

5-20 tilt turn window

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Specification

The Metal Technology Thermally-Broken Tilt & Turn 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 short, medium and long leg outer frame sections to accommodate all expected frame options and applications. Also included in the basic suite of profiles are a wide range of vent and 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 Tilt & Turn window system is manufactured to exacting standards enabling economy to be combined with strength to give many years of aesthetic, trouble-free operation.

Thermal Performance

Metal Technology System 5-20, in conjunction with the correct glass specification, is designed to comply 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 Tilt & Turn 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 5-20 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. Alternatively a mechanically fixed cleat can be used. 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 which should be strictly followed.

Open In Window Fittings

The sections are designed to suit clamp fixed Tilt before Turn fittings, Turn only fittings (side hung) and Tilt only fittings (bottom hung) and a variety of handle options. Metal Technology are able to supply a full range of fittings and accessories.

Metal Technology should be contacted for any special operating requirements. Metal Technology strongly recommend the use of restrictors to prevent the window opening more than 90° in the side hung mode.

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

Performance

Air permeability BS 6375 : Pt. 1 : 1983 test pressure 600 Pa.

Water tightness BS 6375 : Pt. 1 : 1983 test pressure 600 Pa

Wind resistance BS 6375 : Pt. 1 : 1983 test pressure 2400 Pa

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 special sections subject to there being sufficient quantity and adequate time.

