

WINDOW HARDWARE



FORGET THE REST

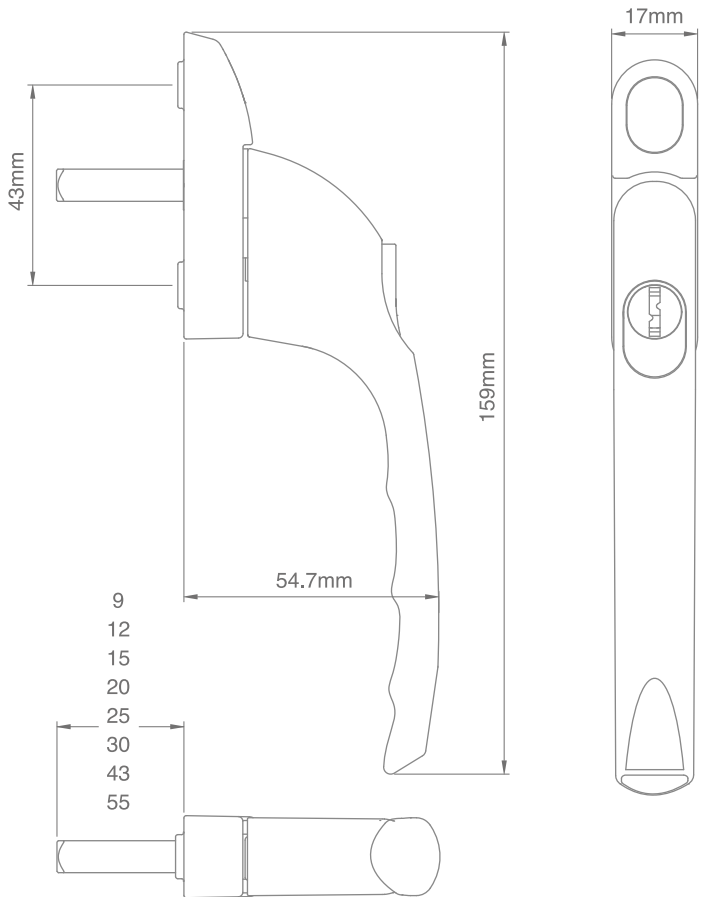


ESPAG HANDLES - 902 SERIES

- Range of stylish espag handles.
- Key locking and non-key locking espag handle.
- Non-locking version available for use on “egress” windows.
- Available in arrange of high quality finishes including white, chrome and brass plated finishes.
- Available in a range of spindle sizes fom 9 to 55mm to suit all major profile systems.



FUNCTION
K - Key Locking
N - Non-key Locking
SPINDLE SIZE
9 - 9 mm
12 - 12 mm
15 - 15 mm
20 - 20 mm
25 - 25 mm
30 - 30 mm
43 - 43 mm
55 - 55 mm
FINISH
BL - Black
WH - White
BP - Brass Plated
CP - Chrome Plated

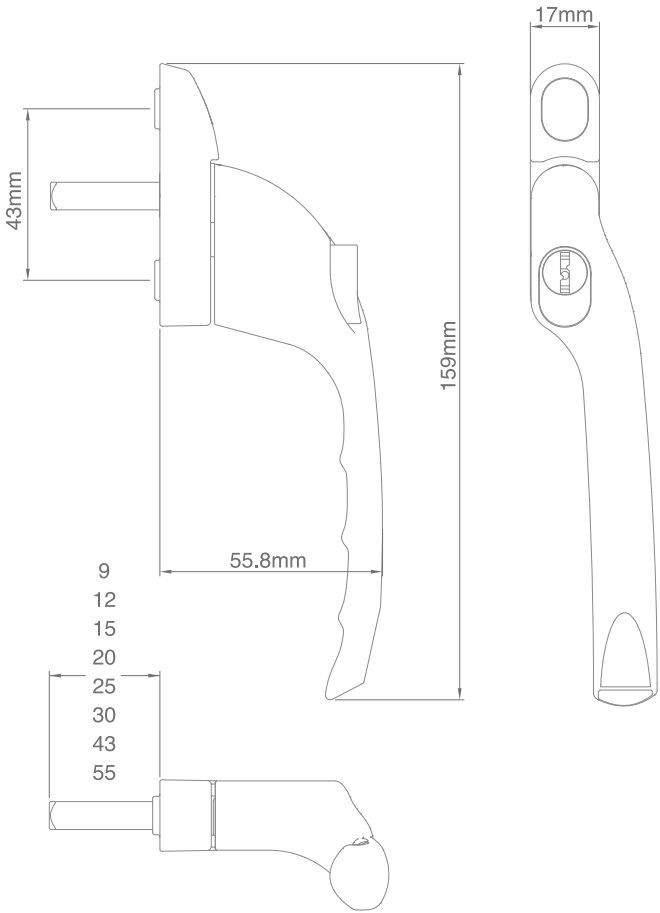


ESPAG HANDLES - 903 SERIES

- Range of stylish espag handles.
- Key locking and non-key locking espag handle.
- Right hand and left hand
- Non-locking version available for use on “egress” windows.
- Available in arrange of high quality finishes including white, chrome and brass plated finishes.
- Available in a range of spindle sizes from 9 to 55mm to suit all major profile systems.

