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Brio® where ideas unfold

Weatherfold Coastal Elite

Exterior folding door hardware systems for panels up to 75kg

About us

Brio® where ideas unfold

Brio®, with a head office in Australia and a subsidiary in the UK, is focused on bringing adventurous architectural ideas to life, converting the conceptual thoughts of our customers into exciting reality.

Our aim is that Brio® be seen as the innovative leader in sliding and folding door hardware - a leader in design and quality.

Brio® epitomises our core values. Energy. Spirit.

Vitality. It also stands for the way we approach the discovery of new solutions for our customers.

Brio®'s R&D department brings a strong design element to the business, developing and testing new concepts using the latest CAD and modelling software.

The company embraces the concept of generic and private label enterprises and recognises the need for specialisation in certain circumstances and markets.

Brio® has a commitment to the continuous improvement of quality, and is certified to Quality Management System AS/NZS ISO 9001: 2008.

Brio® is a division of RMD Industries® Australia





Weatherfold Coastal Elite

Exterior folding door hardware systems for panels up to 75kg

Weatherfold Coastal Elite systems are designed for exterior bifolding doors suitable for both residential and commercial inward or outward opening applications. Since its debut Weatherfold has been the absolute standard for durability and performance. Weatherfold Coastal Elite is the benchmark by which all other bifold hardware are judged.

Weatherfold Elite is engineered for the way we live, suitable for use on door panels of equal size. The series has four dedicated door hardware systems, suitable for aluminium and timber doors weighing up to 75kg.

The top hangers have been designed specifically to accommodate the side loads experienced with folding door systems. Each hanger has four grooved wheels that run along rails within the track. The 75kg systems have an additional fifth high-speed precision bearing, designed to withstand the larger side loads generated by 75kg doors.

At ground level, the bottom channel is concealed underneath the door leaves. Not only does this achieve a better appearance, but the channel is concealed from the elements and so less prone to filling with water and debris. Extruded from UV resistant polypropylene, the channel offers superior durability, lower noise emission and improved corrosion performance compared to traditional materials.

With this combination of smooth operation and outstanding finish, Weatherfold Coastal Elite is the exterior folding door hardware system of the future.

But we haven't stopped there, Weatherfold Coastal Elite has been improved even further with the introduction of the following new products and benefits.

- New mortice style hinges for equal size panels
- An alternative sill option
- A retractable screen option
- A dedicated and complimentary locking solution
- New finishes
- New accessories
- Improved corrosion resistance

Mortice Hinges

The trend for bigger heavier panels continues, driven by energy conversation and legislation. Double glazed units are becoming more popular in window and doors as a means of reducing energy transfer. The effect of this is heavier door panels that require in certain cases additional support.

Weatherfold Coastal Elite Mortice hinge option provides greater security with a stronger more positive hold, relying less on the integrity of the substrate or the strength of the screws. Rebated into the timber the hinges are supplied with radius corners to suit modern day manufacturing methods. Like our non-mortice hinges, these high-strength hinges are manufactured from 3mm thick stainless steel.

An alternative sill

An alternative to a traditional hardwood sill is the Brio 'patent applied' 95 HS Hybrid Self Draining Sill, a composite construction of aluminium and hardwood. Hardwood is used on the exposed visual surfaces leaving the aluminium to cope with water dispersion and contact. The result is a longer lasting door unit with conservation as an added bonus, since the 95HS uses a fraction of the hardwood as used in traditional sills. An aluminium external tread is also available for those high traffic applications where a durable low maintenance solution is required.

Integrated Retractable Pleated Insect Screen

Brio retractable pleated screens are specifically designed for the window and door industry to be integrated into the joinery framing. Brio 'patent applied' retractable pleated screens can accommodate spans up to 9 meters wide and 3.2 meters high.

Although not restricted to folding doors alone, a single retractable screen operating from one side can accommodate a 5 panel folding unit with each panel up to 900mm in width. No other retractable screen has been able to offer this. This screen uses the best materials and best practice combined into a single design. UV tested Polypropylene mesh, ultimate performance low stretch high strength cord from the latest fibre Dyneema, stainless steel high precision bearings on all wear points, structural polymers, cast 316 stainless steel and black anodized aluminium to 25 microns make the Brio retractable screen one of the best specified and durable products on the market.

Dedicated locking solutions

Folding doors require specific locking solutions especially when a Brio integrated retractable screen is used. Brio 6200 series is a roller ball lock that comes complete with accessories designed to match Weatherfold Coastal Elite hardware and finishes. The new raised flush pull shares the same width and radii as the flush bolts. The escutcheons surrounding the euro cylinder is made from cast stainless steel, a material used extensively in Weatherfold Coastal Elite hardware.

Using a Brio 6200 lock allows the retractable screen to be fitted to standard 140mm timber jambs. No other combination of hardware, locking solution and screen offers so much in such a small space.

New finishes

Fashions are forever changing, as do colours and textures promoted by Interior designers and architects. Weatherfold Coastal Elite is now also available in an iridescent textured PVD Black finish, joining the other established finishes of Titanium gold Satin Stainless and Polished stainless.

New Accessories

Magnetic Catch

In response to popular demand the access swing door can now be attached to the adjacent panel using a purpose made magnetic catch suitable for exterior use. Made from 316 stainless steel incorporating rare earth magnets the Brio catch is colour coordinated to Weatherfold Coastal Elite and shares the same radii as the flush bolts and flush pull. The magnetic catch holds adjacent panels 16mm apart, the same as the diameter of the Weatherfold Coastal hinges, making for a perfect parallel 'park'.

New Accessories

Security aligner

Pivot doors are normally supported at the top and bottom. Once the doors become taller this arrangement is no longer adequate so the need to support the middle becomes apparent. One solution is an additional adjustable centre hinge. An alternative and arguably more elegant answer is a discreet double function design registered security aligner. This unique product not only pulls the pivot door onto the frame to seal, it's out of the line of sight and inaccessible when the doors are closed.

Improved

Corrosion Resistance

Weatherfold Coastal Elite is designed with the elements in mind with extensive use of 316 cast stainless steel, stainless steel bearings and architectural grade stainless steel components. To further safeguard against corrosion, Brio is one of only a few global companies to passivate all visual stainless steel surfaces and electro-polish all cast stainless components. This removes contaminants and reduces surface roughness greatly reducing or eliminating surface rust often referred to as 'tea staining'.

Tea staining is the visually brown discolouration of the surface of stainless steels that is a relatively common occurrence in coastal and marine environments or in contact with water containing significant chlorides. Higher temperatures, humidity, wind and salt deposits from intermittent sea spray are all contributing factors to this staining that generally becomes progressively worse closer to the coast. Aesthetically unpleasant, tea staining does not affect the structural integrity, or longevity of the material. Rough grained surface finishes tend to promote tea staining, the smoother the finish the better. Smooth polished finishes do not have grains where chlorides and other containments can collect.

To complete the package all anodised aluminium on Weatherfold Coastal Elite is to marine grade 25 microns.

The ideal system for large openings:

Achieve spans in excess of 14,000mm and maximum door heights up to 3,300mm.

Stainless steel components:
Extensive use of 316 cast stainless steel and architectural grade stainless steel components for high corrosion resistance now passivated to further assist with corrosion performance in the harshest environments.

Complete hardware system:
Integrated design, build and performance, including full range of flush bolts. Tried and tested in many window and door systems that comply to AS2047

Precision bearing system:
For a smoother action up to five high speed precision bearings per hanger reduce rolling resistance.

Concealed bottom channel:
To minimise water and debris contamination and improve appearance the channel is positioned beneath the door panel.

Durability:
Weatherfold Elite is a proven performer with all components being put through rigorous testing in excess of 100,000 cycles. In addition to endurance testing Brio undergoes extensive salt spray chamber corrosion testing as a routine part of our uncompromising commitment to quality.

Adjustment:
The convenient hexagon Allen key provided makes vertical and lateral adjustment simple with Brio's "set and forget" locking clamp and retaining screw system that secures the adjusted height in place.

Installation:
Biro's innovative non mortice hinges manufactured from 3mm thick architectural grade stainless allow maximum efficiency in door manufacture with equal sized panels regardless of the application.

For the traditional look and for thicker double glazed panels Brio has designed mortice hinges whilst maintaining the benefits of equal sized panels.

SPECIFICATIONS	45	75	T45	T75
Max opening	14000mm	14000mm	14000mm	14000mm
Max panel weight	45kg	75kg	45kg	75kg
Max panel height	3000mm	3300mm	3000mm	3300mm
Max panel width	900mm	900mm	900mm	900mm
Panel Thickness Quick Fix	35-50mm	35-50mm	35-50mm	35-50mm
Panel Thickness Mortice			44-60mm	44-60mm
Max number of panels	16 (8 each direction)	16 (8 each direction)	16 (8 each direction)	16 (8 each direction)



Weather test results

To comply with Australian Standard AS2047, Brio commissioned a complete timber folding door system fitted with Weatherfold hardware Elite and had it tested by a third party NATA accredited laboratory.

Water Penetration: 450 Pascal
Equivalent to driving rain at 98km/hr

Air Infiltration (Positive): 0.04 litre/sec m²
Suitable for air-conditioned applications

Air Infiltration (Negative): 0.08 litre/sec m²
Suitable for air-conditioned applications

Ultimate Strength (Positive): 2500 Pascal
Equivalent to class C2 cyclone winds at 232 km/h

Ultimate Strength (Negative): 2500 Pascal
Equivalent to class C2 cyclone winds at 232 km/h

