

PROMAT SYSTEMGLASS™ Screens – NF3 System

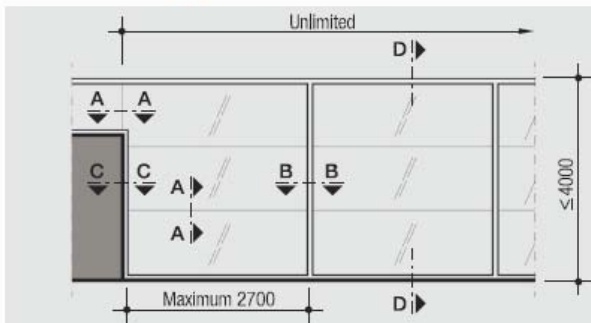
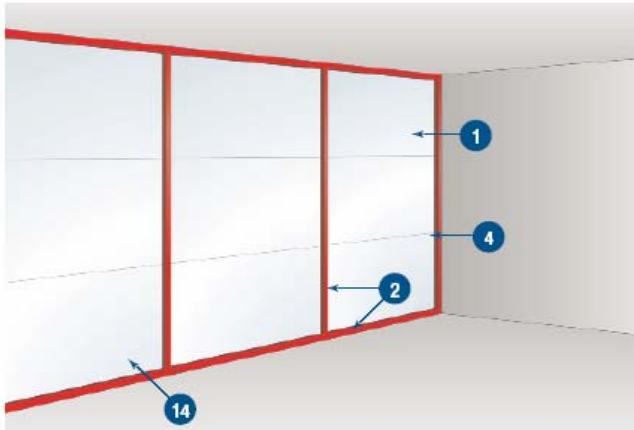
All Glass Screens with Horizontal Joints

Where no masonry or concrete columns exist, Promat SYSTEMGLASS® can be installed as below.

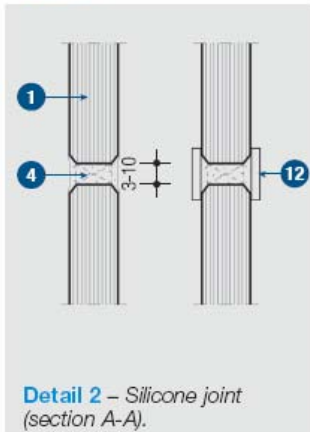
The total width of the glazed screen is unlimited, the height is restricted to 4000mm, the maximum glass pane size is 2700mm x 1400mm.

The horizontal joints between the glass panes are butt jointed and sealed using Promat SYSTEMGLASS® silicone adhesive.

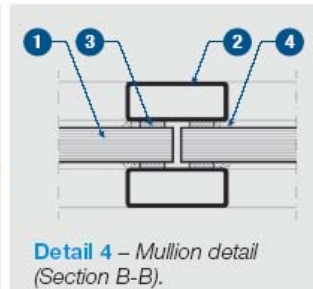
The perimeter framing is formed from either steel hollow sections as shown, SUPALUX® strips or steel angles. The vertical mullions are steel hollow sections as shown. Please consult Promat Technical Services Department for further details.



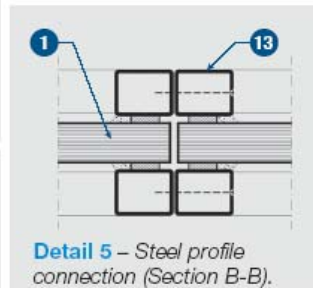
Detail 1 – Elevation (Horizontal unframed joints).



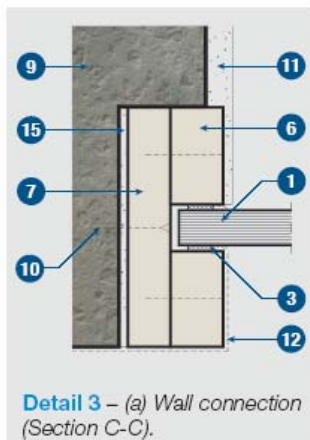
Detail 2 – Silicone joint (section A-A).



