

GLASS RAILING SYSTEMS FOR BALCONIES

contents

FLOOR MOUNTED GLASS BALUSTRADE RAIL INAL® B1712075	4
FLOOR MOUNTED GLASS BALUSTRADE RAIL INAL® B1710570	6
FLOOR MOUNTED GLASS BALUSTRADE RAIL INAL® B1710055	8
FLOOR MOUNTED GLASS BALUSTRADE RAIL INAL® B179050	10
INLOOR MOUNTED GLASS BALUSTRADE RAIL INAL® U1780	12
SIDE MOUNTED GLASS BALUSTRADE RAIL INAL® S1780	14
FLOOR MOUNTED GLASS BALUSTRADE RAIL INAL® B1785	16
FLOOR MOUNTED GLASS BALUSTRADE RAIL INAL® B1790	18
INAL® APPLICATIONS	20
INAL® SPACERS	21
INAL® TOOLS	22
INAL® SAFETY GLASS PANELS	23







INAL® B1712075

Floor mounted glass balustrade rail

The B1712075 glass railing system from INAL® is designed especially for crowded public spaces, such as stadiums, 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 20,76 mm to 31,52 mm.

INTERMETAL SA PATENT



!Combine with INAL®



HANDRAIL
PROFILE "Ω"
5022.25



HANDRAIL
PROFILE "Π"
5026.25

technical specifications

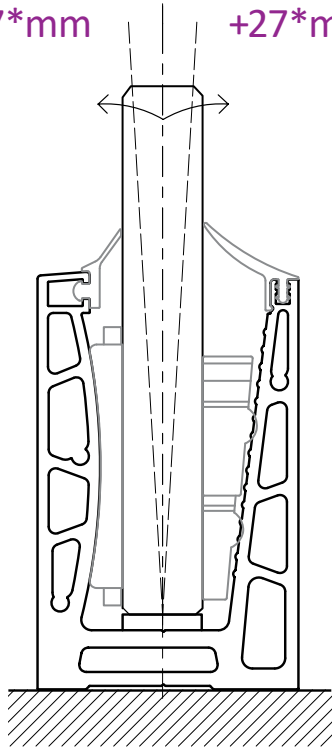
WIDTH	75mm	
HEIGHT	120mm	
GLASS THICKNESS	20,76mm - 31,52mm	
LENGTH	4,10m	
MATERIAL	ALUMINUM	
FINISHING	NATURAL ANODIZED, SATIN ANODIZED, RAL POWDER COATING, INOX MAT	
	WIND LOAD	LINE LOAD
1,40m HEIGHT	7,35 kN/m ²	3,10 kN/m
1,30m HEIGHT	8,00 kN/m ²	3,40 kN/m
1,20m HEIGHT	8,80 kN/m ²	3,70 kN/m ²

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

glass alignment

Adjustable glass alignment

-27*mm +27*mm

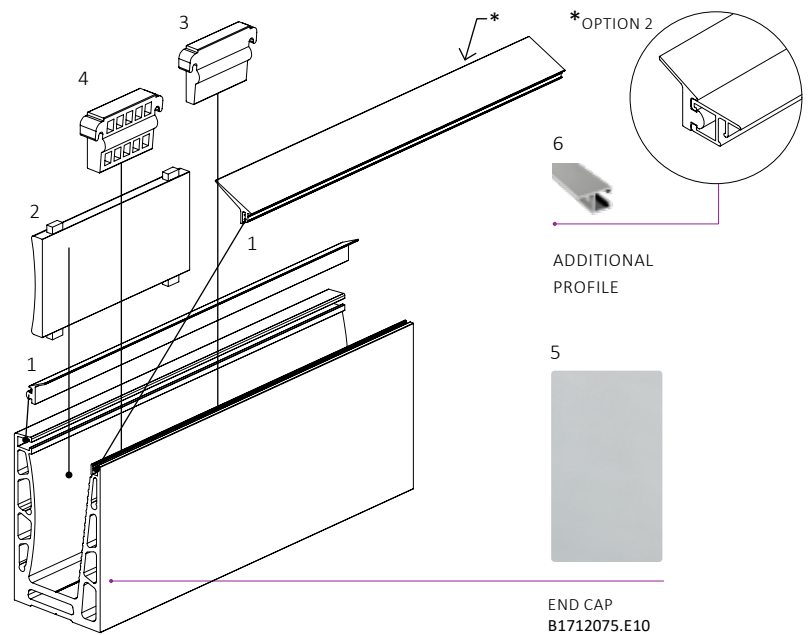


GLASS HEIGHT	GLASS ALIGNMENT
1,20m	± 22mm
1,30m	± 25mm
1,40m	± 27mm

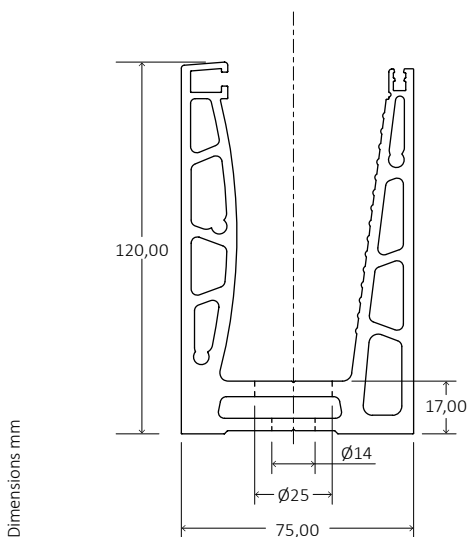


accessories

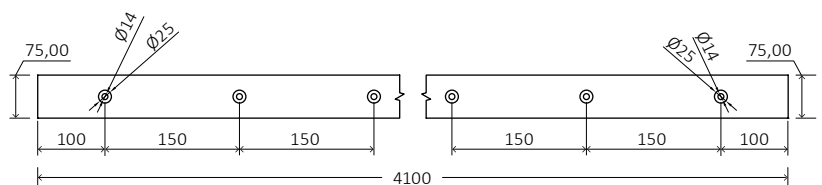
1. GASKET
2. ADJUSTABILITY PLATE
3. WEDGE A
4. WEDGE B
5. END CAP
6. ADDITIONAL PROFILE



