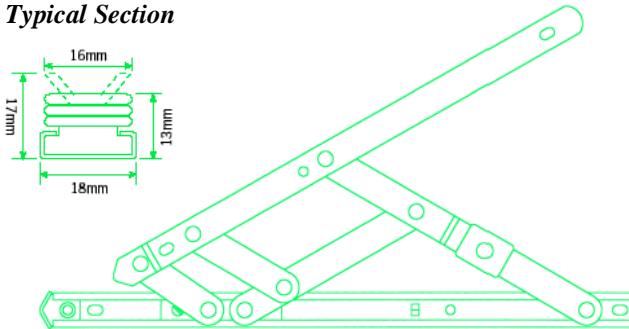
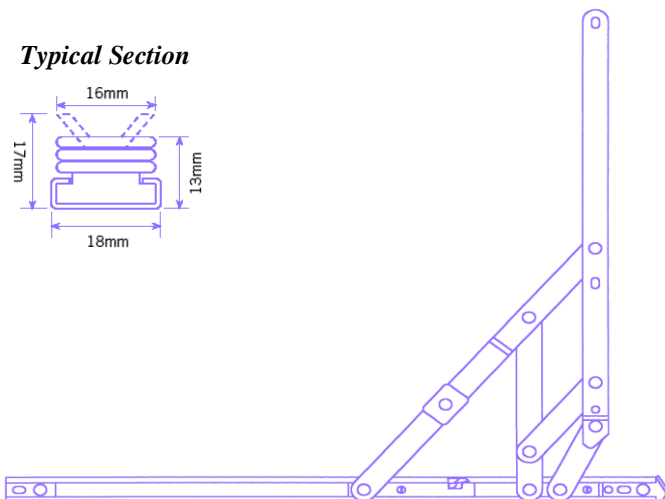


**Typical Section**



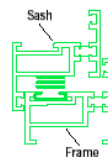
Size	200mm (8")	250mm (10")	300mm (12")	300mm (12")
Vent Type	Top Hung	Top Hung	Top Hung	Side Hung
Max Vent Width	1200mm	1200mm	1200mm	600mm
Max Vent Height	350mm	400mm	550mm	1300mm
Max Vent Weight	12kg	16kg	20kg	22kg
Opening Angle	60°	65°	60°	60°
Bulk Packed	100 (17mm 25)	50	50	50
Order No. 13mm	7710 0 07 40	7720 0 07 40	7730 0 07 40	7735 0 07 40
Order No. 17 mm LH	8210L	8220L	8230L	8235L
Order No. 17 mm RH	8210R	8220R	8230R	8235R
Size	400mm (16")	400mm (16")	500mm (20")	600mm (24")
Vent Type	Top Hung	Side Hung	Top Hung	Top Hung
Max Vent Width	1200mm	700mm	1000mm	1200mm
Max Vent Height	750mm	1300mm	1000mm	1200mm
Max Vent Weight	21kg	24kg	24kg	35kg
Opening Angle	60°	60°	52°	38°
Bulk Packed	50	50	25	25
Order No. 13mm	7745 0 07 40	7740 0 07 40	7750 0 07 40	7760 0 07 40
Order No. 17 mm LH	8245L	8240L	8250L	8260L
Order No. 17 mm RH	8245R	8240R	8250R	8260R

**Typical Section**

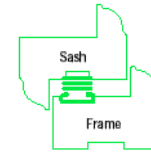


**NICO STANDARD FRICTION STAY TOP HUNG AND SIDE HUNG**

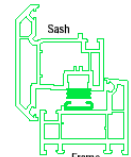
- Range of top and side hung hinges in sizes from 200mm up to 600mm
- Manufactured in ferritic stainless steel.
- 13mm and 17mm stack heights to suit most profiles.
- Slotted fixing holes in base channel and sash bar with Final fixing hole in each component to provide maximum sash/frame adjustment.
- Suitable for PVC-u, Aluminium and Timber.
- Extra strong glass-filled nylon friction slide,
- End-caps symmetrical on 13mm, or offset on 17mm.



