

Maintenance and Lubrication

As with most mechanical devices, hinges require periodic maintenance and lubrication. The hinge in general and particularly the pivots, sliding shoe and track must be kept free from dirt, debris and any obstructions at all times.

At Time of Installation - Lubricate all pivot points with light machine oil and wipe away excess, one drop per pivot is sufficient. We suggest one of the following lubricants or equivalent:

- General light engineering oil with corrosion inhibitors such as Castrol Everyman or 3 in 1 oil (available in aerosol can for convenience).

Note: Solvent based aerosol sprays e.g. WD40 are not suitable for this application.

Every Five Years - Carry out the following checks every five years:

- Clean any dirt or debris from the hinge and clear any obstructions from the pivots, sliding shoe and track.
- Apply lubrication as detailed above.
- Check the tightness and security of all fixing screws and rivets.



10 Year Mechanical Guarantee

Delivering peace of mind from the world's favourite lock company



Secured by Design

Police preferred specification accredited security product of the official UK. Police flagship initiative, supporting the principles of 'designing out crime'



BBA

All products have been tested and approved by BBA



Lifetime Security Guarantee*

The Defender Restricted hinge is included in our Lifetime Security Guarantee scheme, providing your customers with numerous benefits and peace of mind



Made in Britain

Yale Doors and Windows are members of Made in Britain, which champions British manufacturing by encouraging and developing the supply chain of UK-made goods

THE YALE BRAND, with its unparalleled global reach and range of products, reassures more people in more countries than any other consumer locking solution.

THE ASSA ABLOY GROUP is the world's leading manufacturer and supplier of locking solutions, dedicated to satisfying end-user needs for security, safety and convenience.

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Due to a continuous programme of development the company reserves the right to make alterations without notice.
(Products which are not a stocked item will be subject to a longer lead time which needs to be agreed with your Yale representative).

Defender Restricted

A friction hinge designed specifically for resident safety



- Improved weather sealing and draught proofing performance
- Built-in quick release lever
- Secured by Design approved

