prefabricated (drilled)
from the factory

tools

CODE **B1780.E50.D1.31**
 TOOL EXTRACTOR
 OF WEDGES FOR CLAMP PROFILES B1712075/
 B1710570/B179050/ B1780/B1790/B1785



Dimensions mm



INAL® **B179050**

floor mounted glass balustrade rail



INTERMETAL SA DESIGN

! Combine WITH INAL®



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HANDRAIL
PROFILE «П»
5026.25

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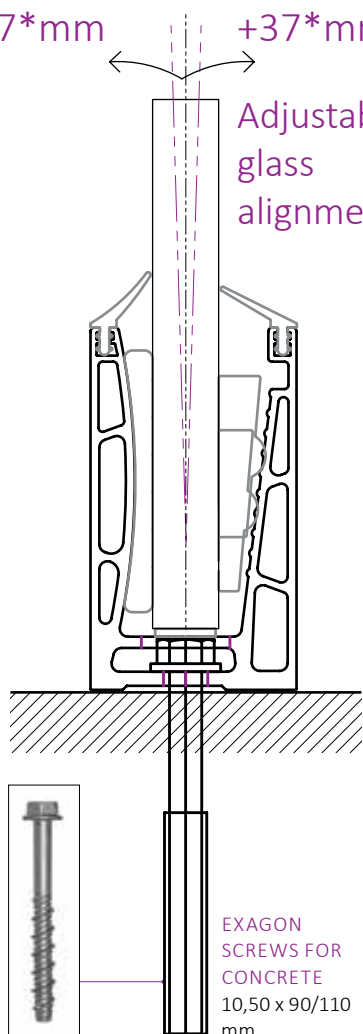
INAL® floor mounted glass balustrade base rail solution for balconies
An innovative, patented aluminum rail profile with **adjusting alignment** for the easiest installation of the glass. A durable and secure glass balustrading application combined either with 8mm+8mm (16,40mm- 17,52mm) or 10mm+10mm (20,40mm - 21,52mm) safety glass up to 1,0m height from the floor level (finished floor) without any vertical supports or connectors.

technical specifications

WIDTH	51,20mm	
HEIGHT	90mm	
GLASS THICKNESS	12,4mm - 13,52mm 16,4mm - 17,52mm 20,4mm- 21,52mm	
LENGTH	6m	
MATERIAL	ALUMINUM	
FINISHING	NATURAL / SATIN ANODIZED, RAL POWDER COATING, INOX MAT	
	WIND LOAD	LINE LOAD
1,00m HEIGHT	6,50 kN/m²	2,00 kN/m
0,90m HEIGHT	8,10 kN/m²	2,20 kN/m

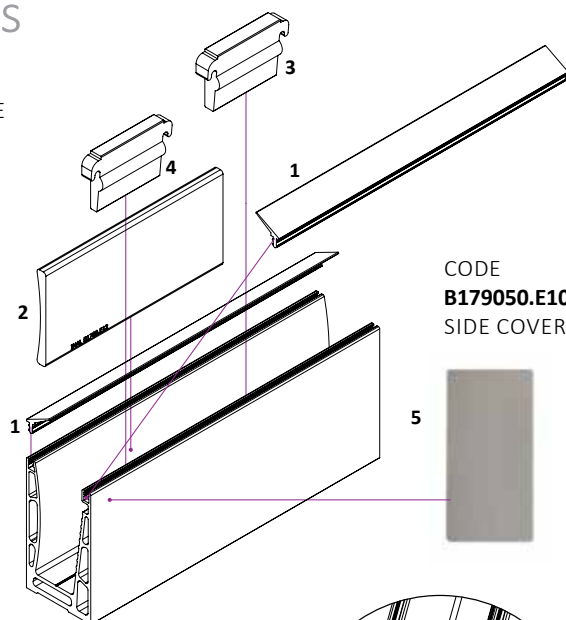
glass alignment

-37*mm +37*mm
Adjustable
glass
alignment



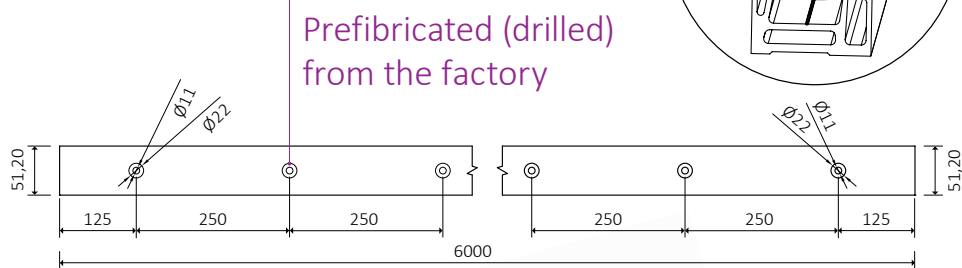
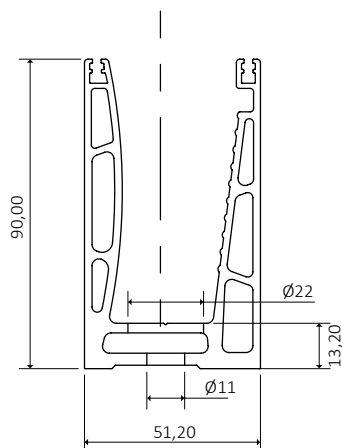
accessories

1. GASKET
2. ADJUSTABILITY PLATE
3. WEDGE A
4. WEDGE B
5. SIDE COVER



GLASS HEIGHT	GLASS ALIGNMENT
0,90m	± 30mm
1,00m	± 33mm

cross sections



tools

CODE **B1780.E50.D1.31**
TOOL EXTRACTOR
OF WEDGES FOR CLAMP PROFILES B1712075/
B1710570/B179050/ B1780/B1790/B1785



Dimensions mm

floor mounted glass balustrade rail



INTERMETAL SA PATENT

INAL® floor mounted glass balustrade base rail solution for balconies provides a limitless view and unobstructed aesthetic result.

