

FIXED BACK TO SFS



- Austenitic Stainless Steel (Grade 1.4301)
- CE Marked (EN 845-1)
- Lucideon Tested
- Masonry - Channel Tie
- 2.7m Standard Lengths



Technical Data

ACS FrameFix Ultra™ is designed to allow an outer leaf of a cavity wall constructed from masonry to be tied to a light steel frame or another structural element. This is most commonly, but not exclusively through rigid insulation board using a suitable fixing. The channel is fixed back to the structure via the pre-punched holes in the channel which are spaced at close centres to allow the fixing point to be selected depending on the application. Once fixed, ACS 4000 range ties can be positioned at any point along the channel to suit the coursing of the masonry panel. Maximum spacing values must be adhered to as per Table 1.0 below.

System Performance

Table 1.0 below provides the wall tie type performance values from PD6697 based on the standard stud centres of 600mm.

Panel Required Type (PD 6697)	Wall Tie Vertical CTRS (mm)	Fixing Vertical CTRS (mm)	Panel Design Resistance (kN/m ²)
Type 1	300	450	2.72
Type 2	450	450	1.81
Type 3	450	450	1.81

Table 1.0 - Channel Tie / Fixing Centres

For alternative performance requirements or spacing's please contact the ACS Technical Department for further information.

Installation

The ACS FrameFix™ channel standard configuration is designed to fix back to the stud work at 450mm vertical centres. The pre-punched holes in the rear of the channel are spaced at 112.5mm centres so a fixing can always be positioned near to the end of the channel and the fixing centres can be varied to increase or reduce the load capacity as required (using the small hole only). Self-tapping screws can be supplied to accommodate fixing through the insulation.

Installing through large holes in the channel is not permitted and as such will invalidate any system performance. ACS recommends the use of stainless steel screw for fixing the channel back to the stud work.

Fixing Screws

The ACS FrameFix™ channel standard configuration is designed to fix back to the stud work at 450mm vertical centres. The pre-punched holes in the rear of the channel are spaced at 112.5mm centres so a fixing can always be positioned near to the end of the channel and the fixing centres can be varied to increase or reduce the load capacity as required. Self-tapping screws can be supplied to accommodate fixing through the insulation.

ACS recommends the use of stainless steel screw for fixing the channel back to the stud work.

Insulation Thickness (mm)	Screw Length (mm)
40-70	105
71-95	130
96-115	150
116-145	180
146-175	210

Table 1.1 - Tech Screw Lengths

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0844 850 0860 OR EMAIL TECHNICAL@ACSSTAINLESS.CO.UK

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System Warranty

The ACS SFS FrameFix system comes with a full warranty and CE marking. If used in an inland environment and not within an environment where chlorine may be present the system can be offered with a 60-year warranty.