cross section



Prefabricated (drilled) from the factory





INAL® B1710570

Floor mounted glass balustrade rail

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, glass thickness from 12-21,52mm safety glass up to 1,20m height from the floor level (finished floor) without any vertical supports or connectors.

INTERMETAL SA PATENT



!Combine with INAL®



HANDRAIL
PROFILE "Ω"
5022.25



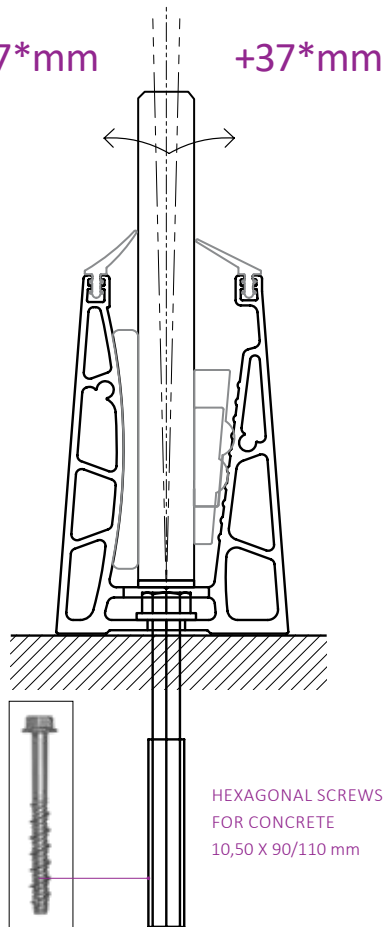
HANDRAIL
PROFILE "Π"
5026.25

technical specifications

WIDTH	68mm	
HEIGHT	105mm	
GLASS THICKNESS	12,00mm - 13,52mm 15,00mm - 17,52mm 19,00mm - 21,52mm	
LENGTH	6m	
MATERIAL	ALUMINUM	
FINISHING	NATURAL ANODIZED, 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

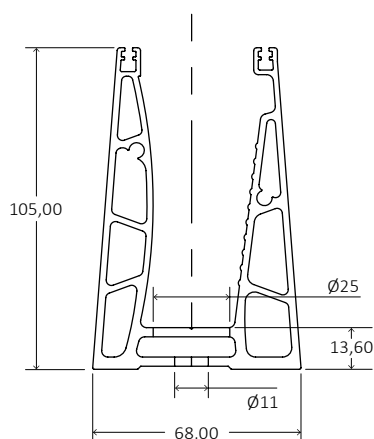
ALWAYS USE SAFETY GLASS. ALL FIGURES ARE CALCULATED WITH TEMPERED-LAMINATED GLASS.
ALWAYS FOLLOW THE REGULATIONS OF THE GLASS FABRICATORS.

glass alignment
Adjustable glass alignment
-37*mm +37*mm



GLASS HEIGHT	GLASS ALIGNMENT
1,00m	± 30mm
1,10m	± 33mm
1,20m	± 37mm

cross section

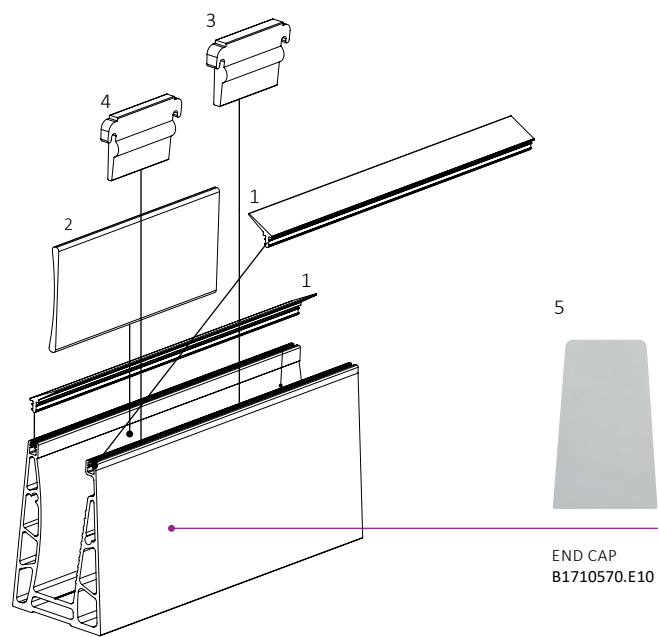


Dimensions mm

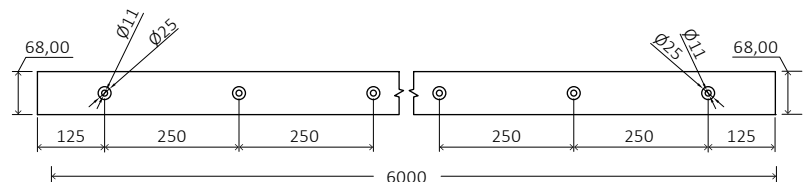


accessories

1. GASKET
2. ADJUSTABILITY PLATE
3. WEDGE A
4. WEDGE B
5. END CAP



Prefabricated (drilled) from the factory





INTERMETAL SA PATENT

INAL® B1710055

Floor mounted glass balustrade rail

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, glass thickness from 12,00-17,00mm safety glass up to 1,06m height from the floor level (finished floor) without any vertical supports or connectors.