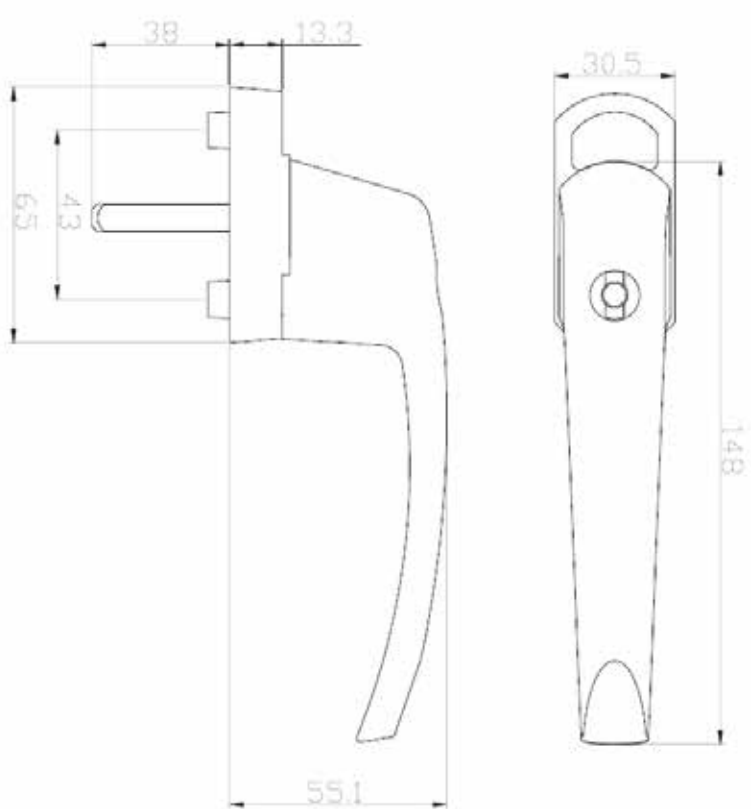


FUNCTION
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SPINDLE SIZE
9 - 9 mm
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30 - 30 mm
43 - 43 mm
55 - 55 mm
FINISH
BL - Black
WH - White
BP - Brass Plated
CP - Chrome Plated



TBT HANDLE-900 SERIES

- Key locking handle that can be used on both TBT and TNT application
- Lockable in all positions
- Supplied with 2 screw cover caps
- ø7mm x 38mm spindle size



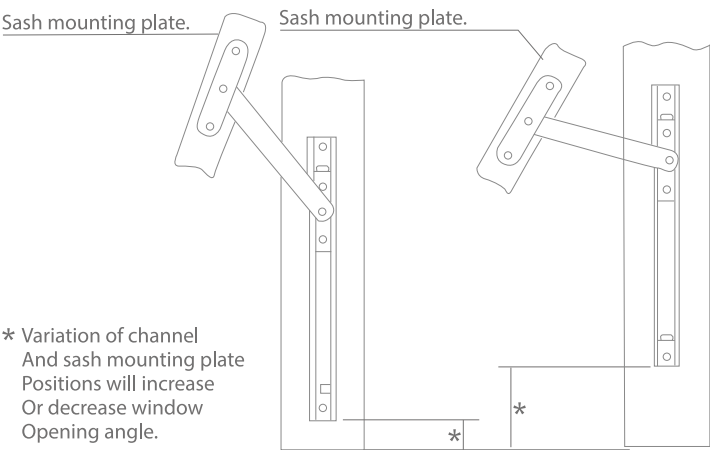
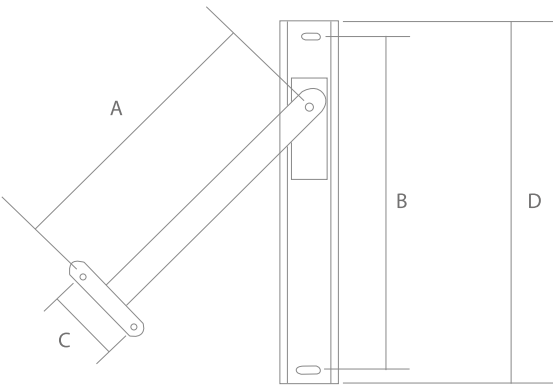
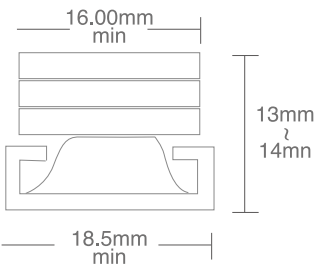
ITEM NO.	FINISH
TBT90038BL	BL-BLACK
TBT90038WH	WH-WHITE
TBT90038BP	BP-BRASS PLATED
TBT90038CP	CP-CHROME PLATED

RESTRICTOR STAYS

- For large top hung windows the restrictor stay can be used as extra support by fitting it below the existing friction stay.
- This has the effect of limiting the opening as well as adding greater stability to the window.
- Available in different sizes to suit specific requirements.
- Details upon request.



