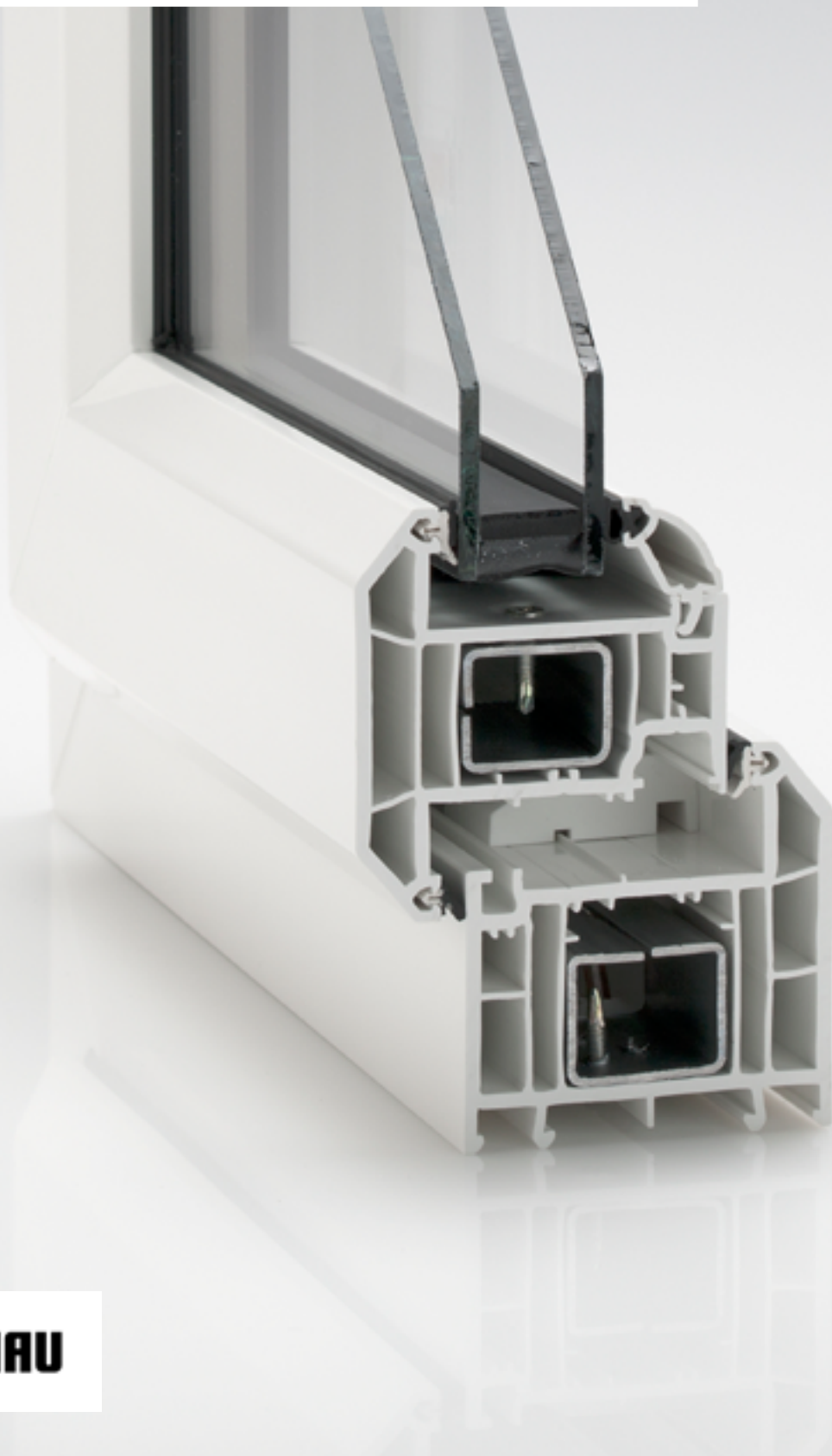


DOORS & WINDOWS

Technical Manual.



Our technical manual covers everything you need to know about the Rehau windows and doors we fabricate, from profile charts and colour options, through to lock mechanisms and handles

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U-values ►

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Window Hinges ►

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Door Hinges ►

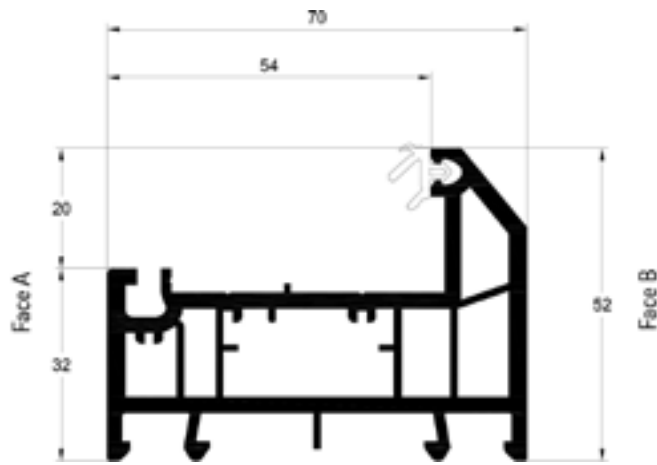
Door Cylinders ►

Door Thresholds ►

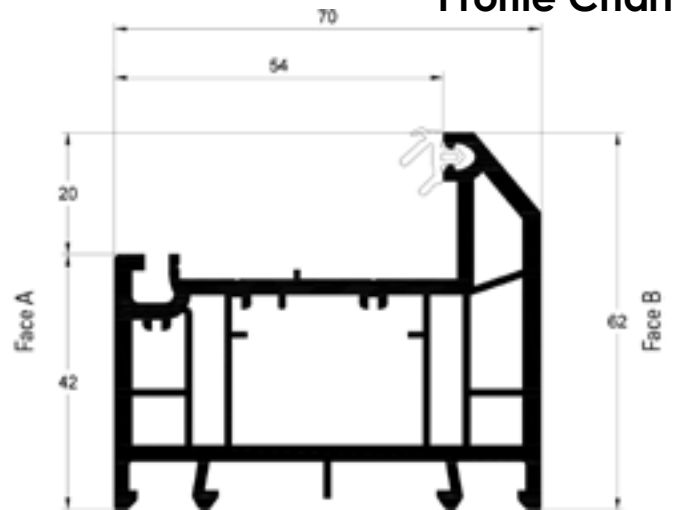
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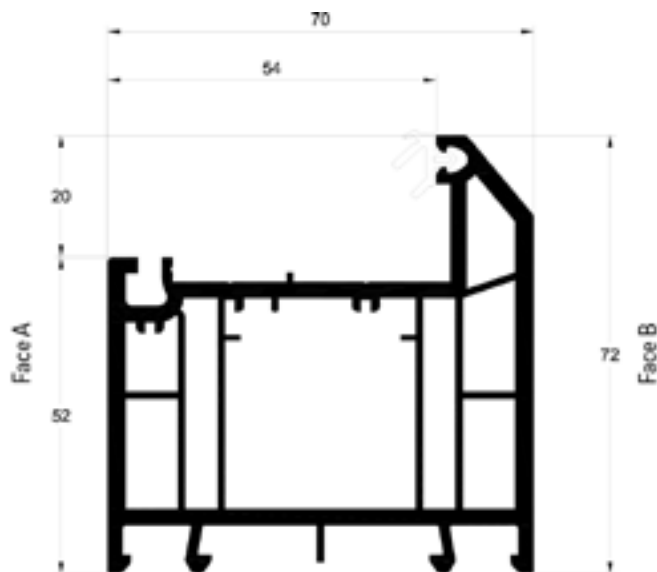
Profile Charts



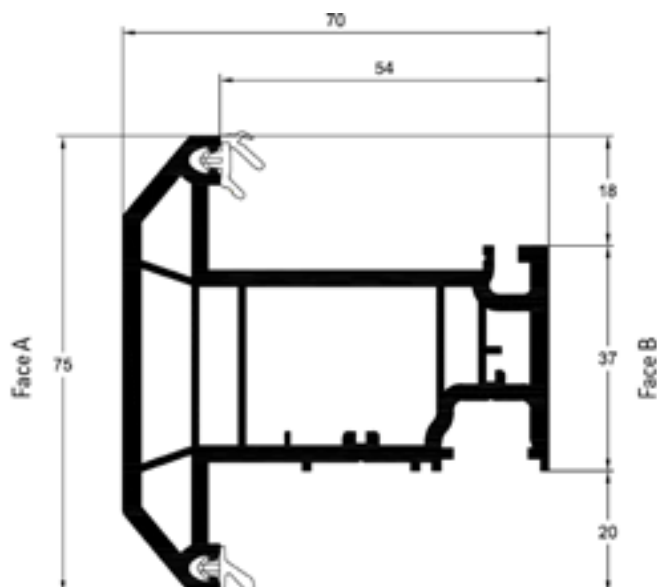
Casement Slim Outer Frame 52mm
Art.546816



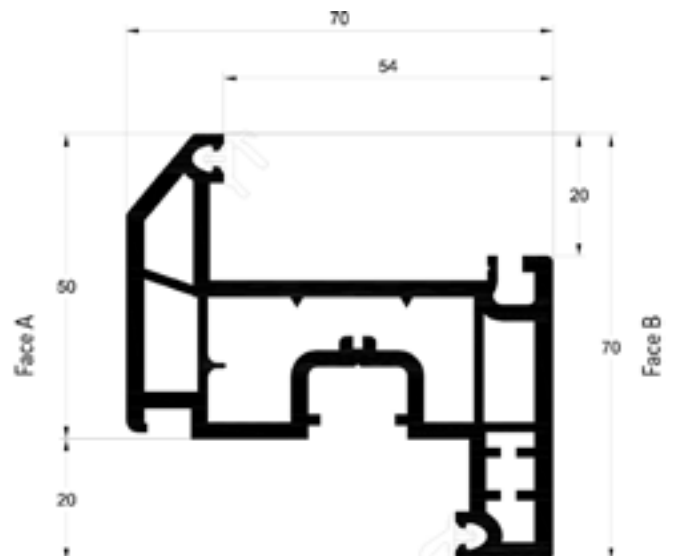
Casement Intermediate Outer Frame 62mm
Art.546826