Aluminium



TIMBER



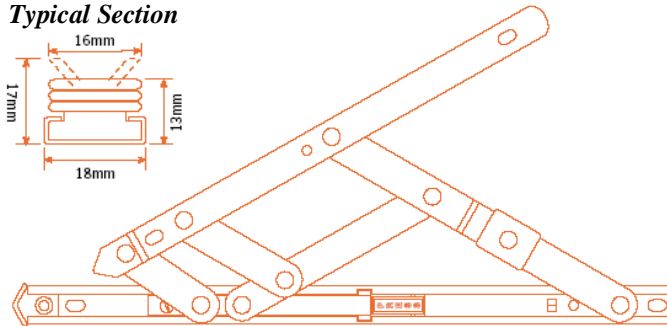
PVCu

**NICO EGRESS FRICTION STAY SIDE HUNG**

- 400mm long with 90 Deg opening for side hung windows up to a maximum of 700mm wide x 1300mm high and a total glazed weight of 26kg.
- Manufactured in stainless steel.
- 13mm and 17mm stack heights to suit most profiles.
- Integral restrictor mechanism restricts initial opening to 100mm.
- Slotted fixing holes in base channel and sash bar with final fixing hole in each component to provide maximum sash/frame adjustment.
- Suitable for PVC-u, Aluminium and Timber Windows.
- Complies with BS 5588: Part 1 1990 and satisfies Building Regulations which demand a clear opening for emergency Egress.

Size	300mm (12")	350mm (14")	400mm (16")
Vent Type	Side Hung	Side Hung	Side Hung
Max Vent Width	600mm	600mm	700mm
Max Vent Height	1300mm	1300mm	1300mm
Max Vent Weight	20kg	18kg	26kg
Opening Angle	85°	90°	90°
<b>13mm RANGE</b>			
Bulk Packed	50 Each hand	50 Each hand	50 Each hand
Order No. Easy Clean LH	8534 1 07 40		8545 1 07 40
Order No. Easy Clean RH	8534 2 07 40		8545 2 07 40
Order No. Non-Clean LH		8638L 90	8641 1 07 40
Order No. Non-Clean RH		8638R 90	8641 2 07 40
<b>17mm RANGE</b>			
Bulk Packed	40 Each hand	50 Each hand	50 Each hand
Order No. Easy Clean LH	8536L		8546L
Order No. Easy Clean RH	8536R		8546R
Order No. Non-Clean LH		8738L 90	
Order No. Non-Clean RH		8738R 90	

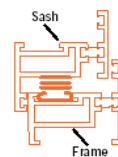
**Typical Section**



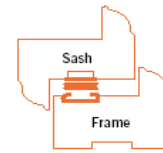
Size	300mm (12")	400mm (16")	500mm (20")	600 (24")
Vent Type	Side Hung	Side Hung	Top Hung	Top Hung
Max Vent Width	600mm	700mm	1000mm	1200mm
Max Vent Height	1300mm	1300mm	1000mm	1200mm
Max Vent Weight	22kg	24kg	24kg	35kg
Opening Angle	60°	60°	52°	38°
<b>13mm RANGE</b>				
Bulk Packed	50	50	25	25
Order No.	7935	7940	7950	7960
<b>17mm RANGE</b>				
Bulk Packed	50	50	25	25
Order No. LH	8335L	8340L	8350L	8360L
Order No. RH	8335R	8340R	8350R	8360R

**NICO RESTRICTOR FRICTION STAY TOP HUNG AND SIDE HUNG**

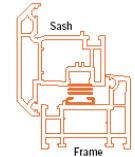
- Range of top and side hung hinges in sizes from 200mm up to 600mm
- Manufactured in stainless steel and suitable for PVC-u, Aluminium and Timber windows.
- 13mm and 17mm stack heights to suit most profiles.
- Integral restrictor mechanism restricts initial opening to 100mm.
- Slotted fixing holes in base channel and sash bar with final fixing hole in each component to provide maximum sash/frame adjustment.
- Full ventilation opening position requires coordinated two handed operation.
- Complies with BS 6375 : Part 2 1987, Clause A7 Test 6 Strength of restricted opening location devices and maximum opening stops



Aluminium



TIMBER

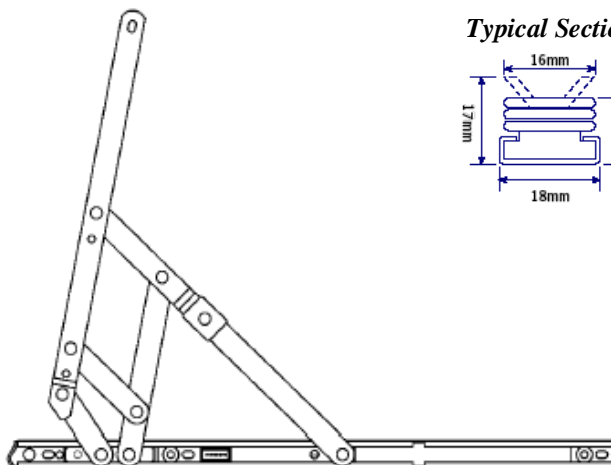


PVCu

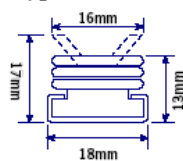
We also have friction hinges to suit LB profile please contact us for more details