SD - SERIES



PRODUCT CODE	SD180	SD267	SD368	SD420
Sizes available	180mm	267mm	368mm	420mm
A	180mm	267mm	368mm	420mm
B	249mm	340mm	440mm	493mm
C	57.2mm	57.2mm	57.2mm	57.2mm
D	268mm	355.5mm	457mm	508mm

CONCEALED RESTRICTOR AND STUD

- Spring loaded releasable arm.
- Manufactured from stainless steel.
- Ideal for retro-fitting.

ITEM NO.	DESCRIPTION	MATERIAL
ANG8312	Concealed Restrictor R / H	SUS430
ANG8312-304	Concealed Restrictor R / H	SUS304
ANG8313	Concealed Restrictor L / H	SUS430
ANG8313-304	Concealed Restrictor L / H	SUS304
ANG8314	Restrictor Stud 11.5 mm	SUS430
ANG8314-304	Restrictor Stud 11.5 mm	SUS304
RST10095	Restrictor Stud 9.5 mm	SUS430
RST10145	Restrictor Stud 14.5 mm	SUS430



Window Hardware

CASEMENT HINGE PROTECTOR

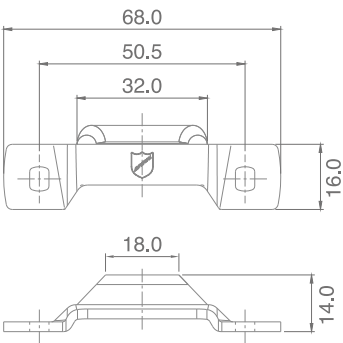
A secure solution to windows offering egress and easy external access without affecting the opening and closing performance of the hinge.



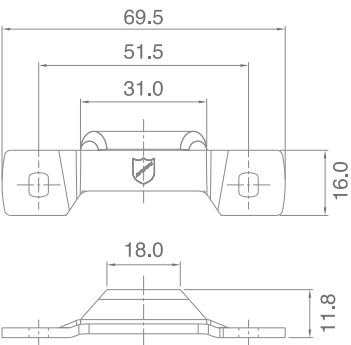
ITEM NO.	DESCRIPTION
40HPT001	Casement Hinge Protector High
40HPT002	Casement Hinge Protector Low

- Comforms to BS7950.
- Easy to fit with no routing required.
- No maintenance required.
- Compatible with standard fixings, countersunk and panhead.
- Can be used on windows without reinforcement.
- 1 set of four per opening vent.
- It is recommended to fit a pair next to each hinge.
- Made of 400 series stainless steel

Casement hinge protector high

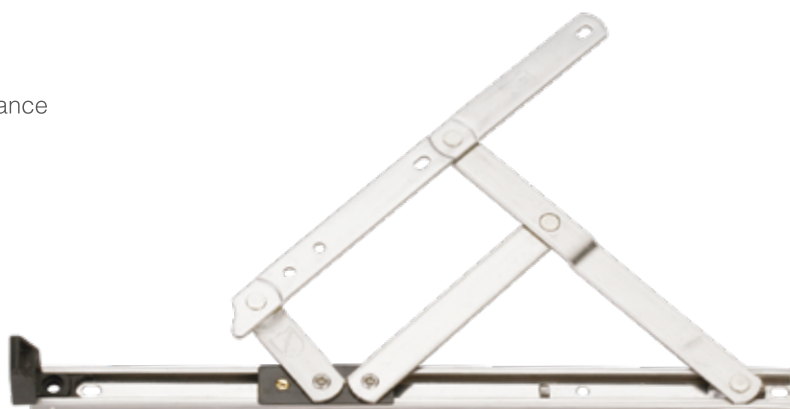


Casement hinge protector low

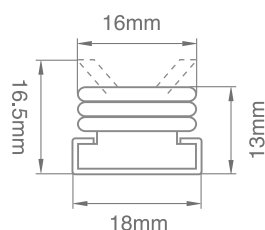


FRICTION STAY

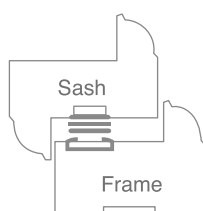
- Range of stainless steel friction stays for top hung and side hung applications
- Available in both 13mm and 17mm stack height to suit most common casement profiles.
- 8", 10", 12", 16", 20" and 24" top hung
- 12" and 16" side hung
- Tested to 30,000 cycles 240 hours corrosion resistance



