

# Technical Information Sheet

## Wall Light Application Guide



TIS107 November 2020

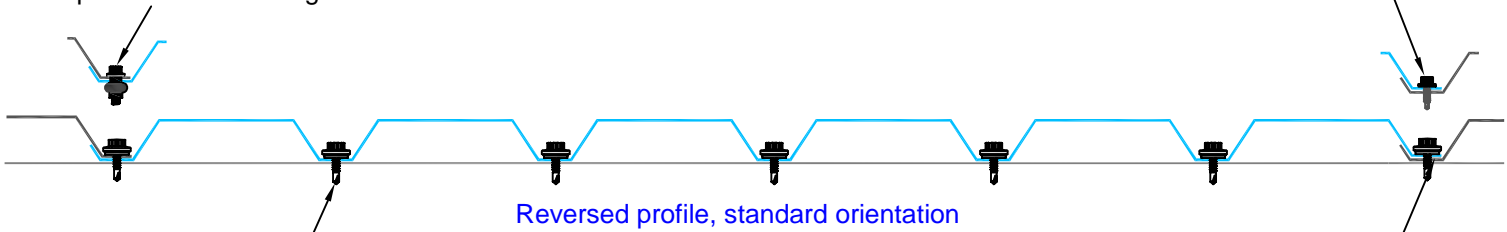
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### Single skin wall light for use with single skin trapezoidal profiled metal wall systems

Grommet type stitch bolts suitable for GRP sheeting @ maximum 450mm centres when a wall light underlaps a metal sheet or laps to another wall light

#### Typical cross sections

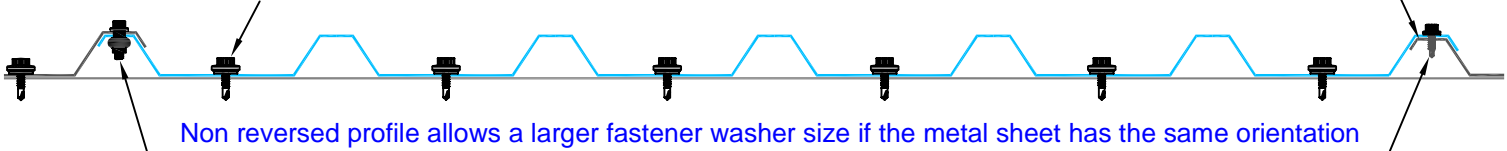
Stitch screws @ maximum 450mm centres where a wall light overlaps a metal sheet



Reversed profile, standard orientation

Austenitic stainless steel main fasteners that incorporate minimum 19mm diameter sealing washers. Frequency of fixing may depend on wind loads, sealing washer diameter, sheet type and profile type selected. Contact the Filon Technical Department for specific recommendations. Fix at every trough at end laps

Continuous run of 9mm x 3mm tape or 4mm bead, cross-linked butyl mastic sealant, or gun applied clear silicone to specification **ISO 11600-F-25 LM** if required

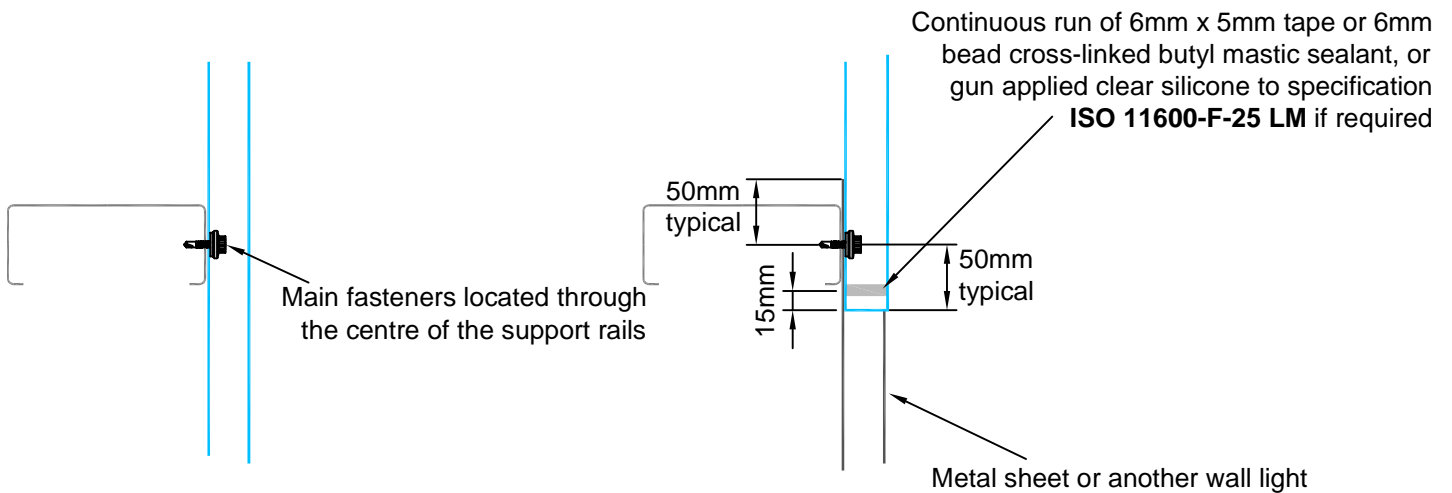


Non reversed profile allows a larger fastener washer size if the metal sheet has the same orientation