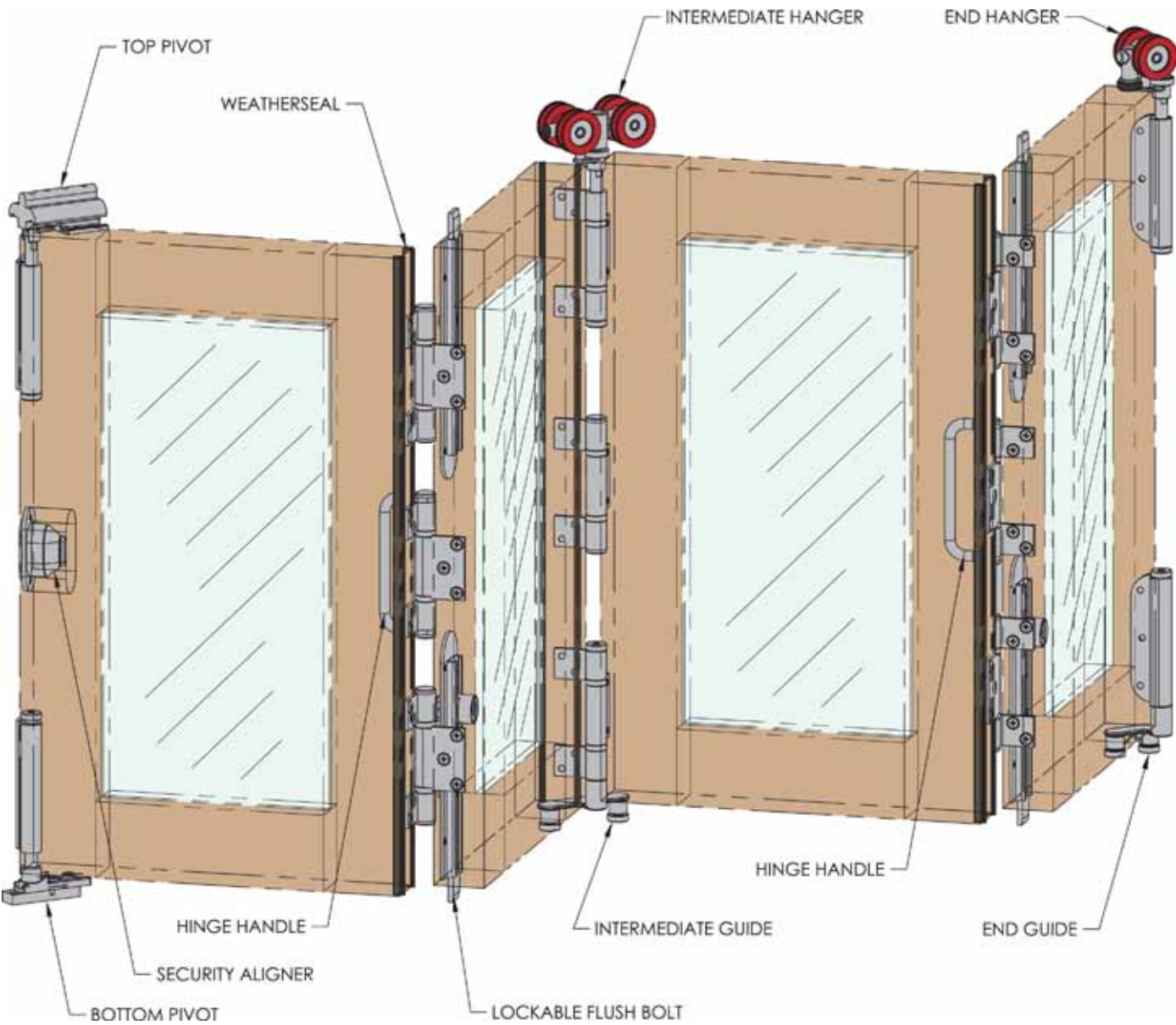
Care and Maintenance:

For coastal or marine applications within 5 kilometres of the coastline or high chloride environments, Brio recommends Polished stainless steel and Titanium Gold hardware be installed. Wash regularly, even smooth stainless Steel finishes in coastal environments may show signs of Tea-staining if not washed regularly. Sheltered area's that are not rain washed are particularly susceptible. As a guide, if a window or door requires washing then wash the hardware. Wash with soap or mild detergent and warm water followed by rinsing with clean cold water and wiped dry.