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Casement T Sash 75mm
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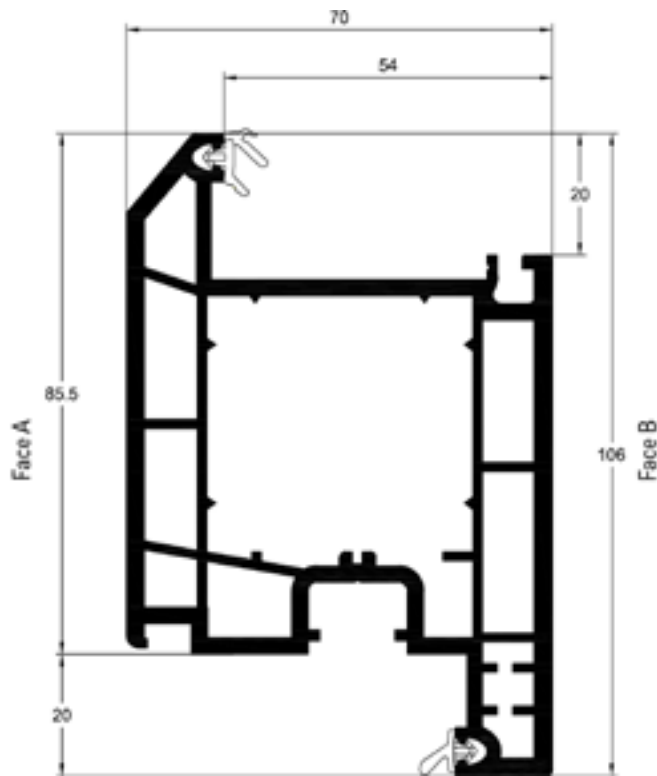


Tilt and Turn Sash 70mm
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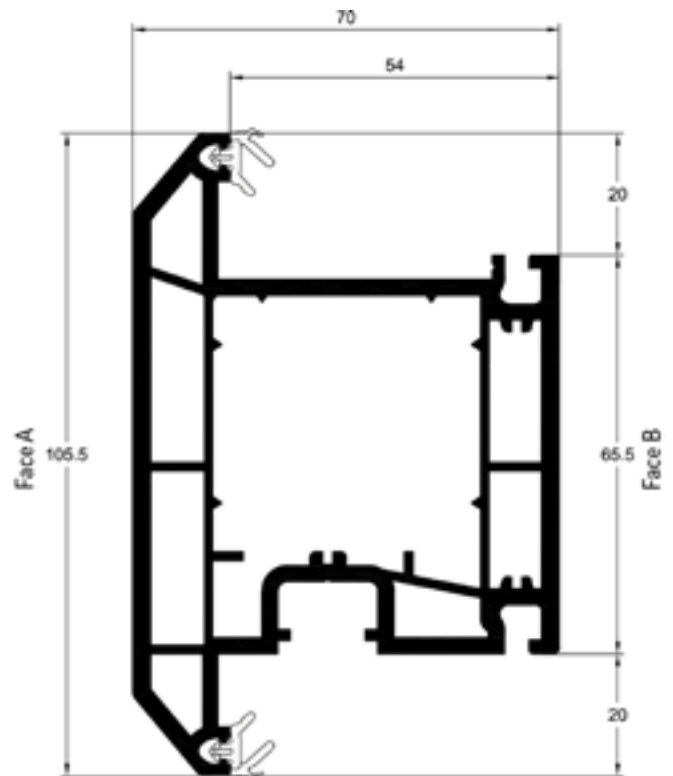
Face A & Face B used to identify foiled face



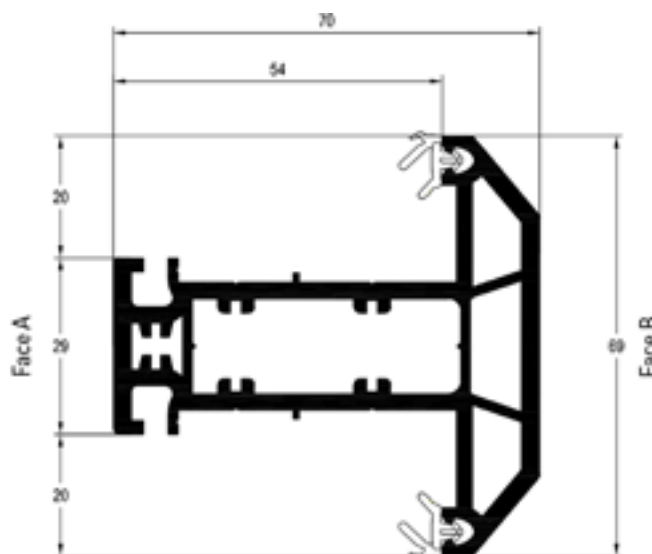
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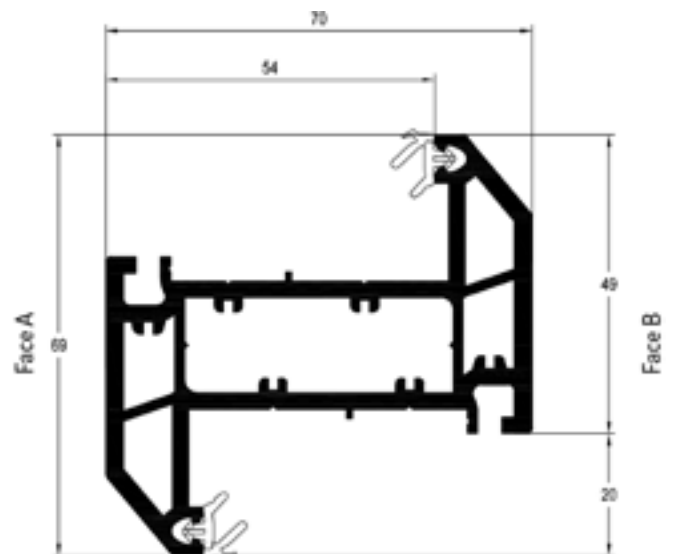
Door Z Sash 105.5mm
Art.546625



Door T Sash / Midrail 105.5mm
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Slim Transom / Mullion T 69mm
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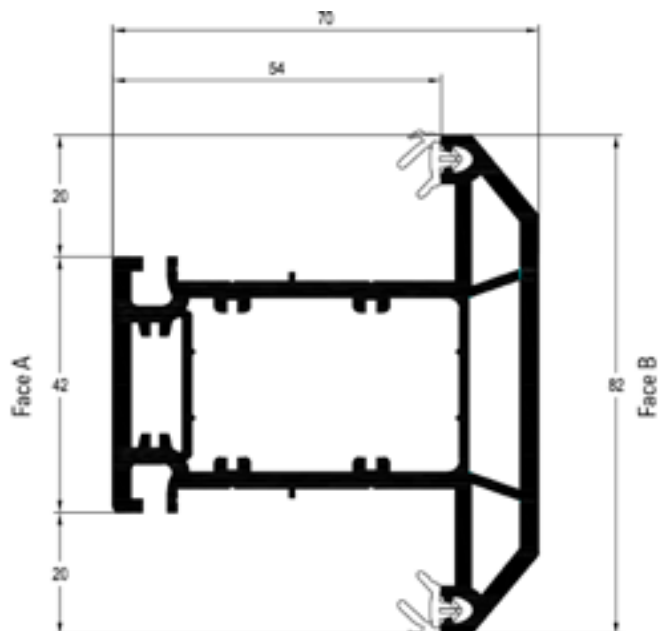
Slim Transom / Mullion Z 69mm
Art.546095