Defender Restricted

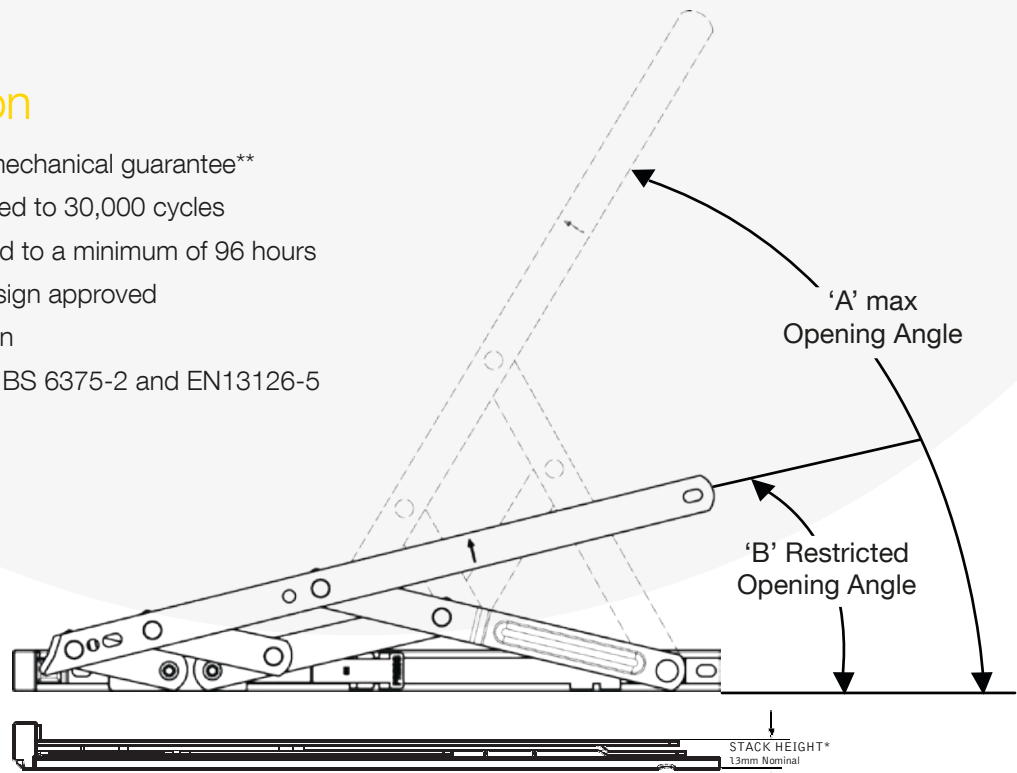
Features

- Improved weather sealing and draught proofing performance from extended enclosed end cap and asymmetrical vent arm form when tested to BS 6375-1
- Unique robust cam friction device eliminates any risk of friction screw misuse
- Built-in quick release lever allows the window to be fully opened for easy cleaning and total ventilation
- Asymmetric location system for reliable and accurate closure
- Restrictor automatically relocates and resets when the window is closed
- Slot-hole-slot vent fixing configuration for ease of adjustment and guaranteed fixing into reinforcement on PVC-u window frames
- Available as highline variants for profiles with cavities between 16mm and 18mm
- Available in ferritic 430* as standard or austenitic 304* stainless steel for enhanced corrosion resistance



Specification

- 10 or 12 year mechanical guarantee**
- Endurance tested to 30,000 cycles
- Corrosion tested to a minimum of 96 hours
- Secured by Design approved
- BBA certification
- Compliant with BS 6375-2 and EN13126-5



* Standard ferritic (was 430) to BS EN 10088-2 Grade 1.4016 or Austenitic (was 304) stainless steel to BS EN 10088-2 Grade 1.4301 for enhanced corrosion resistance.

** 10 Year Mechanical Guarantee for Standard Ferritic and 12 Year Mechanical Guarantee for Austenitic Stainless Steel.

Top Hung

Part Code	Hinge Size (mm)	Stack Height (mm)	Max Vent Weight (kg)	Min Vent Height (mm)	Max Vent Height (mm)	Max Opening Angle 'A' (+/- 2.5°)	Restricted Opening Angle 'B' (+/- 2.5°)
EDTR12	310	13	20	350	550	65°	14°
EDTR16	413	13	21	500	780	59°	10°
EDTR20	513	13	26	700	1100	50°	7°
EDTR24	613	13	40	850	1300	37.5°	6°

Side Hung

Part Code	Hinge Size (mm)	Stack Height (mm)	Max Vent Weight (kg)	Min Vent Width (mm)	Max Vent Width (mm)	Max Opening Angle 'A' (+/- 2.5°)	Restricted Opening Angle 'B' (+/- 2.5°)
EDSR12/-PR	310	13	22	300	600	58°	13°
EDSR16/-PR	413	13	24	400	700	58°	11°

- * Add H6 for 16"
- * Add H7 for 17"
- * For austenitic variants add 'A' to end of part code
- * For timber variants add '-TV' to end of part code (13mm stack height only)
- Side hung restricted hinges are sold with an opposite hand standard non-restricted hinge; as only one side hung restricted hinge is required and must be fitted as a bottom hinge -PL = Left Hand hinge is restricted, -PR = Right Hand hinge is restricted
- Top hung restricted hinges are sold and must be fitted in pairs

Note:
As with all types of friction hinges, friction cannot be provided until the slider moves, therefore when opening top hung vents to angles of 10° or less a separate device may be required to prevent the window from closing.

- Note:**
Restricted gap is controlled by:
- * The restricted opening angle of the hinge (Angle 'B')
 - * System profile depth
 - * Vent size

Material Specification	Packaging
Links: Ferritic or Austenitic Stainless Steel	25 pairs per box supplied as pairs
Track: Ferritic or Austenitic Stainless Steel	
Pivot Rivets: Austenitic Stainless Steel	EDSR PL/PR 25 pairs per box (Pair: 1 restricted/1 non-restricted)
End Cap Moulding: Grey Nylon	EDSR L/R 50 hinges per box supplied as singles
Restricted Lever: Zinc Alloy plated with Bright Copper Nickel Finish	