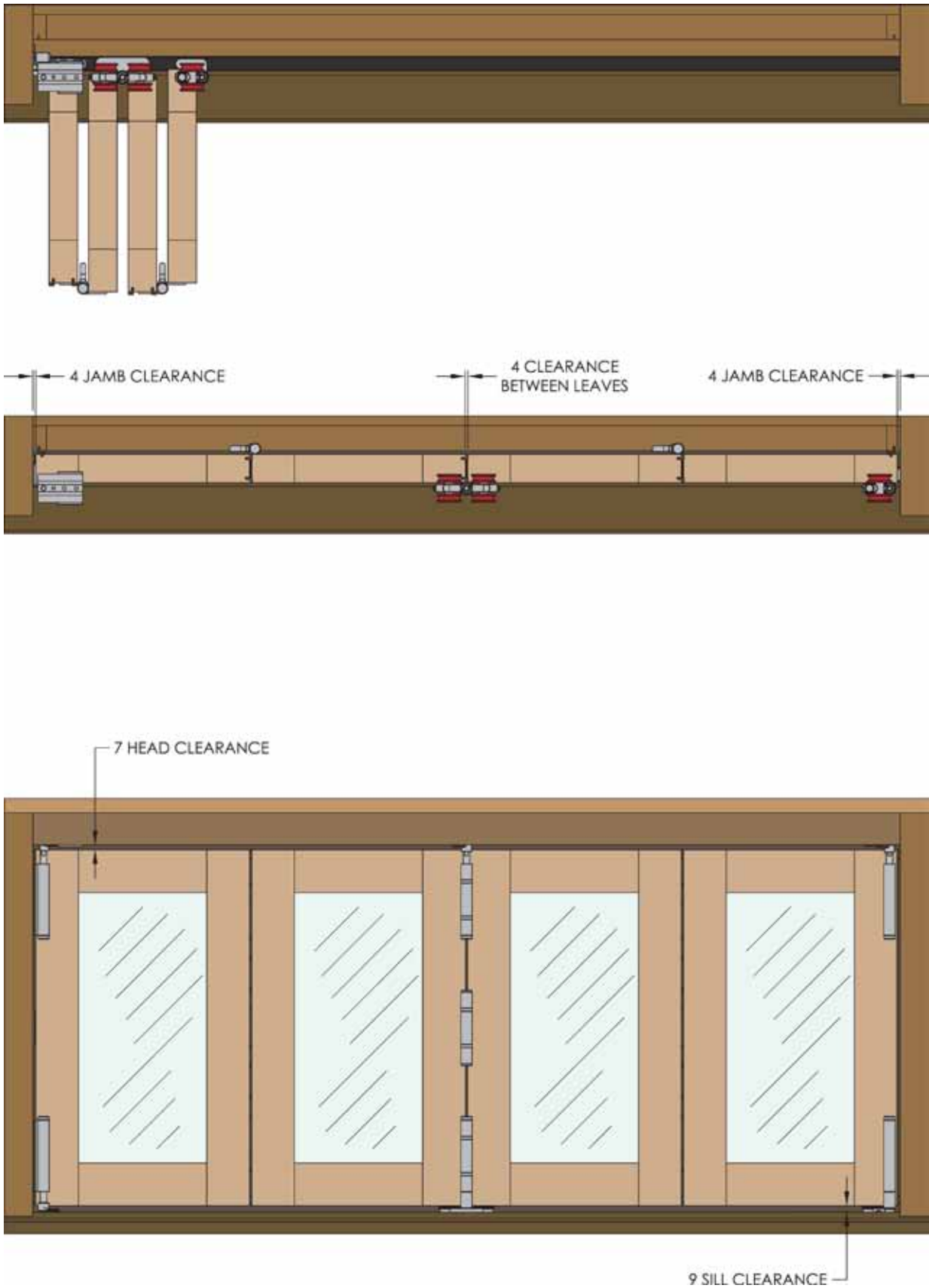
Architectural Details

Hardware Layout - Non Mortice Hinges

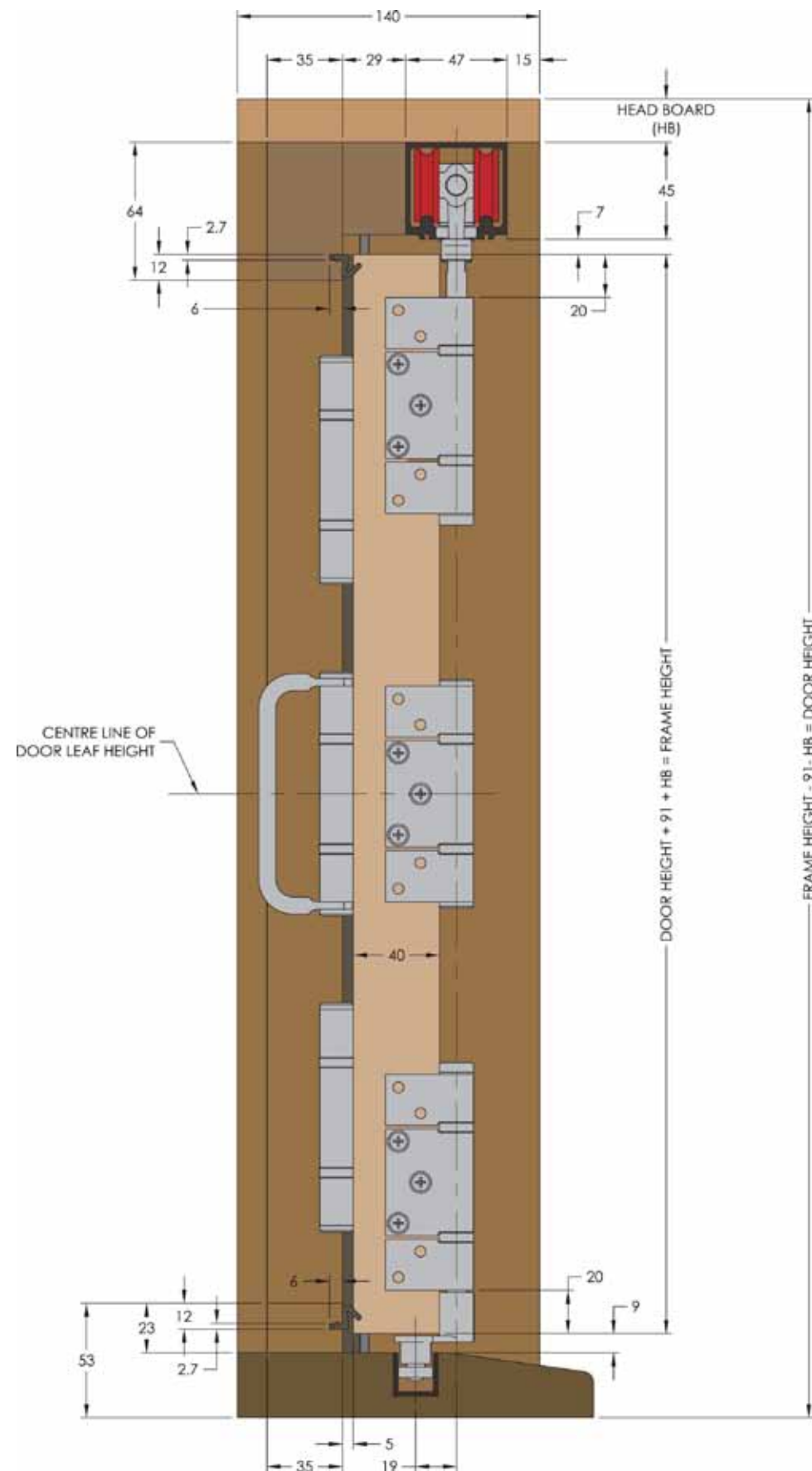


Architectural Details

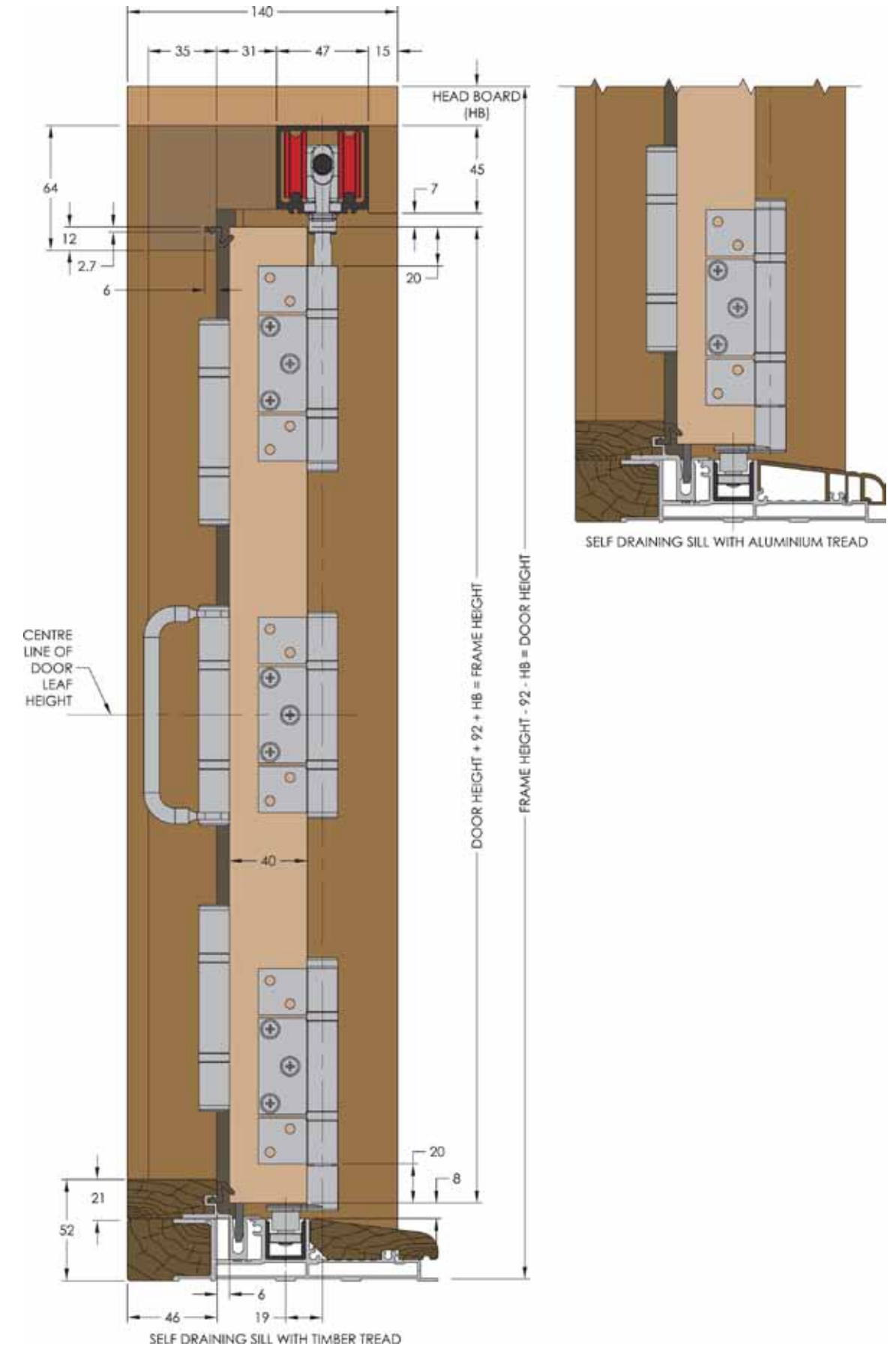
Top and Front Views - Non Mortice Hinges