Face A & Face B used to identify foiled face

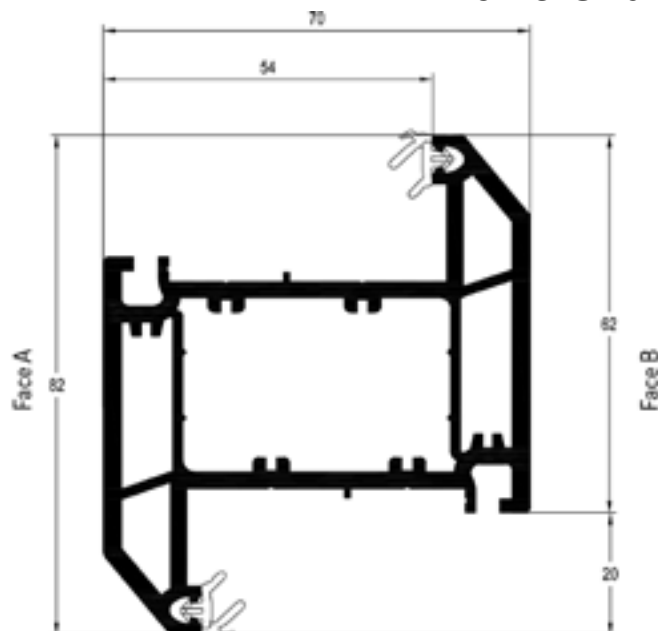




Profile Charts



Large Transom / Mullion T 82mm
Art.546475

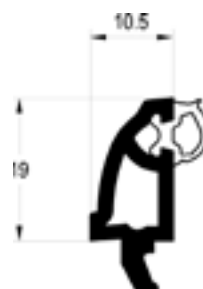


Large Transom / Mullion Z 82mm
Art.546465

Beads



Co-extruded Glazing Bead 18.5
For 28mm sealed units
Art.546572



Co-extruded Glazing Bead 10.5
For 36mm sealed unit
Art.503721

Repair Gaskets



Universal Repair Gasket for IG Profiles
Art.506140



Universal closing Gasket for IG Profiles
Art.506150

Face A & Face B used to identify foiled face

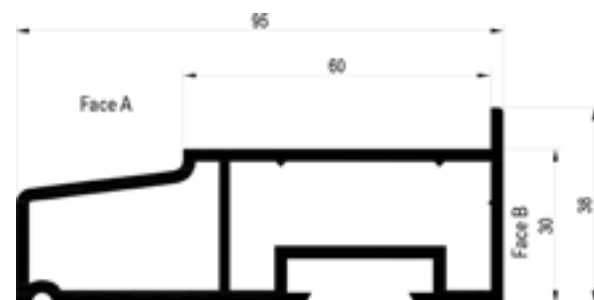


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Cills

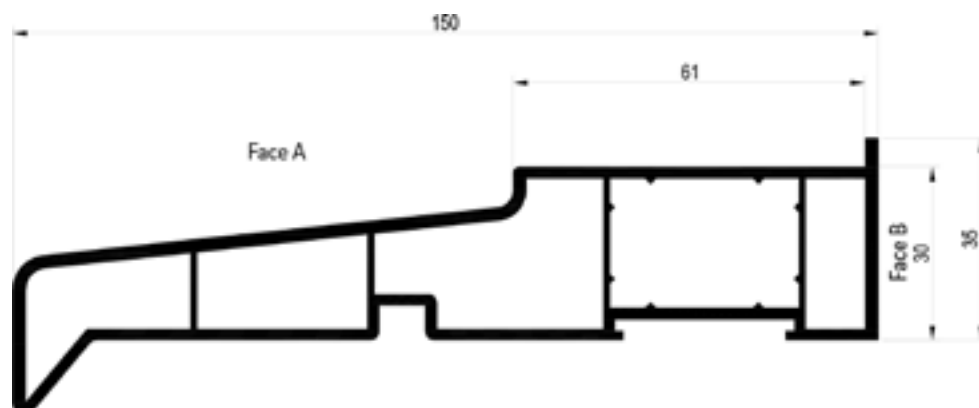
Profile Charts



95 Cill

Art.546360

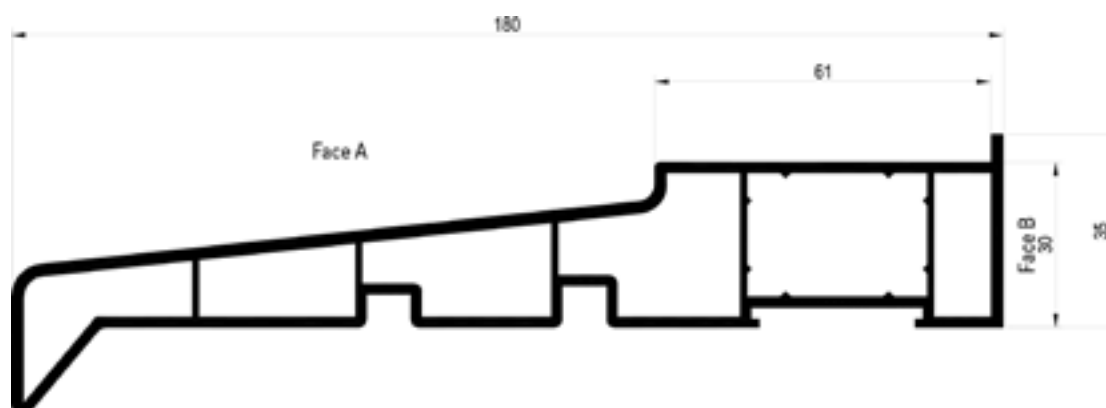
Reinforcement 50 x 15



150 Cill

Art.246330

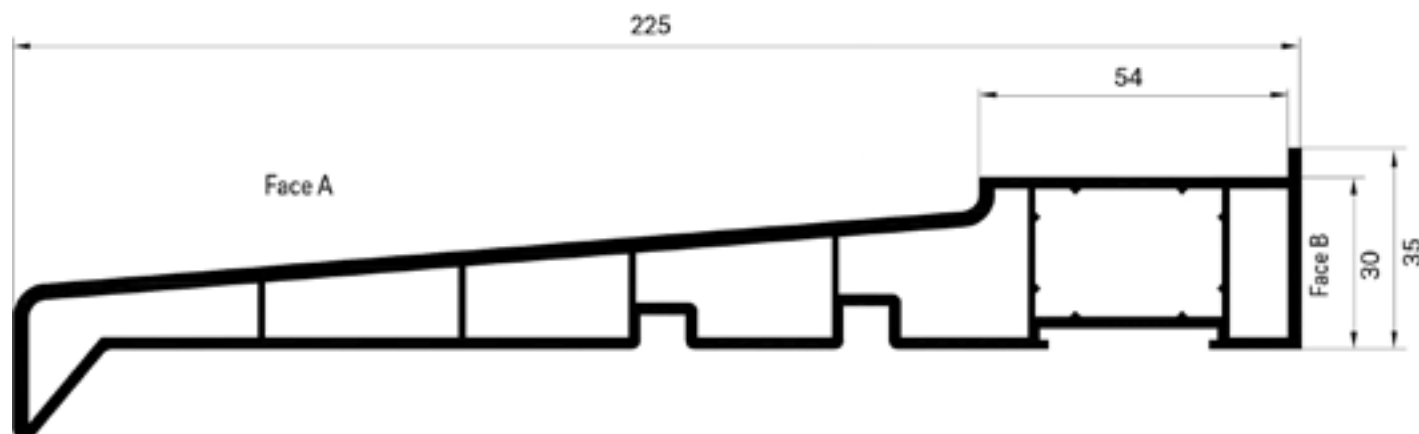
Reinforcement 30 x 20



180 Cill

Art.246340

Reinforcement 30 x 20



225 Cill

Art.503940

Reinforcement 30 x 20

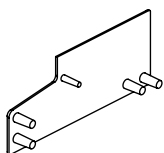
Face A & Face B used to identify foiled face



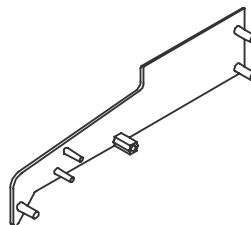
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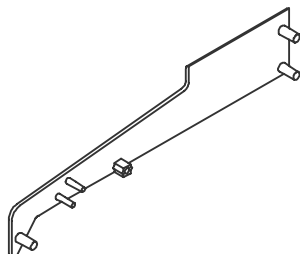
Cill End Caps



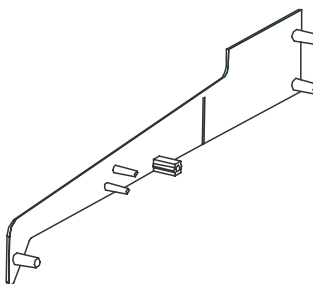
End Cap for 95mm Cill
Art.334665



End Cap for 150mm Cill
Art.246400

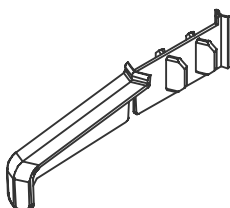


End Cap for 180mm Cill
Art.246410

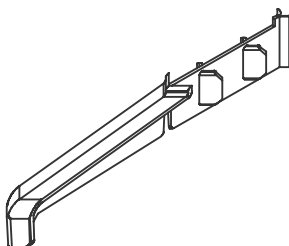


End Cap for 225mm Cill
Art.200038

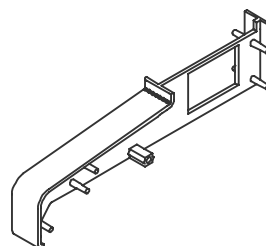
Cill Couplers



90° Coupler for 150mm Cill
Art.237571

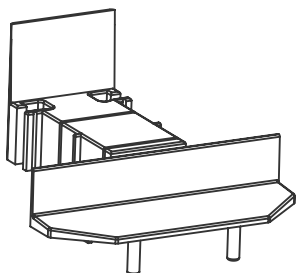


135° Coupler for 150mm Cill
Art.237551

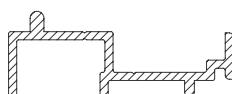


180° In-Line Coupler for 150mm Cill
Art.237561

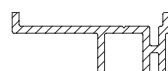
French Door



Dummy Mullion Endcap
Art.200574



French Door Spacer
Art.200367



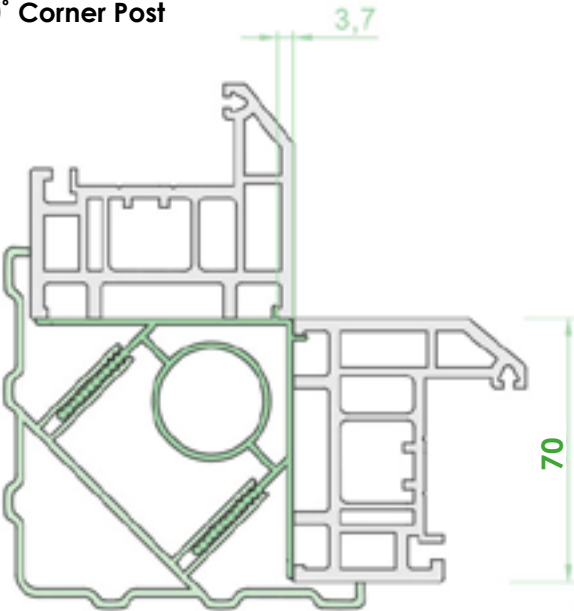
French Window Spacer
Art.200131



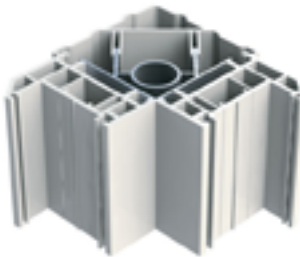


BAY POLES

90° Corner Post

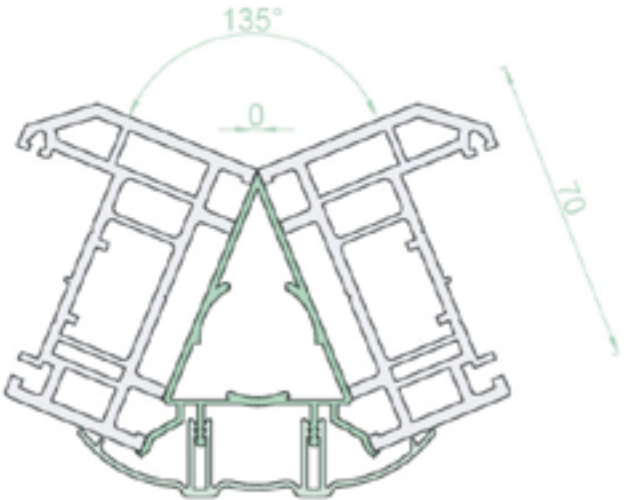


| | |
|-----------|---------|
| NAME | WWL142 |
| IXX (cm) | 7.68 |
| IYY (cm) | 16.88 |
| DEDUCTION | 0mm |
| JACK-ABLE | JACK-18 |