An innovative, patented aluminum rail profile with **adjusting alignment** for the easiest installation of the glass. A durable and secure glass balustrading application combined either with 8mm+8mm (16,40mm- 17,52mm) or 10mm+10mm (20,40mm - 21,52mm) safety glass up to 1,20m height from the floor level (finished floor) without any vertical supports or connectors.

The ultimate glass balustrade rail system of impeccable quality and uncompromising safety.



! Combine WITH INAL®



HANDRAIL
PROFILE «Q»
5022.25



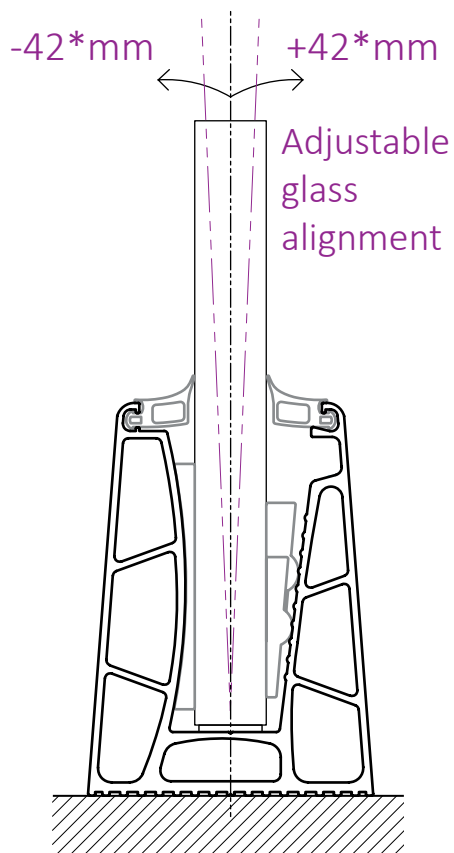
HANDRAIL
PROFILE «П»
5026.25

ALWAYS USE SAFETY GLASS.
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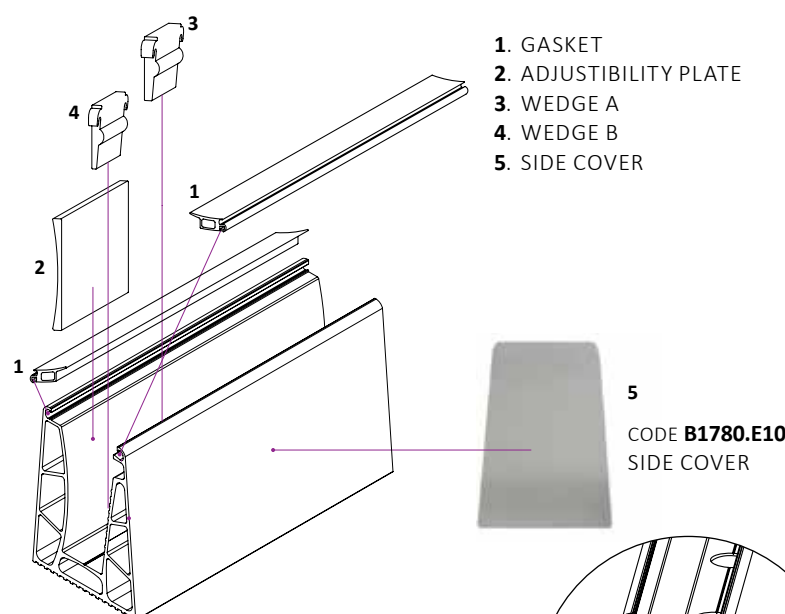
technical specifications

WIDTH	80mm
HEIGHT	110mm
GLASS THICKNESS	12,4mm- 13,52mm 16,4mm- 17,52mm 20,4mm- 21,52mm
LENGTH	6m
MATERIAL	ALUMINUM
FINISHING	NATURAL / SATIN ANODIZED, RAL POWDER COATING

glass alignment

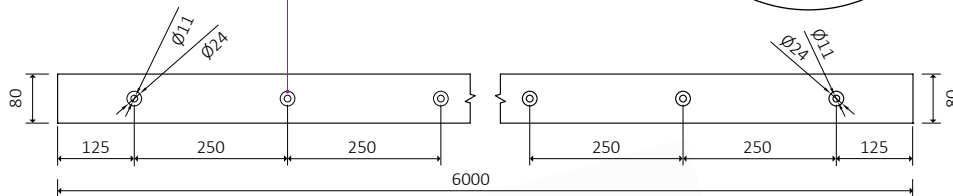
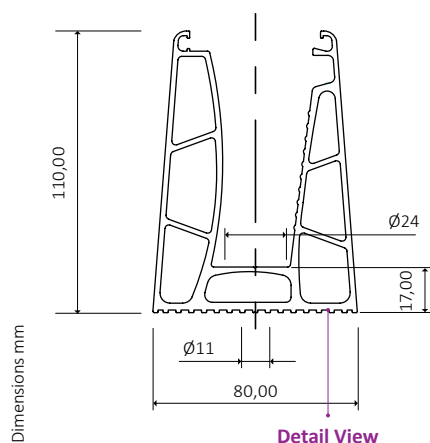


