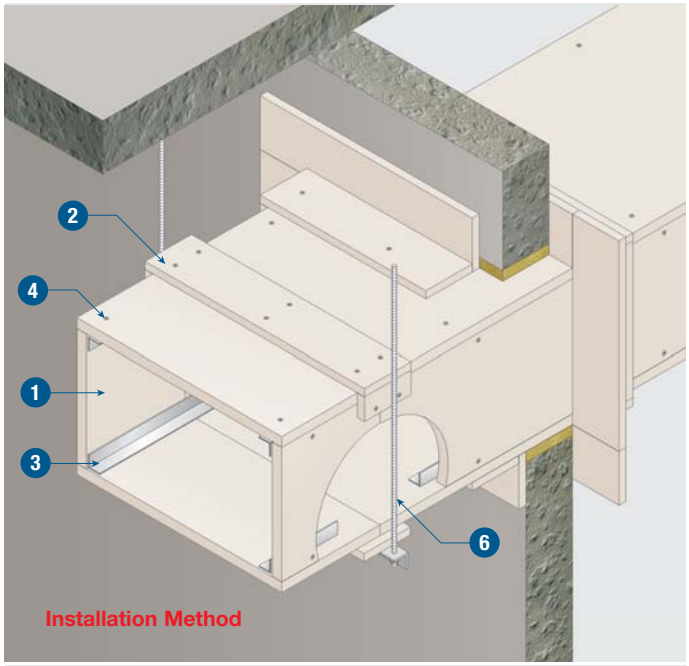
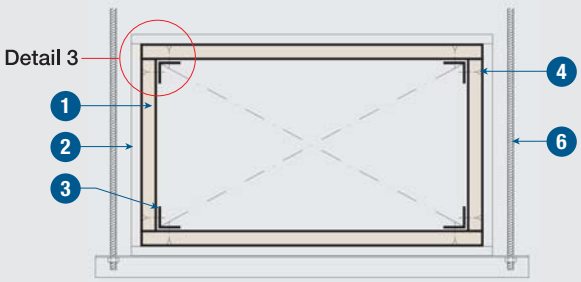
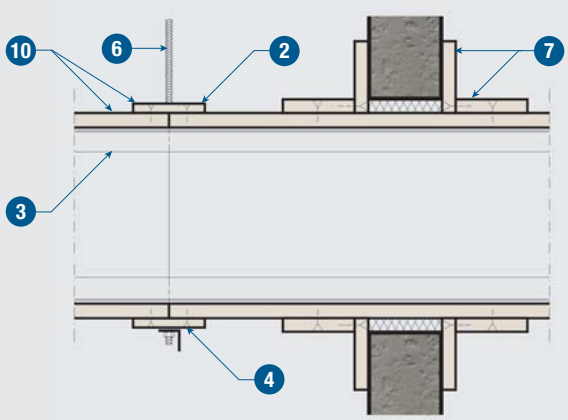
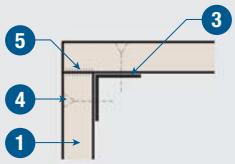




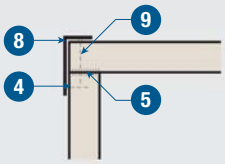
Detail 1 Cross section through insulated duct



Detail 2 Longitudinal wall penetration



Detail 3 Internal angle fixing



Alternative external angle fixing

The self-supporting duct system provides an economical and fire safe method of constructing natural and mechanical smoke extract and ventilation ductwork without a steel lining. Lengths of the Promat system can be prefabricated off-site or constructed on site using PROMATECT®-H boards. This ensures that time spent on site is kept to a minimum, with little or no disruption to other trades.

Please refer to **Design Considerations** on the webpage, as well as the guidance given on the next few pages.

For selection of board thickness, it will not only depend on the required fire performance but also on the internal cross section of the duct and the operating pressure(s). With large ducts and medium to high operating pressures, internal stiffeners may be required.

Further details of these systems in the form of detailed construction manuals are available from your local Promat Technical Department, for those items pertinent to local building regulations please refer to your local Promat office.

TECHNICAL DATA

2 hours fire rating, stability and integrity in accordance with the criteria of BS 476: Part 24; internal or external fire.

1. PROMATECT®-H boards, 12mm thick
2. PROMATECT®-H strips, 9mm thick
3. Internal steel angle 30mm x 30mm x 1mm at corners
4. M4 self-tapping screws at nominal 200mm centres
5. PROMASEAL® Acrylic Sealant, VICUBOND or Promat Cement K84 at all board joints
6. Hanger diameter sized to limit stress ≤ 10 N/mm² and minimum 30mm x 30mm x 4mm steel angle depending on the size of duct
7. PROMATECT®-H collar 150mm wide, 20mm thick
8. Alternative external corner angle 40mm x 20mm x 0.7mm
9. Steel wire staples ≈ 63mm x 11mm x 2mm at nominal 150mm centres
10. Steel wire staples ≈ 28mm x 10mm x 1mm at nominal 250mm centres

2 hours fire rating, stability, integrity and 30 minutes insulation in accordance with the criteria of BS 476: Part 24 and impact resistance in accordance with the criteria of BS 5669; internal or external fire.

1. PROMATECT®-H boards, 20mm thick
2. PROMATECT®-H strips 100mm wide, 20mm thick
3. Corner steel angle 30mm x 30mm x 1mm
4. M6 self-tapping screws at nominal 200mm centres or steel staples ≈ 90mm x 12mm x 2mm at nominal 150mm centres
5. PROMASEAL® Acrylic Sealant, VICUBOND or Promat Cement K84 at all board joints
6. Hanger diameter sized to limit stress ≤ 10 N/mm² and minimum 30mm x 30mm x 3mm steel angle depending the size of duct
7. PROMATECT®-H or L500 collar 150mm wide, 20mm thick

4 hours fire rating, stability and integrity in accordance with the criteria of BS 476: Part 24 with insulation 30 mins and impact resistance in accordance with the criteria of BS 5669; internal or external fire.

1. PROMATECT®-H boards, 25mm thick
2. PROMATECT®-H strips, 9mm thick
3. Internal steel angle 30mm x 30mm x 1mm at corners
4. M4 self-tapping screws at nominal 200mm centres
5. PROMASEAL® Acrylic Sealant, VICUBOND or Promat Cement K84 at all board joints
6. Hanger diameter sized to limit stress ≤ 6 N/mm² and minimum 30mm x 30mm x 4mm steel angle depending on the size of duct
7. PROMATECT®-H collar 150mm wide, 20mm thick
8. Alternative external corner angle 40mm x 20mm x 0.6mm
9. Steel wire staples ≈ 63mm x 11mm x 2mm at nominal 150mm centres or M4 self-tapping screws at 200mm centres
10. Steel wire staples ≈ 28mm x 10mm x 1mm at nominal 150mm centres or M4 self-tapping screws at nominal 200mm centres

NOTE: PROMATECT®-H duct systems are approved up to 10m wide. For ducts in excess of 1200mm width, please consult Promat Technical Department for construction details.