Additional aluminum profile, offering better aesthetic result as well as alignment adjustment.

technical specifications

WIDTH	55mm	
HEIGHT	100mm	
GLASS THICKNESS	12,00mm	
	14,00mm	
	17,00mm	
LENGTH	6m	
MATERIAL	ALUMINUM	
FINISHING	SILVER ANODIZED, SATIN ANODIZED, BLACK MATTE, INOX MATTE	
	WIND LOAD	LINE LOAD
1,00M HEIGHT	4,15 kN/m ²	1,25 kN/m

!Combine with INAL®



HANDRAIL
PROFILE "Ω"
5022.25



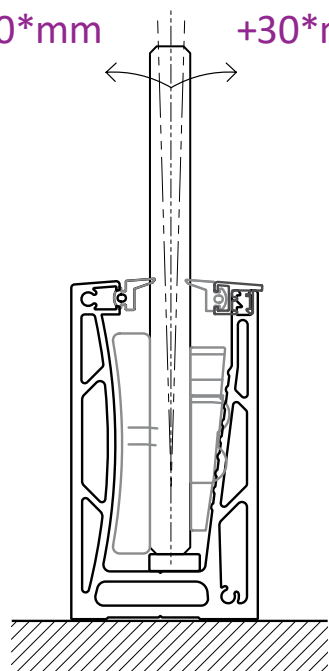
HANDRAIL
PROFILE "Π"
5026.25

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

glass alignment

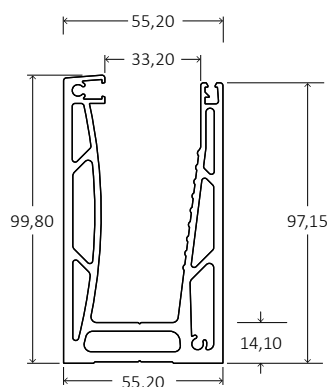
Adjustable glass alignment

-30*mm +30*mm



GLASS HEIGHT	GLASS ALIGNMENT
1,06m	± 30mm

cross section

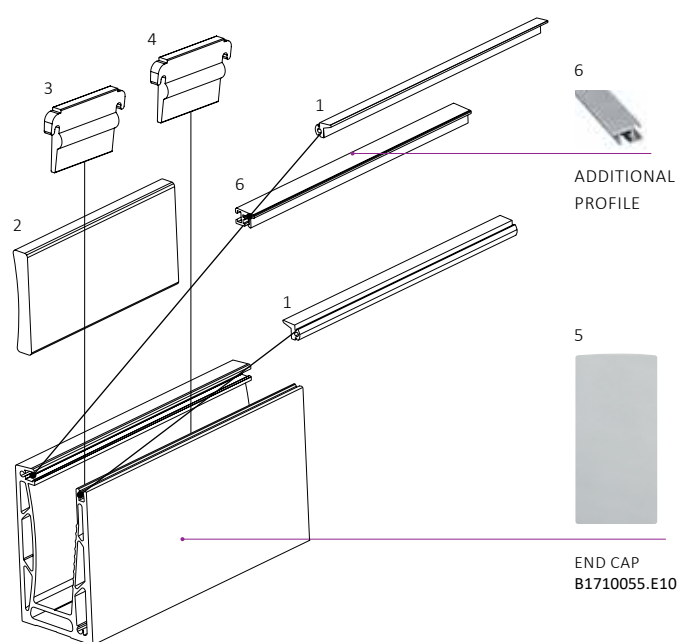


Dimensions mm

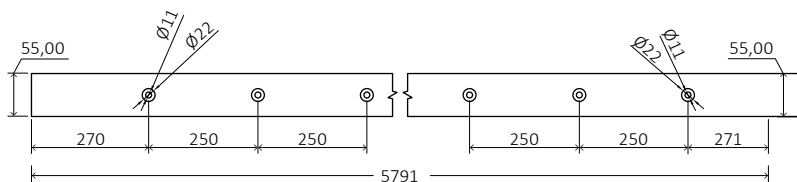


accessories

1. GASKET
2. ADJUSTABILITY PLATE
3. BOTTOM WEDGE
4. TOP WEDGE
5. END CAP
6. ADDITIONAL PROFILE



Prefabricated (drilled) from the factory



corner profiles



INTERNAL CORNER PROFILE



EXTERNAL CORNER PROFILE

tools



CODE B1780.E50.D1.31
WEDGE REMOVAL TOOL FOR
CLAMP PROFILES



INAL® B179050

Floor mounted glass balustrade rail

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, glass thickness from 12,76-21,52mm safety glass up to 1,0m height from the floor level (finished floor) without any vertical supports or connectors.