GLASS HEIGHT	ALIGNMENT
1,0m	± 34mm
1,10m	± 38mm
1,20m	± 42mm



sections

Prefabricated (drilled) from the factory



tools

CODE **B1780.E50.D1.31**
TOOL EXTRACTOR
OF WEDGES FOR CLAMP PROFILES
B1712075/
B1710570/B179050/ B1780/B1790/B1785





INAL® **U1780**

infloor mounted glass balustrade rail



INTERMETAL SA PATENT

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HANDRAIL
PROFILE «П»
5026.25

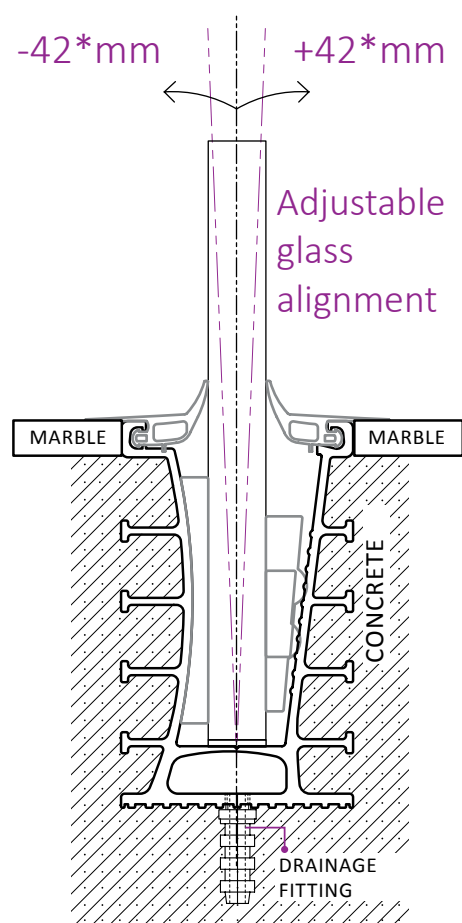
ALWAYS USE SAFETY GLASS.
ALL FIGURES ARE CALCULATED WITH TEMPERED-LAMINATED GLASS.
ALWAYS FOLLOW THE REGULATIONS OF THE GLASS FABRICATORS.

INAL® IN FLOOR mounted glass balustrade rail solution for balconies provides a limitless unobstructed view and unique aesthetic result. An innovative, patented aluminum rail profile with **adjusting alignment** for the easiest installation of the glass. A durable and secure glass balustrading application combined either with 8mm+8mm (16,40mm- 17,52mm) or 10mm+10mm (20,40mm- 21,52mm) safety glass up to 1,20m height from the floor level (finished floor) without any vertical supports or connectors. The ultimate glass balustrade rail system of impeccable quality and uncompromising safety.

technical specifications

WIDTH	66mm
HEIGHT	110mm
GLASS THICKNESS	16,4mm- 17,52mm 20,4mm- 21,52mm
LENGTH	6m
MATERIAL	ALUMINUM
FINISHING	ALUMINUM MILL FINISH

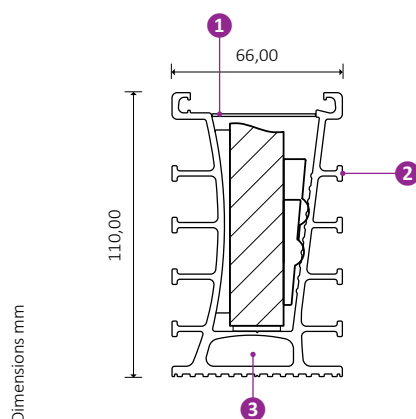
glass alignment



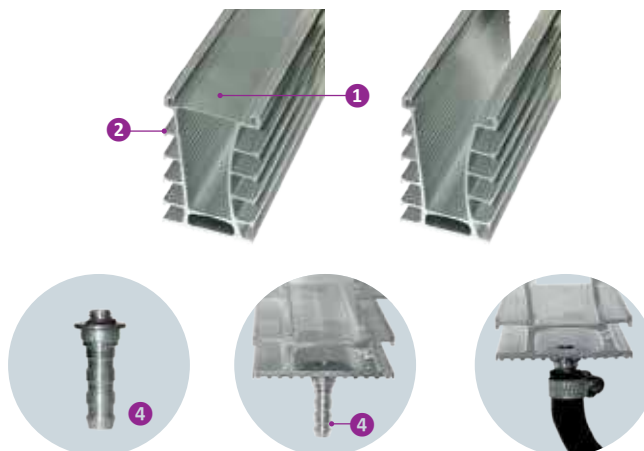
GLASS HEIGHT	ALIGNMENT
1,0m	± 34mm
1,10m	± 38mm
1,20m	± 42mm

cross section

Removable cover for protection from concrete



details



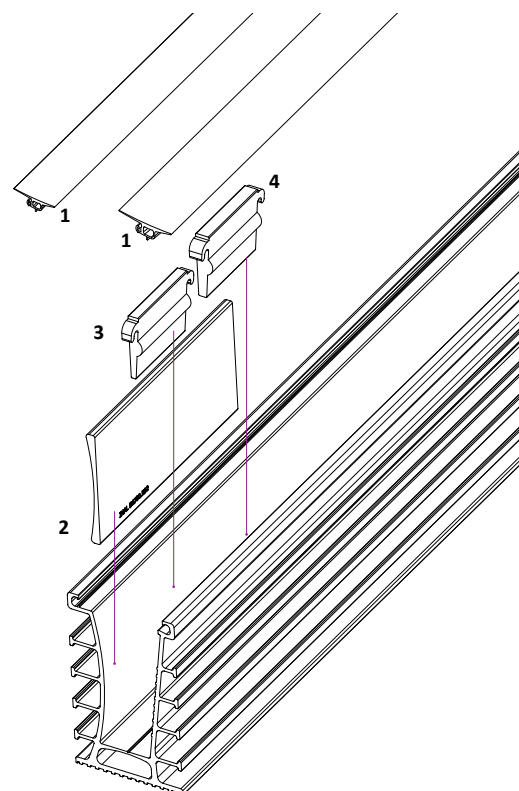
OPTIONAL
U1780.E20

Unique designed for easy installation, with a removable aluminum cover **1** for protection during concrete casting. The side nerves **2** are specially designed for static strength and composite behaviour with concrete, for connecting and aligning profiles and for the retention with the internal metal structures of the concrete.