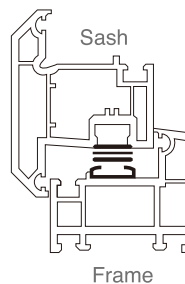
TYPICAL SECTIONS



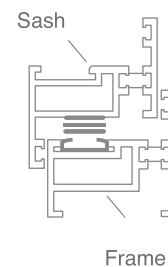
TIMBER



PVC-u



ALUMINIUM



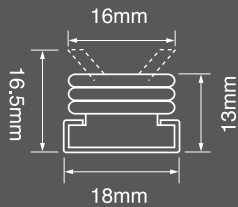
SIZE	150mm (6")	200mm (8")	250mm (10")	300mm (12")	400mm (16")	500mm (20")	600mm (24")
VENT TYPE	Top Hung	Top Hung	Top Hung	Top Hung	Top Hung	Top Hung	Top Hung
MAX VENT WIDTH	1000mm	1200mm	1200mm	1200mm	1200mm	1200mm	1200mm
MAX VENT HEIGHT	300mm	300mm	450mm	600mm	750mm	900mm	1500mm
MAX VENT WEIGHT	10kg	12kg	16kg	21kg	22kg	24kg	35kg
OPENING ANGLE	50°	62°	56°	64°	51°	51°	42°
BULK PACKED	50 pairs	50 pairs	50 pairs	25 pairs	25 pairs	25 pairs	25 pairs
ORDER NO. 13MM	STHMK206	STHMK208	STHMK210	STHMK212	STHMK216	STHMK220	STHMK224
ORDER NO. 17MM	HS17THMK206	HS17THMK208	HS17THMK210	HS17THMK212	HS17THMK216	HS17THMK220	HS17THMK224
SIZE	300mm (12")	400mm (16")	300mm (12")	400mm (16")			
VENT TYPE	Side Hung	Side Hung	Side Hung (HD)	Side Hung (HD)			
MAX VENT WIDTH	650mm	700mm	650mm	700mm			
MAX VENT HEIGHT	1250mm	1300mm	1250mm	1300mm			
MAX VENT WEIGHT	20kg	24kg	25kg	30kg			
OPENING ANGLE	60°	51°	85°	85°			
BULK PACKED	25 pairs	25 pairs	25 pairs	25 pairs			
ORDER NO. 13MM	SSHMK212	SSHMK216	SSHMK2HD12	SSHMK2HD16			
ORDER NO. 17MM	HS17SHMK212	HS17SHMK216	HS17SHMK2HD12	HS17SHMK2HD16			

EGRESS FRICTION STAY

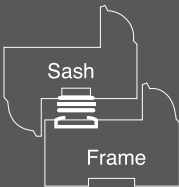
- Manufactured in stainless steel
- Available in both 13mm and 17mm stack height to suit most common casement profiles
- 12" and 16" side hung
- Suitable for PVC-u, aluminum and timber windows
- Tested to 30,000 cycles 240 hours corrosion resistance



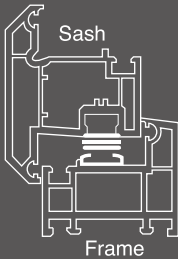
TYPICAL SECTIONS



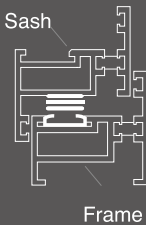
TIMBER



PVC-u



ALUMINIUM



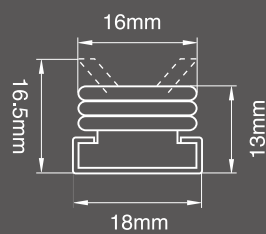
SIZE	300mm (12")	400mm (16")
VENT TYPE	Egress Side Hung	Egress Side Hung
MAX VENT WIDTH	600mm	700mm
MIN VENT HEIGHT	300mm	400mm
MAX VENT WEIGHT	20kg	24kg
OPENING ANGLE	85°	85°
BULK PACKED	25 pairs	25 pairs
ORDER NO. 13MM	SESHMK212430	SEHMK216430
ORDER NO.17MM	HS17SEMK212430	HS17SEMK216430

EGRESS EASY CLEAN FRICTION STAY

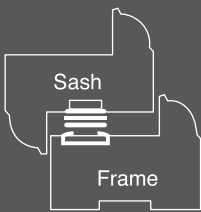
- Manufactured in stainless steel.
- Available in both 13mm and 17mm stack height to suit most common casement profiles.
- 12" and 16" side hung.
- Suitable for PVC-u, aluminum and timber windows.
- Tested to 30,000 cycles 240 hours corrosion resistance.



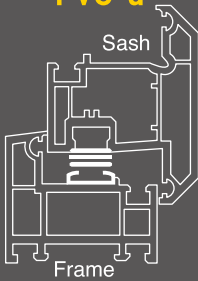
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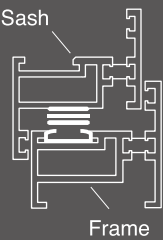
TIMBER



