

# BALCONIES - GLASS BALUSTRADE RAILS



- FLOOR MOUNTED GLASS BALUSTRADE RAIL INAL<sup>®</sup> B1780
- INFLOOR MOUNTED GLASS BALUSTRADE RAIL INAL<sup>®</sup> U1780
- SIDE MOUNTED GLASS BALUSTRADE RAIL INAL<sup>®</sup> S1780
- FLOOR MOUNTED GLASS BALUSTRADE RAIL INAL<sup>®</sup> B1785
- FLOOR MOUNTED GLASS BALUSTRADE RAIL INAL<sup>®</sup> B1735
- FLOOR MOUNTED GLASS BALUSTRADE RAIL<sup>®</sup> B1705
- FLOOR MOUNTED BASE PROFILES & SLOT TUBES
- SPACERS FOR GLASS BALUSTRADES

## **INnovationAL** Solutions







### INTERMETAL SA PATENT





ALWAYS USE SAFETY GLASS.

ALL FINGURES ARE CALCULATED WITH TEMPERED-LAMINATED GLASS. ALWAYS FOLLOW THE REGULATIONS OF THE GLASS FABRICATORS. INAL® FLOOR MOUNTED glass balustrade base rail solution for balconies provides a limitless view and unobstructed aesthetic result.

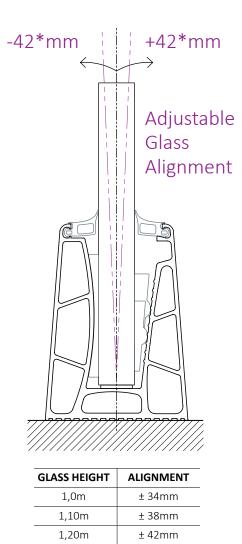
An innovative, patented aluminum rail profile with **adjusting alignment** for the easiest installation of the glass. A durable and secure glass balustrading application combined either with 8mm+8mm (16,40mm- 17,52mm) or 10mm+10mm (20,40mm - 21,52mm) safety glass up to 1,20m height from the floor level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

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

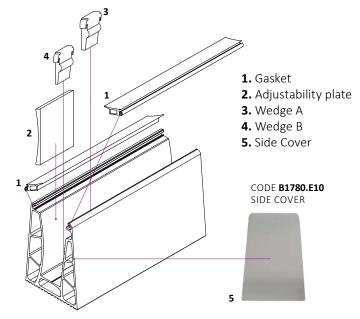
Width	80mm	
Height	110mm	
Glass Thickness	16,4mm- 17,52mm 20,4mm- 21,52mm	
Length	6m	
Material	Aluminum	
Finishing	Natural / Satin anodized, RAL powder coating	



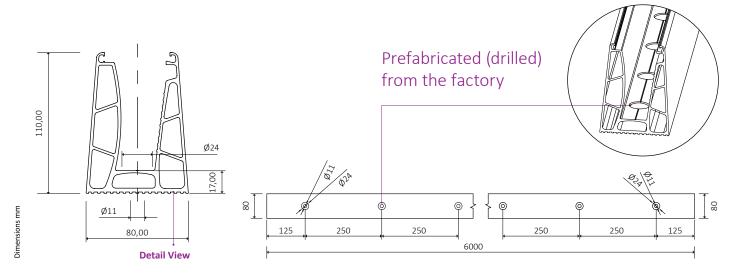
### glass alignment







### cross section









### INTERMETAL SA PATENT



ALWAYS USE SAFETY GLASS.

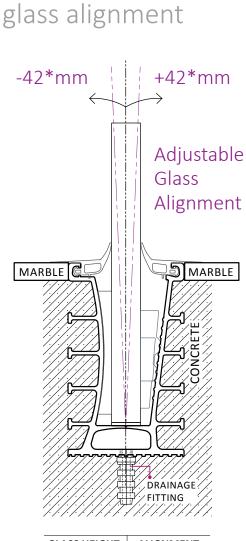
ALL FINGURES ARE CALCULATED WITH TEMPERED-LAMINATED GLASS. ALWAYS FOLLOW THE REGULATIONS OF THE GLASS FABRICATORS. INAL<sup>®</sup> INFLOOR mounted glass balustrade rail solution for balconies provides a limitless unobructed view and unique aesthetic result. An innovative, patented aluminum rail profile 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.