45kg System Show with Timber Sill

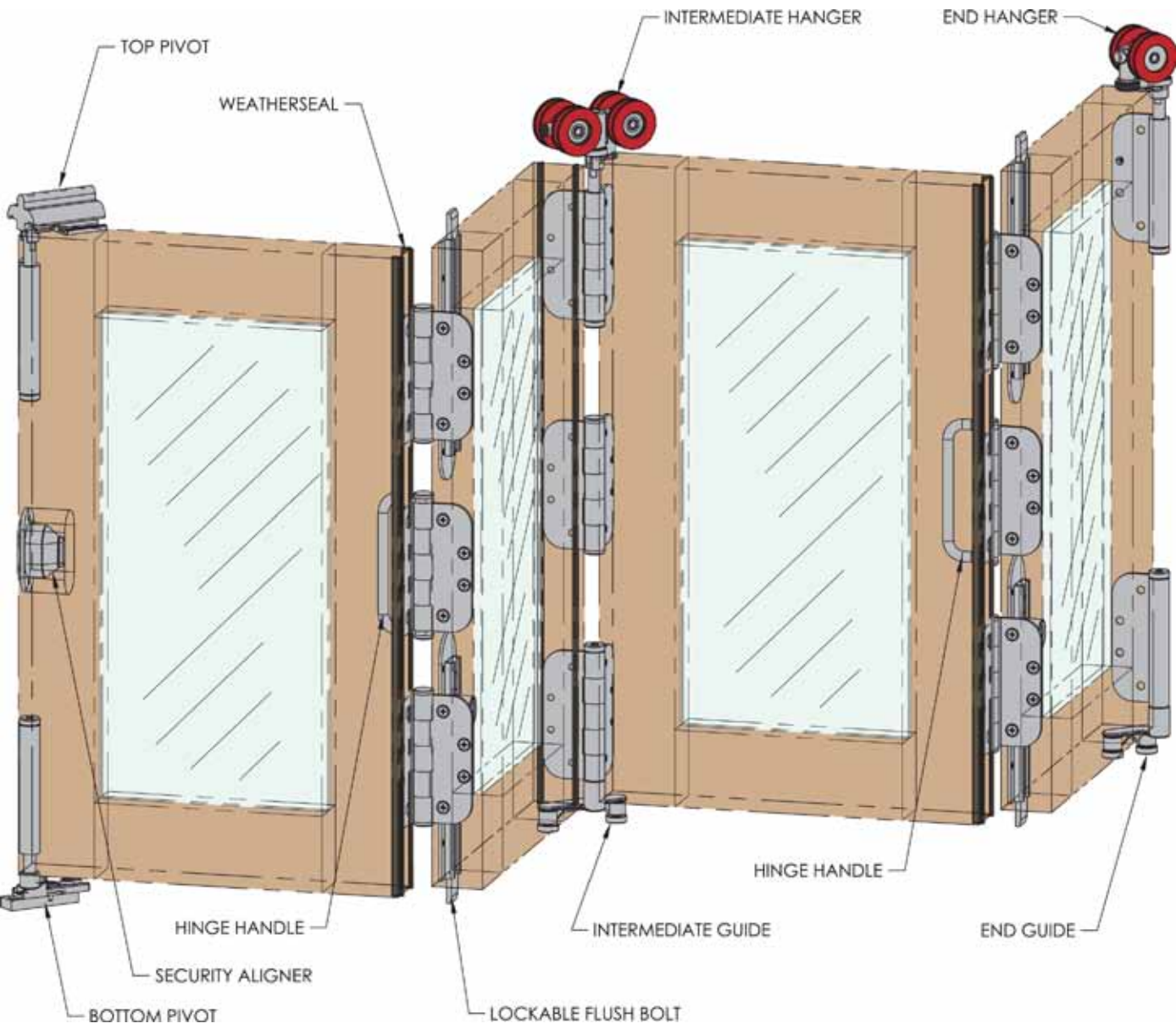


45kg System Shown with 95 Hybrid Sill



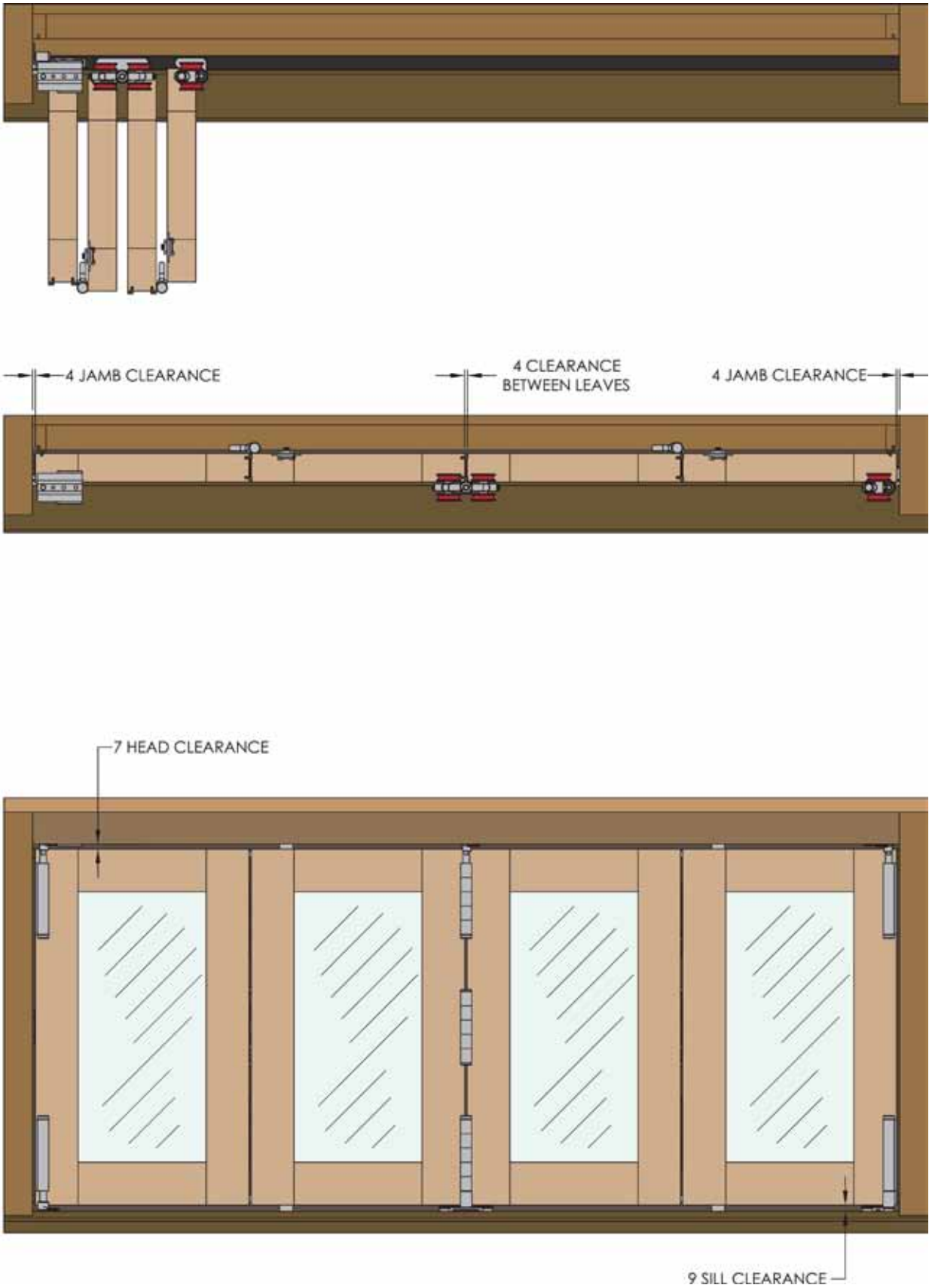
Architectural Details

Hardware Layout - Mortice Hinges



Architectural Details

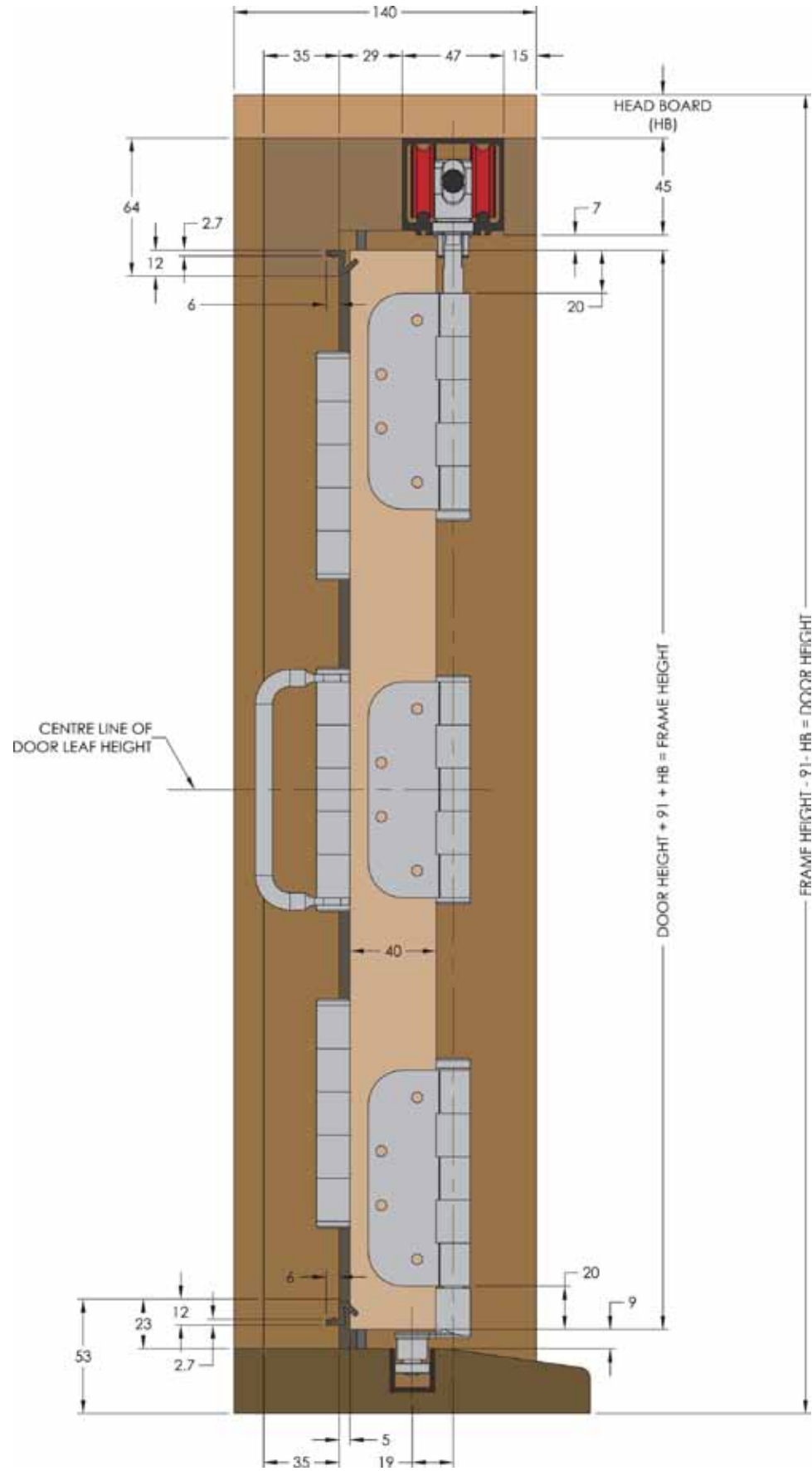
Top and Front Views - Mortice Hinges



Architectural Details

End View - Mortice Hinges

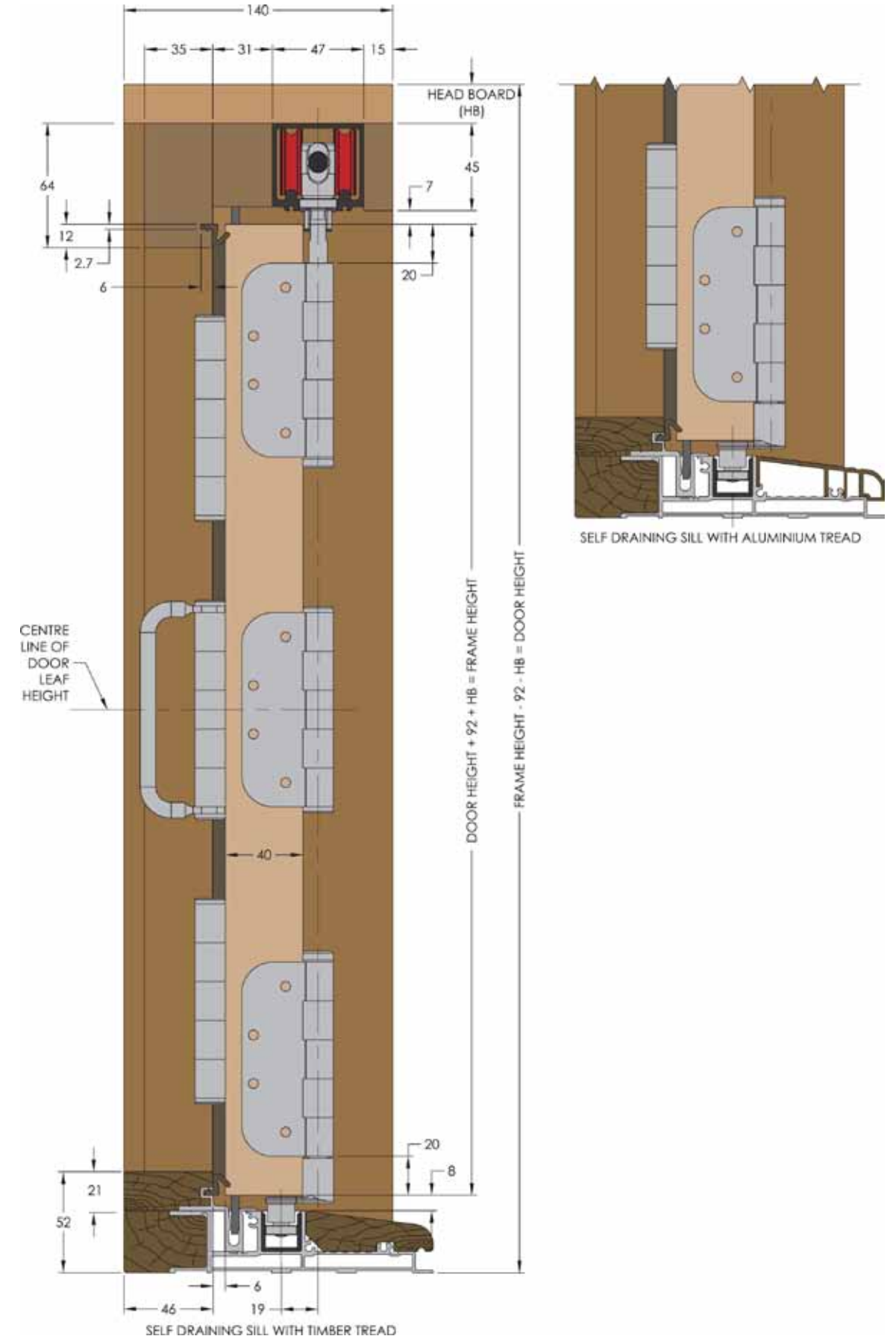
45kg System Show with Timber Sill



Architectural Details

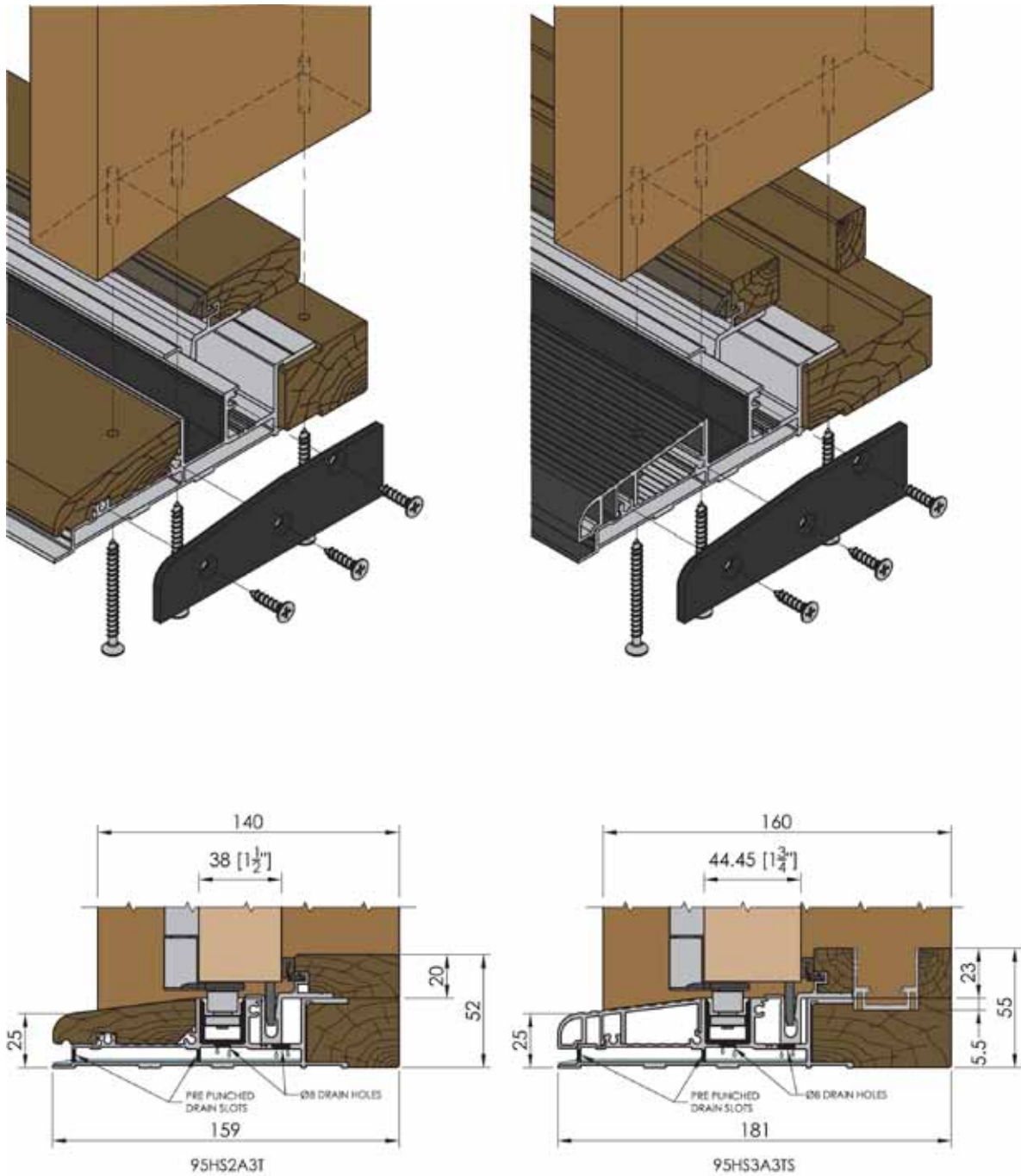
End View - Mortice Hinges