INTERMETAL SA PATENT



!Combine with INAL®



HANDRAIL
PROFILE "Ω"
5022.25



HANDRAIL
PROFILE "Π"
5026.25

technical specifications

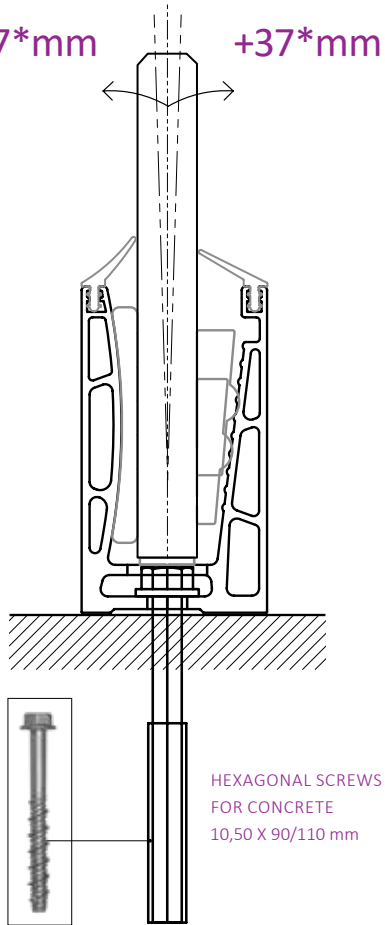
WIDTH	51,20mm	
HEIGHT	90mm	
GLASS THICKNESS	12,76mm - 13,52mm	
	16,76mm - 17,52mm	
	20,76mm - 21,52mm	
LENGTH	6m	
MATERIAL	ALUMINUM	
FINISHING	NATURAL ANODIZED, SATIN ANODIZED, RAL POWDER COATING, INOX MAT	
	WIND LOAD	LINE LOAD
1,00m HEIGHT	6,50 kN/m ²	2,00 kN/m
0,90m HEIGHT	8,10 kN/m ²	2,20 kN/m

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

glass alignment

Adjustable glass alignment

-37*mm +37*mm

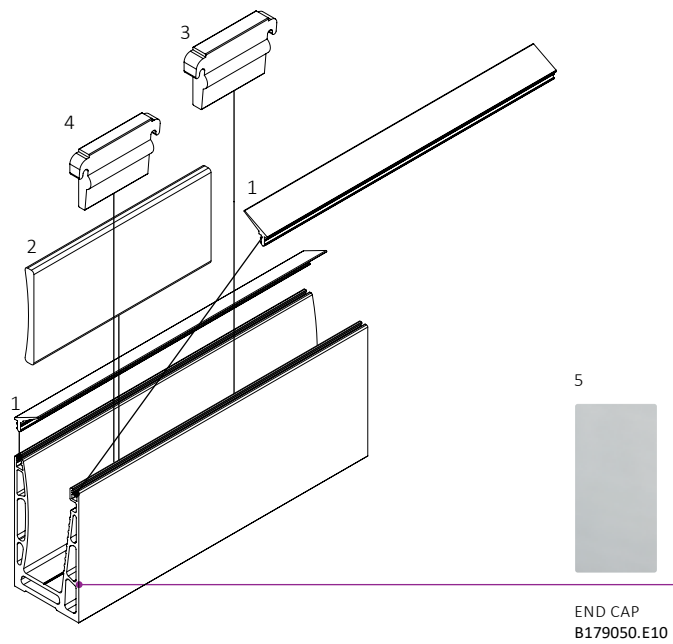


GLASS HEIGHT	GLASS ALIGNMENT
0,90m	± 30mm
1,00m	± 33mm

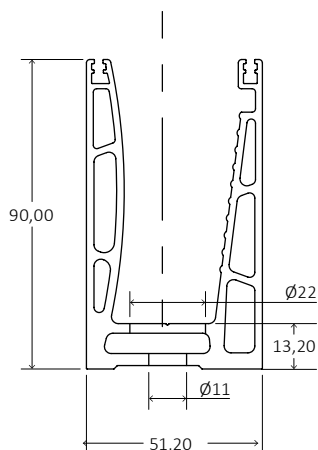


accessories

1. GASKET
2. ADJUSTABILITY PLATE
3. WEDGE A
4. WEDGE B
5. END CAP

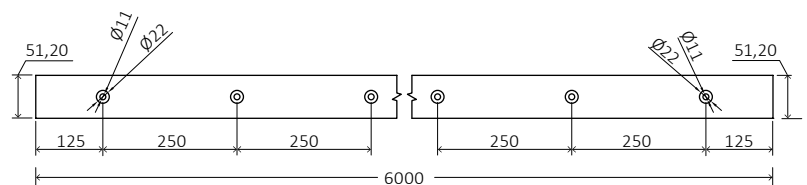


cross section



Dimensions mm

Prefabricated (drilled) from the factory





INAL® U1780

Infloor mounted glass balustrade rail

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, glass thickness from 12-21,52mm 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.

INTERMETAL SA PATENT



!Combine with INAL®



HANDRAIL
PROFILE "Ω"
5022.25



HANDRAIL
PROFILE "Π"
5026.25

technical specifications

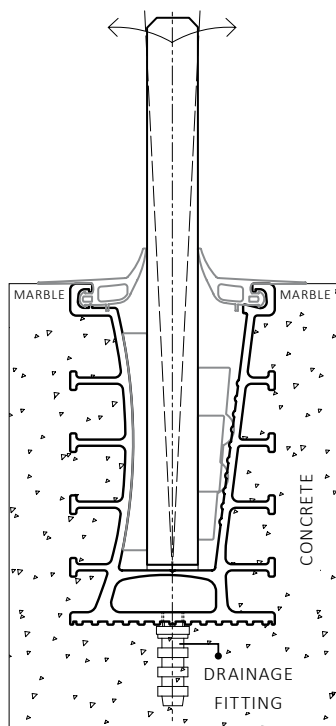
WIDTH	66mm
HEIGHT	110mm
GLASS THICKNESS	12,00mm- 13,52mm 15,00mm- 17,52mm 19,00mm- 21,52mm
LENGTH	6m
MATERIAL	ALUMINUM
FINISHING	ALUMINUM MILL FINISH / ANODIZED ANTI CORROSION PROTECTION