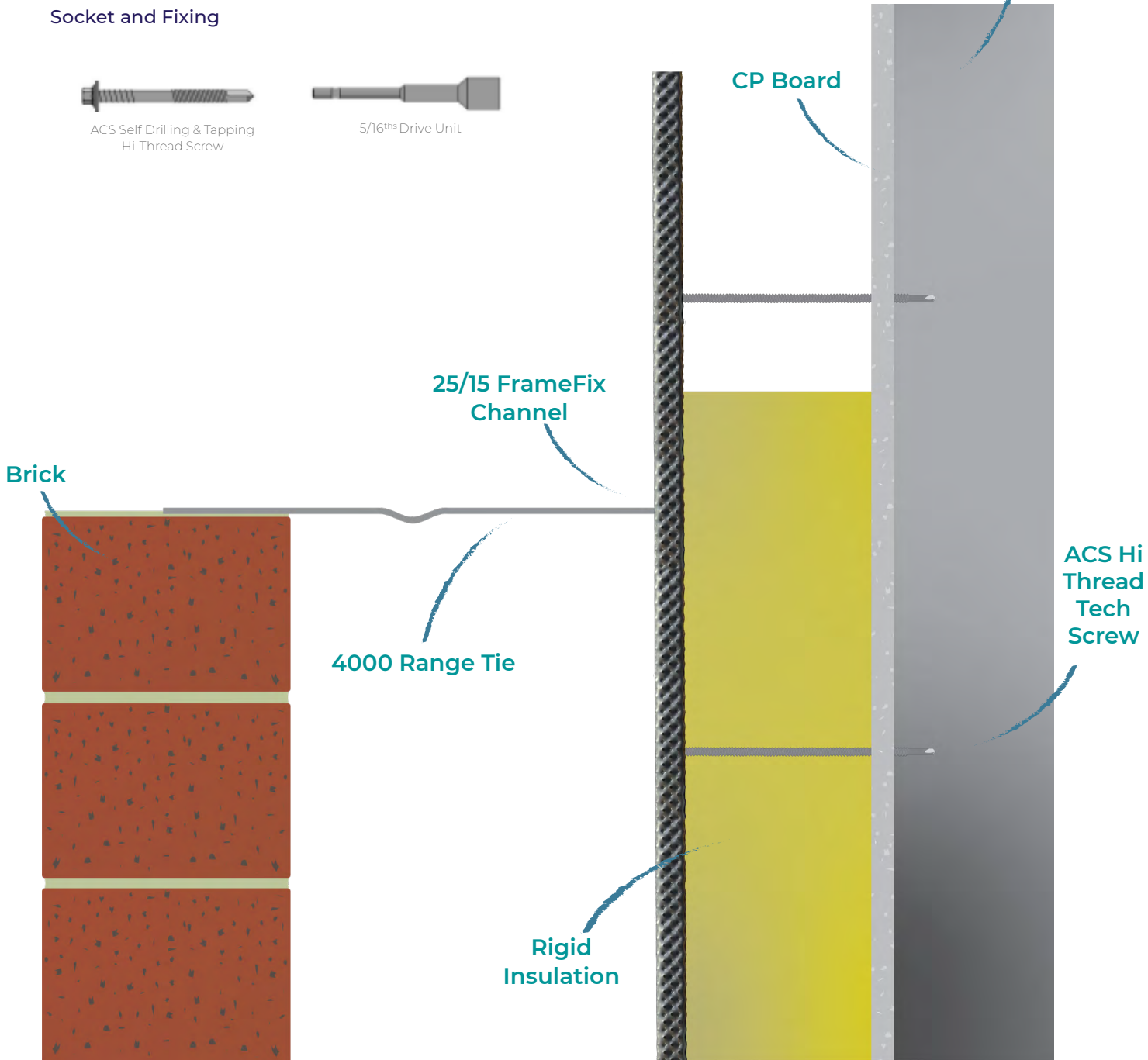
Socket and Fixing



ACS Self Drilling & Tapping
Hi-Thread Screw



5/16th Drive Unit



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- Austenitic Stainless Steel (Grade 1.4301)
- CE Marked (EN 845-1)
- Lucideon Tested
- Masonry - Channel Tie
- 2.7m Standard Lengths
- Standoff Sleeves
 - Low Thermal Conductivity
 - High Compressive Strength
 - Stabilises Channel
 - Class 2 Fire Resistant (BS 476)
 - Prevents Compression of Insulation
 - Aids Installation

Technical Data

ACS Concrete Frame Fix is designed to allow an outer leaf of a cavity wall constructed from masonry to be tied to a concrete frame through insulation using a suitable fixing. Composite, high compressive capacity sleeves are used at every fixing position to provide a rigid, high capacity fixing detail. The sleeves have a Class 2 fire resistance to BS476 Part 6. The channel is fixed back to the structure via the pre-punched holes in the channel which are spaced at close centres to allow the fixing point to be selected depending on the application. Once fixed, ACS 4000 range ties can be positioned at any point along the channel to suit the coursing of the masonry panel.

System Performance

Table 1.0 below provides the wall tie type performance values from PD6697 based on the standard stud centres of 600mm.

Panel Required Type (PD 6697)	Wall Tie Vertical CTRS (mm)	Fixing Vertical CTRS (mm)	Panel Design Resistance (kN/m ²)
Type 1	300	337.5	2.27
Type 2	450	337.5	1.51
Type 3	450	450	0.91

Table 1.0 - Channel Tie / Fixing Centres

For alternative performance requirements or spacings please contact the ACS Technical Department for further information.

Installation

Each fixing point will need marking out and a 5mm pilot hole should be drilled with a 5mm SDS+ drill. Compression sleeves can then be installed through the insulation and sat against the concrete behind. The fixing can then be installed through the channel (small hole), compression sleeve and then into the concrete behind with an embedment of between 30mm and 50mm. Channels are normally set at 600mm horizontal centres. Ties can then be positioned at any point along the channel length to suit the bed joint coursing at the required vertical centres. (Refer to Table 1.0) Installing through large holes in the channel is not permitted and as such will invalidate any system performance.