45kg System Shown with 95 Hybrid Sill



Architectural Details

95H5 Hybrid Self Drawing Sill

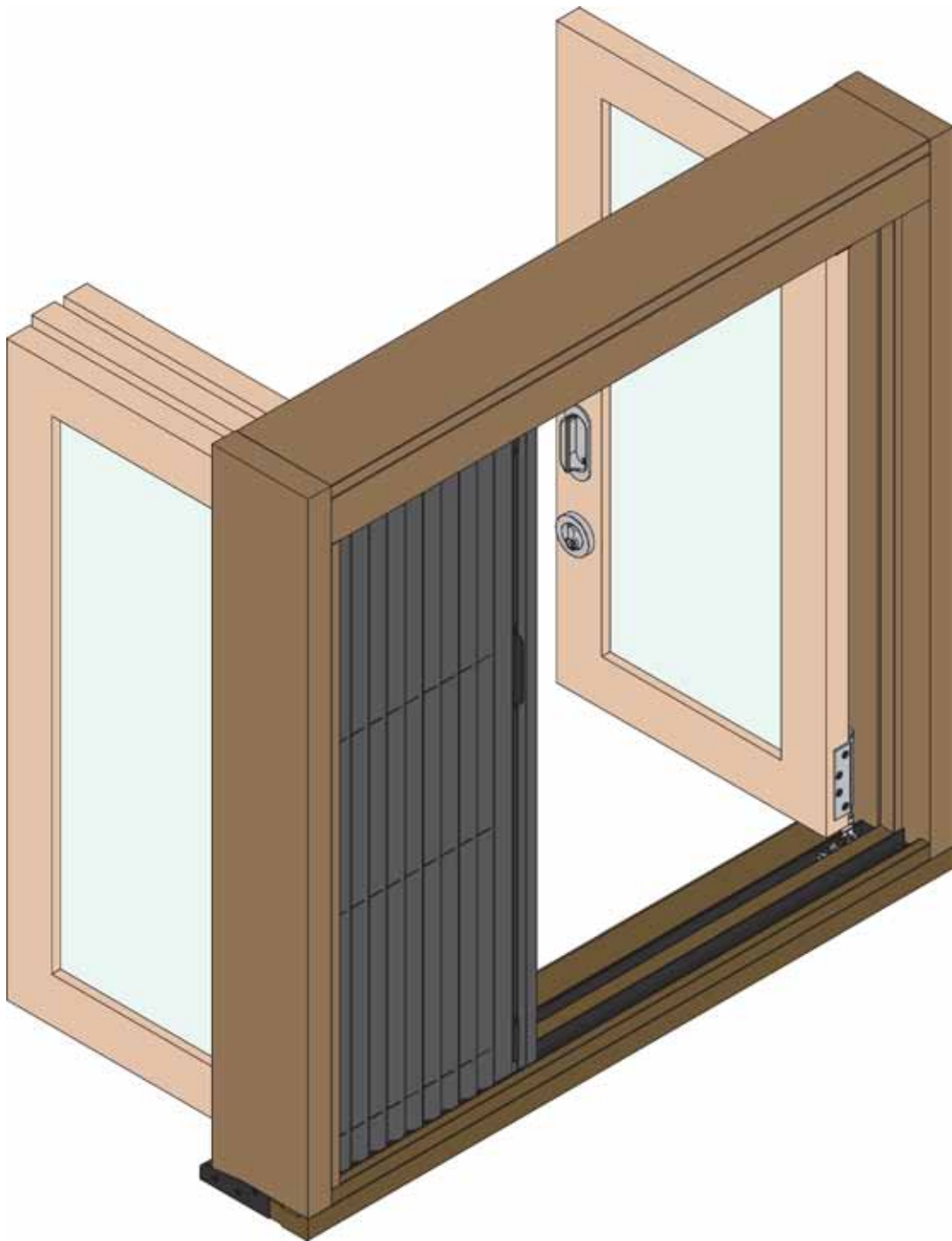


95H5 Hybrid Sill with timber tread

95H5 Hybrid Sill with aluminium tread and fin
to suit 612 Integrated Retractable Pleated Insect Screen

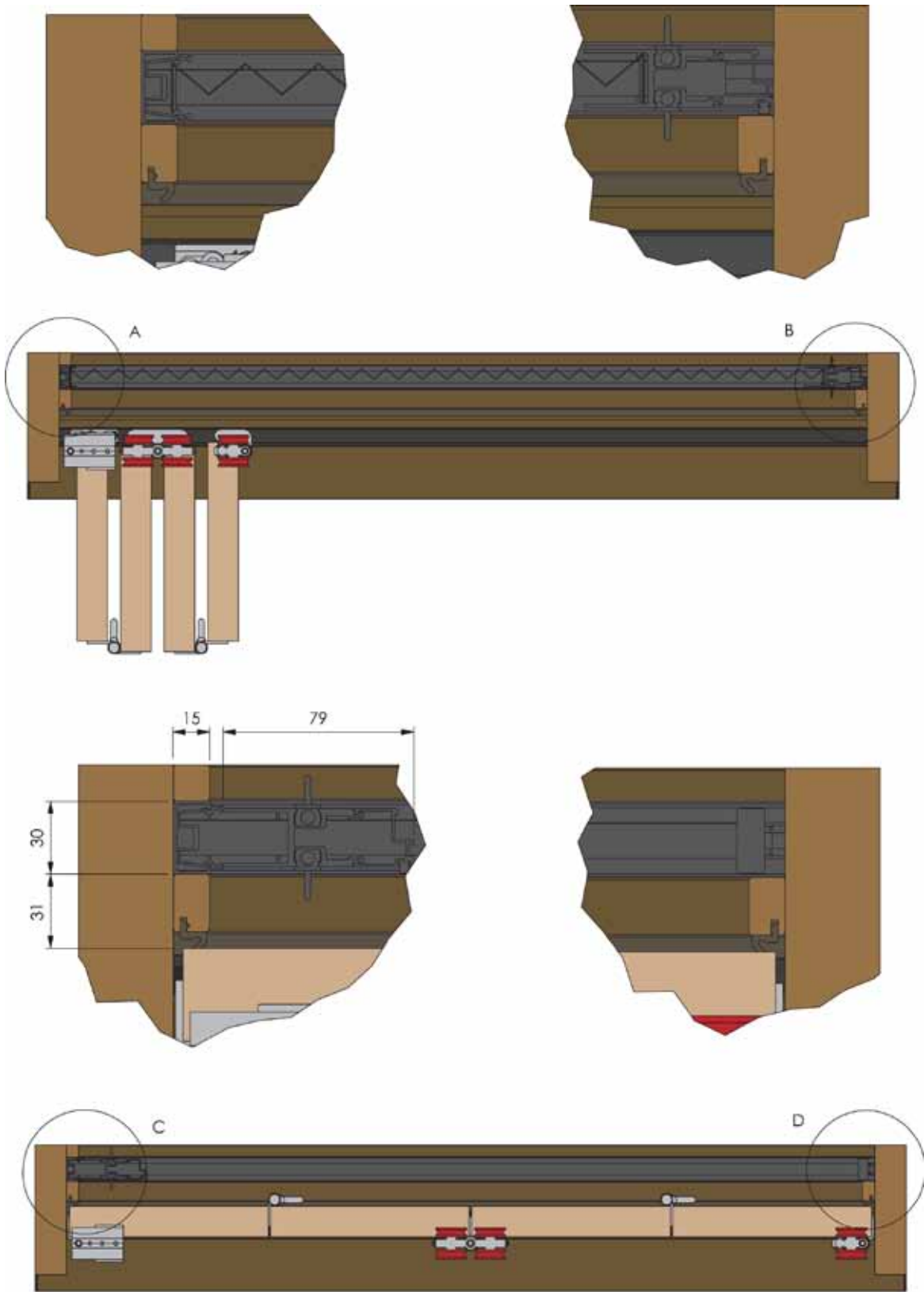
Architectural Details

Hardware layout - 612 Integrated Retractable Pleated screen



Architectural Details

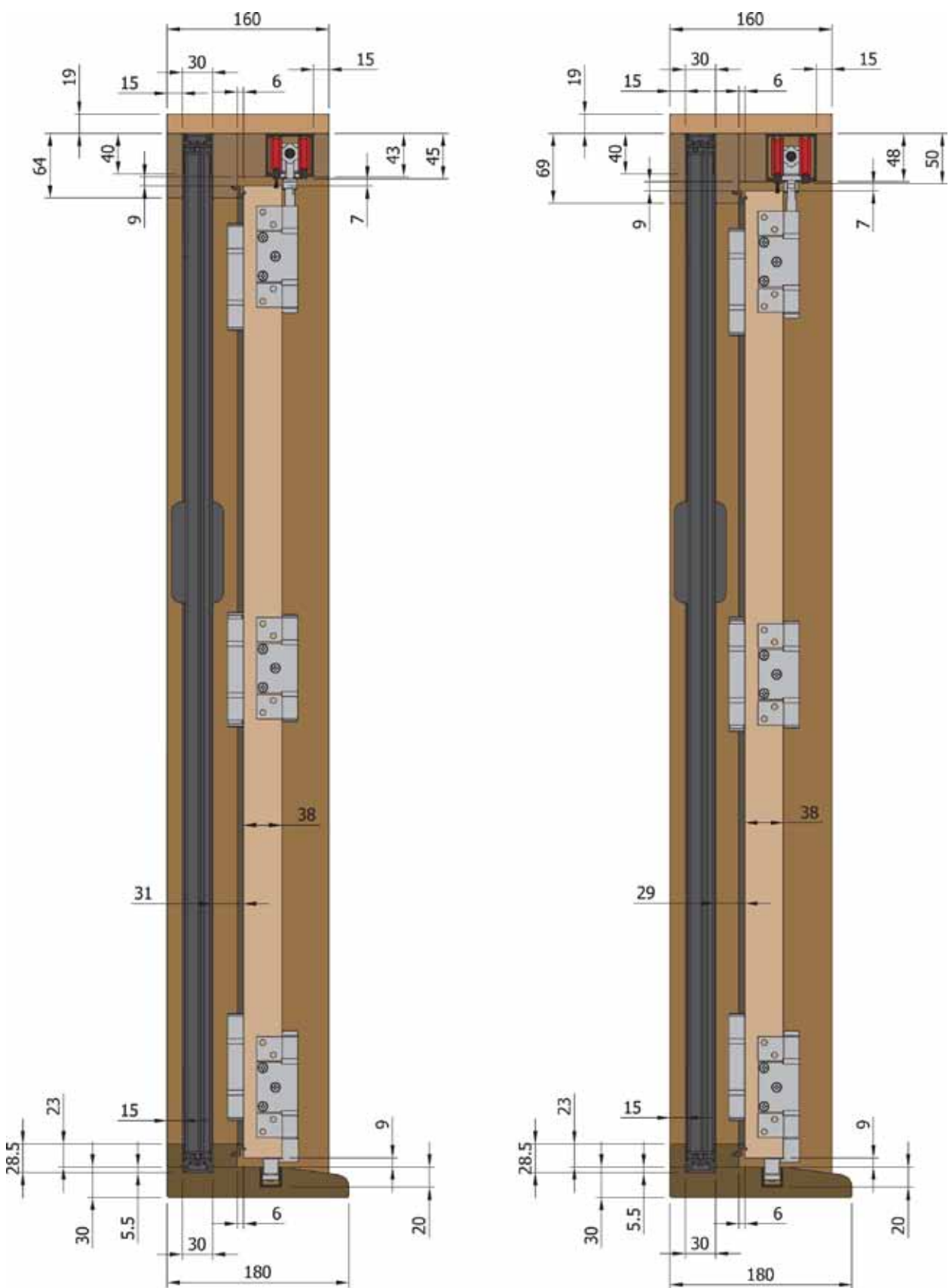
Top View - 612 Integrated Retractable
Pleated Insect Screen