Grommet type stitch bolts suitable for GRP sheeting @ maximum 450mm centres when a wall light underlaps a metal sheet or laps to another wall light

Stitch screws @ maximum 450mm centres where a wall light overlaps a metal sheet.

### Typical end laps and intermediate purlins



Main fasteners located through the centre of the support rails

Continuous run of 6mm x 5mm tape or 6mm bead cross-linked butyl mastic sealant, or gun applied clear silicone to specification **ISO 11600-F-25 LM** if required

Metal sheet or another wall light

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**Wall light recommendations**

Although non-fragility is not a consideration for wall lights, consideration should still be given to wind load resistance. Factors such as sheet strength, profile, fixing specification and rail span all affect the wind load resistance of wall lights and the Filon Technical Department can provide recommendations based on the wind loads for the building in question.

**Wall light types**

<b>Filon sheet type</b>	<b>Characteristics and maximum rail span based upon a standard 32/1000 profile</b>
CE18E	This is the minimum sheet specification offered and is suitable for use on buildings and areas that are not subjected to high wind speeds. Maximum rail span recommended is 2.0m subject to wind loads, to prevent deflection exceeding 50mm under load.
CE24E	Provides a higher durability expectation than CE18E and will withstand higher wind loads. Maximum rail span recommended is 2.0m subject to wind loads, to prevent deflection exceeding 50mm under load.
CE30E	Increases the durability expectation and wind load resistance compared to a CE24E sheet. The maximum recommended rail span is 2.2m subject to wind loads.
CEDR24E	Has comparable strength and durability to CE30E sheets but with lighter weight and thinner. The maximum recommended rail span is 2.2m subject to wind loads.
CE36E	Can withstand high wind loads and is suitable for more exposed locations. The maximum recommended rail span is 2.4m subject to wind loads.
CEDR30E	Has comparable strength and durability to CE36E sheets but with lighter weight and thinner. The maximum recommended rail span is 2.4m subject to wind loads.
Supasafe E	Provides optimum wind load resistance and durability and is suitable for very exposed locations. The maximum recommended rail span is 2.5m subject to wind loads.

**Fire performance**

Filon Grade 104: Class 1 to BS 476 Part 7 as standard.

Filon Grade 300: Class 3 to BS 476 Part 7 when allowed in Building Regulations for certain applications.

Filon Grade 101: B<sub>ROOF</sub> (t4) to BS EN 13501 Part 5. SAA to BS 476 Part 3. Class 1 to BS 476 Part 7. Class 0 as defined in Building Regulations, to BS 476 Part 6. Available when a higher fire performance than is normally required in Building Regulations is specified.

For further information, please refer to Filon Technical Information Sheet TIS003.

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### Typical fixing specification

#### Main fasteners

Filon single skin wall lights should be secured to rails with minimum 5.5mm diameter, self drill/tap austenitic stainless steel screws that incorporate minimum 19mm diameter sealing washers. Note that a reversed profile may restrict the size of washer used and for increased load resistance, a non-reversed profile would allow the use of larger minimum 29mm diameter washers subject to the metal profiled sheets being of the same type.

#### End laps

Any end laps should be located directly over a rail. The top edge of an underlapping wall light should be minimum 50mm from the main fixing line. The leading edge of an overlapping wall light is normally 50mm to 100mm from the main fixing line. The end lap joints may be sealed with one run of 6mm x 5mm tape or 6mm bead cross-linked butyl mastic sealant, or gun applied silicone to classification **ISO 11600-F-25 LM** located 15mm from the leading edge of the overlapping sheet within the joint if required.

#### Side laps

The side lap joints should be stitched at maximum 450mm centres with purpose made GRP or plastic sheet stitch fasteners such as expanding rubber grommet bolts if the wall light underlaps the adjacent metal sheet or laps to another wall light. Standard stitch screws may be used where a wall light overlaps the adjacent metal sheet. On exposed sites the centres should be reduced to 300mm. The side lap joints may be sealed with minimum one run of 9mm x 3mm tape or 4mm bead cross-linked butyl mastic sealant, or gun applied silicone to classification **ISO 11600-F-25 LM** if required.

### Notes

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