PVC-u



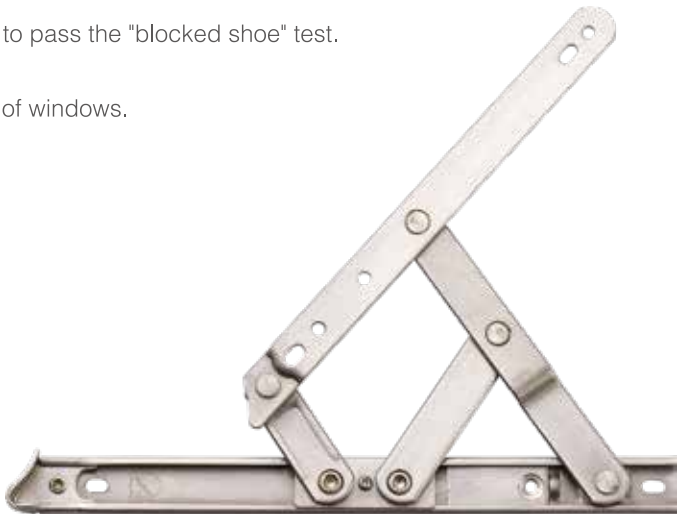
ALUMINIUM



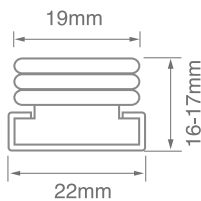
SIZE	300mm (12")	400mm (16")
VENT TYPE	Egress Easy Clean Side Hung	Egress Easy Clean Side Hung
MAX VENT WIDTH	600mm	700mm
MIN VENT HEIGHT	300mm	400mm
MAX VENT WEIGHT	20kg	24kg
OPENING ANGLE	85°	85°
BULK PACKED	25 pairs	25 pairs
ORDER NO. 13MM	SECMK212430	SECMK216430
ORDER NO.17MM	HS17SECMK212430	HS17SECMK216430

HEAVY DUTY FRICTION STAY

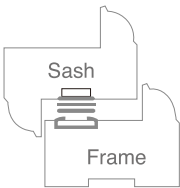
- Range of stainless steel friction stays for top hung and side hung applications.
- Available in 10" to 26" top hung and 10" & 16" side hung.
- Adjustable opening stop on top hung hinges.
- 16" and 22" top hung also available with reinforced third link to pass the "blocked shoe" test.
- This is supplied as standard on 26" top hung.
- 10" and 16" side hung open to around 90° for easy cleaning of windows.



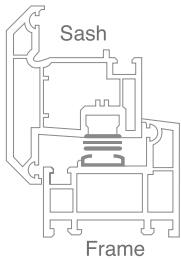
TYPICAL SECTIONS



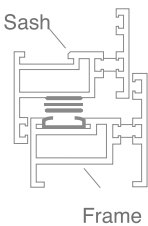
TIMBER



PVC-u



ALUMINIUM



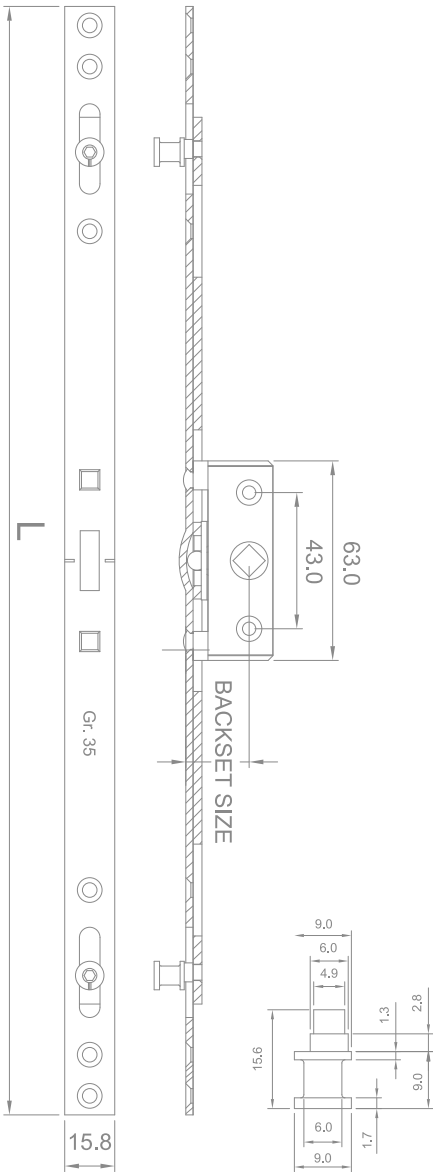
SIZE	250mm (10")	300mm (12")	400mm (16")	550mm (22")	650mm (26")
VENT TYPE	Top Hung	Top Hung	Top Hung	Top Hung	Top Hung
MAX VENT HEIGHT (IN/MM)	25.0 / 635	30.9 / 787	42.9 / 1090	59.0 / 1500	78.7 / 2000
MIN VENT HEIGHT (IN/MM)	10.5 / 267	25.0 / 635	31.0 / 787	42.9 / 1090	50.0 / 1270
MAX VENT WEIGHT (LB/KG)	81.5 / 37	99.2 / 45	126.1 / 55	165.3 / 75	220.4 / 100
HINGE LENGTH (IN/MM)	10.0 / 254	12.0 / 305	15.9 / 406	22.0 / 559	25.9 / 660
OPENING ANGLE (+/-2.5°)	50°	50°	50°	45°	20°
NUMBER OF CYCLES ('000'S)	10	10	10	10	10
ORDER NO.	HDFTH10	HDFTH12	HDFTH16	HDFTH22	HDFTH2620