**NICO RESTRICTED EGRESS FRICTION STAY SIDE HUNG**

- 400mm handed hinge supplied with matching unrestricted hinge
- Manufactured in stainless steel and suitable for PVC-u, Aluminium and Timber windows.
- 13mm and 17mm stack heights to suit most profiles.
- Integral restrictor mechanism restricts initial opening to 100mm.
- Slotted fixing holes in base channel and sash bar with final fixing hole in each component to provide maximum sash/frame adjustment.
- Full ventilation opening position requires coordinated two handed operation.
- Complies with BS 6375 : Part 2



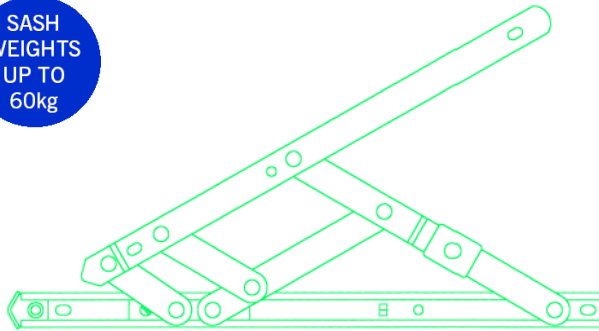
**Typical Section**



Size	400mm (16")
Vent Type	Side Hung
Max Vent Width	700mm
Max Vent Height	1300mm
Max Vent Weight	24kg
Opening Angle	75°
<b>13mm RANGE</b>	
Bulk Packed	25 Pairs
Order No. LH	8441L
Order No. RH	8441R
<b>17mm RANGE</b>	
Bulk Packed	25 Pairs
Order No. LH	8446L
Order No. RH	8446R



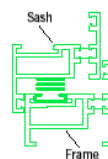
**SASH WEIGHTS UP TO 60kg**



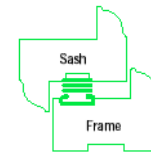
Size	400mm (16")	400mm (16")	400mm (16")	600mm (24")
Vent Type	Side Hung	Side Hung	Top Hung	Top Hung
VENT STYLE	Egress - H/D	Standard - H/D	Standard - H/D	Standard - H/D
Max Vent Width	800mm	900mm	1200mm	1400mm
Max Vent Height	1250mm	1250mm	1000mm	1000mm
Max Vent Weight	35kg	35kg	45kg	60kg
Opening Angle	90°	50°	50°	38°
<b>14mm RANGE</b>				
Order No. LH	8547LHD	7740LHD	7740LHD	7760LHD
Order No. RH	8547RHD	7740RHD	7740RHD	7760RHD
<b>18mm RANGE</b>				
Order No. LH	8557LHD	8240LHD	8240LHD	8260LHD
Order No. RH	8557RHD	8240RHD	8240RHD	8260RHD

**NICO HEAVY DUTY FRICTION STAY TOP HUNG AND SIDE HUNG**

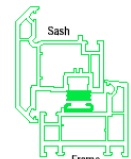
- Side Hung and Easy Clean versions for maximum sash size of 900mm x 1250mm and maximum sash weight of 35kg.
- Top Hung versions for maximum sash size of 1000mm x 1400mm and maximum sash weight of 60kg.
- Manufactured in stainless steel.
- 14mm and 18mm stack heights to suit most profiles.
- Additional fixing holes for maximum stability and sash/frame adjustment.
- Suitable for PVC-u, Aluminium and Timber windows.