Architectural Details

End View - Integrated Retractable
Pleated Insect Screen

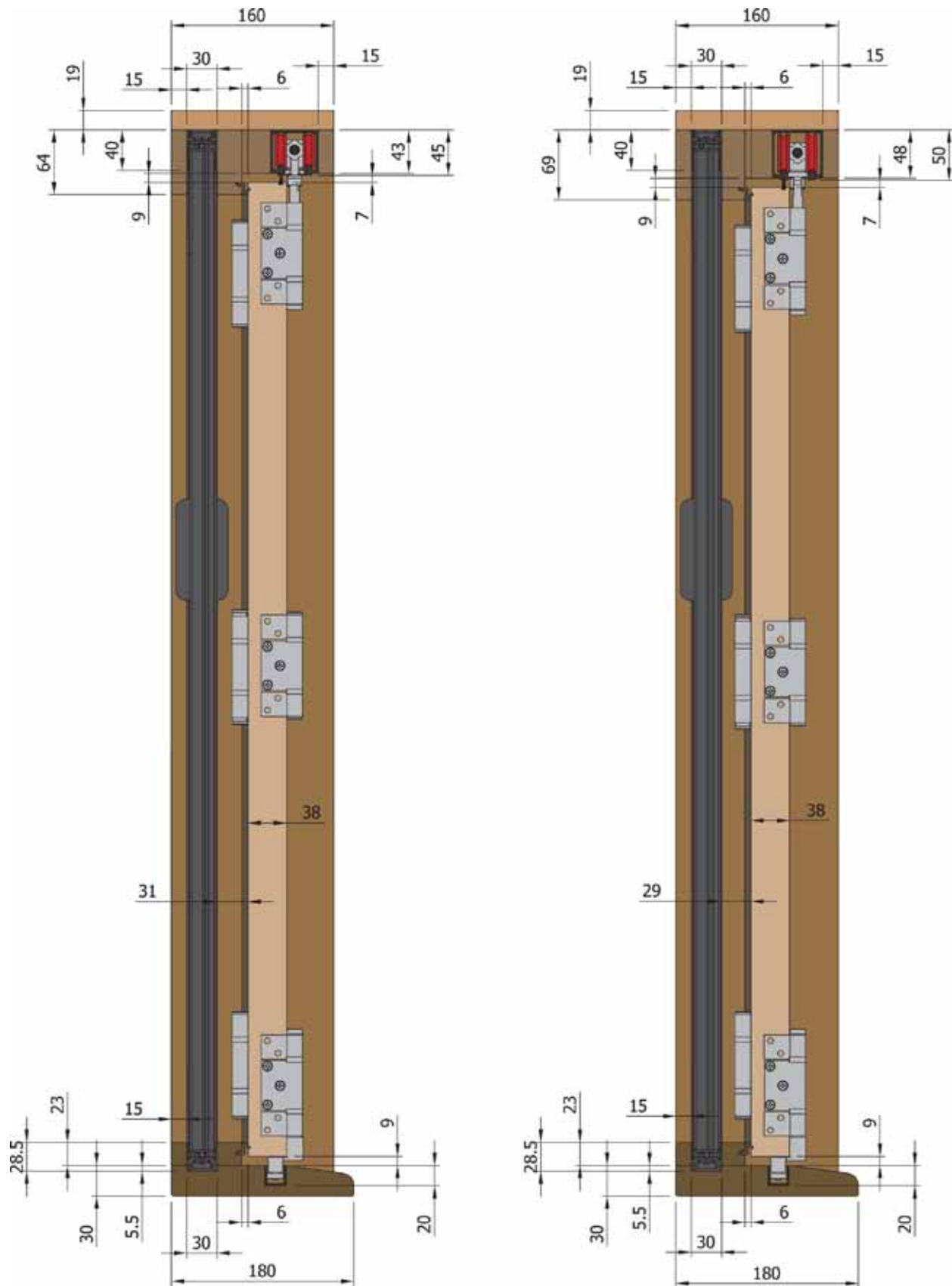
Weatherfold Coastal Elite 45 & 75 shown with Timber Sill.



Architectural Details

End View - 612 Integrated Retractable Pleated Insect Screen

Weatherfold Coastal Elite 45 & 75 shown with 95HS Hybrid Sill.



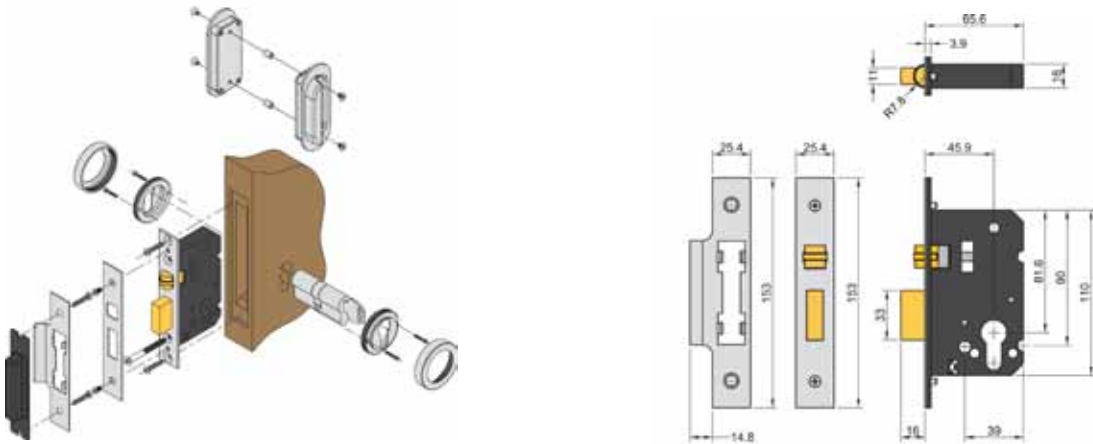
Security

6000 Series Rollerball Lock

For Timber Folding Door Systems with free swinging access panels

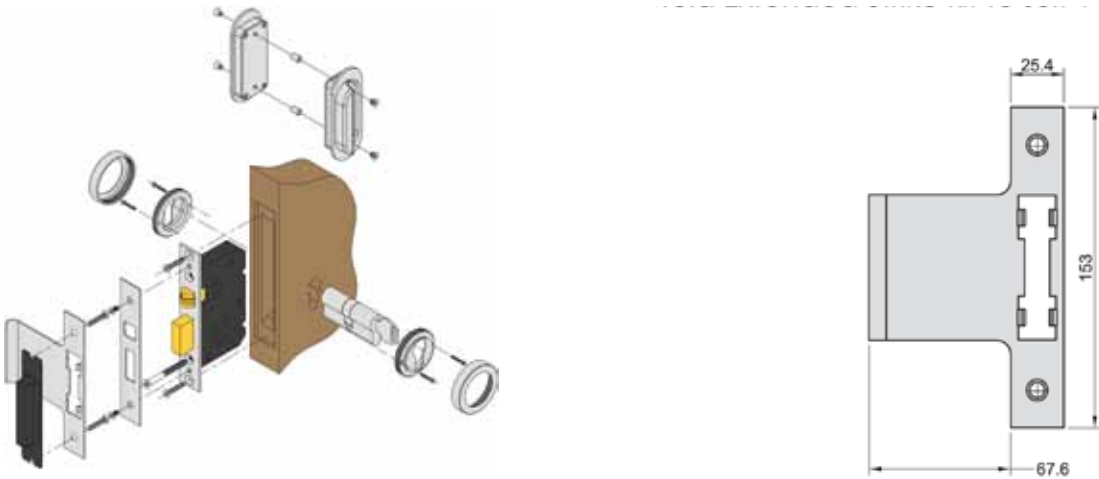
6202 Series

Roller Ball Mortise Lock with standard strike for square cut doors



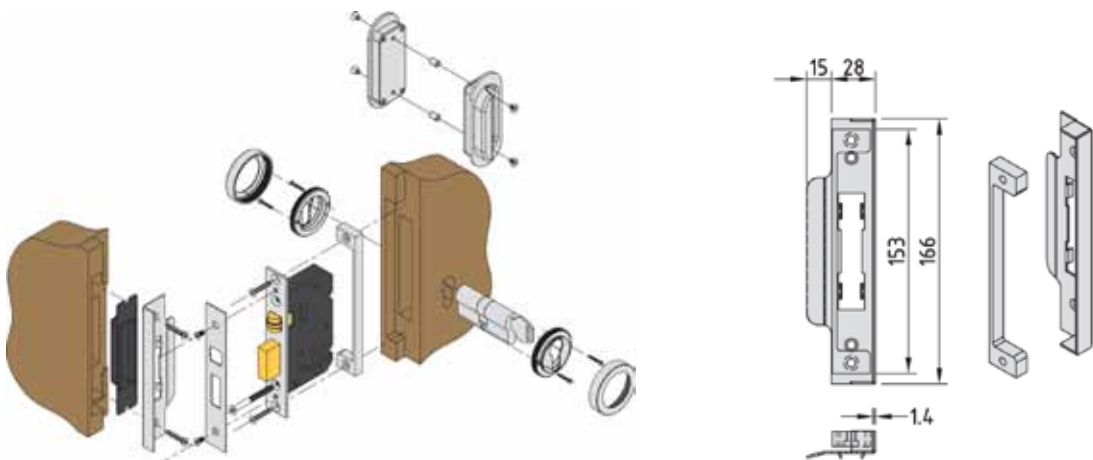
6204 Series

Roller Ball Mortise Lock with Weatherfold Extended Strike kit to suit 140mm jambs