SIZE	650mm (26")	SIZE	250mm (10")	400mm (16")
VENT TYPE	Top Hung	VENT TYPE	Side Hung	Side Hung
MAX VENT HEIGHT (IN/MM)	78.7 / 2000	MAX VENT WIDTH (IN/MM)	26.0 / 660	33.0 / 838
MIN VENT HEIGHT (IN/MM)	50.0 / 1270	MIN VENT WIDTH (IN/MM)	11.81 / 300	17.72 / 450
MAX VENT WEIGHT (LB/KG)	330.6 / 150	MAX VENT WEIGHT (LB/KG)	83.7 / 38	103.6 / 47
HINGE LENGTH (IN/MM)	25.9 / 660	HINGE LENGTH (IN/MM)	10.0 / 254	15.9 / 406
OPENING ANGLE (+/-2.5°)	Restrict to 15°	OPENING ANGLE (+/-2.5°)	85°	90°
NUMBER OF CYCLES ('000'S)	10	NUMBER OF CYCLES ('000'S)	10	10
ORDER NO.	HDFTH2615	ORDER NO.	HDFSH10	HDFSH16

ESPAGNOLETTE RODS (MULTIPOINT WINDOW LOCK)

INLINE ESPAGNOLETTE RODS W/ REVERSE BLOCK

- Fits standard and reduced depth eurogrooves
- 20 backset
- Faceplate in steel
- Zinc diecast gearbox



BACKSET SIZE

20 - 20mm

CAM SIZE

MH5 - 5mm
MH6 - 6mm
MH65 - 6.5mm
MH7 - 7mm
MH8 - 8mm
MH9 - 9mm
MH9.5 - 9.5mm
MH10 - 10mm

ROD LENGTH

286 - 286mm
350 - 350mm
450 - 450mm
600 - 600mm
750 - 750mm
900 - 900mm
1050 - 1050mm
1190 - 1190mm

MATERIAL SPECIFICATION

STATIC RAIL	Steel C1008
MOVING RAIL	Steel C1008
RACK	Steel C1008
PINION	Steel C1008
CAMS	Steel C1008
GEARBOX BODY	Zinc BS1004A
GEARBOX COVERPLATE	Steel C1008

COATING DETAILS

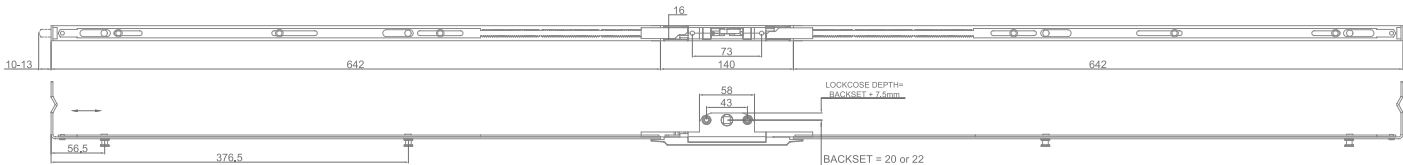
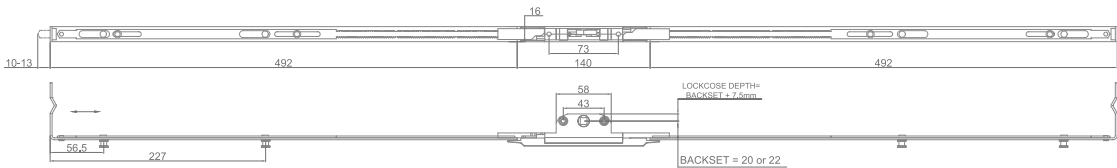
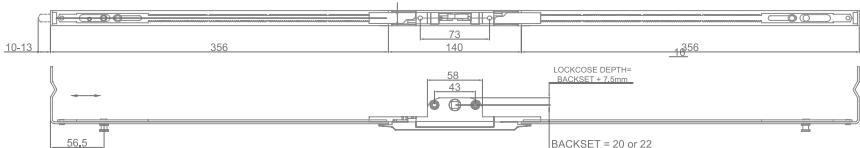
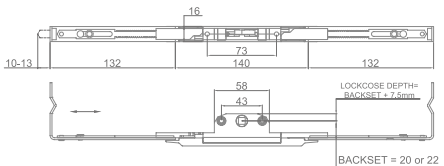
ZINC PLATED AND PASSIVATED:
12 - 18 microns coating thickness

ASSESSMENT DATA

Endurance tested to 20,000 operations

SHOOTBOLT ESPAGNOLETTE

- Quick install shootbolt system.
- Adjustable length on shootbolt throw.
- Available in 20mm and 22mm backset.