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

glass alignment

Adjustable glass alignment

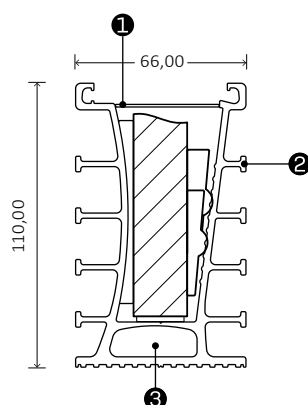
-42*mm +42*mm



GLASS HEIGHT	ALIGNMENT
1,00m	± 34mm
1,10m	± 38mm
1,20m	± 42mm

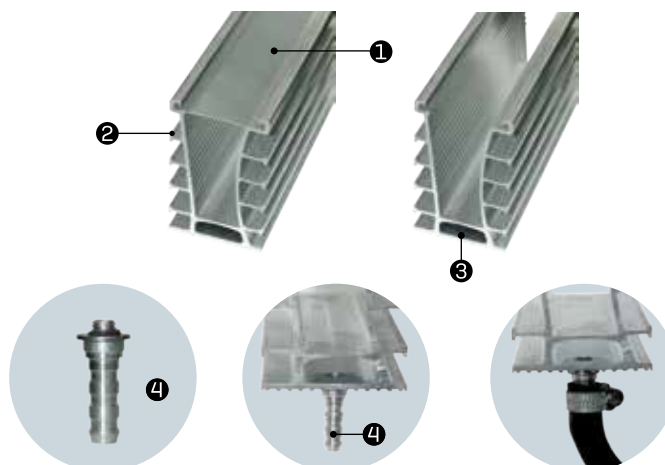
cross section

REMOVABLE COVER FOR PROTECTION
FROM CONCRETE



Dimensions mm

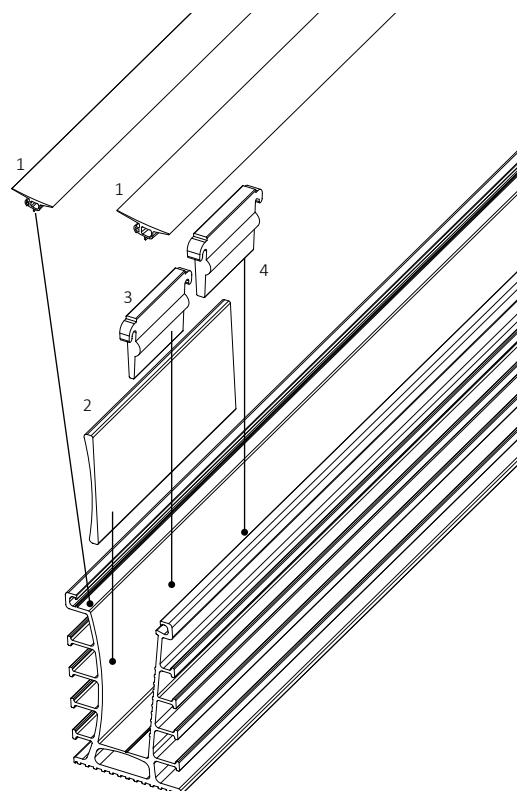
accessories



OPTIONAL
U1780.E20

Unique design 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**.

1. GASKET
2. ADJUSTABILITY PLATE
3. WEDGE A
4. WEDGE B
5. END CAP





INAL® S1780

Side mounted glass balustrade rail

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, glass thickness from 12-21,52mm safety glass.

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.and uncompromising safety.

INTERMETAL SA PATENT



!Combine with INAL®



HANDRAIL
PROFILE "Ω"
5022.25



HANDRAIL
PROFILE "Π"
5026.25

technical specifications

WIDTH	77mm
HEIGHT	143mm
GLASS THICKNESS	12,00mm- 13,52mm 15,00mm- 17,52mm 19,00mm- 21,52mm
LENGTH	3m
MATERIAL	ALUMINUM
FINISHING	ALUMINUM MILL FINISH
COVER FINISHING	STAINLESS STEEL MIRROR, STAINLESS STEEL SATIN, RAL POWDER COATING

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



INAL® B1785

Floor mounted glass balustrade rail

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, glass thickness from 12-17,52mm safety glass.

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

INTERMETAL SA PATENT



!Combine with INAL®



HANDRAIL
PROFILE "Ω"
5022.25



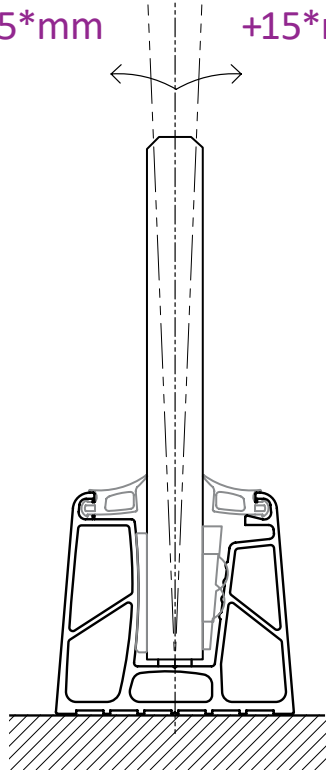
HANDRAIL
PROFILE "Π"
5026.25

technical specifications

WIDTH	70mm
HEIGHT	65mm
GLASS THICKNESS	12,00mm- 13,52mm 15,00mm- 17,52mm
LENGTH	6m
MATERIAL	ALUMINUM
FINISHING	NATURAL ANODIZED, SATIN ANODIZED, RAL POWDER COATING