The inner chamber **3** is also a drain collector, which can be easily connected to the water abstraction system by using the drainage fitting **4**.

parts

1. GASKET
2. ADJUSTABILITY PLATE
3. WEDGE A
4. WEDGE B
5. SIDE COVER



side mounted glass balustrade rail



INTERMETAL SA PATENT



! Combine WITH INAL®



HANDRAIL
PROFILE «Q»
5022.25



HANDRAIL
PROFILE «П»
5026.25

ALWAYS USE SAFETY GLASS.
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INAL® SIDE MOUNTED glass balustrade base rail solution for balconies. An innovative, patented aluminum rail profile with **adjusting alignment** for the easiest installation of the glass.

A durable and secure glass balustrading application combined either with 8mm + 8mm (16,40mm- 17,52mm) or 10mm + 10mm (20,40mm- 21,52mm).

Maximum glass height 1,20m from the floor level (finished floor) and maximum glass height 1,30m in total without any vertical supports or connectors.

Combined with stainless steel and aluminum decorative covers.

technical specifications

WIDTH	77mm
HEIGHT	143mm
GLASS THICKNESS	16,4mm- 17,52mm 20,4mm- 21,52mm
LENGTH	3m
MATERIAL	ALUMINUM
FINISHING	ALUMINUM MILL FINISH
COVER FINISHING	STAINLESS STEEL MIRROR, STAINLESS STEEL SATIN, RAL POWDER COATING



INAL® **B1785**

floor mounted glass balustrade rail



INTERMETAL SA PATENT
CERTIFIED BY


INAL® FLOOR MOUNTED glass balustrade base rail solution for balconies.

An innovative, patented aluminum rail profile with **adjusting alignment** for the easiest installation of the glass.

A durable and secure glass balustrading application combined either with 6mm + 6mm (12,4mm- 13,52mm) or 8mm + 8mm (16,4mm- 17,52mm).

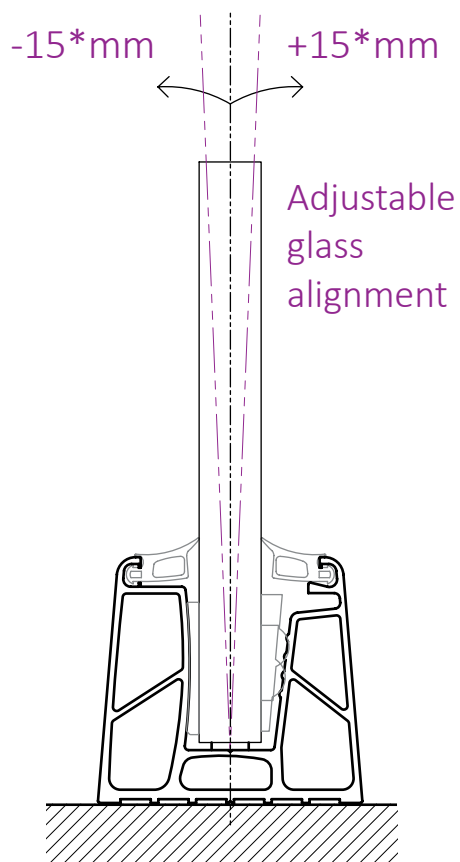
An ideal solution for applications above parapet for maximum glass height 0,70m.

technical specifications

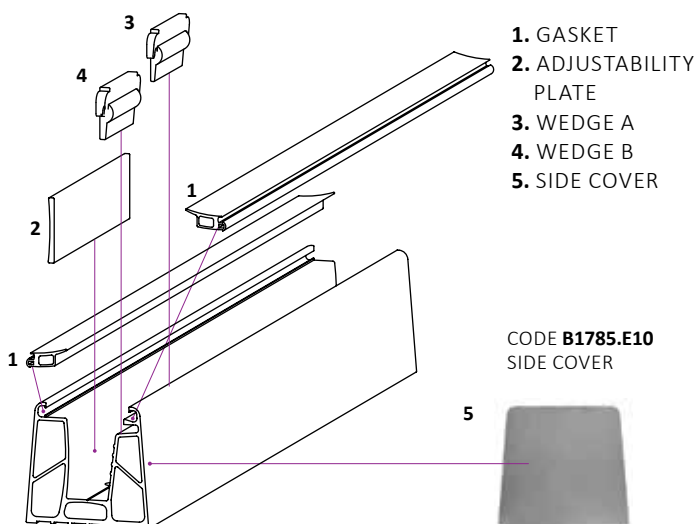
WIDTH	70mm
HEIGHT	65mm
GLASS THICKNESS	12,4mm- 13,52mm 16,4mm- 17,52mm
LENGTH	6m
MATERIAL	ALUMINUM
FINISHING	NATURAL / SATIN ANODIZED, RAL POWDER COATING