ITEM NO.	DESCRIPTION	CAM HEIGHT	SIZE
SBG20	GEAR BOX	-	20mm BS
SBG22	GEAR BOX	-	22mm BS
SBE8132	EXTENSION	8mm	320-400mm
SBE8356	EXTENSION	8mm	400-800mm
SBE8492	EXTENSION	8mm	800-1100mm
SBE8642	EXTENSION	8mm	1100-1400mm
SBE9132	EXTENSION	9mm	320-400mm
SBE9356	EXTENSION	9mm	400-800mm
SBE9492	EXTENSION	9mm	800-1100mm
SBE9642	EXTENSION	9mm	1100-1400mm

WINDOW OPERATORS

SURFACE MOUNT SINGLE ARM WINDOW OPERATOR

- Full 90 degree window opening.
- **ARM LENGTH** : 9 1/2"
- Made from the highest quality materials.
- These single arm operators will provide years of trouble free service.
- Left hand and right hand
- Included steel or stainless steel guide
- Customers are welcome to specify powder coat finish colours.



ITEM NO.	LENGTH	FINISH	HANDLE
WO-S-9.5-BELH-SS	9.5"	BEIGE	LEFT
WO-S-9.5-BERH-SS	9.5"	BEIGE	RIGHT
WO-S-9.5-WHLH-SS	9.5"	WHITE	LEFT
WO-S-9.5-WHRH-SS	9.5"	WHITE	RIGHT
WO-S-9.5-BLLH-SS	9.5"	BLACK	LEFT
WO-S-9.5-BLRH-SS	9.5"	BLACK	RIGHT

ROTO GEAR AWNING WINDOW OPERATOR

- Designed for face-mount applications on single vent awning windows.
- **ARM LENGTH** : 11"
- The double arm design also helps achieve corner pull-in and sash stability of the ventilator
- Available in both front - mount and rear - mount styles
- Included stainless steel guide
- Customers are welcome to specify powder coated colours

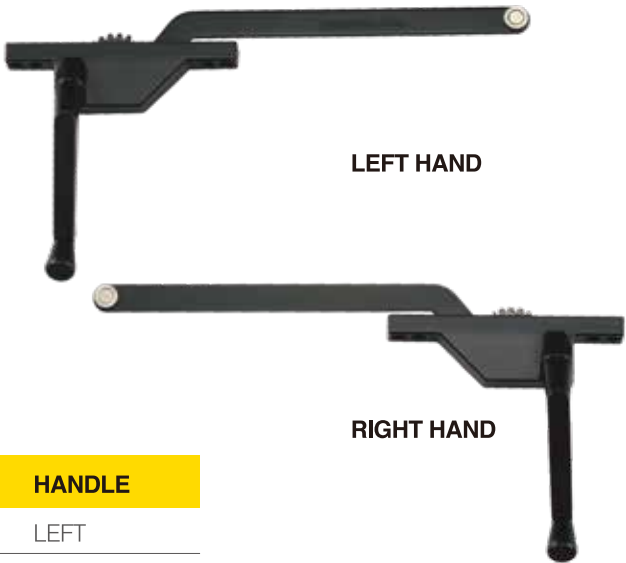
ITEM NO.	LENGTH	FINISH
WO-R-11-BE-SS	11"	BEIGE
WO-R-11-BL-SS	11"	BLACK
WO-R-11-IV-SS	11"	IVORY
WO-R-11-SI-SS	11"	SILVER
WO-R-11-US15-SS	11"	SATIN NICKEL
WO-R-11-WH-SS	11"	WHITE



WINDOW OPERATORS

DYAD TYPE SINGLE ARM WINDOW OPERATOR

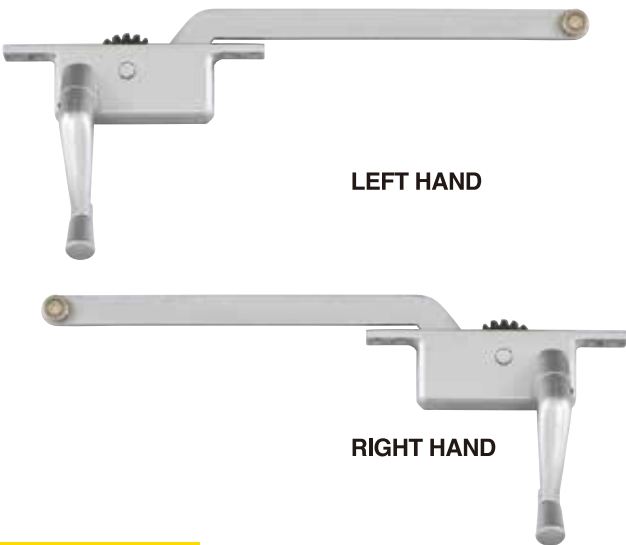
- Full 90 degree window opening.
- **ARM LENGTH : 9"**
- Made from the highest quality materials.
- These single arm operators will provide years of trouble free service.
- Left hand and right hand
- Included steel or stainless steel guide
- Customers are welcome to specify powder coat finish colours.