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

glass alignment
Adjustable glass alignment
-15*mm +15*mm

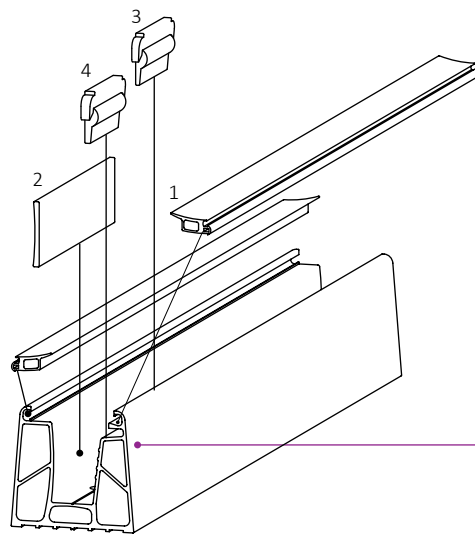


GLASS HEIGHT	GLASS ALIGNMENT
0,70m	± 15mm



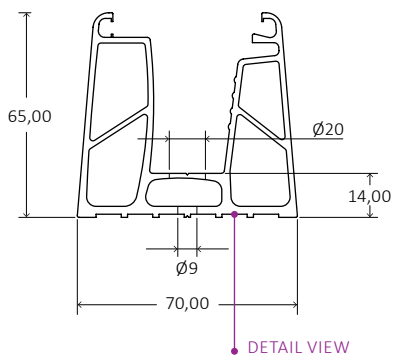
accessories

1. GASKET
2. ADJUSTABILITY PLATE
3. WEDGE A
4. WEDGE B
5. END CAP



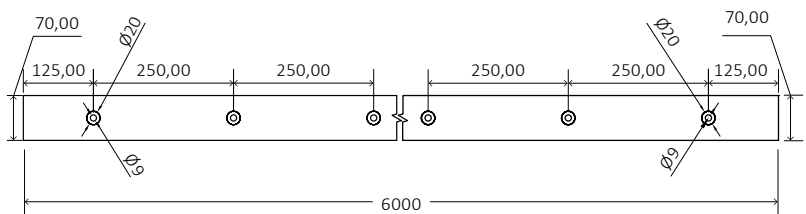
END CAP
B1785.E10

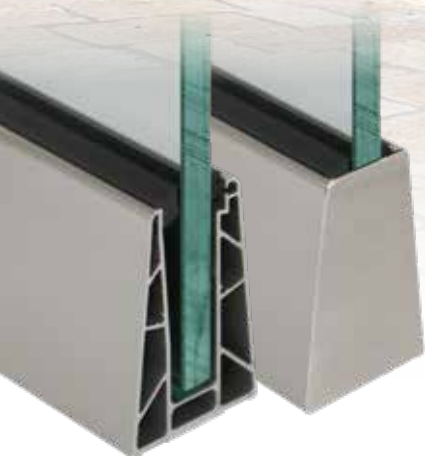
cross section



Dimensions mm

Prefabricated (drilled) from the factory





INAL® B1790

Floor mounted glass balustrade rail

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

Aluminum rail profile for easy and quick installation of the glass. A durable and secure glass balustrading application, glass thickness from 16,76-21,52mm 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.

INTERMETAL SA DESIGN



!Combine with INAL®



HANDRAIL
PROFILE "Ω"
5022.25



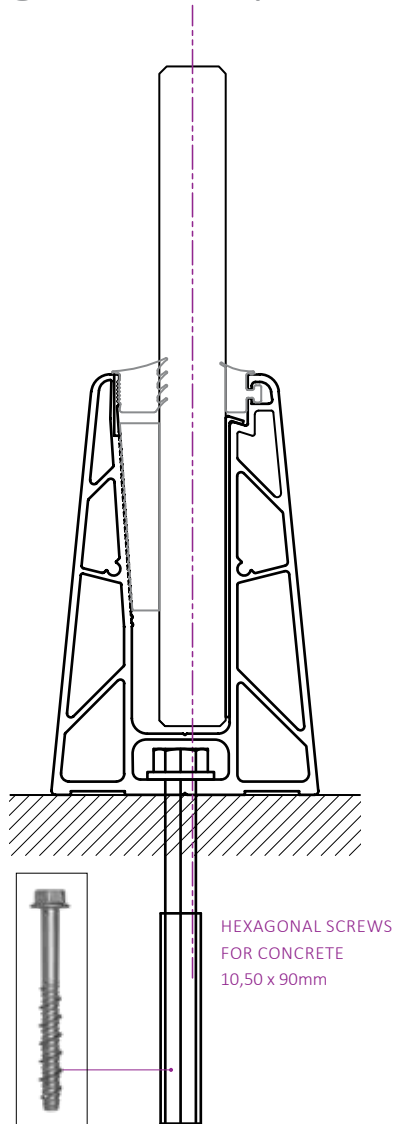
HANDRAIL
PROFILE "Π"
5026.25

technical specifications

WIDTH	70mm
HEIGHT	110mm
GLASS THICKNESS	16,76mm- 17,52mm 20,76mm- 21,52mm
LENGTH	6m
MATERIAL	ALUMINUM
FINISHING	NATURAL ANODIZED, SATIN ANODIZED, RAL POWDER COATING