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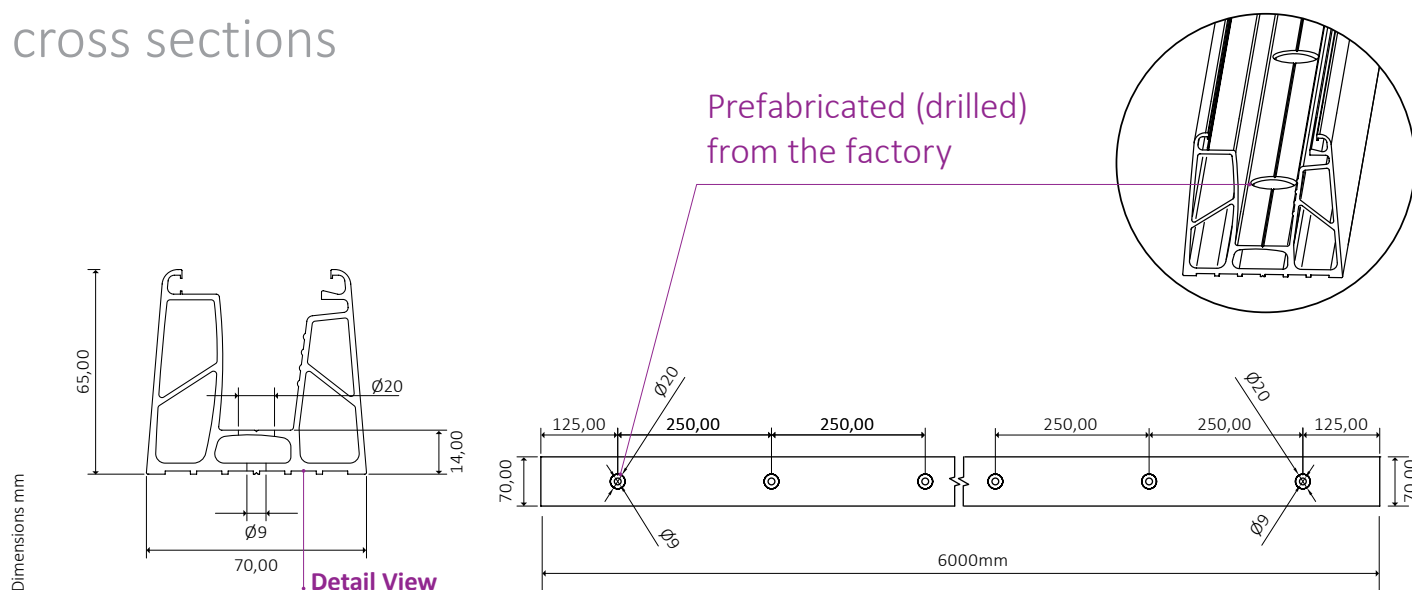
glass alignment



parts



cross sections



floor mounted glass balustrade rail



INTERMETAL SA DESIGN



! Combine WITH INAL®



HANDRAIL
PROFILE «Q»
5022.25



HANDRAIL
PROFILE «П»
5026.25

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INAL® FLOOR MOUNTED glass balustrade base rail solution for balconies provides a limitless view and unobstructed aesthetic result.

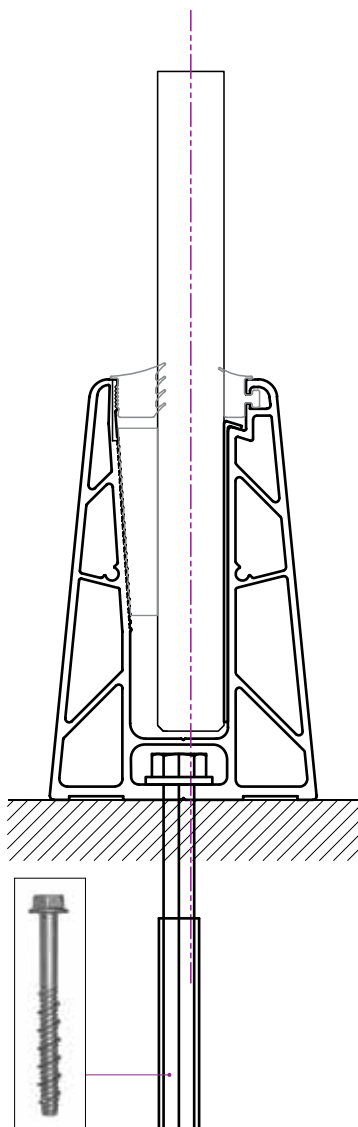
NEW aluminum rail profile for the easy and quick installation of the glass. A durable and secure glass balustrading application combined either with 8mm+8mm (16,40mm- 17,52mm) or 10mm+10mm (20,40mm- 21,52mm) safety glass up to 1,10m height from the floor level (finished floor) without any vertical supports or connectors.

The ultimate glass balustrade rail system of impeccable quality and uncompromising safety

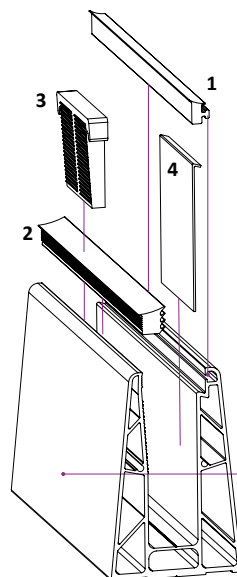
technical specifications

WIDTH	70mm
HEIGHT	110mm
GLASS THICKNESS	16,4mm- 17,52mm 20,4mm- 21,52mm
LENGTH	6m
MATERIAL	ALUMINUM
FINISHING	NATURAL / SATIN ANODISED, RAL POWDER COATING