Load Bearing Capped at 2 Tonnes up to2100mm

Fixed 135°

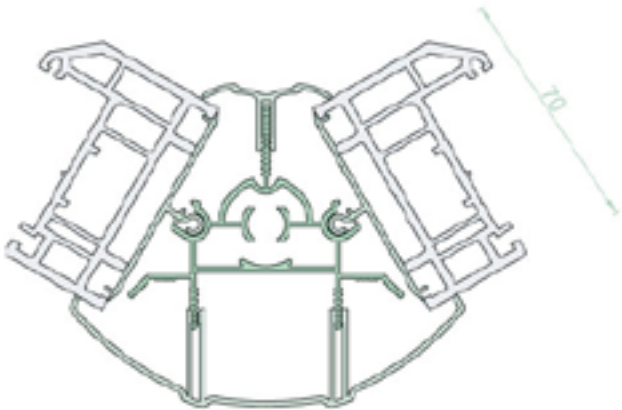


| | |
|-----------|----------------|
| NAME | 482137 |
| IXX (cm) | 20.97 |
| IYY (cm) | 15.52 |
| DEDUCTION | 10mm Per Frame |
| JACK-ABLE | JACK-17 |



Load Bearing Capped at 2 Tonnes up to2400mm

Variable
Covering angles 90°-126°

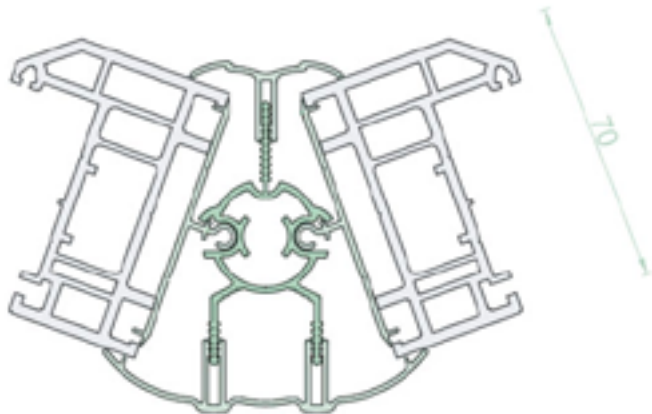


| | |
|-----------|---------|
| NAME | WWL121 |
| IXX (cm) | 16.94 |
| IYY (cm) | 10.16 |
| DEDUCTION | Varies |
| JACK-ABLE | JACK-12 |



Load Bearing Capped at 2 Tonnes up to2100mm

Variable
Covering angles 135°-160°



| | |
|-----------|--------|
| NAME | 482024 |
| IXX (cm) | 6.59 |
| IYY (cm) | 2.98 |
| DEDUCTION | Varies |
| JACK-ABLE | JACK-2 |



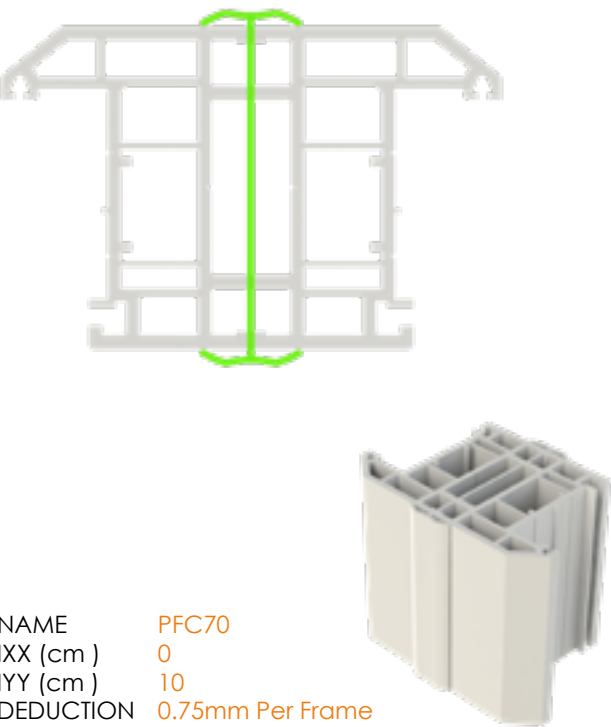
Load Bearing Capped at 2 Tonnes upto 1200mm
1500mm 1.6 Tonnes
1800mm 1.3 Tonnes
2100mm 0.9 Tonnes
2400mm 0.7 Tonnes





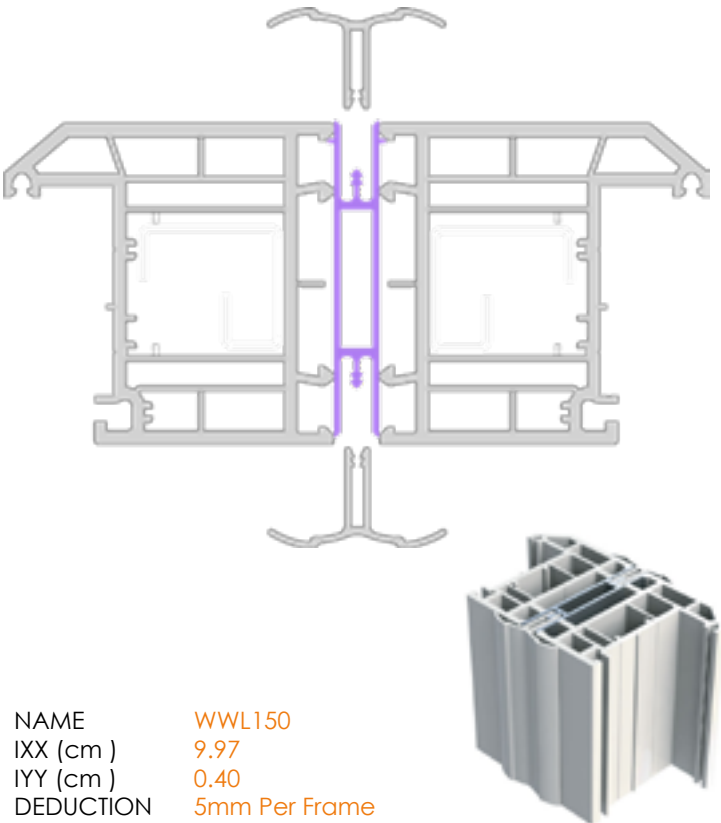
Frame Couplers

1.5mm Coupler
PVC-U



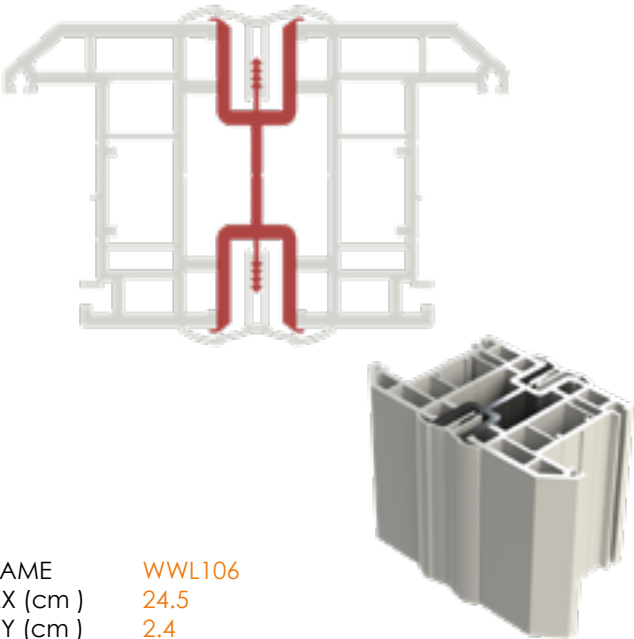
NAME PFC70
IXX (cm) 0
IYY (cm) 10
DEDUCTION 0.75mm Per Frame

Flush 10mm Coupler



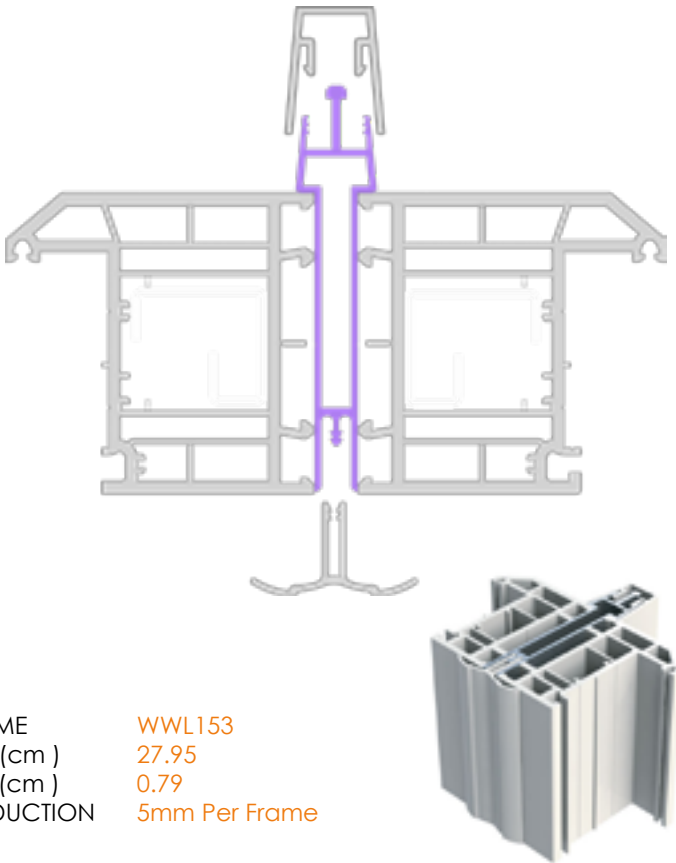
NAME WWL150
IXX (cm) 9.97
IYY (cm) 0.40
DEDUCTION 5mm Per Frame