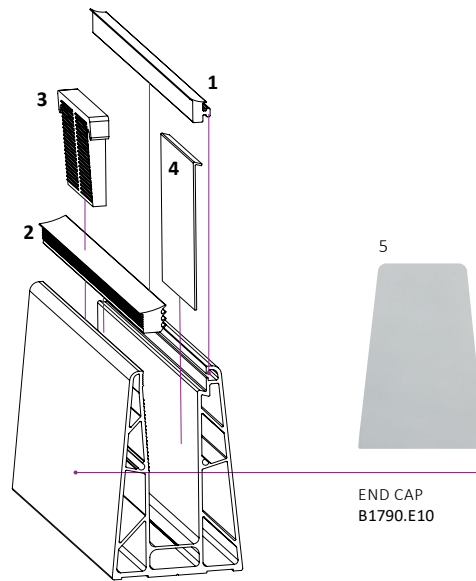
ALWAYS USE SAFETY GLASS. ALL FIGURES ARE CALCULATED WITH TEMPERED-LAMINATED GLASS.
ALWAYS FOLLOW THE REGULATIONS OF THE GLASS FABRICATORS.

glass and componets

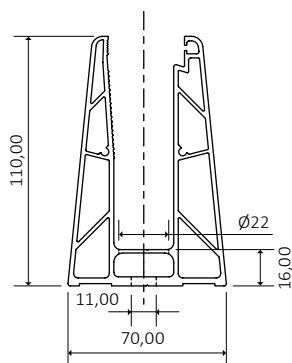


accessories

- | | |
|--------------------------------|------------------------|
| 1. GASKET | 3. WEDGE |
| 2. WEDGE WEATHEPROOFING RUBBER | 4. ADJUSTABILITY PLATE |
| | 5. END CAP |

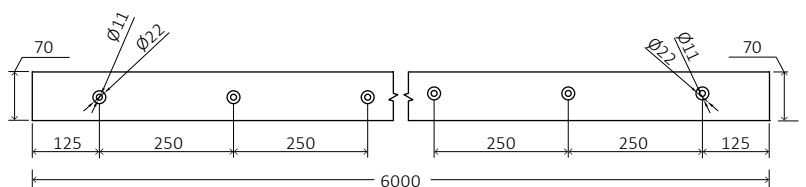


cross section



Dimensions mm

Prefabricated (drilled) from the factory



INAL® APPLICATIONS

Floor ground base profiles & slot tubes - handrails

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



2025.25

Available for Glass 16-21,52mm



CODE 5020.25
GROUND BASE PROFILE 6m,
ALUMINUM SATINE



CODE 5021.25
SLOT TUBE Ø50, FOR 10mm GLASS,
ALUMINUM SATINE



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

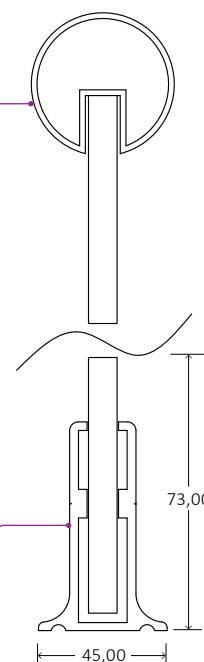
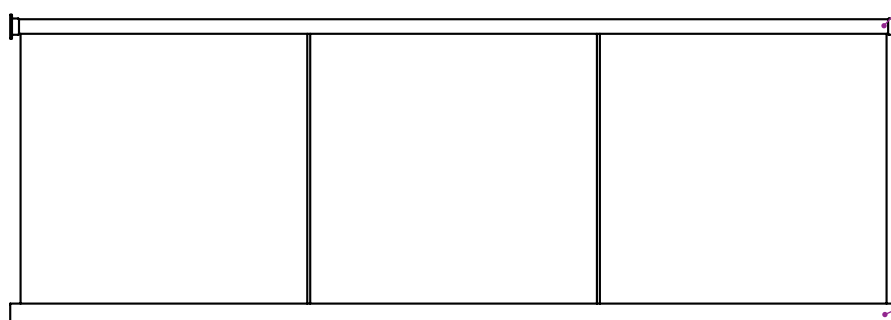


CODE 5070.25
EXTERNAL WALL FLANGE Ø50,
ALUMINUM SATINE



CODE 5071.25
COVER PLATE Ø50,
ALUMINUM SATINE

application



Dimensions mm

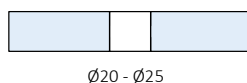


INAL® SPACERS

INAL® Stainless steel GLASS SPACERS ADJUSTABLE or FIXED. Heavy duty accessories made of stainless steel, providing stability at your glass balustrades and aesthetic minimal design at your balconies.