cross sections



EXAGON SCREWS FOR CONCRETE
10,50 x 90 mm

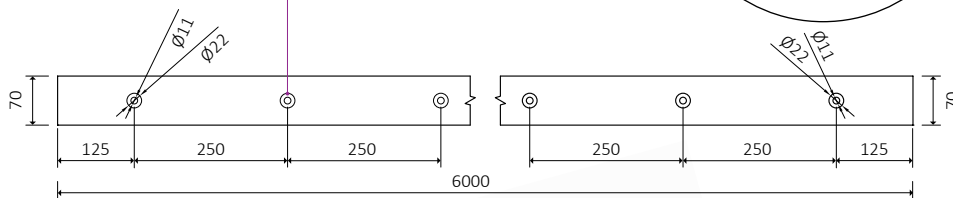
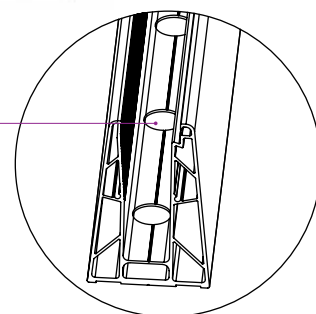


1. GASKET
2. WEDGE WEATHEPROOFING RUBBER
3. PLASTIC WEDGE
4. PLASTIC PLATE
5. SIDE COVER

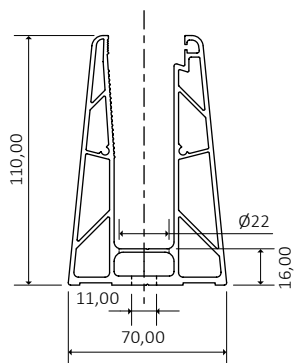


5
CODE. **B1790.E10**
SIDE COVER

Prefabricated (drilled)
from the factory



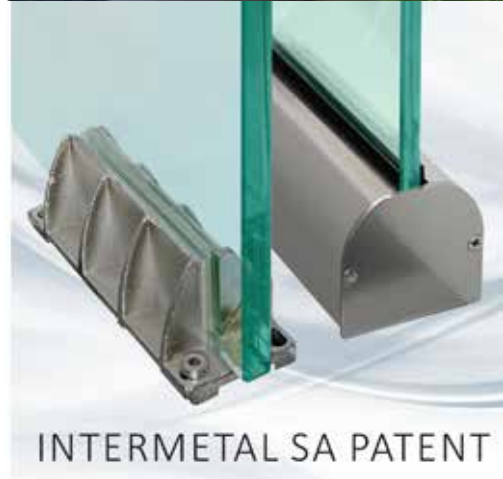
Dimensions mm



tools

CODE **B1780.E50.D1.31**
TOOL EXTRACTOR
OF WEDGES FOR CLAMP PROFILES B1712075/
B1710570/B179050/ B1780/B1790/B1785





INAL® glass clamp B1735, INAL® patented solution for balconies. Manufactured from high resistance casted steel, tested for durability and strength.

For safety glasses 8-16mm with adjustable clamping thickness 8-17,20mm, up to 0,60m height. Compined with aluminum covers with natural or satin anodized finishes.

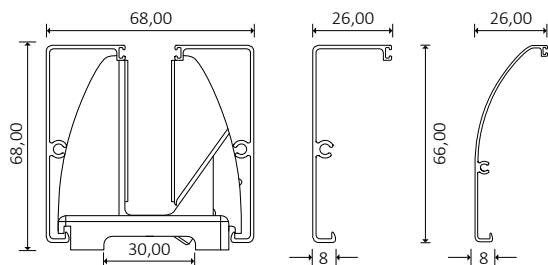
Easy and quick installation.

technical specifications

WIDTH	60mm
HEIGHT	64,50mm
GLASS THICKNESS	B1735.12: 14-16mm B1745.12: 8-12mm ADJUSTABLE CLAMPING GLASS THICKNESS 8mm-17,52mm
LENGTH	160mm
MATERIAL	CASTED STEEL
ALUMINUM COVER FINISHING	NATURAL / SATIN ANODIZED

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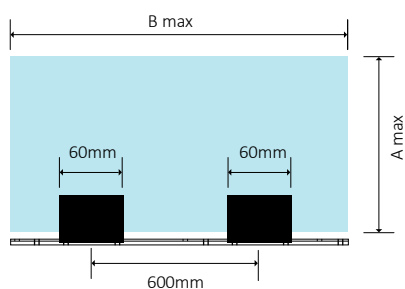
cross sections



Dimensions mm



glass dimension calculation



A max GLASS HEIGHT	B max GLASS LENGTH
UP TO 0,40m	1,10m
UP TO 0,50m	1,05m
UP TO 0,60m	1,00m

parts



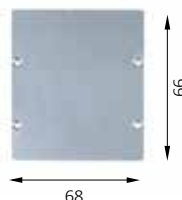
CODE **B1738**
CLAMP COVER CURVED
ALUMINUM



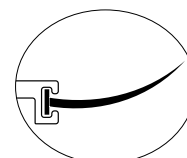
CODE **B1739**
SIDE COVER CURVED
ALUMINUM



CODE **B1736**
CLAMP COVER
ALUMINUM

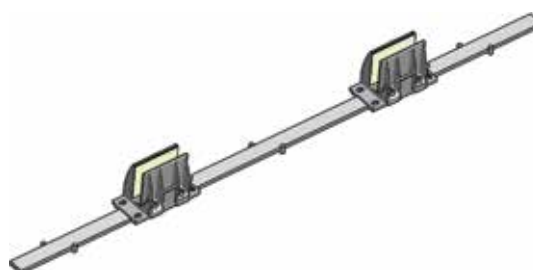
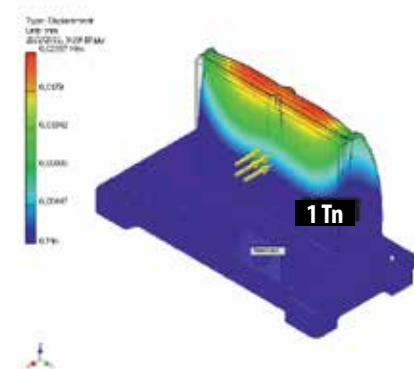