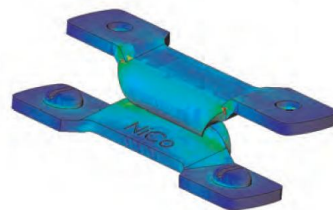
Aluminium



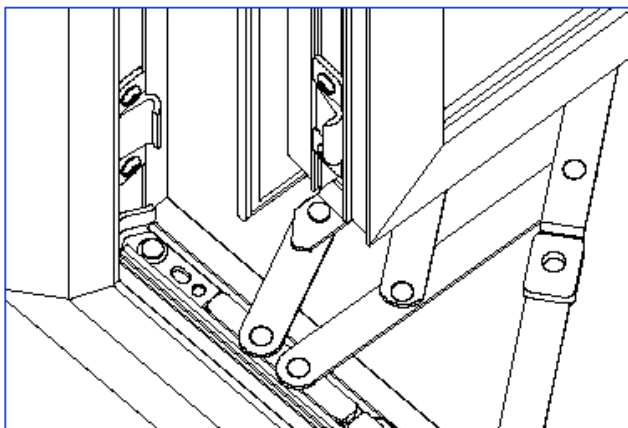
TIMBER



PVCu



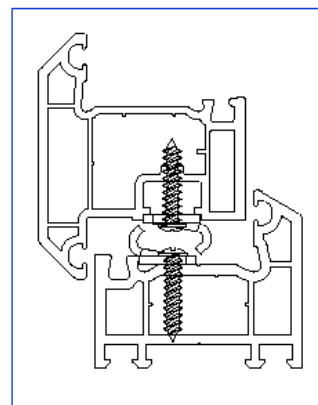
TYPICAL INSTALLATION



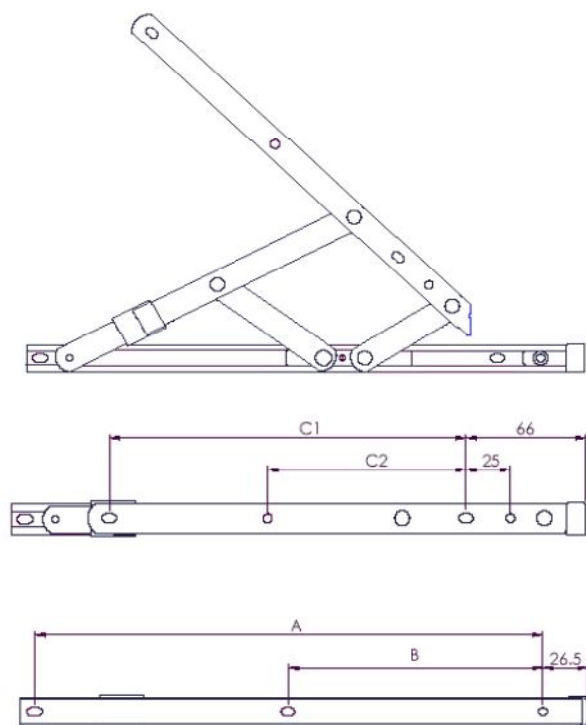
	NOMINAL CAVITY SIZE	FINISH	PART NO
X-tra Bolt	13mm	S500	8000 0 13 44
X-tra Bolt	13mm	YZP	8000 0 13 34
X-tra Bolt	17mm	S500	8000 0 17 44
X-tra Bolt	17mm	YZP	8000 0 17 34

**NICO SECURITY PLUS X-tra BOLT TOP HUNG AND SIDE HUNG**

- A simple to fit security device that provides additional security for upvc or timber windows.
- Manufactured from heavy gauge steel (2.3mm) and plated for an attractive, long-life finish,
- Exceeds the requirements of BS7950, and PAS024
- Multipoint locking devices.
- Suitable for cavities from 12mm to 19mm.
- Installed by fixing one half to the frame 50-100mm above the friction hinge nose cap and fixing the other half opposite to it on the sash.
- X-tra bolt should be fixed into window reinforcement if Possible. If not fix to the frame with 4.8mm Screws.



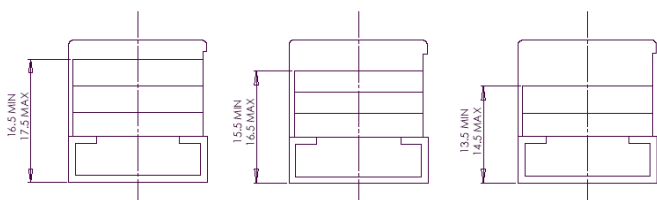
TYPICAL CROSS SECTION X-tra Bolt™ INSTALLATION ON uPVC SYSTEM.