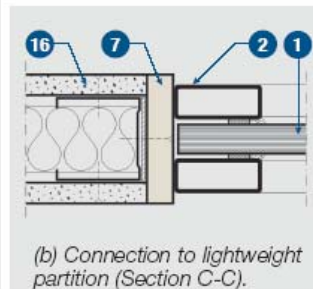
Detail 4 – Mullion detail (Section B-B).



Detail 5 – Steel profile connection (Section B-B).



Detail 3 – (a) Wall connection (Section C-C).



(b) Connection to lightweight partition (Section C-C).

TECHNICAL DATA

30 and 60 minutes fire rating, integrity and insulation in accordance with the criteria of BS 476: Part 22: 1987.

(1) Maximum Pane Size

30 minutes fire rating:

Promat SYSTEMGLASS® 30, chamfered edges, 17mm thick maximum pane size 1400mm x 2700mm.

60 minutes fire rating:

Promat SYSTEMGLASS® 60, chamfered edges, 25mm thick maximum pane size 1400mm x 2700mm.

(2) Hollow steel framing sections:

For overall glazed element up to 3m high: minimum 50mm x 20mm x 2mm thick.

For overall glazed element over 3m high: minimum 60mm x 25mm x 2mm thick.

- (3) Self adhesive glazing tape, 10mm x 3mm.
- (4) Promat SYSTEMGLASS® silicone adhesive.
- (5) Mineral wool, 15mm thick compressed.
- (6) SUPALUX®, 50mm x 25mm thick, fixed using 50mm screws at nominal 200mm centres, or 50mm x 10mm x 1.5mm steel wire staples at nominal 100mm centres.
- (7) SUPALUX® strips, minimum 20mm thick.
- (8) SUPALUX® setting blocks, 21mm x 6mm thick, 2 pieces per glass pane at least 100mm from the corner of glass.
- (9) Solid wall, floor or ceiling with a fire resistance equal to or more than that of the glazing system.
- (10) Masonry fixing, expansion bolt or similar at nominal 500mm centres.
- (11) Plaster or cement rendering.
- (12) Optional covering made of stainless steel, aluminium, wood or plastic profiles.

NOTE 1: Under no circumstances should the edging tape be removed from the glass. It is there to prevent ingress of moisture or acetate from the silicone sealant entering the intumescent layer and causing discolouration.

NOTE 2: Promat SYSTEMGLASS® is designed for use in internal applications. It should not be used in high humidity, semi exposed or external applications.

NOTE 3: For SYSTEMGLASS® doors refer to TDS 148 (August 2011).

NOTE 4: Refer to TDS121 (August 2011) for more details on the Promat SYSTEMGLASS® system.