CODE **B1737**
SIDE COVER
ALUMINUM

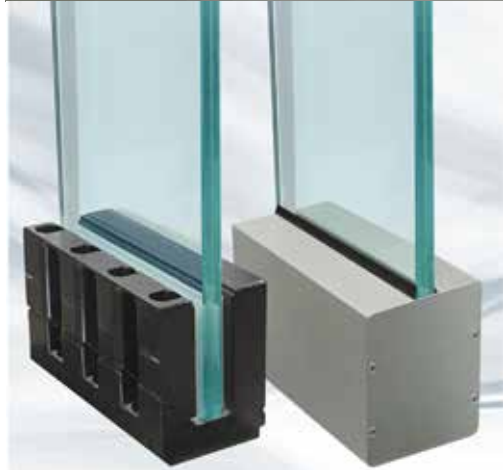


RUBBER FOR CLAMP COVER,
GLASS THICKNESS
8-17,52 MM

stress test



Possibility of Alignment with Blade
CAPABILITY OF ALIGNMENT WITH STEEL PLATE



INTERMETAL SA PATENT

INAL® glass clamp B1705 an innovative, INAL® patented solution for balconies. Manufactured from high resistance casted aluminum, tested for durability and strength.

For safety glasses 16-24mm with adjustable clamping thickness 16-25,20mm, up to 1,10m height.

Compined with aluminum covers with natural or satin anodized finishes.

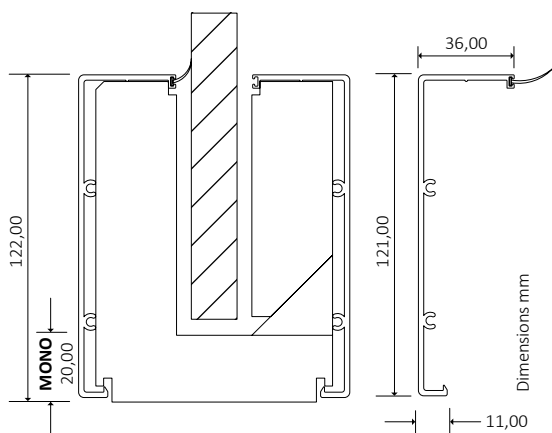
Easy and quick installation.

technical specifications

WIDTH	90mm
HEIGHT	120mm
GLASS THICKNESS	16-24mm ADJUSTABLE CLAMPING GLASS THICKNESS 16mm-25,20mm
LENGTH	B1705.10: 10cm B1705.20: 20cm
MATERIAL	CASTED ALUMINUM
ALUMINUM COVER FINISHING	NATURAL / SATIN ANODIZED

ALWAYS USE SAFETY GLASS.
ALL FIGURES ARE CALCULATED WITH TEMPERED-LAMINATED GLASS.
ALWAYS FOLLOW THE REGULATIONS OF THE GLASS FABRICATORS.

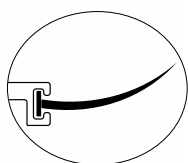
cross sections



parts



CODE **B1706**
CLAMP COVER
ALUMINUM



RUBBER FOR CLAMP COVER
GLASS THICKNESS
16,40-25,52 MM

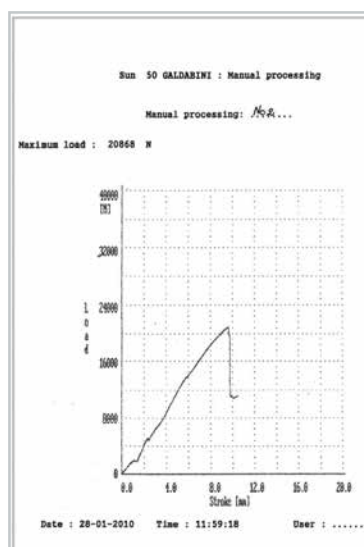


CODE **B1707**
SIDE COVER
ALUMINUM



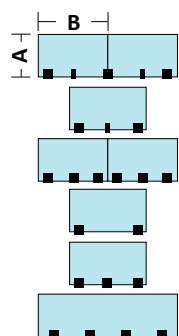
CODE **B1707**
SIDE COVER
PLASTIC

certification test



BENDING FORCE (N)
DIAGRAM WITH THE
GLASS DEFORMATION
(MM)

glass dimension calculation

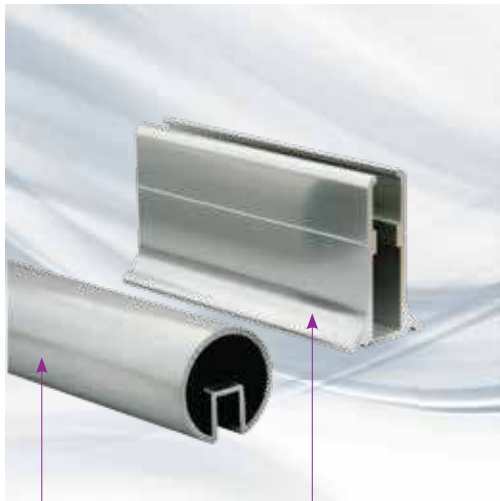


A GLASS HEIGHT	B GLASS LENGTH	CLAMP 20cm		CLAMP 10cm	
		CODE	PIECES	CODE	PIECES
UP TO 0,80m	UP TO 1,30m	B1705.20	3	B1705.10	2
UP TO 0,80m	1,3m - 1,70m	B1705.20	2	B1705.10	1
UP TO 0,80m	1,7m - 2,10m	B1705.20	6	-	-
0,8m - 1,10m	UP TO 1,30m	B1705.20	2	-	-
0,8m - 1,10m	1,3m - 1,70m	B1705.20	3	-	-
0,8m - 1,10m	1,7m - 2,10m	B1705.20	4	-	-