HI-STACK 16.5 WORKING HEIGHT RANGE

HI-STACK 15.5 WORKING HEIGHT RANGE

STANDARD-STACK WORKING HEIGHT RANGE



Size mm	Ncm Inch	Dim A	Dim B	Dim C1	Dim C2
210	8	177.5	136	93.5	-
262	10	229	180.5	126	-
311	12	278.5	201	168.5	-
414	16	380.5	232.5	201	-
516	20	483.5	186.5	266.2	93.5
616	24	583.5	237.5	316	180

### Schlegel Crusader Friction Stays TOP HUNG AND SIDE HUNG

- Manufactured from high quality stainless steel, the hinge is designed for high performance on all window types and sizes.
- The pointed sash arm and nylon end cap together provide excellent gasket compression and smooth engagement.
- Restrictor versions also available.
- The security performance of the hinge may be enhanced by fitting of hingeuard protection plates.
- Designed to engage only when the window is under attack, Hingeuard prevents disengagement by supporting the hinge end cap
- Corrosion Resistance : Meets Requirements of BS EN 1670:2007 Grade 4 (240hrs).
- Performance : Meets the requirements of BS6375-1:2004 Tested to 20000 cycles of opening.
- Operation : Meets the requirements of BS6375-2:1987.

### Material Specification

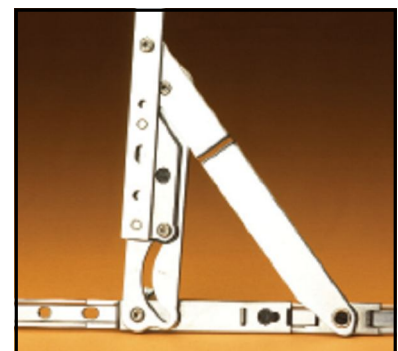
**Bars, Arms & Rivets :** Stainless Steel BS EN 10088-2:2005 Ferritic - 1.4016 (430 S17)

**End Cap :** Grey Nylon

**Mouldings :** Glass Filled Nylon

**Friction Screw :** Brass BS EN 12164:1998 CW614N

Size mm	Ncm Inch	Approx Opening Angle	Max Width mm	Max Height MM	Max Sash Weight
210	8 Top	53	1000	300	10
262	10 Top	80	1100	400	14
311	12 Top	80	1200	550	16
414	16 Top	75	1200	650	18
516	20 Top	40	1200	850	22
616	24 Top	45	1200	850	24
311	12 Side	80	600	1200	18
414	16 Side	75	600	1300	18



For casement window systems, The Mega Egress Friction Hinge is suitable for all side hung applications. Due to the design superior integral strength, one hinge size covers all frame widths up to 900mm at a maximum load 40Kg.

**Testing And Accreditation**

UKAS Laboratory tested to BS EN 1670: 1998 and have exceeded grade 5 classification for ultimate corrosion resistance.  
 Tested to over 25,000 cycles under 40kg operational load.  
 Has been tested to the equivalent of BS7950 security test - 3Kn perpendicular load with 1Kn lateral load.  
 BBA accredited certificate number S2-41921.

**Product Material Specifications**

Stainless steel parts are - 430 S17.  
 Plastic parts are glass reinforced Nylon 66.

**Recommendations**

Immobilizer to be fitted to Easy Clean feature on sash widths above 600mm (see fitting instructions)



**Key Product Features**

- One size suits all side hung applications up to 900mm wide.
- Moves sash outside frame aperture on opening, therefore easier to achieve minimum opening size for fire escape regulations.
- Easy clean feature auto locks back into egress mode.
- Head of the hinge held fast to provide greater weather resistance and high security.
- Stainless steel construction for highest corrosion resistance.
- Superior internal strength– maximum 40kg load.
- BBA Accredited.

**Sizes & Loads**

Parameter	Value
Length of Hinge	330mm
Maximum Sash Weight	40Kg
Maximum Frame Width	900mm
Full Opening	90Degree
Stack Heights Available	14.5mm & 16.5mm



