

MAINTENANCE - HARDWARE

The precondition for the function and smooth operation of the hardware is the compliance with the following regulations concerning sash size and sash weight, as well as our product liability guidelines.

Function and condition of the hardware is to be checked in accordance with the following criteria:

- Smooth operation
- Hardware fixing
- Hardware wear and tear
- Damage to the hardware

Smooth operation

The hardware's smooth operation can be checked by means of moving the window handle. In accordance with DIN 18055, the locking and unlocking moment of the window handle is determined to max. 10 Nm. It can be checked using a torque wrench. The smooth operation can be improved by greasing/oiling or adjusting the hardware. Incorrect and/or inappropriate retro-adjustments to the hardware can result in the windows not fulfilling their function anymore.

Hardware fixing

The window's function and its operational safety depend on the solid fixing of the hardware. Stability and location of the individual screws in the profiles are to be checked. Should it be revealed, that for example screws have loosened or that screw heads have broken off, these are to be tightened or replaced immediately.

Hardware wear and tear

To protect them against wear and tear, all function-relevant hardware components are to be greased respectively oiled. Damaged hardware components are to be replaced, especially if they are load-bearing hardware components. The hardware may only be cleaned with a soft cloth and mild, pH-neutral cleaning agent in diluted form. Never use aggressive, acidiferous cleaners or abrasive cleaning agents. This can lead to hardware damage.

By means of regular greasing and oiling at least once a year all operation-relevant components in the sash and frame, you maintain the smooth operation of your hardware and you protect against premature wear and tear. Security strikers made of steel require continuous greasing in order to avoid unnecessary abrasion. In addition, the positions of the screws are to be checked. Possible loose screws or broken off screwheads are to be replaced immediately by a specialised company.

DATE: 09/03/2015	REVISION: 0	TITLE: MAINTENANCE	SYSTEM: ST60, 70 & 80 WINDOW SUITE	NTS	A4	7S.E.01
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MAINTENANCE - STORM HINGE

ENVIRONMENTAL CONSTRAINTS

Normal operating conditions for all hinges are:

- operating temperature range -20°C to +60°C
- operating humidity range 10% relative humidity to 95% relative humidity

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. however, the practice of cleaning brickwork with acidic based products will have serious effects if allowed to come into contact with hardware. corrosion or failure of hardware as a result of this practice will not be covered by the warranty issued on such products.

MAINTENANCE AND LUBRICATION

As with most mechanical devices, restrictor 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 in above.
- Check the tightness and security of all fixing screws and rivets.

OPERATING LIFE

To attain optimum operating life all criteria listed above under; environmental constraints, and maintenance and lubrication must be adhered to. all friction hinges will function normally for up to 30,000 cycles under normal conditions of use. this performance is subject to compliance with APA systems ltd installation and maintenance instructions.

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MAINTENANCE - POWDER COATED ALUMINIUM



Polyester powder coated aluminium is a product which requires regular cleaning and maintenance to ensure the decorative and protective properties of the coated element are retained throughout its service life.

The frequency of this maintenance will depend on several factors known to effect organic coatings:

- Geographical location of the building
- The surrounding environment (i.e. marine, industrial, acid, alkaline, etc)
- Levels of atmospheric pollution
- Prevailing wind
- Protection of the building by other buildings
- Possibility of airborne debris (e.g. sand or grit) which may erode the coating
- Changes to the environment during the building's lifetime (e.g. rural land becomes industrial)

The best method of cleaning powder coated aluminium is by the regular washing down of the coating using a solution of warm water and mild detergent. A soft cloth or sponge should be used for the cleaning and certainly nothing harsher than natural bristle brushes should be used.

The frequency of cleaning depends in part on the standard of appearance that is required together with any requirement to remove deposits which if left for long periods of time, could prove harmful to the coating.

In industrial environments, the normal frequency of cleaning should be at not more than three monthly intervals.

Where the building is situated in an area of high atmospheric pollution or hazardous atmosphere, the periods between maintenance and cleaning should be reduced accordingly.

Where the building is situated in non-hazardous urban or rural environments, the period between cleaning can be extended up to twelve months. Within this period, if heavy soiling has occurred, the material should be cleaned immediately and a more frequent cleaning regime put in place for the future.

The above guidelines will help in maintaining the powder coated aluminium product.

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