Width	66mm	
Height	110mm	
Glass Thickness	16,4mm- 17,52mm 20,4mm- 21,52mm	
Length	6m	
Material	Aluminum	
Finishing	Aluminum mill finish	

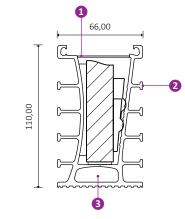




GLASS HEIGHT	ALIGNMENT
1,0m	± 34mm
1,10m	± 38mm
1,20m	± 42mm

### cross section

### Removable cover for protection from concrete



details

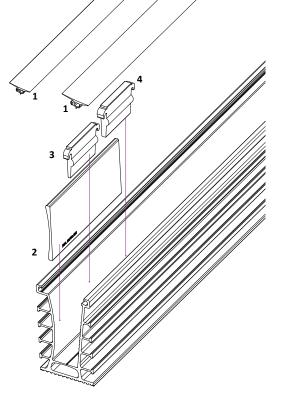


Unique designed for easy installation, with a removable aluminum cover 1 for protection during concrete casting. The side nerves
are specially designed for static strength and composite behaviour with concrete, for connecting and aligning profiles and for the retention with the internal metal stractures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

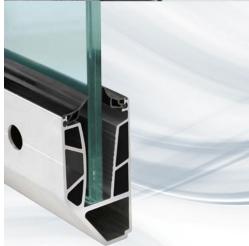


Dimensions mm



# side mounted glass balustrade rail





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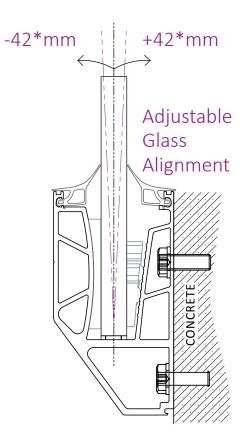
Maximum glass height 1,20m from the floor level (finished floor) and maximum glass height 1,30m in total without any vertical supports or connectors.

Combined with stainless steel and aluminum decorative covers.

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	



### glass alignment

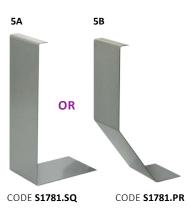


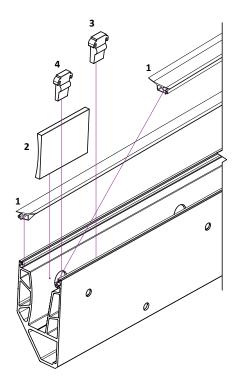
### parts



- 2. Adjustability plate
- 3. Wedge A
- 4. Wedge B
- **5A**. Square type cover
- **5B.** Prismatic type cover

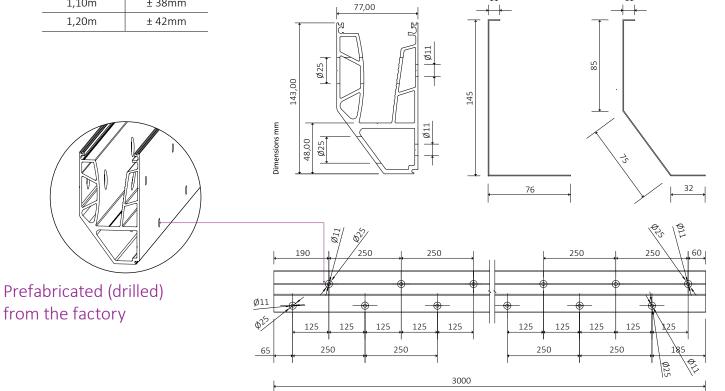
### COVERS





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

### cross sections









INAL<sup>®</sup> 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.