Sash Release



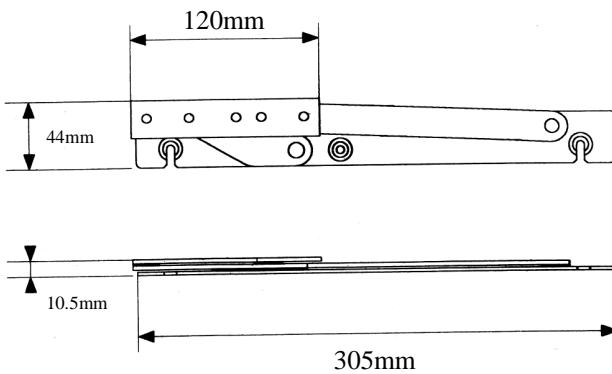
YALE 2475 TOP HUNG REVERSIBLE HINGES

- **Easy to use**  
The sash rotates fully on the outside of the building so does not collide with or damage window blinds, curtains or internal window displays.
- **User friendly, Safe and Easy to Clean**  
The sash rotates fully to enable residents to clean both sides of the window from within the safety and comfort of their home. This reduces the risk of anyone accidentally falling during the cleaning process. On high-rise properties this function can also help reduce the cost of cleaning, which often involves the use of Industrial cleaning equipment and safety cradles and harnesses.
- **Self relocation**  
After cleaning, the hinge allows the window to self relocate and return to its original position and mode of operation simply by closing the opening sash/casement. This prevents any potential injury or loss of fingers when closing a large sash whilst trying to operate the restrictor at the same time.
- **Fire Egress**  
The top hung reversible window hinge provides an excellent means of escape in case of a fire or other emergency.
- **Performance**
  - 80kg maximum weight capacity.
  - 27 module sizes to accommodate sash heights ranging from approximately 340mm to 1600mm.
  - Noticeably smooth operation during rotation that makes larger sashes easier to manoeuvre and control.
- **Ventilation/Anti-blowback**  
Additional face fixed ventilation stays can be supplied to allow various levels of ventilation and prevent the sash from blowing shut if needed to be open during sever wind Conditions.
- **Colour options and aesthetics**  
The top hung reversible window hinge is designed to be concealed between the sash and frame to avoid any unsightly , obtrusive ironmongery. The channel can also be supplied in range of RAL colours to match the outer frame for added aesthetics Brown and White (Standard Finishes).
- **Security**  
Accessories are available to enable specific window manufactures to achieve BS7950 on their Top Hung Reversible windows.
- **High resistance to corrosion**
- **5 Year performance guarantee.**
- **Quick and easy to install.**
  
- **Top Gliders and Centre Brackets to suit many profiles**  
Aluminium , Timber & Upvc profiles.

Please contact us for further specification.

MODULE	HINGE LENGTH
M4	318mm
M4.5	368mm
M5	418mm
M5.5	468mm
M6	518mm
M6.5	568mm
M7	618mm
M7.5	668mm
M8	718mm
M8.5	768mm
M9	818mm
M9.5	868mm
M10	918mm

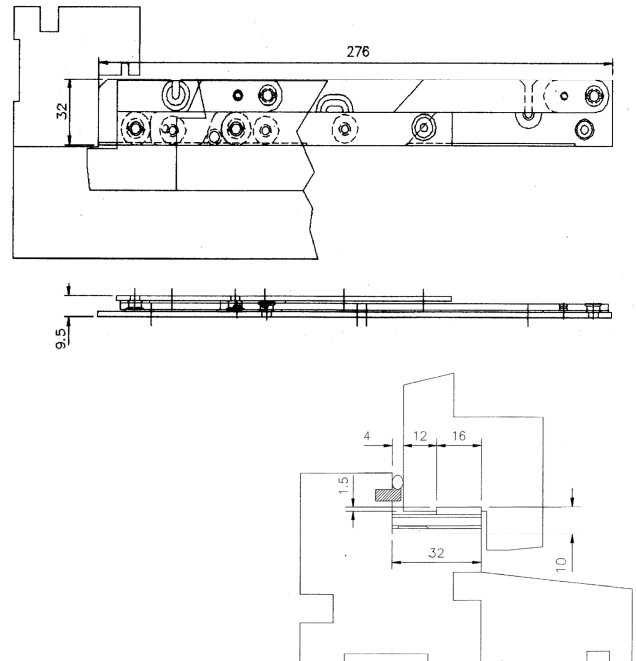
MODULE	HINGE LENGTH
M10.5	968mm
M11	1018mm
M11.5	1068mm
M12	1118mm
M12.5	1168mm
M13	1218mm
M13.5	1268mm
M14	1318mm
M14.5	1368mm
M15	1418mm
M15.5	1468mm
M16	1518mm