Stainless steel fixed spacers

- Available for Glass from 10-22mm
- Screw M10



CODE 884.50/50.14MS - MACHINED SATIN
SPACER L50mm -D50mm, AISI 316/304



CODE 884.40/50.14MS - MACHINED SATIN
SPACER L40mm -D50mm, AISI 316/316



CODE 884.40/50.14MS - MACHINED SATIN
SPACER L40mm -D50mm, AISI 316/304



CODE 884.40/40.14MS - MACHINED SATIN
SPACER L40mm -D40mm, AISI 316/304



CODE 884.30/50.14MS - MACHINED SATIN
SPACER L30mm -D50mm, AISI 316/304



CODE 884.30/50.14MS - SATIN
SPACER L30mm -D50mm, AISI 304

Stainless steel adjustable spacer

- Available for Glass from 10-22mm
- Adjustment from 45 up to 65mm*
- Screw M10



CODE 885.45.14MS
ADJUSTABLE SPACER Ø50-45 mm
AISI 316, MACHINED SATINE

INAL® TOOLS

For glass balustrade
rail applications



CODE TOOL.B17.E4.31
WEDGE REMOVAL TOOL



CODE B1780.E40.PL
CODE B1780.E40.PL.26-30
WEDGE INSTALLATION TOOL



CODE TOOL.B17.E3.PL
WEDGE HAMMER



CODE TOOL.B17.E2.PL
GLASS ALIGNMENT TOOL
ONLY FOR B1710055



CODE TOOL.B17.E1.PL
WEDGE INSTALLATION TOOL
ONLY FOR B1710055



CODE TOOL.B17.E5
ADDITIONAL PROFILE EXTRACTOR TOOL
ONLY FOR B1710055



CODE GLTOOLS.1505
RUBBER TOOL



CODE B1790.HEX1090.P50
CODE B1790.HEX10110.P50
HEXAGONAL SCREWS



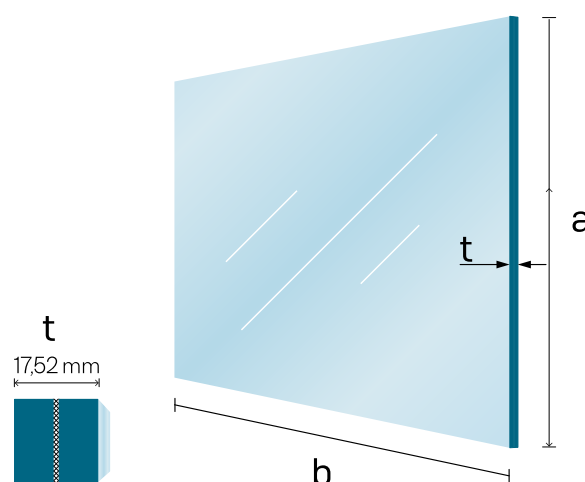
CODE TOOL.BAG.452230.INAL
TOOL BAG INAL

SAFETY GLASS PANELS

For glass balustrade rail applications

CLEAR TEMPERED LAMINATED GLASS

8mm + 1.52PVB + 8mm

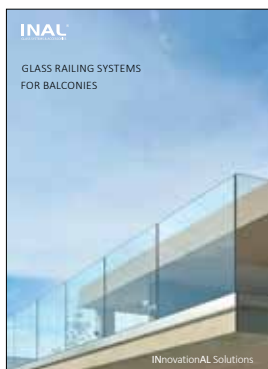


Available in stock and with variety of dimensions with standard height of 1,08m and width from 0,60m up to 1,50m in 5cm increments.

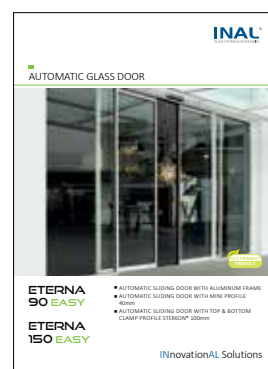
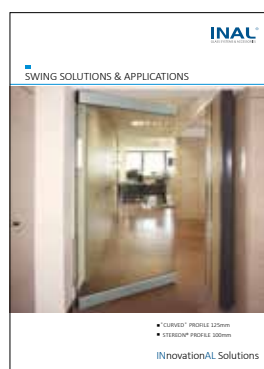
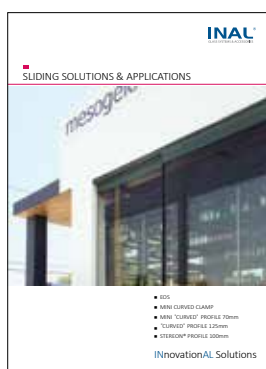
CODE	A = STANDARD HEIGHT	B = GLASS PANEL WIDTH	GLASS PANEL DIMENSIONS (MM)
FG.TLG0600*1080	1080 mm	600 mm	600 x 1080
FG.TLG0650*1080	1080 mm	650 mm	650 x 1080
FG.TLG0700*1080	1080 mm	700 mm	700 x 1080
FG.TLG0750*1080	1080 mm	750 mm	750 x 1080
FG.TLG0800*1080	1080 mm	800 mm	800 x 1080
FG.TLG0850*1080	1080 mm	850 mm	850 x 1080
FG.TLG0900*1080	1080 mm	900 mm	900 x 1080
FG.TLG0950*1080	1080 mm	950 mm	950 x 1080
FG.TLG1000*1080	1080 mm	1000 mm	1000 x 1080
FG.TLG1050*1080	1080 mm	1050 mm	1050 x 1080
FG.TLG1100*1080	1080 mm	1100 mm	1100 x 1080
FG.TLG1150*1080	1080 mm	1150 mm	1150 x 1080
FG.TLG1200*1080	1080 mm	1200 mm	1200 x 1080
FG.TLG1250*1080	1080 mm	1250 mm	1250 x 1080
FG.TLG1300*1080	1080 mm	1300 mm	1300 x 1080
FG.TLG1350*1080	1080 mm	1350 mm	1350 x 1080
FG.TLG1400*1080	1080 mm	1400 mm	1400 x 1080
FG.TLG1450*1080	1080 mm	1450 mm	1450 x 1080
FG.TLG1500*1080	1080 mm	1500 mm	1500 x 1080

GLASS RAILING SYSTEMS FOR BALCONIES

INAL[®]
GLASS SYSTEMS & ACCESSORIES



ALSO DOWNLOAD OUR PRODUCT CATALOGUES



INnovationAL Solutions

INTERMETAL
BUILDING INDUSTRIAL EQUIPMENT

HEADQUARTERS / FACTORY:
6, APOLLONIOU STR., KOROPi 194 00, ATHENS-GREECE,
TEL.: +30 210 6620 400, FAX: +30 210 6620 401
intermetal@inal.gr



ISO 9001 : 2015
CERTIFIED

www.inal.gr

[f Inal.gr](https://www.facebook.com/inal.gr)

[in company/intermetal-sa](https://www.linkedin.com/company/intermetal-sa)