### INTERMETAL SA PATENT

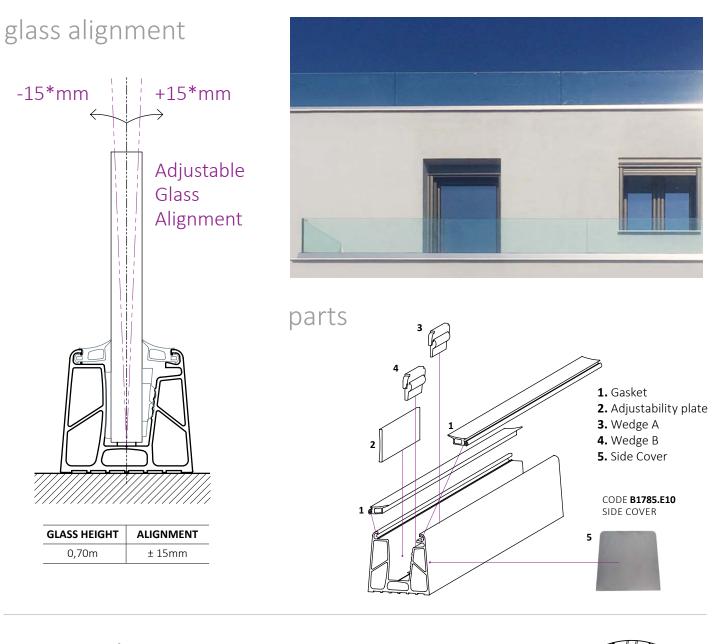
## technical specifications

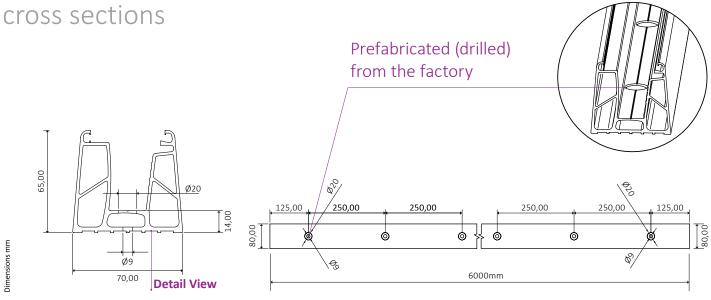
Width	70mm		
Height	65mm		
Glass Thickness	12,4mm- 13,52mm		
	16,4mm- 17,52mm		
Length	6m		
Material	Aluminum		
Finishing	Natural / Satin anodized, RAL powder coating		

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INTERMETAL SA PATENT

INAL<sup>®</sup> glass clamp B1735, INAL<sup>®</sup> 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.

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	

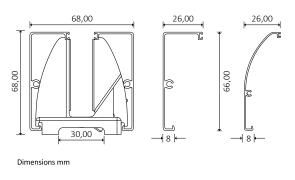
## technical specifications

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### cross sections





glass dimension calculation

parts



CODE **B1738** Clamp Cover Curved Aluminum





CODE **B1739** Side Cover Curved Aluminum



CODE **B1737** Side Cover Aluminum



Rubber For Clamp Cover, Glass Thickness 8-17,52 mm

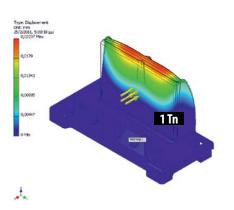
# B max

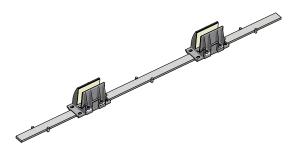
A max GLASS HEIGHT	B max GLASS LENGTH
UP TO 0,40m	1,10m
UP TO 0,50m	1,05m
UP TO 0,60m	1,00m



Over num

### stress test





**Possibility of Alignment with Blade** Capability of alignment with steel plate









INTERMETAL SA PATENT

INAL<sup>®</sup> glass clamp B1705 an innovative, INAL<sup>®</sup> 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