20mm Coupler



NAME WWL106
IXX (cm) 24.5
IYY (cm) 2.4
DEDUCTION 10mm Per Frame

Protruding 10mm Coupler



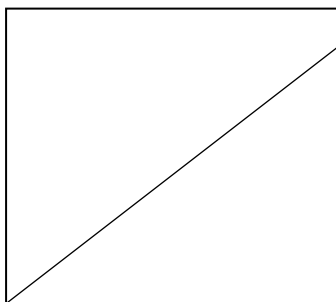
NAME WWL153
IXX (cm) 27.95
IYY (cm) 0.79
DEDUCTION 5mm Per Frame





Profile Colours

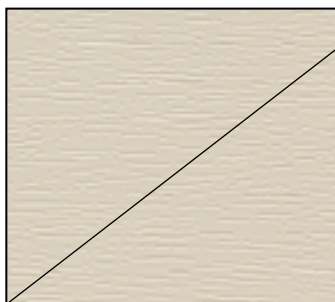
**White on
White**



**Whitegrain on
Whitegrain**



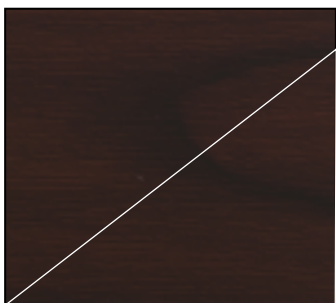
**Creamgrain on
Creamgrain**



**Creamgrain on
White**



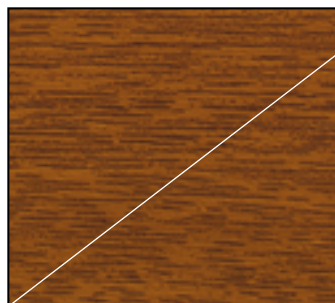
**Rosewood on
Rosewood**



**Rosewood on
White**



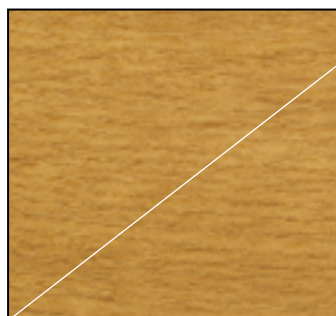
**Golden Oak on
Golden Oak**



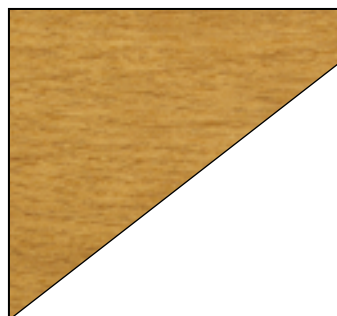
**Golden Oak on
White**



**Irish Oak on
Irish Oak**



**Irish Oak on
White**



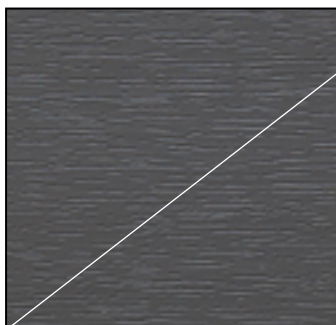
**Anthracite grey on
Anthracite grey**



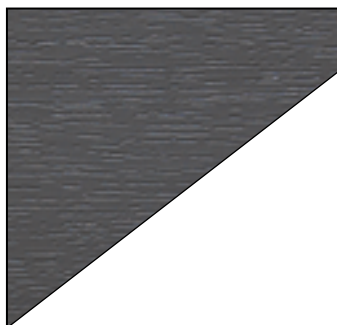
**Anthracite grey on
White**



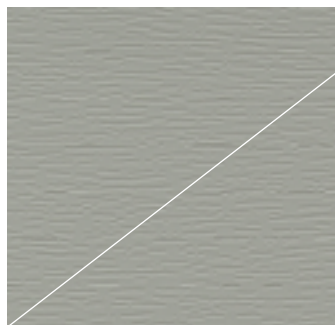
**Slate Grey on
Slate Grey**



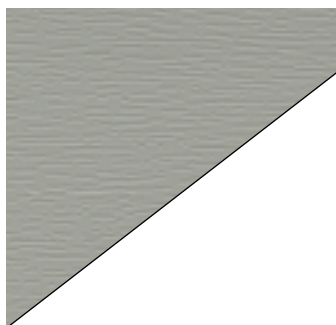
**Slate Grey on
White**



**Agate Grey on
Agate Grey**



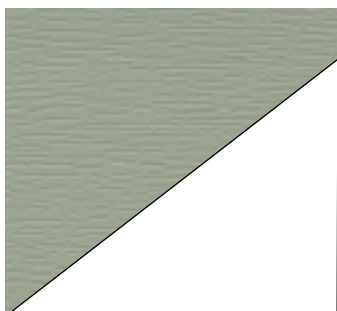
**Agate Grey on
White**



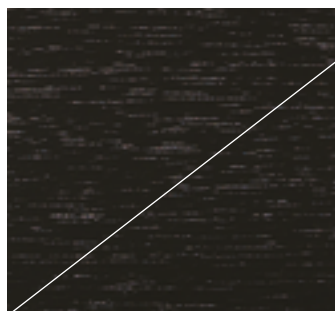
**Chartwell Green on
Chartwell Green**



**Chartwell Green on
White**



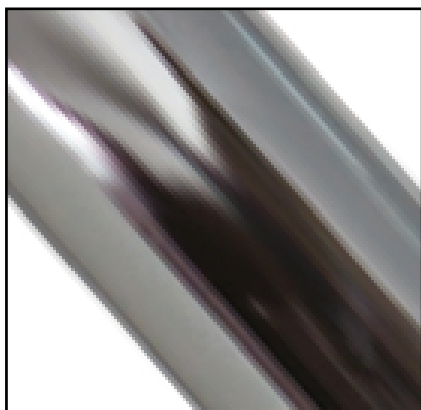
**Black Brown on
Black Brown**



**Black Brown on
White**



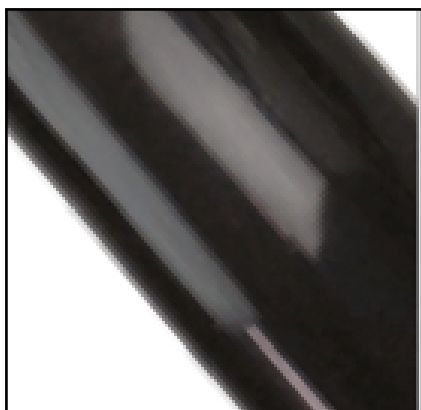
Hardware Colours



Chrome



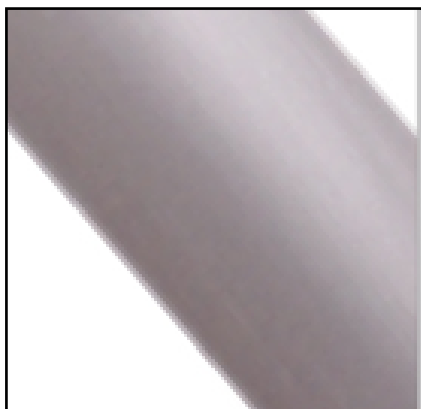
Gold



Black



White



Satin

| | | Thermal Transmission Of The Glass (Ug) | | | | | |
|---------------|--------------------------|---|-----|-----|-----|-----|-----|
| | | 0.7 | 0.8 | 0.9 | 1.0 | 1.1 | 1.2 |
| T70 CHAMFERED | 52mm Unreinforced | 0.9 | 1.0 | 1.1 | 1.2 | 1.2 | 1.3 |
| | 52mm Standard Reinforced | 0.9 | 1.0 | 1.1 | 1.2 | 1.2 | 1.3 |
| | 52mm Fully Reinforced | 1.0 | 1.0 | 1.1 | 1.2 | 1.2 | 1.3 |
| | 62mm Unreinforced | 0.9 | 1.0 | 1.1 | 1.2 | 1.2 | 1.3 |
| | 62mm Standard Reinforced | 0.9 | 1.0 | 1.1 | 1.2 | 1.2 | 1.3 |
| | 62mm Fully Reinforced | 1.0 | 1.0 | 1.1 | 1.2 | 1.2 | 1.3 |
| | 72mm Unreinforced | 0.9 | 1.0 | 1.1 | 1.2 | 1.2 | 1.3 |
| | 72mm Standard Reinforced | 0.9 | 1.0 | 1.1 | 1.2 | 1.2 | 1.3 |
| | 72mm Fully Reinforced | 1.0 | 1.0 | 1.1 | 1.2 | 1.2 | 1.3 |
| | | Total frame U value in W/m ² K | | | | | |

| | | Thermal Transmission Of The Glass (Ug) | | | | | |
|----------------|--------------------------|---|-----|-----|-----|-----|-----|
| | | 0.7 | 0.8 | 0.9 | 1.0 | 1.1 | 1.2 |
| T70 SCULPTURED | 52mm Unreinforced | 0.9 | 1.0 | 1.1 | 1.2 | 1.2 | 1.3 |
| | 52mm Standard Reinforced | 0.9 | 1.0 | 1.1 | 1.2 | 1.2 | 1.3 |
| | 52mm Fully Reinforced | 1.0 | 1.0 | 1.1 | 1.2 | 1.2 | 1.3 |
| | 62mm Unreinforced | 0.9 | 1.0 | 1.1 | 1.2 | 1.2 | 1.3 |
| | 62mm Standard Reinforced | 0.9 | 1.0 | 1.1 | 1.2 | 1.2 | 1.3 |
| | 62mm Fully Reinforced | 1.0 | 1.0 | 1.1 | 1.2 | 1.2 | 1.3 |
| | 72mm Unreinforced | 0.9 | 1.0 | 1.1 | 1.2 | 1.2 | 1.3 |
| | 72mm Standard Reinforced | 0.9 | 1.0 | 1.1 | 1.2 | 1.2 | 1.3 |
| | 72mm Fully Reinforced | 1.0 | 1.0 | 1.1 | 1.2 | 1.2 | 1.3 |
| | | Total frame U value in W/m ² K | | | | | |