AUTHORITY: Warrington Bodycote WF Report No. 176591

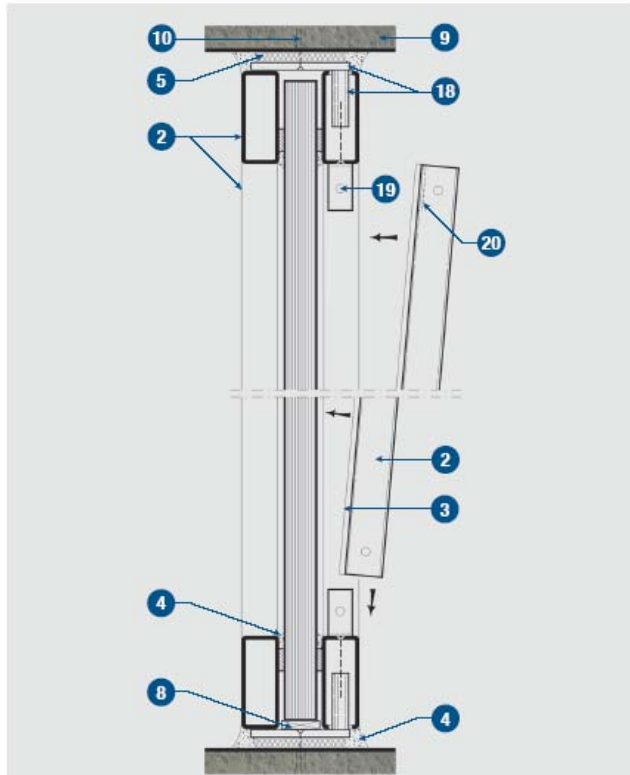
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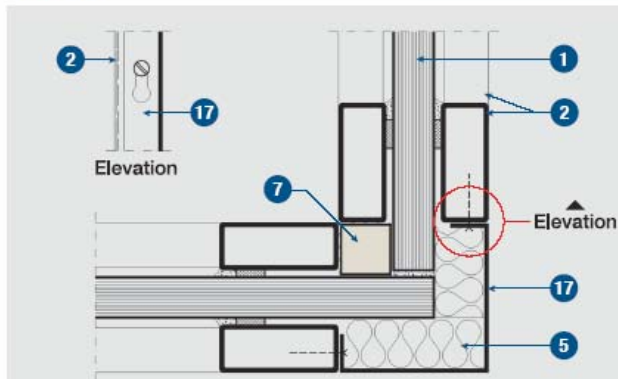


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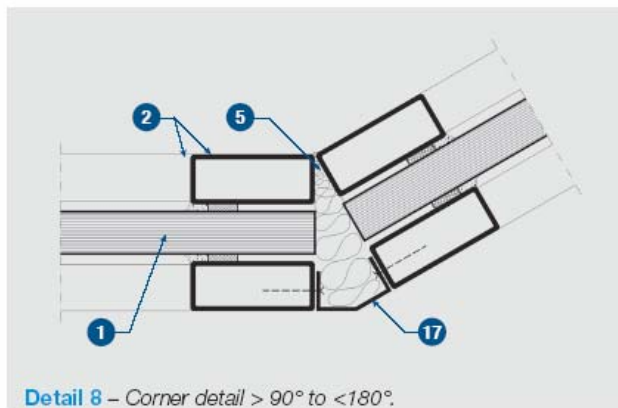




Detail 6 – Vertical section (Section D-D).



Detail 7 – Corner detail 90°.



Detail 8 – Corner detail > 90° to < 180°.

(13) Connecting steel profiles, screwed together:

Minimum 25mm x 20mm x 2mm, maximum 3m height.

Minimum 30mm x 25mm x 2mm, maximum 4m height.

(14) Fire rating marked on Promat SYSTEMGLASS®.

(15) Bedding mortar.

(16) Fire rated dry wall.

(17) Steel cover profile, fixed to the steel hollow sections using screws at nominal 200mm.

(18) Steel plate and threaded dowel welded on steel hollow section (2) to one side of the screen at 655mm centres.

(19) Frame fixing bracket of mild steel channel, 25mm x 46mm x 1.5mm thick.

(20) Notch cut out to top of hollow section to allow installation around item (19).

Detail 5 – Steel profile connection (Section B-B)

It is feasible for smaller framing sections than these to be produced with welded joints off site and simply fastened together using machine screws.

The detail shows how two smaller profiles can be joined to make one larger section.

Detail 6 – Vertical section (Section D-D)

This section shows the standard head and floor fixing, with the addition of the vertical mullions required for NF3 screens.

Depicted in the above drawing is a cut out to the back face of the hollow profile (20) which enables the section to slip over the U profile (19).

The hollow section is then fixed to the U profile using a machine screw.

The horizontal hollow sections forming the transom to the system is fixed to U profiles in a similar manner to the vertical sections.

Details 7 & 8 – Corner details

Corner joints can be constructed using a combination of steel hollow profiles, mineral wool infill and steel cover profiles as depicted below.

These corner sections can be at any angle between 90° and 180°

These corner details are applicable for fire resistance in terms of the integrity and insulation criteria of BS 476: Part 22: 1987 for periods up to 60 minutes.

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