**GRORUD YALE 2449 SIDE SWING HINGE**

Grorud/Yale Side Swing G2449 Hinges are ideally suited to outward opening side hung and top hung sashes, between the weights of 9kg And 35kg where an easy cleaning facility is required. An opening angle of 88degrees can be achieved for side hung sashes allowing both sides of the glass to be cleaned from the inside of the building. The G2449 consists of identical top and bottom fittings to suit all window widths between 400mm and 900mm wide

**Maximum weight 9kg—35kg**  
**Maximum Opening Width 900mm**  
**Maximum Frame Height 1600mm**

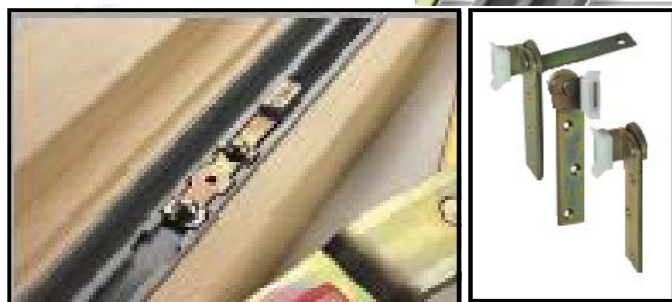


**GRORUD YALE 9100 EURO HINGE**

Grorud/Yale 9100 Euro Hinges are ideally suited to outward opening side hung and top hung sashes, Up to the weights of 24kg Single or Double Glazing can be accommodated.

**Side Hung Sash**  
**Maximum weight 24kg**  
**Maximum Opening Width 900mm**  
**Maximum Frame Height 1200mm**

**Top Hung Sash**  
**Maximum weight 24kg**  
**Maximum Opening Width 1600mm**  
**Maximum Frame Height 600mm**



PN UNI SYSTEM REVERSIBLE HINGES

- **Easy to use**  
The sash rotates fully on the outside of the building so does not collide with or damage window blinds, curtains or internal window displays.
- **User friendly, Safe and Easy to Clean**  
The sash rotates fully to enable residents to clean both sides of the window from within the safety and comfort of their home. This reduces the risk of anyone accidentally falling during the cleaning process. On high-rise properties this function can also help reduce the cost of cleaning, which often involves the use of Industrial cleaning equipment and safety cradles and harnesses.
- **Performance**
  - 60kg maximum weight capacity.
  - 21 module sizes to accommodate sash heights ranging from approximately 458mm to 1600mm.
- **Security**  
Accessories are available to enable specific window manufactures to achieve BS7950 on their Top Hung Reversible windows.
- **Quick and easy to install.**
- **Top Gliders and Centre Brackets to suit many profiles Aluminium , Timber & Upvc profiles.**
- **Please contact us for further specification.**

MODULE	HINGE LENGTH
M6	524mm
M6.5	580mm
M7	624mm
M7.5	680mm
M8	724mm
M8.5	780mm
M9	824mm
M9.5	880mm
M10	924mm
M10.5	980mm
M11	1024mm

MODULE	HINGE LENGTH
M11.5	1080mm
M12	1124mm
M12.5	1180mm
M13	1224mm
M13.5	1280mm
M14	1324mm
M14.5	1380mm
M15	1424mm
M15.5	1480mm
M16	1524mm



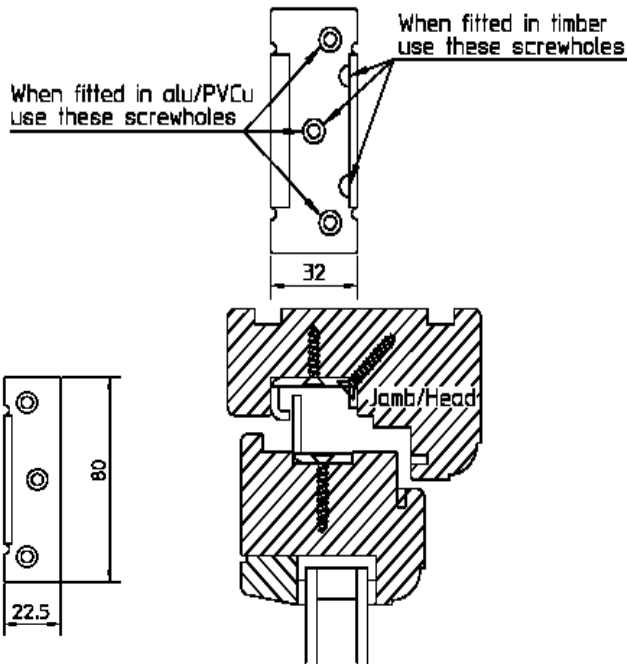
The built-in adjustable friction for projecting top hung hinges gives a special friction with high durability and stability