6202 Series

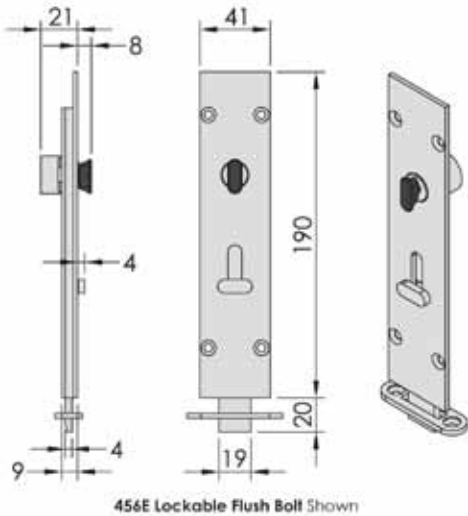
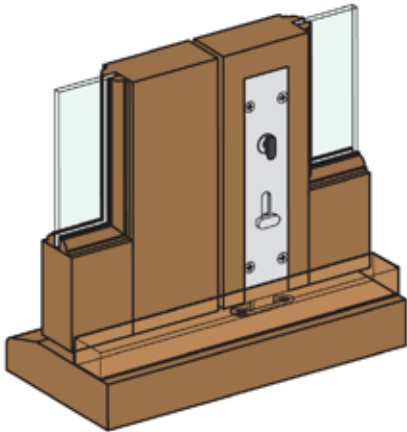
Roller Ball Mortise Lock with rebate kit to suit rebated meeting doors



Flushbolts

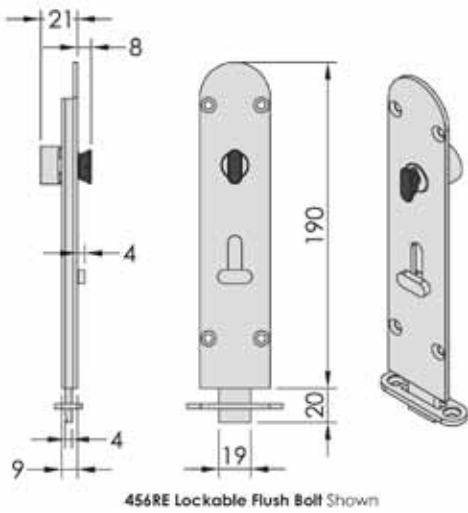
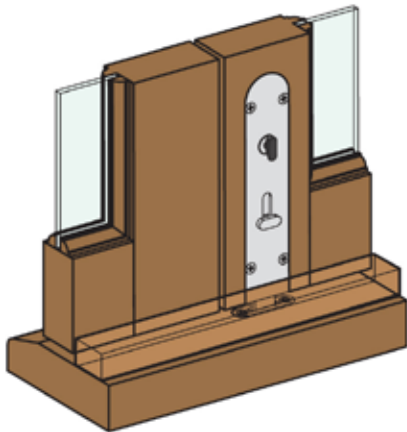
456 and 456E Flush Bolts

For timber outward opening doors



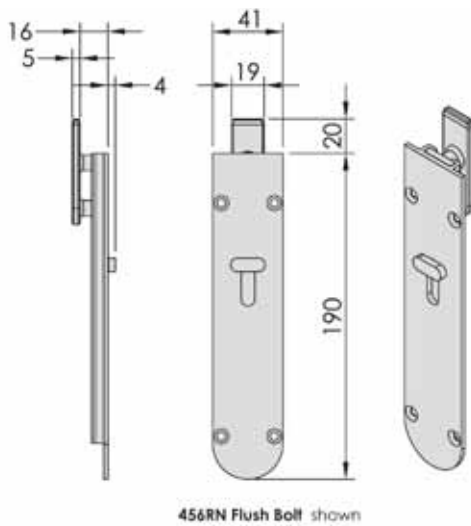
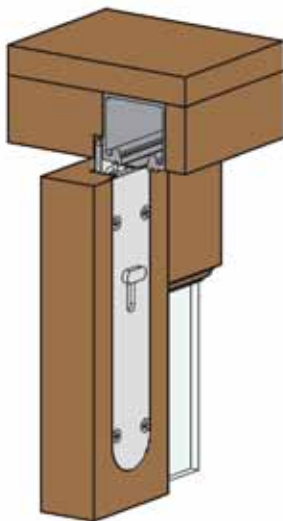
456R and 456RE Flush Bolts

For timber outward opening doors



456RN and 456 REN Offset Flush Bolts

For timber inward opening doors -top

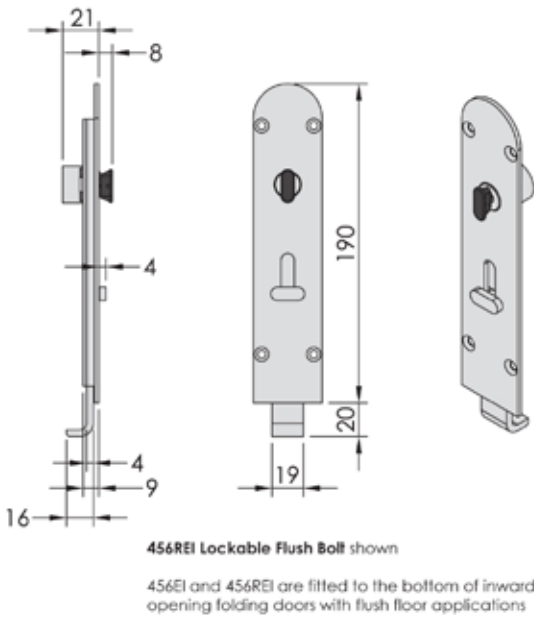
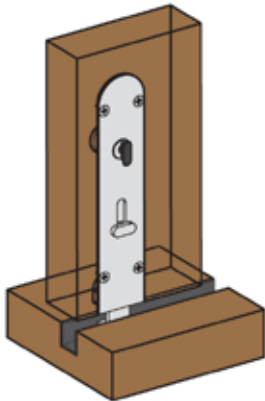


456N Flush Bolt with square top available in non-locking only

Flush Bolts

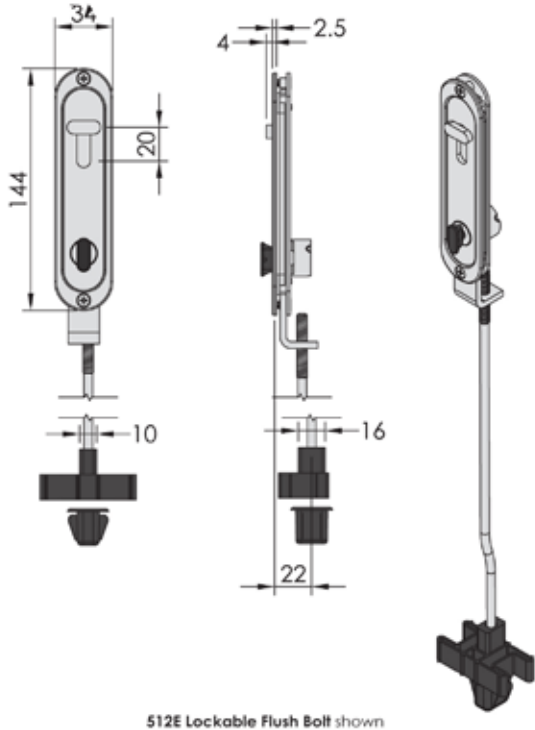
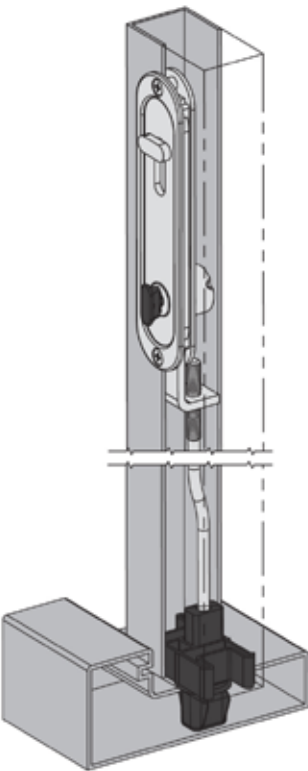
456RI and 456REI Flush Bolts

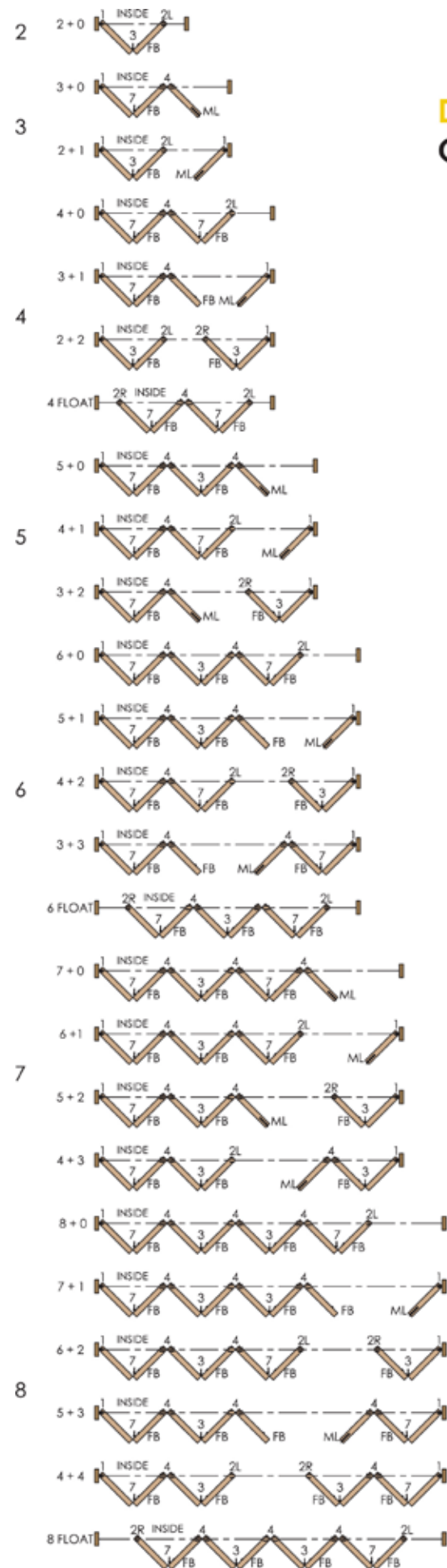
For timber inward opening doors - bottom



512 and 512E Flush Bolts

For aluminium outward opening doors

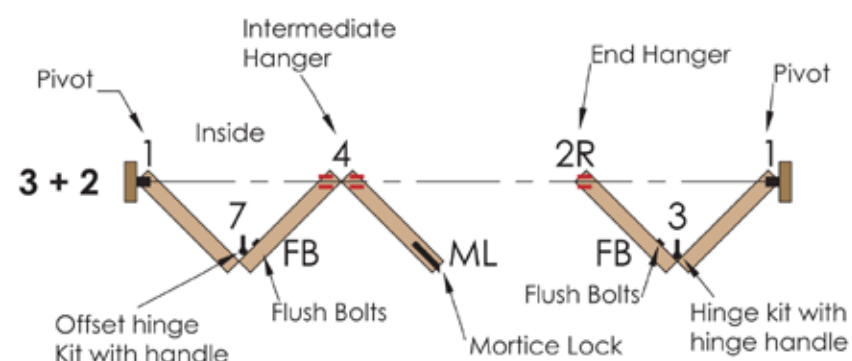




Door Configuration and Hardware Location Outward opening doors

HARDWARE LEGEND		
SYMBOL	REF.	DESCRIPTION
	1	Adjustable pivot kit
	2L or 2R	End hanger kit (left or right) with guide
	3	Hinge kit with hinge handle
	4	Intermediate hanger kit with guide
	5	Hinge kit - Inward opening
	6	Offset hinge kit - Inward opening
	7	Offset hinge kit with hinge handle
	8	Meeting door kit for rebated doors
	FB	Flush bolt 456 or 512
	ML	Mortice Lock 6200 Series
	FP	Flush pull - 401D
	FB & FP	Flush bolt and flush pull

The reference number is an abbreviation of the full kit number.