INAL® 5020.25 - 5021.25 - 5022.25

floor mounted base profiles & slot tubes



CODE **5021.25**
ALUMINUM
SLOT TUBE Ø50,
FOR 10-11mm GLASS

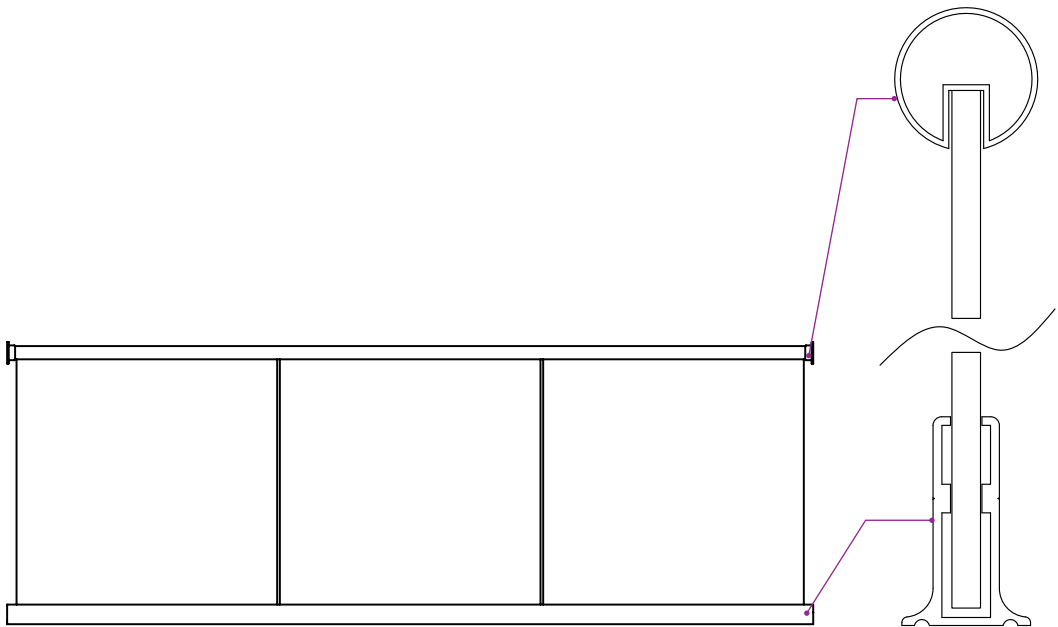
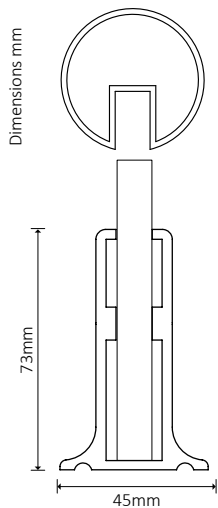
CODE **5020.25**
GROUND BASE
PROFILE,
FOR 10-11mm GLASS

INAL® Ground base profile in combination with INAL® Slot tubes, are suitable for applications with 10-11mm thickness glass panels.

technical specifications

WIDTH	45mm
HEIGHT	73mm
GLASS THICKNESS	10-11mm
LENGTH	6m
MATERIAL	ALUMINUM
FINISHING	SATIN ANODIZED

application



handrail 5022

Available for Glass 16-21,52mm



CODE **5022.25**
ALUMINUM
SLOT TUBE
FOR 16-21,2mm
GLASS



CODE **5070.25**
EXTERNAL WALL FLANGE Ø50



CODE **5071.25**
COVER PLATE Ø50

ALWAYS USE SAFETY GLASS.
ALL FIGURES ARE CALCULATED WITH
TEMPERED-LAMINATED GLASS.
ALWAYS FOLLOW THE REGULATIONS OF THE
GLASS FABRICATORS.

spacers



INAL® Stainless steel glass spacers adjustable or fixed. Heavy duty accessories made from stainless steel, providing stability at your glass balustrades and aesthetic minimal design at your balconies.

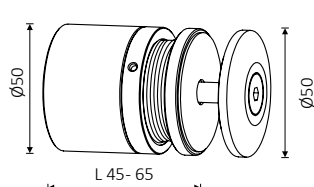


885.45 ADJUSTABLE

Adjustable Glass Spacer, **AISI 316** Stainless steel
I Metal Anchor M12, Screw M12x90 I Finishing Mirror, Satin

Adjustment
from 45 up to 65mm

M10



Ø20- Ø25

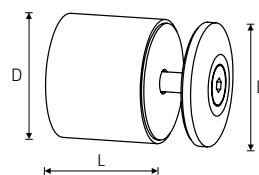


Available for Glass
8-20mm

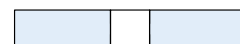
884.40/50 FIXED

Fixed Spacer for 8-20mm Glass, **AISI 316** / **AISI 304**
Stainless steel I Finishing Mirror, Satin

M10



Ø20- Ø25



CODE	GLASS THICKNESS	D	L
884.30/40	8-20 mm	40 mm	30 mm
884.30/50	8-20 mm	50 mm	30 mm
884.40/40	8-20 mm	40 mm	40 mm
884.40/50	8-20 mm	50 mm	40 mm