PN TOP HUNG FRICTION HINGES

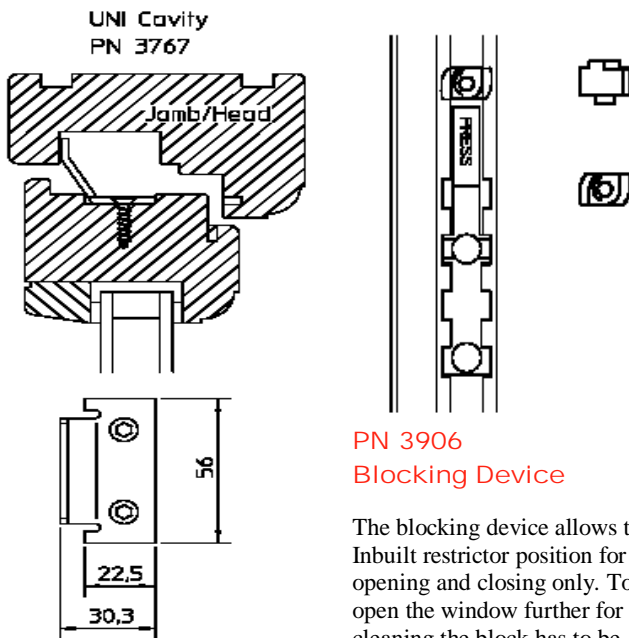
Top Hung Friction Hinge Designed to fit into the same profile and fully reversible hinges.

- **Performance**
- 60kg maximum weight capacity.
- 3 module sizes to accommodate sash heights ranging from approximately 175mm to 1490mm. Aluminium & PvcU And 207mm to 1501mm Timber.

3745 Top Hung Hinge 228mm  
3746 Top Hung Hinge 424mm  
3747 Top Hung Hinge 650mm

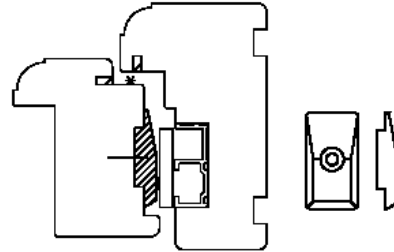


PN SECURITY PLATE 3822 (to be used for BS7950)



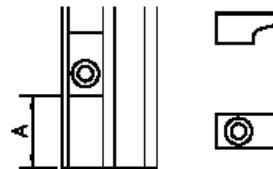
PN CAVITY PLATE  
(to be used for BS7950)

The blocking device allows the Inbuilt restrictor position for opening and closing only. To open the window further for cleaning the block has to be removed, Must be replaced after the window is cleaned.



PN 3769 Guide Block

Position on the vertical stiles of the sash in line with the rivet on the bottom arm. To help Centralise the sash to inner frame.



PN 3820 Stop Block

The stop block can be used to Restrict the reversal of the sash When cleaning. It is fitted to the glider track and must be positioned to allow the first reverse inbuilt restrictor to Engage. Distance can vary depending on condition on site.



3106-3116



3101 or 3170

3103 or 3171



3123-3125

3120-3122



3163

3769

PN SIDE SWING REVERSIBLE HINGE

PN 3106 - 3116 Side Swing Gear  
Max Sash Weight 50kg

Set of Arms Non Handed 2 pcs

PN REF NO	SASH WIDTH
3106	500mm - 601mm
3108	602mm - 703mm
3110	704mm - 804mm
3112	805mm - 905mm
3114	906mm - 1006mm
3116	1007mm - 1107mm

Lift Block for bottom Arm 1 pc PART A

Top Glider Right or Left Handed 3101 or 3170

Bottom Glider Right or Left Hand 3103 or 3171

Profile Mold Non Handed

3182  
3185  
3186

Top Track Non-Handed 1 pc

TRACK REF NO	SASH WIDTH
3123	500mm - 703mm
3124	704mm - 905mm
3125	906mm - 1107mm

Bottom Track Handed 1 pc

TRACK REF NO	SASH WIDTH
3120	500mm - 703mm
3121	704mm - 905mm
3122	906mm - 1107mm

Key to Operate Lock 1 pce Part C

Initial & Reverse Catch Right or Left Hand 2 pc

Guide Block 1 pce 3769 Part D