Flush Bolts

Flush bolts are an aid in obtaining an even perimeter seal pressure as well as extra security for the door. Brio has a comprehensive range of flush bolts to suit both inward and outward opening doors for both timber and aluminium.

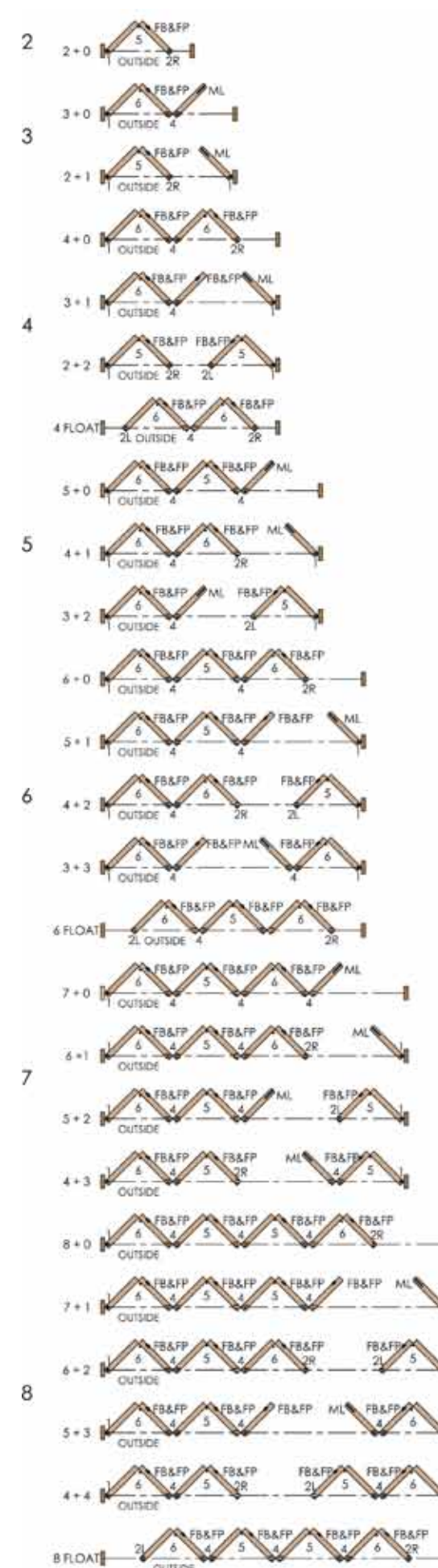
Upper Flush Bolts

Flush bolts are fitted to each pair of leaves and are available in longer lengths for tall doors. The below table shows the height range and recommended flush bolt length.

Door Height	Flush Bolt Length
Doors up to 2100mm	190
2100 to 2400mm	450
Above 2400mm	600

Lower Flush Bolts

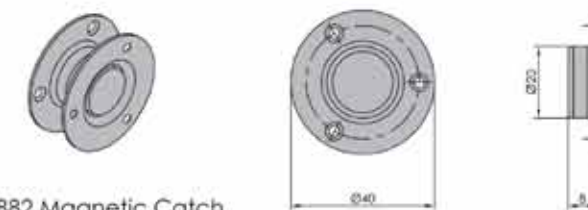
Fitted to each pair of leaves, at least one 'E' type (Lockable) flush bolt is usually fitted to the bottom of each set of leaves.



Door Configuration and Hardware Location Inward opening doors

Door Hold Back Accessories

The 882 magnetic catch is designed hold adjacent panels together 16mm part matching the hinge gap for a perfect parallel park.



882 Magnetic Catch

The 884 door holder is design to latch back the pivoted panel at either end of the application against an adjacent wall or can be mounted to hold the panel at 90 degrees to the opening.



884 Door Holder

Adjustment

Intermediate Hanger illustrated. Same method of adjustment applies to Pivot and End Hanger.

LOWER RAISE

HEIGHT ADJUSTMENT

A. Close leaves and adjust the door height to achieve an equal gap between the top of the leaves and the track (a 9 gap is recommended).

TIGHTEN

LOCKING

B. Once adjustment is complete, slide the Locking Clamp into position and secure with the M5 screw provided.

TIGHTEN

LOCKING

C. With the unit still in the closed position, slide the set of leaves towards the jamb to achieve the desired gap between the jamb and the pivot leaf.

Secure the top pivot block by tightening the two locking screws.

CLAMP SCREW

ADJUSTMENT CAM

CLAMP SCREW

BOTTOM SLIDE PLATE

BOTTOM ANCHOR

D. Replace the bottom pivot bolt and tighten to bottom slide plate. Mark the position of the bottom slide plate.

Fold the leaves and adjust the position of the bottom slide plate to the mark using the adjustment cam and allen key provided.

Tighten the clamping screws.

Optional 199SS Security Aligner Bolt

A. Rout cavity at mid door height in door edge to sizes shown and attach housing.

B. Screw mounting plate to jamb with wide side away from jamb rebate so that the thread axis is 5mm plus half door thickness from jamb rebate and at the same height from the floor as the middle of the cavity in the door edge.

C. Loosen clamp screw and adjust sleeve in small increments to touch the housing (away from jamb for more contact with door) whilst keeping the clamp screw wholly within the sleeve to avoid damage.

D. When the desired position is obtained, tighten the clamp screw firmly.

ROUTING DETAILS

SCALE 1:2

DOOR

Specifications

	45	75	145	175	MT45	MT75
Application	Aluminium Doors Non Mortice	Aluminium Doors Non Mortice	Timber Doors Non Mortice	Timber Doors Non Mortice	Timber Doors Mortice	Timber Doors Mortice
Max opening	14000mm	14000mm	14000mm	14000mm	14000mm	14000mm
Max panel weight	45kg	75kg	45kg	75kg	45kg	75kg
Max panel height	3000mm	3300mm	3000mm	3300mm	3000mm	3300mm
Max panel width	900mm	900mm	900mm	900mm	900mm	900mm
Panel Thickness Non Mortice Hinges	35 – 50mm	35 – 50mm	35 – 50mm	35 – 50mm		
Panel Thickness Mortice Hinges					44 – 60mm	44 – 60mm
Max number of panels	16 (8 each direction)	16 (8 each direction)	16 (8 each direction)	16 (8 each direction)	16 (8 each direction)	16 (8 each direction)
Track	180	250	180	250	180	250
Material	Aluminium, Mill or 25 microns clear anodised					
Standard Lengths	2000mm, 3000mm, 4000mm and 6000mm					
Hardware						
Finishes	PVDR – PVD Black, TG – Titanium Gold , SS – Stainless Steel, PS – Polished Stainless					
Pivot Sets	HEN1-45H	HEN1-75H	HEN1-45H	HEN1-75H	HEN1-45MT	HEN1-75MT
Jamb Pivot Sets	189E	189E	189E	189E	189MT	189MT
Security Aligner Bolt	199SS	199SS	199SS	199SS	199SS	199SS
Hangers	Chrome Bearings	Stainless Bearings	Chrome Bearings	Stainless Bearings	Chrome Bearings	Stainless Bearings
End Hanger Sets	HEN2L-45H	HEN2L-45SSH	HEN2L-75H	HEN2L-75SSH	HEN2L-45M	HEN2L-45SSM
End Hanger Wrap around				HEN2L-45E	HEN2L-45SSE	HEN2L-75E
Intermediate Hanger Set	HEN4-45H	HEN4-45SSH	HEN4-75H	HEN4-75SSH	HEN4-45H	HEN4-45SSH
Meeting Door Sets				HEN8-45	HEN8-45SS	HEN8-75
Outward opening Intermediate Set	HEN3-H	HEN3-H	HEN3-H	HEN3-H	HEN3-H	HEN3-H
Inward opening Intermediate Set	HEN5-H	HEN5-H	HEN5-H	HEN5-H	HEN5-H	HEN5-H
Inward opening Offset	HEN6-H	HEN6-H	HEN6-H	HEN6-H	HEN6-H	HEN6-H
Outward opening Offset	HEN7-H	HEN7-H	HEN7-H	HEN7-H	HEN7-H	HEN7-H
Channel	Aluminium	94A	94A	94A	94A	94A
Brass	94B	94B	94B	94B	94B	94B
Polypropylene	94P	94P	94P	94P	94P	94P
Poly & Support Channel	94PPA	94PPA	94PPA	94PPA	94PPA	94PPA
Material	Aluminium, Mill or 25 microns clear anodised					
Standard Lengths	2000mm, 3000mm, 4000mm and 6000mm					
Weather Seals	PS13B	PS13B	PS13B	PS13B	PS13B	PS13B
Track Seal	AQ21	AQ21	AQ21	AQ21	AQ21	AQ21
Frame Seal	AQ48	AQ48	AQ48	AQ48	AQ48	AQ48
Door Seal	95HS2A3T	95HS2A3T	95HS2A3T	95HS2A3T	95HS2A3T	95HS2A3T
95HS Hybrid Sill	95HS3A2T	95HS3A2T	95HS3A2T	95HS3A2T	95HS3A2T	95HS3A2T
Complete with timber tread	2000mm, 3000mm, 4000mm and 6000mm					
Complete with aluminium tread						
Standard Lengths	2000mm, 3000mm, 4000mm and 6000mm					
Locking						
Mortice Locks			6200 Series	6200 Series	6200 Series	6200 Series
Flush Bolts	512E/512	512E/512	456E/456	456E/456	456E/456	456E/456
Standard Lengths	400mm, 600mm and 900mm			190mm, 450mm, and 600mm		
Accessories	882	882	882	882	882	882
Magnetic Catch	884	884	884	884	884	884
Door Holder			401D	401D	401D	401D
Flush Pulls with finger grip						
Finishes	PVDR – PVD Black, TG – Titanium Gold , SS – Stainless Steel, PS – Polished Stainless					

Brio®

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