Compression Sleeves

The Concrete Framefix system is supplied with standoff tubes which correspond to the thickness of the insulation specified. The tubes are designed to ensure that the compressive strength and stability of the channel tie system are both achieved and maintained by preventing the channel deflecting into and compressing the insulation during installation, and whilst under normal load. The tubes are manufactured from a fire-resistant composite material with thermal conductivity of 0.300 W/mK.

Screw Length (mm)	Insulation Range (mm)
100	50-69
120	70-89
140	90-109
160	110-129
180	130-149
200	150-169
220	170-189
240	190-209
260	210-229

Table 1.1 - Abrite Screw Lengths



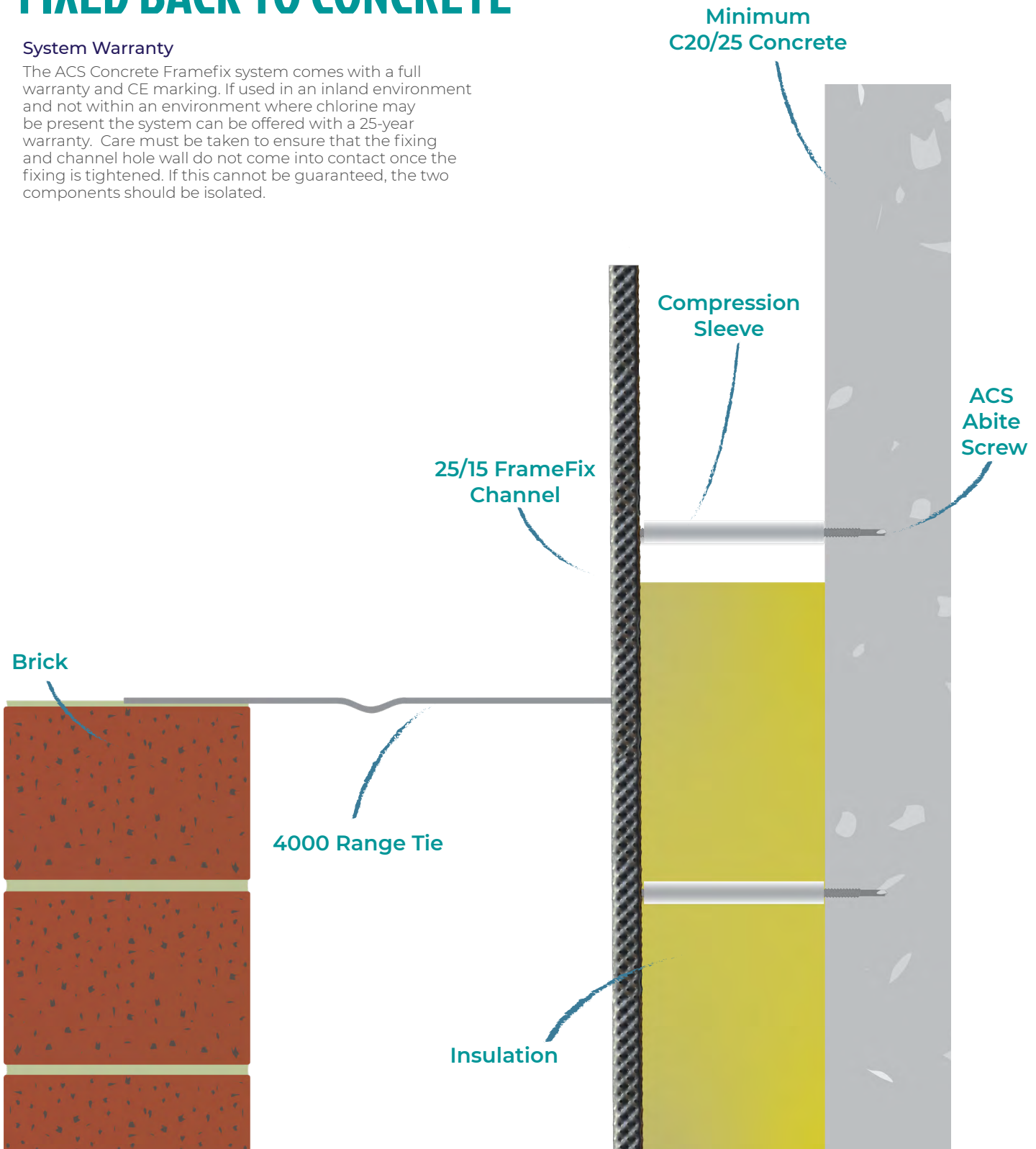
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System Warranty

The ACS Concrete Framefix system comes with a full warranty and CE marking. If used in an inland environment and not within an environment where chlorine may be present the system can be offered with a 25-year warranty. Care must be taken to ensure that the fixing and channel hole wall do not come into contact once the fixing is tightened. If this cannot be guaranteed, the two components should be isolated.