| | | Thermal Transmission Of The Glass (Ug) | | | | | |
|------------------|--------------------------|---|-----|-----|-----|-----|-----|
| | | 0.7 | 0.8 | 0.9 | 1.0 | 1.1 | 1.2 |
| T70C TILT & TURN | 2mm Unreinforced | 0.9 | 1.0 | 1.1 | 1.2 | 1.2 | 1.3 |
| | 52mm Standard Reinforced | 0.9 | 1.0 | 1.1 | 1.2 | 1.2 | 1.3 |
| | 52mm Fully Reinforced | 1.0 | 1.1 | 1.1 | 1.2 | 1.3 | 1.4 |
| | 62mm Unreinforced | 0.9 | 1.0 | 1.1 | 1.2 | 1.2 | 1.3 |
| | 62mm Standard Reinforced | 0.9 | 1.0 | 1.1 | 1.2 | 1.2 | 1.3 |
| | 62mm Fully Reinforced | 1.0 | 1.1 | 1.1 | 1.2 | 1.3 | 1.4 |
| | 72mm Unreinforced | 0.9 | 1.0 | 1.1 | 1.2 | 1.2 | 1.3 |
| | 72mm Standard Reinforced | 0.9 | 1.0 | 1.1 | 1.2 | 1.2 | 1.3 |
| | 72mm Fully Reinforced | 1.0 | 1.1 | 1.1 | 1.2 | 1.3 | 1.4 |
| | | Total frame U value in W/m ² K | | | | | |

Maco Mach II Shootbolt Espagnolette



By engaging two central mushroom cams either side of a single striker plate, when the locking point is put under load during an attempted break in, the load is dispersed evenly on the striker plate which prevents it from twisting and stops the locking points from disengaging



- Secure steel cover plate.
- Improved screw positions so that they pick up the reinforcing.
- Small routing detail maintains strength in the profile.
- 19 mm cam travel ensures maximum engagement into the striker plate.
- Sintered steel spindle follower and drive wheels ensure strength and durability.
- 500 hours salt spray corrosion resistance.
- Manufactured under BS ISO 9001

Night Vent

striker plates incorporate a night vent position to allow airflow into occupied rooms. For security reasons it is not recommended that windows are left in the night vent position when the house is unoccupied.



Adjustable

All mushroom cams are adjustable for compression by plus or minus 1 mm.





Casement Window Handle

Our Quantum MK3 Inline Window Handle features an ergonomic design that ensures maximum hand clearance in operation. Part of our perfectly suited range of window and door hardware, making Quantum the perfect choice for all casement windows. With a 10 year mechanical & surface guarantee our handles are both durable and reliable.



- **Elegant ergonomic design with superior aesthetics**
- **Designed to give maximum clearance in operation**
- **Part of the fully suited Quantum Range**
- **Clip fit screw covercaps**
- **Push to open / Key lockable**
- **Non-locking green button version available**
- **Supplied with screws, key & non-locking inserts**
- **10 Year mechanical & surface finish guarantee**
- **Coating tested to BS.EN: 2007 Grade 4**



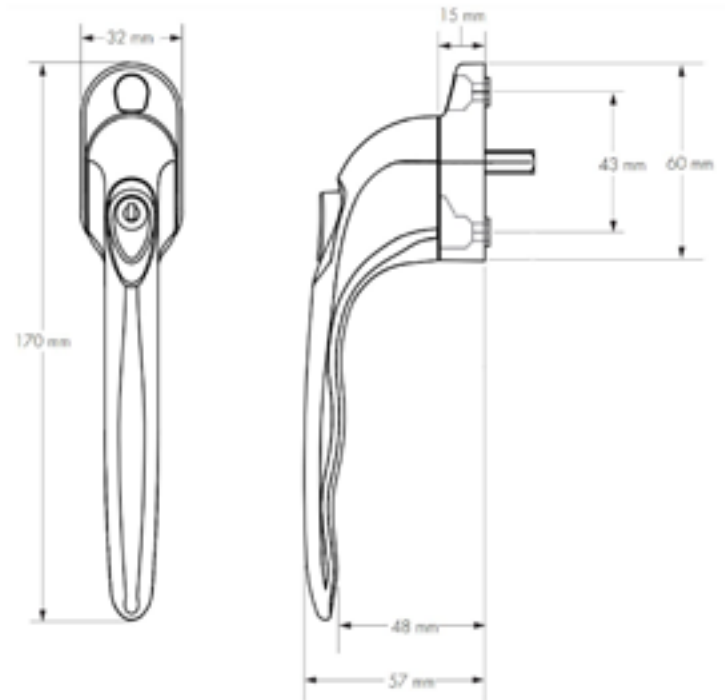
To maintain a high quality appearance and operation we recommend that all external hardware is cleaned routinely, and moving parts are lightly lubricated a minimum of twice a year. Products used within a 1 mile radius of coastal areas, building sites or large industrial areas, more regular cleaning will be required to prevent build up of corrosive contaminants.





Tilt and Turn Window Handle

Our Tilt & Turn handle can accommodate both tilt first and turn first applications. This handle features an attractive design and comes with a 10 year guarantee.



- **Elegant ergonomic design with superior aesthetics**
- **Part of the fully suited Quantum Range**
- **Push to open / Key lockable**
- **Supplied with screws, key & non-locking inserts**
- **10 Year mechanical & surface finish guarantee**
- **BBA Approved**
- **Coating tested to BS.EN: 2007 Grade 4**



To maintain a high quality appearance and operation we recommend that all external hardware is cleaned routinely, and moving parts are lightly lubricated a minimum of twice a year. Products used within a 1 mile radius of coastal areas, building sites or large industrial areas, more regular cleaning will be required to prevent build up of corrosive contaminants.



Standard Hinge

Available in

Ferretic steel (normal conditions) and
Austenitic steel (coastal/high humidity areas)



Our friction stays offer improved security and weather sealing through the use of a nylon reduced friction end cap. These stays have been designed to offer smooth closure and higher performance for window applications of all sizes.

- Available in 6", 8", 10", 12", 16", 20" and 24" for top hung applications and 8", 12" and 16" for side hung applications.
- Cycle tested with normal operation after 25,000 cycles.
- BBA tested in accordance with BS6375-2:1987, BS6375-2:2009 and BSEN13126-6:2008.

Fire Escape / Easy Clean Hinge

Available in

Ferretic steel (normal conditions) and
Austenitic steel (coastal/high humidity areas)



- Complies with building regulations Approved Doc B1 (fire safety) for means of escape.
- Cycle tested with normal operation after 25,000 cycles in accordance with BSEN1191:2012 (Exceeded class 3).
- Initial opening similar to Standard Side Hung Friction Stay.
- Full opening to 85° providing clear egress in excess of 500mm on a 600mm wide vent.
- Easy to operate thumb catches allow the vent to slide to the Easy Clean position giving between 100 and 250mm clear opening.
- Closing the window fully and re opening will automatically reset the window back to egress position.

Please observe BS8213 Part1:1991 Code of practice for safety in use and during cleaning

Restricted Opening Hinge

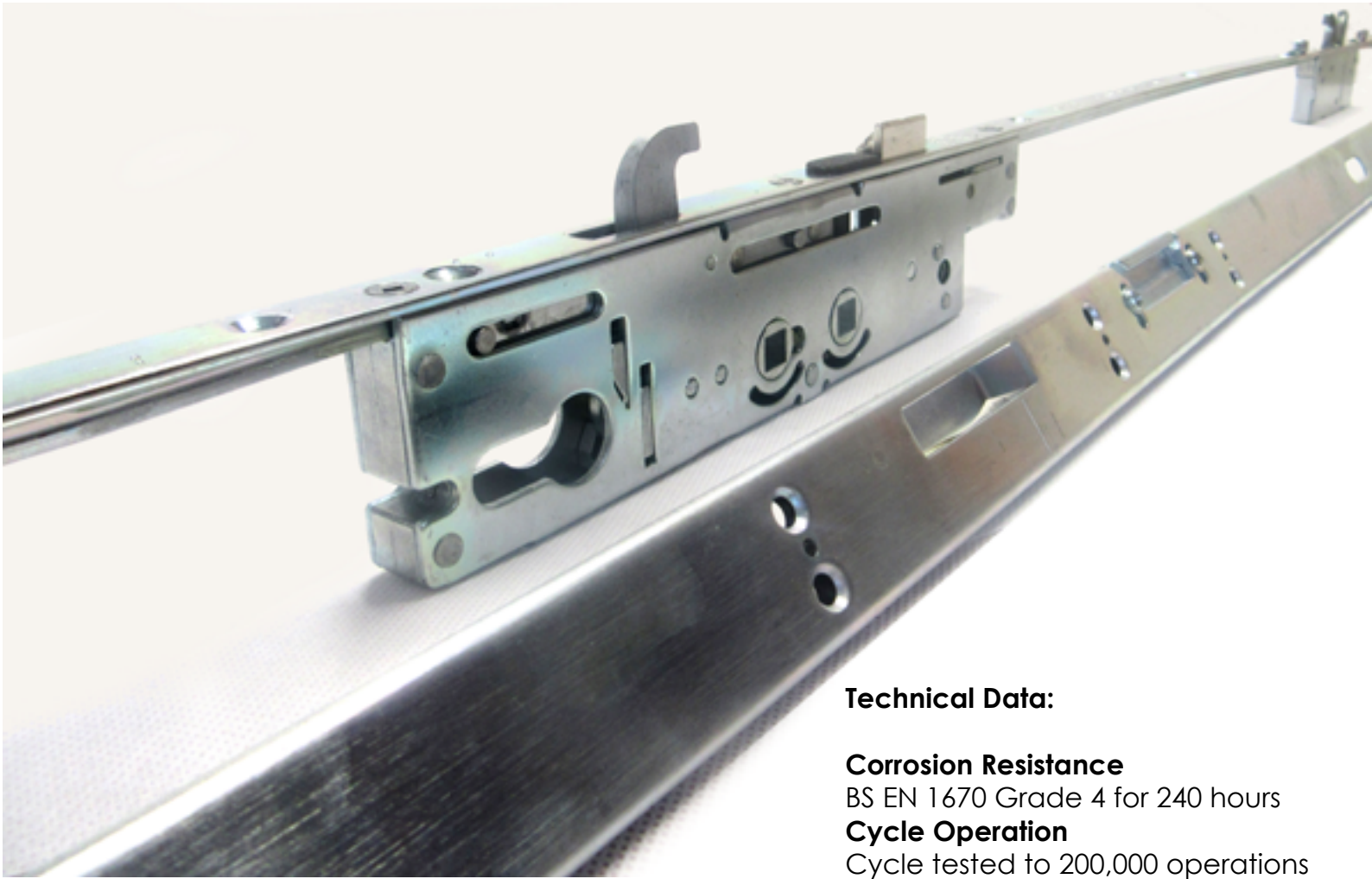
Available in
 Ferretic steel (normal conditions) and
 Austenitic steel (coastal/high humidity areas)