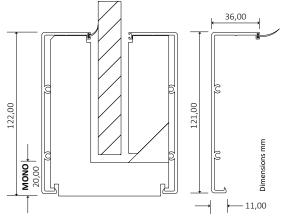
Width	90mm
Height	120mm
Glass Thickness	16-24mm Adjustable clamping glass thickness 16mm-25,20mm
Length	B1705.10: 10cm B1705.20: 20cm
Material	Casted Aluminum
Aluminum Cover Finishing	Natural / Satin anodized

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# cross sections





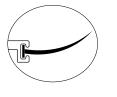
### parts



CODE **B1706** Clamp Cover Aluminum



CODE **B1707** Side Cover Aluminum

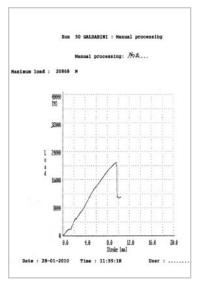


Rubber For Clamp Cover Glass Thickness 16,40-25,52 mm



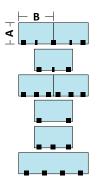
CODE **B1707** Side Cover Plastic

# certification test



Bending Force (N) diagram with the glass deformation (mm) for

### glass dimension calculation



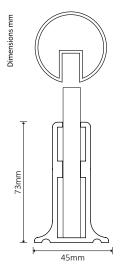
Α	В	CLAMP	20cm	CLAMP 10cm	
GLASS HEIGHT	GLASS LENGTH	CODE	PIECES	CODE	PIECES
UP TO 0,80m	UP TO 1,30m	B1705.20	3	B1705.10	2
UP TO 0,80m	1,3m - 1,70m	B1705.20	2	B1705.10	1
UP TO 0,80m	1,7m - 2,10m	B1705.20	6	-	-
0,8m - 1,10m	UP TO 1,30m	B1705.20	2	-	-
0,8m - 1,10m	1,3m - 1,70m	B1705.20	3	-	-
0,8m - 1,10m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

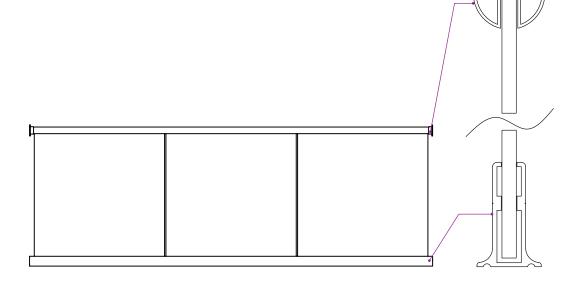
## INAL® 5020.25 - 5021.25 - 5022.25

# floor mounted base profiles & slot tubes



## application





### handrail 5022



### CODE **5022.25** Aluminum Slot Tube for 16-21,2mm Glass

### Available for Glass 16-21,52mm



CODE **5070.25** External Wall Flange Ø50



CODE **5071.25** Cover plate Ø50

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

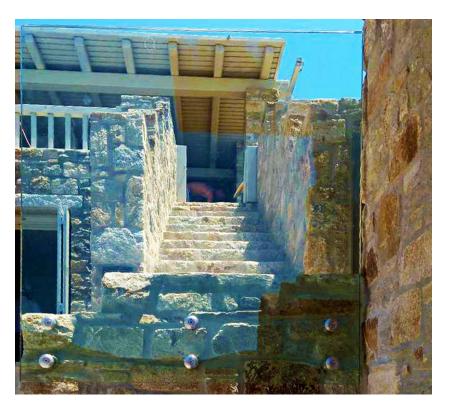
Width	45mm	
Height	73mm	
Glass Thickness	10-11mm	
Length	6m	
Material	Aluminum	
Finishing	Satin anodized	



### 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 | Metal Anchor M12, Screw M12x90 | Finishing Mirror, Satin

884.40/50 FIXED Fixed Spacer for 8-20mm Glass, AISI 316 / AISI 304 Stainless steel | Finishing Mirror, Satin

м10

Adjustment from 45 up to 65mm м10 Ø20- Ø25 Ø50 Ø50 Available for Glass L 45- 65 8-20mm

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

Ø20- Ø25

## BALCONIES - GLASS BALUSTRADE RAILS





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### **INnovationAL** Solutions



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