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## PERFORMANCE AND MAINTENANCE

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### Environmental Constraints

2.2.1 Normal operating conditions for all hinges are:

2.2.1.1 Operating temperature range -20°C to +60°C

2.2.1.2 Operating humidity range 10% Relative Humidity to 95% Relative Humidity

2.2.2 The materials used will not degrade due to ultra violet light, or when using neutral acidity non solvent cleaning chemicals, at a rate faster than other parts of the window assembly.

### Maintenance and Lubrication

2.2.3 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.

2.2.3.1 **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:

- a. General light engineering oil
- b. Castrol Everyman (available in aerosol can for convenience)

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

- a. Clean any dirt or debris from the hinge and clear any obstructions from the pivots, sliding shoe and track.
- b. Apply lubrication as detailed in 2.2.3.1 above.
- c. Check the tightness and security of all fixing screws and rivets.

### Hinge Operating Life

2.2.4 To attain optimum operating life all criteria listed above under; environmental constraints, vent sizes weights and opening angles, and maintenance and lubrication must be adhered to.

2.2.5 STERLING® hinges will function for up to 30,000 cycles when top and side hung under normal conditions of use. All Sterling STORM® hinges will function normally for up to 10,000 cycles under normal conditions of use. This performance is subject to compliance with SECURISTYLE® installation and maintenance instructions.

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It is the responsibility of the user to ensure that this document is at the latest issue.

Due to our policy of continual product improvement we reserve the right to alter specifications without notice.

It is the responsibility of the window manufacturer to ensure that the finished window meets the required performance and safety specification.



# FITTING INSTRUCTIONS

COMMERCIAL HINGES

SECTION 2.2 SHEET 2 of 2

ISSUE: March, 2006

## PERFORMANCE AND MAINTENANCE

### Corrosion Resistance

- 2.2.6 When subjected to a 240 hour neutral salt spray test to BS 7479: 1991 / ISO 9227: 1990 the hinge remains functional. There is no significant surface pitting caused by corrosion. Some surface discolouration is to be expected.
- 2.2.7 If a hinge is fitted in an area where it is exposed to a corrosive atmosphere, e.g. salt laden sea air in coastal locations, we recommended that in addition to the general maintenance and lubrication:
- 2.2.7.1 All metal surfaces are lightly coated with lubrication oil or sprayed with a proprietary anticorrosion spray. It is important to follow the manufacturer's instructions for any products used.
- 2.2.7.2 Maintenance operations may need to be carried out more frequently. This is dependent on the severity of the prevailing conditions.

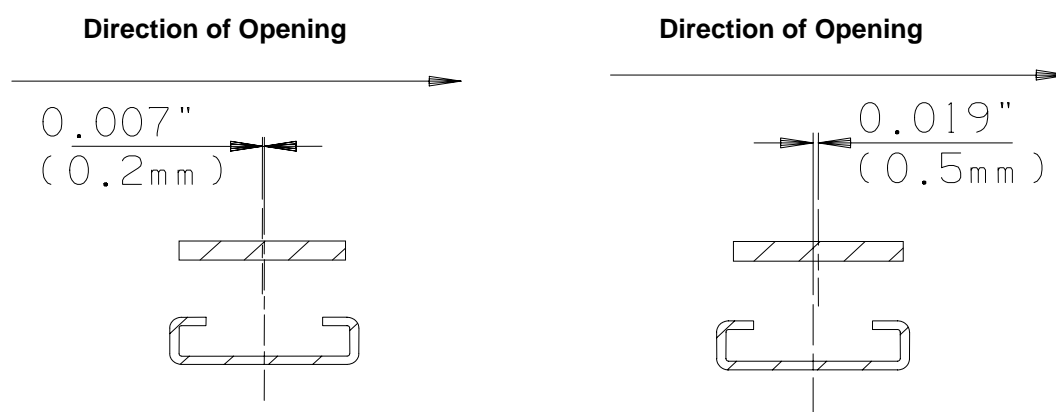
### Hinge Closing Position Tolerance

- 2.2.8 When the hinge is in the closed position the centre line of the vent arm (the link which is attached to the vent) will be over the top of and in line with the centre line of the track section (channel which is attached to the fixed frame) within a tolerance of +0.2mm to -0.5mm when the hinge is under no load.

**Note:** +Tolerance = towards the closed direction of the hinge

- Tolerance = towards the open direction of the hinge

- 2.2.9 The relative position of the vent arm to the track section may vary depending on the compression resistance force of the weather seal being used, e.g. a high compression resistance force may cause the -0.5mm tolerance to increase.



**Note:** For STERLING® and Sterling STORM® hinges Offset Series, include the 0.072" (1.85mm) vent arm to track offset when measuring the closing position tolerance.

**Not to Scale, All dimensions in inches & mm**

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