

REA



REA METAL WINDOWS LIMITED (EST 1906)

Non-Fire Rated Doors, Windows/Screens (REAframe) & Fire Rated Door/Screens (FirebREAk)



Project: St David's Centre, London

Contractor: HOC Construction Ltd

GENERAL

REAframe Introduction:

Rea Metal Windows specialises in purpose-made steel framed glazing systems, including **REAframe** series of windows, doors and screens manufactured from precision steel profiles of cold formed tube.

They comprise:

**Storey height glazed panel walls,
Fixed lights for security screening,
Hinged rebated and flush doors,
Single and double action swing doors,
Side, top and bottom hinged windows.**

Precision steel tube offers the benefits of robust durability, smooth surface finish, slim line and large panes with a high glass to frame ratio.

FirebREAk Introduction

Rea Metal Windows Limited specialises in purpose-made steel framed glazing systems, including the **FirebREAk** range of doors, windows, screens and glazed walls. These products offer fire resistance for 30, 60 or 90 minutes with fixed glazing to 120 to the integrity criterion of BS 476: Part 22: 1987.

Both hinged rebated and non-rebated single/double doors are available, together with fixed screens. All framed in precision formed tubular steel profiles. Construction is all welded, with a high resistance to vandal attack and a proven history of minimal maintenance.

FirebREAk Authority

Manufacture is to a quality assurance system independently assessed against BS EN ISO 9002. As a BSI registered firm the company operates a quality management system which complies with the requirements of BS EN ISO 9001:2008. The steel frame and the alternative glazing materials have been tested to BS476: Part 22 and to DIN 4105: Part 5.

REAprime Applications

The system is appropriate whenever a sturdy engineered framework is required for vertical glazing. It has been used successfully in glazed walling for schools, entrance and emergency escape doors in industrial cladding systems and security windows designed to blend in with the appearance of more tradition frame construction.

FirebREAk Applications

The system is appropriate whenever maximum daylight and vision are to be combined with fire safety. It satisfies fire regulations for compartmentation and separation, also protection for escape routes, while providing the benefits of large glass areas and the visual appeal of a strong, slim, coloured steel framework. It can be used internally especially in the design of atria, and, externally when weather and corrosion resistance qualities are important.

DESCRIPTION

Composition

Cold formed precision steel tube is the basic material with a general wall thickness of 1.5mm, a width of 50mm, and a glazing rebate of 20mm.

Manufacture

Profiles are machined for fittings in bar form then welded into frames using Metal Inert Gas techniques. All welds are carefully dressed and significant welded surfaces ground smooth.

Finish

Both systems are rust proofed by the hot dip galvanising process to BS EN ISO 1461: 2009 followed by a matt stove polyester coating to BS6497 in a colour selected from our standard colour chart.

FirebREAk Fittings

Doors and windows have welded-on steel hinges and can only be fitted with the Forster tested range of hardware, including steel lever or pull handles, panic escape mechanisms, concealed locks with security cylinders, flush lever bolts and face mounted door closers. Doors can be rebated or non-rebated and have low rise thresholds or no threshold. Fitting other than the companies' standards will be considered subject to compatibility with the in house system.

REAprime Fittings Windows and doors have steel hinged and can be fitted with a wide range of hardware, including lever or pull handles, panic escape mechanism, concealed locks with security cylinders, flush level bolts, face mounted door closers, or floor springs. Doors feature either rebated or low rise thresholds. Fittings other than the standard will be considered subject to compatibility with the company's system

FirebREAk Fire and smoke seals

Rebated doors and windows combine a steel flange with a fire resistant synthetic rubber gasket to prevent the passage of flame, hot gasses and smoke. Single action or non-rebated doors have seals and in tumescent filler. This expands at high temperature to close the perimeter joint tightly.



Project: St Davids Centre, London

Contractor: HOC Construction Ltd

REAframe Glazing

Single or double glazed units up to 30mm thick can be inserted on site from the inside or outside and are retained by steel channel beads which snap over concealed steel studs. Panel infill up to 38mm thick or double glazed units up to 30mm thick are secured with steel angle beads which push fit under stainless steel clips. Glass and panels are bedded on tape and capped with silicone sealant.

FirebREAk Glazing

Single 6mm thick fire resistant glass, such as Pilkington Pyroshield (Georgian wired), schott pyran, vetrotech pyroswiss or pyrocet is retained by steel channel beads which snap over concealed steel studs. Double glass units up to 22mm thick can be also specified. The glass must either be firmly gripped in the ceramic fibre tape, capped with silicone sealant, or other tested combination of materials.

Dimensions

Windows, doors and screens are purpose-made to suit project requirements but always remaining within the tested size limits

Continuous runs of glazing can be achieved, limited only by maximum tested pane size provided mullion and transom coupling and perimeter joints are appropriately detailed. Frames must be allowed to expand in a fire without distortion that could damage the integrity of the glazing.

Appearance

Both systems present crisp neat lines and flat surfaces. There are no visible glazing bead screws.



Project: Tate Gallery Liverpool

Architect: Stirling & Wilford

Contractor: Tarmac

SITWORK

Handling and storage

Both systems are factory finished and are dispatched with corrugated cardboard wrapping. They must be unloaded and handled with care, and stored upright on level battens in a clean, dry place.

Fixing and glazing

As a precision engineered product, REAframe/FireBREAK requires accurate, plumb, straight and square openings. It can be screw fixed into the structure directly through the frame sections, or through appropriate steel lugs screw fixed to the frames via threaded inserts. Colour matched beads, pre-cut to fit the frames, need care in storage and application to avoid loss or damage

SERVICES

Sales and technical For advice on design and price, please contact the sales office at the address below.

Installation

The company recommend there total supply and installation service for the satisfactory performance of either system.

Contact Details:

REA Metal Windows Ltd

126-136 Green Lane
Liverpool
L13 7ED

Tel: 0151 228 6373

Sales Office:

Paul Richardson
Barry McCabe

Website:

www.reametal.co.uk

Email:

paul.richardson@reametal.co.uk – Sales Enquiries
barry.mccabe@reametal.co.uk – All other Enquiries