

System 7-20

Pivot window

The Metal Technology Thermally-Broken Pivot Window has been designed to offer the specifier the advantages of polyamide thermal break technology in meeting the latest thermal requirements of the current building regulations.



Introduction

The basic suite has a range of outer frame sections to accommodate all expected options and applications. Also included in the basic suite of profiles are a wide range of mullion/transom sections. Various other profiles can be designed and incorporated allowing architects to achieve flexible designs. The system is glazed internally to accommodate 24mm through to 32mm double glazed units. Fixed panes may be externally glazed with the addition of a liner bar. As with all Metal Technology systems, the Pivot window system is manufactured to exacting standards enabling economy to be combined with strength to give many years of aesthetic, trouble-free operation.

The Pivot manual only refers to elements of fabrication and installation specific to Pivot Windows, and must be read in conjunction with the System 5-20 Tilt & Turn window manual.

Thermal Performance

Metal Technology System 7-20, in conjunction with the correct glass specification, is designed to aid compliance with the latest thermal requirements of the current building regulations. (See separate document on compliance with thermal regulations.)

Scope

This specification defines materials, construction, finishes and size limits for the Pivot Window.

Materials

Aluminium profiles are extruded from aluminium alloy 6060T6, T5, or T4 complying with the recommendations of BS EN 12020 -2 : 2001 / BS EN 755 -9 : 2001. Polyamide thermal breaks are produced from glass reinforced nylon sections designed to withstand temperatures in excess of 200°C, allowing the sections to be powder coated after thermally breaking.

Finishes

The range of sections can be provided in either of the following range of finishes:

1. Anodised to BS1615 or BS3987
2. Powder organic coated to BS6496

The System 7-20 window can accommodate a different colour/finish internally to that used externally.

Construction

Frame members are mitre cut at 45°, corners are reinforced with extruded aluminium crimping cleats and corner braces. A secure joint is formed by pneumatically crimping into the extruded crimping cleat. Mullion and transom bars are square cut shaped and fixed securely to the frame by means of stainless steel screws and fixing cleats. All frame joints are sealed during construction against entry of water. Extruded weatherstrips and glazing gaskets are provided to resist the ingress of water.

Glazing

Glass is set against co-extruded gaskets externally which are fitted into gasket grooves in the frame upstand. Clip in beads are then fitted to the inside of the frame and held secure by means of colour coded wedge gaskets internally. For glass support, purpose made setting/location blocks are provided to clip into the sections.

Installation

Detailed installation instructions are provided within the System 7-20 Pivot manual which should be strictly followed.

Pivot Window Fittings

The sections are designed to suit a pair of horizontally or vertically mounted pivots with a variety of handle options. Metal Technology are able to supply a full range of fittings and accessories. See the relevant section of this manual for details of gearing options for specific window sizes. Metal Technology should be contacted for any special operating requirements. Where open out or Tilt & Turn windows are required the Metal Technology System 4-20/5-20 Commercial Casement/Tilt & Turn Windows should be considered.

Maximum & Minimum Sash Size Limits

For complete details of maximum/ minimum sizes and weight restrictions, see the size limitation charts in Section 3 of manual.

Performance

Air permeability - BS 6375 : Pt. 1 : test pressure 600 Pa.

Water tightness - BS 6375 : Pt. 1 : test pressure 600 Pa.

Wind resistance - BS 6375 : Pt. 1 : test pressure 2400 Pa.

BS 6375 : Pt. 2

These levels of performance should be sufficient for any location within the UK. However, should higher levels of performance be required for any reason, Metal Technology's advice should be sought.

Development

Our policy is to continually research the market for new and improved products. We must therefore retain the right to amend specifications without prior notice. It is recognised at Metal Technology that in some instances special sections may be required for particular projects. When this occurs it may be possible to produce bespoke profiles subject to there being sufficient quantity and adequate time.