Our restrictor stay employ a simple built in child resistant catch, which limits the opening. Opening the window fully is a quick and easy operation for an adult using two hands.



- The child resistant catch limits the opening to 100mm maximum when restricted.
- Tested to BS6375 2009 to withstand a force of 600N when opened to its restricted position.
- Built in quick release levers allow windows to be fully opened for easy cleaning conforming to BS8213-1:2004.
- The restrictor catch automatically resets when the window is closed.
- Available in 12", 16", 20" and 24" for top hung applications and 12", and 16" side hung applications.
- Cost effective alternative to additional restrictor mechanisms.
- Widely used by many social housing specifiers and fabricators.
- Suitable for BS7415 kite marked windows and all local authority.
- CE mark tested and conformance to BSEN 14351-1:2006 on Upvc windows.
- Cycle tested in accordance with BSEN1191:2000 with normal operation after 25,000 cycles.
- BBA tested in accordance with BS6375-2:1987, BS6375-2:2009 and BSEN13126-6:2008.

Please observe BS8213 Part1:1991 Code of practice for safety in use and during cleaning



Technical Data:

Corrosion Resistance

BS EN 1670 Grade 4 for 240 hours

Cycle Operation

Cycle tested to 200,000 operations

Our high security door locking mechanism is PAS24 capable, Document Q compliant and registered under Secured by Design licence.

- **One piece keep**
- **3 opposing steel hooks and two steel anti lift bolts**
- **Four roller cams**
- **Easily reversible latch as standard**
- **Latch hold back snib on lock faceplate**
- **10 year guarantee**
- **Anti-drill plate for extra security**

Our door locks have an attractive silver finish and is also corrosion resistant to neutral salt spray in excess of BSEN1670 Grade 4, giving peace of mind to hard pressed fabricators and consumers.



Police Preferred
Secured by Design
Accreditation

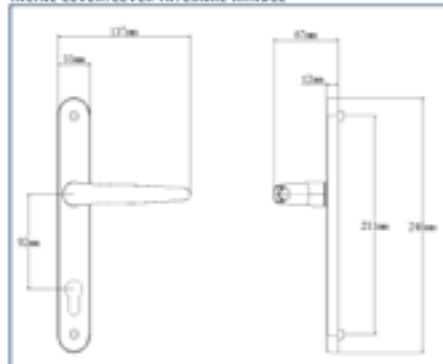
PASS 24 Requires:

PAS24 security plates (pack of 3)

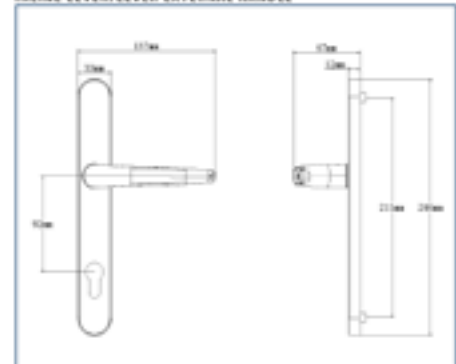
Designed with both functionality and aesthetics in mind, our premium Quantum MK2 Long Back Plate door handles are fully suited with the door and window furniture from the same range, delivering a consistent high quality & stylish look .



INLINE LEVER/LEVER INTERNAL HANDLE



INLINE LEVER/LEVER EXTERNAL HANDLE



Fixed spring assisted, guaranteeing horizontal handle return after every operation

10 Year mechanical guarantee

10 Year surface guarantee on powder coated finishes

5 Year surface guarantee on plated finishes

Coating tested to BS.EN: 2007 Grade 5

To maintain a high quality appearance and operation we recommend that all external hardware is cleaned routinely, and moving parts are lightly lubricated a minimum of twice a year. Products used within a 1 mile radius of coastal areas, building sites or large industrial areas, more regular cleaning will be required to prevent build up of corrosive contaminants.

The Patriot Plus high security door hinge offers a slim, unobtrusive appearance with an improved clearance for plaster line and finishing. Easy, accurate and independent 3D adjustment means no visible gap during height adjustment, giving better aesthetics and stability. It is supplied pre-assembled and ready to fit, dramatically speeding up the fitting process.



- Slim and unobtrusive appearance
- PAS 24 accredited as part of a door assembly
- Fitter and installer friendly
- Patented anti-lift feature
- Additional location pins to reduce twist
- Full 3D adjustment
- Vertical adjustment with no gap created between flag and base
- Non handed
- Slim frame plate
- No visible fixings
- Guarantee* - 10 years mechanical and Class 4 corrosion resistance

Product Material Specifications:

- Zinc alloy
- Stainless Steel - Grade 430
- Plastic - GF Nylon, UV stabilised ABS and Acetal

Testing:

- Conforms to EN1191 – tested to 100,000 cycles
- Corrosion tested to Grade 4
- PAS 24 accredited as part of a door assembly

Adjustment:

Height: +8mm

Compression: +/- 1.5mm

Lateral: +/- 6mm

Maximum Weight Carrying Capacity:

3 hinges carry 80KG

Hinge Adjustment

Compression Adjustment

+/- 1.5mm
4mm Allen Key



Rotate the Allen Key Clockwise or Anti-Clockwise to give the required compression setting
Ensure compression is evenly distributed across all hinges
Note: In rotation positive “click” positions are felt - (2 in each direction from the central position)

Height Adjustment

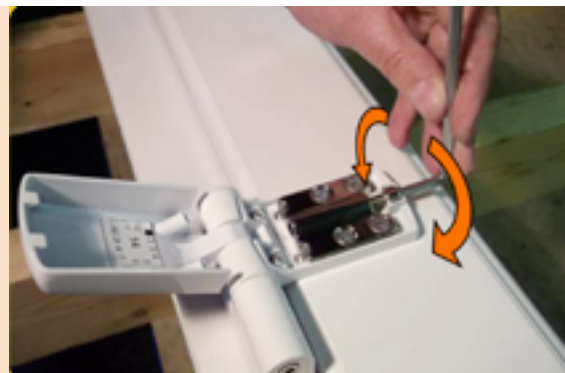
+ 8mm
- 0
5mm Allen Key



Rotate the Allen Key Clockwise give the required height setting
Ensure that the weight of the door is evenly distributed across all hinges

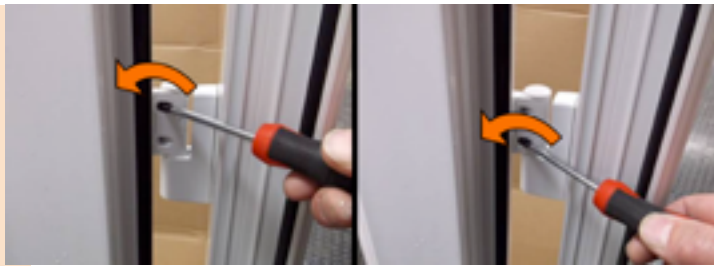
Lateral Adjustment

+/- 6mm
5mm Allen Key



Rotate the Allen Key Clockwise or Anti-Clockwise to give the required lateral setting
Ensure even distributed across all hinges

Hinge- Removing the door



Open the door to access the Cover Retaining Screws. These are self retaining screws therefore to release the cover the screws must be completely unscrewed however the screws do not come out.



Pull the cover out towards the centre of the door. On release a click will be heard. If the cover does not open by hand a screw driver can be used behind the knuckle to gently assist opening. Repeat stages 1 and 2.



Lift off the door.

Hinge- Removing the Hinge body



Insert a flat end screw driver into the slot found behind the pivot pin. The screw driver must be inserted under the leaf spring in order to lift the leaf spring up (i.e. away from the door frame).



Insert a 4mm Allen Key into the Hex Slot in the bottom of the Pivot Pin. Ensuring that the Screw Driver remains in place, tap the Allen Key into the Pin until the Hinge Body starts to slide off the Frame Mount.



Once the Hinge Body starts to separate from the Frame Mount it will slide off easily.