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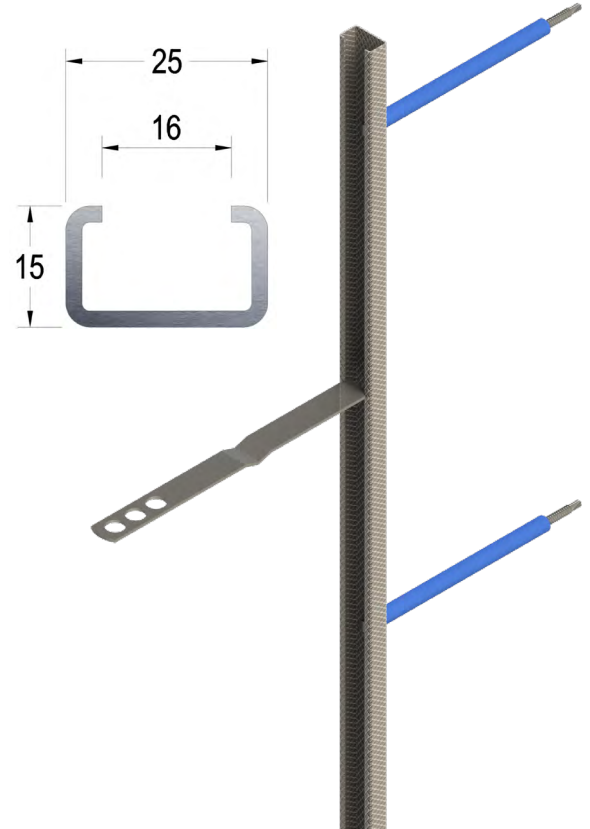
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Tie Lengths

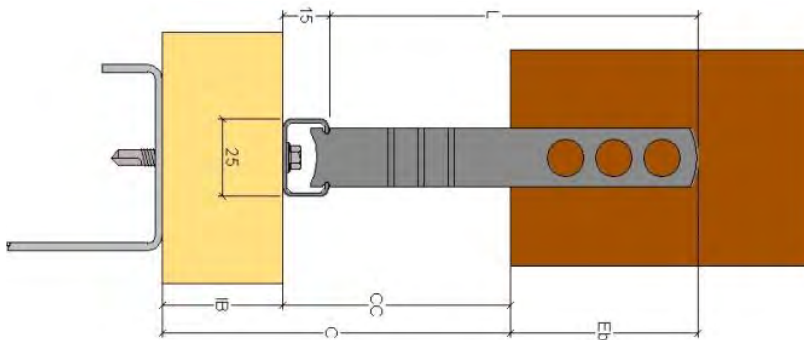
An ACS 4000 Range Channel Tie length should be selected to ensure a minimum of 50mm and a maximum of 75mm embedment is achieved. ACS recommends that ties should be selected to an embedment (Eb) of 62.5mm

Tie Reference	Tie Length (mm)	Clear Cavity Range (mm)
ACS4000/100	100	40-65
ACS4000/125	125	66-90
ACS4000/150	150	91-105
ACS4000/175	175	106-130
ACS4000/200	200	131-155
ACS4000/225	225	156-180
ACS4000/250	250	181-205
ACS4000/275	275	206-230
ACS4000/300	300	231-255
ACS4000/325	325	256-280
ACS4000/350	350	281-305
ACS4000/375	375	306-330

Table 1.2- Tie Lengths



NEW Sizes for 2019



L	Tie Length	$E_b + CC - 15$
E_b	Embedment	62.5mm (min 50mm)
CC	Clear Cavity	C - MW
C	Structural Cavity	Varies
IB	Insulation Board	Varies

Standoff Sleeves

The mineral wool FrameFix system is supplied with standoff tubes which correspond to the thickness of the insulation specified. The tubes are designed to ensure that the compressive strength and stability of the channel tie system is achieved and maintained by preventing the channel deflecting into and compressing the insulation during installation and whilst under normal load.

The tubes are manufactured from a fire-resistant composite material with thermal conductivity of 0.3W/mK

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