ITEM NO.	LENGTH	FINISH	HANDLE
WO-D-09-BEL-SS	9"	BEIGE	LEFT
WO-D-09-BER-SS	9"	BEIGE	RIGHT
WO-D-09-WHL-SS	9"	WHITE	LEFT
WO-D-09-WHR-SS	9"	WHITE	RIGHT
WO-D-09-BLL-SS	9"	BLACK	LEFT
WO-D-09-BLR-SS	9"	BLACK	RIGHT

SQUARE TYPE SINGLE ARM WINDOW OPERATOR

- Full 90 degree window opening
- **ARM LENGTH : 9"**
- Made from the highest quality materials
- These single arm operators will provide years of trouble free service
- Left hand and right hand
- Included steel or stainless steel guide
- Customers are welcome to specify powder coat finish colours



ITEM NO.	LENGTH	HANDLE
WO09ALLH-WOT	9"	LEFT
WO09ALRH-WOT	9"	RIGHT
WO09DULH-WOT	9"	LEFT
WO09DURH-WOT	9"	RIGHT
WO09BLLH-WOT	9"	LEFT
WO09BLRH-WOT	9"	RIGHT

WINDOW OPERATORS

DYAD TYPE SINGLE ARM WINDOW OPERATOR

- Full 90 degree window opening.
- **ARM LENGTH : 8"**
- Made from the highest quality materials.
- These single arm window operators will provide years of trouble free service.
- Left hand and right hand.
- Included steel or stainless steel guide.

ITEM NO.	LENGTH	FINISH	HANDLE
WO-D1-08-WHLH	8"	WHITE	LEFT
WO-D1-08-WHRH	8"	WHITE	RIGHT
WO-D1-08-BLLH	8"	BLACK	LEFT
WO-D1-08-BLRH	8"	BLACK	RIGHT



LEFT HAND



RIGHT HAND

GRAND CASE DYAD TYPE SINGLE ARM WINDOW OPERATOR

- Full 90 degree window opening.
- **ARM LENGTH : 9"**
- Made from the highest quality materials.
- These single arm window operators will provide years of trouble free service.
- Left hand and right hand.
- Included steel or stainless steel guide.
- Customers are welcome to specify powder coat finish colours.



LEFT HAND



RIGHT HAND

ITEM NO.	LENGTH	FINISH	HANDLE
WO-G-09-WHLH	9"	WHITE	LEFT
WO-G-09-WHRH	9"	WHITE	RIGHT
WO-G-09-BLLH	9"	BLACK	LEFT
WO-G-09-BLRH	9"	BLACK	RIGHT

WINDOW OPERATORS

SINGLE ARM WINDOW OPERATOR

- Full 90 degree window opening.
- **ARM LENGTH :** 7 1/2", 9 1/2", 13 1/2"
- Made from the highest quality materials.
- These single arm window operators will provide years of trouble free service.
- Left hand and right hand.
- Included steel or stainless steel guide.
- Customers are welcome to specify powder coat finish colours.

ITEM NO.	LENGTH	FINISH	HANDLE
WO-D2-7.5-WHLH/RH	7.5"	WHITE	LEFT/RIGHT
WO-D2-7.5-BLLH/RH	7.5"	BLACK	LEFT/RIGHT
WO-D2-9.5-WHLH/RH	9.5"	WHITE	LEFT/RIGHT
WO-D2-9.5-BLLH/RH	9.5"	BLACK	LEFT/RIGHT
WO-D2-13.5-WHLH/RH	13.5"	WHITE	LEFT/RIGHT
WO-D2-13.5-BLLH/RH	13.5"	BLACK	LEFT/RIGHT



LEFT HAND



RIGHT HAND

DUAL ARM WINDOW OPERATOR

- Full 90 degree window opening.
- **DUAL ARM LENGTH :** 19" or 19.5"
- Made from the highest quality materials.
- These single arm window operators will provide years of trouble free service.
- Left hand and right hand.
- Included steel or stainless steel guide.
- Customers are welcome to specify powder coat finish colours.



LEFT HAND



RIGHT HAND

ITEM NO.	LENGTH	FINISH	HANDLE
WODUAL-19-WHLH / RH	19"	WHITE	LEFT / RIGHT
WODUAL-19-BLLH / RH	19"	BLACK	LEFT / RIGHT
WODUAL-19.5-WHLH / RH	19.5"	WHITE	LEFT / RIGHT
WODUAL-19.5-BLLH / RH	19.5"	BLACK	LEFT / RIGHT

WINDOW OPERATORS

AWING WINDOW OPERATOR

- Full 90 degree window opening.
- **ARM LENGTH** : 12", 16", 21"
- Made from the highest quality materials.
- These single arm window operators will provide years of trouble free service.
- Left hand and right hand.
- Included steel or stainless steel guide.
- Customers are welcome to specify powder coat finish colours.



ITEM NO.	LENGTH	FINISH
WO-A-12-WH	12"	WHITE
WO-A-12-BL	12"	BLACK
WO-A-16-WH	16"	WHITE
WO-A-16-BL	16"	BLACK
WO-A-21-WH	21"	WHITE
WO-A-21-BL	21"	BLACK

HANDLE FOR WINDOW OPERATORS

HANDLE



ITEM NO.	FINISH
WO-H1-WH	WHITE
WO-H1-BL	BLACK

FOLDING HANDLE



ITEM NO.	FINISH
WO-H2-WH	WHITE
WO-H2-BL	BLACK



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