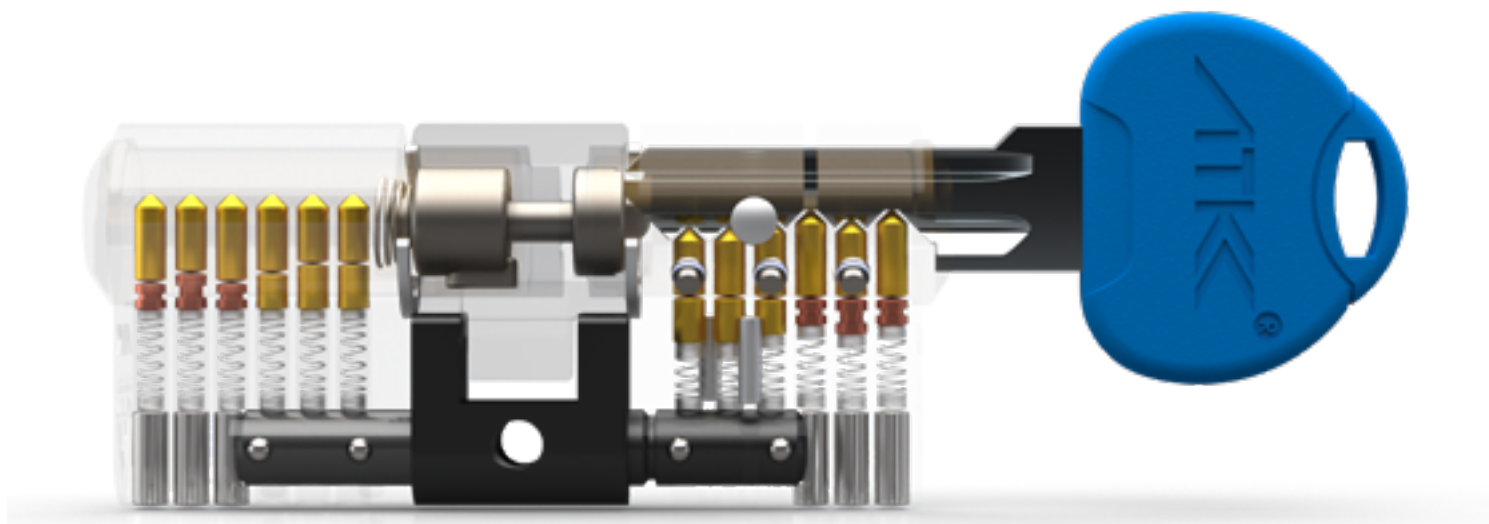
Available in nickel-plated or polished brass finishes, Kenrick's standard six-pin cylinders feature stainless steel springs on a brass body, and come with three keys as standard. The cylinders are available in any 5mm increment between 60mm and 110mm, making them a highly adaptable fit for a wide range of products.

Features and Specifications:

- Corrosion Resistance Grade C when tested to EN1670:1998
- Tested to 100,000 cycles
- Thumb turn available for all cylinder sizes
- Available as paired alike
- 10-year mechanical guarantee
- Tested to British Standard BSEN 1303:2005



3 Star Cylinder Upgrade Option



British Kitemark TS007:2014 +A2:2018 3 Star rated Lock (KM 586153)

Complies with BS EN 1303:2015, Pas24:2016 and BS3621:2017

SS312 Solid Secure Diamond Grade

Master Locksmith Association General Vulnerability approved

Secure By Design Accredited

6 pins

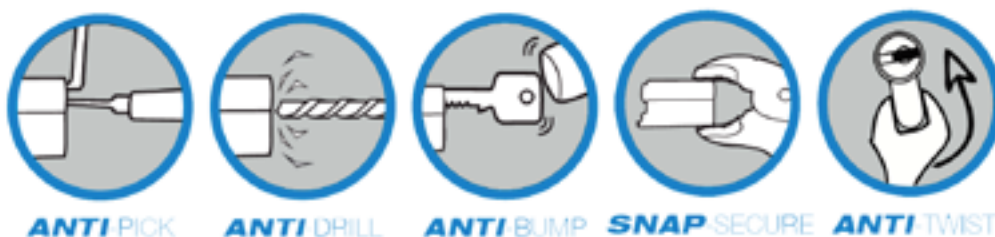
10 Anti Drill Pins

3 Keys per cylinder

Snap secure patented technology



Thumbturn

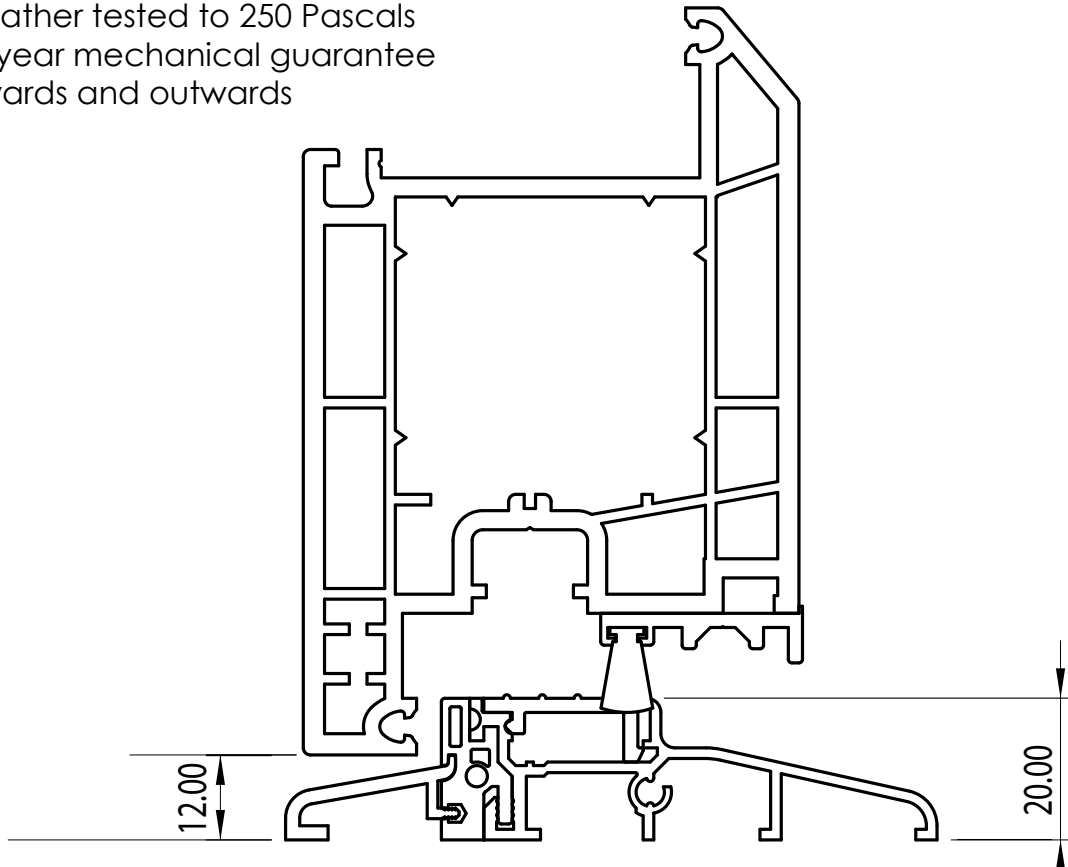


Door Thresholds

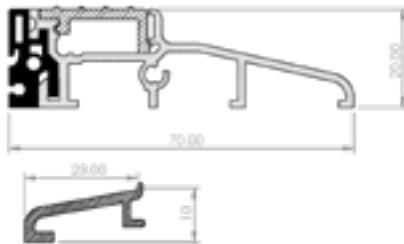
The threshold offers a long lifespan, as they have been designed using a combination of aluminium and PVCu for the durability to withstand the day to day use expected with residential doors.

Features and Specifications:

- 20mm Overall Height
- Part M compliant
- BS 6375
- Weather tested to 250 Pascals
- 10-year mechanical guarantee
- Inwards and outwards



Full Threshold Assembly



Ramp



Weather Bar



Cover Strip



Brush Pile 12 x 4.8



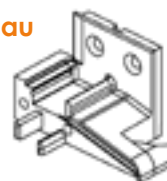
Ramp End Caps



Cover caps for Ramp nd Caps



End Caps for Rehau



Slimline Letterplate



Outward facing brushes create the Anti-Vandal feature as it prevents vandals from placing unwanted items into the cavity. Outwards facing brushes also means better draught proofing and makes it easier to post letters through.

180 degree opening flap means the flap will not snap off when opened too far. Matt finished plastic frame conceals any scratches.

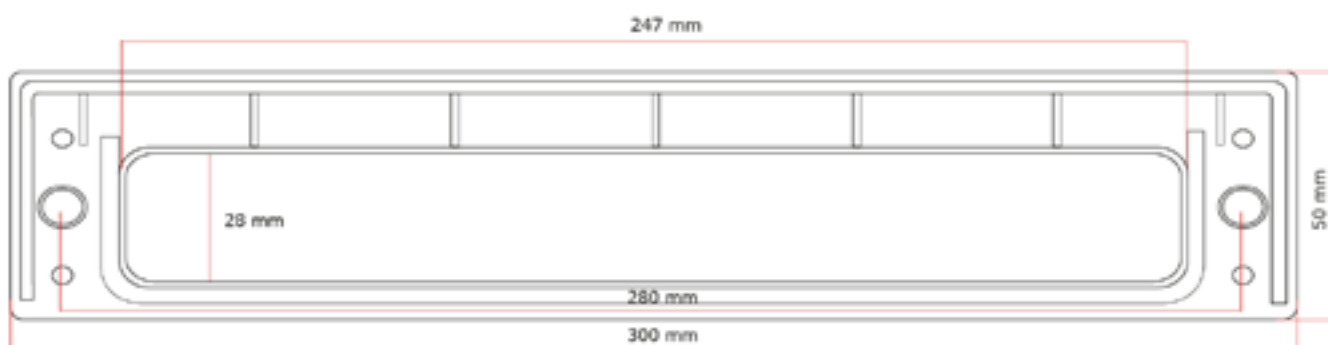
Blind bolts to the exterior of the letterplate prevent the outer frame being unscrewed from the door externally.

An internal water seal prevents water getting into the door or panel, and stops letters getting wet.

Ultra-flexible springs can withstand the letterbox lap opening thousands of times without breaking.

Features:

- Lifetime Coating Guarantee
- Fits doors 40-80mm in thickness





WINDOWS & DOORS For Low Maintenance Homes.

Partnership Way, Shadsworth Business Park, Blackburn, BB1 2QP