



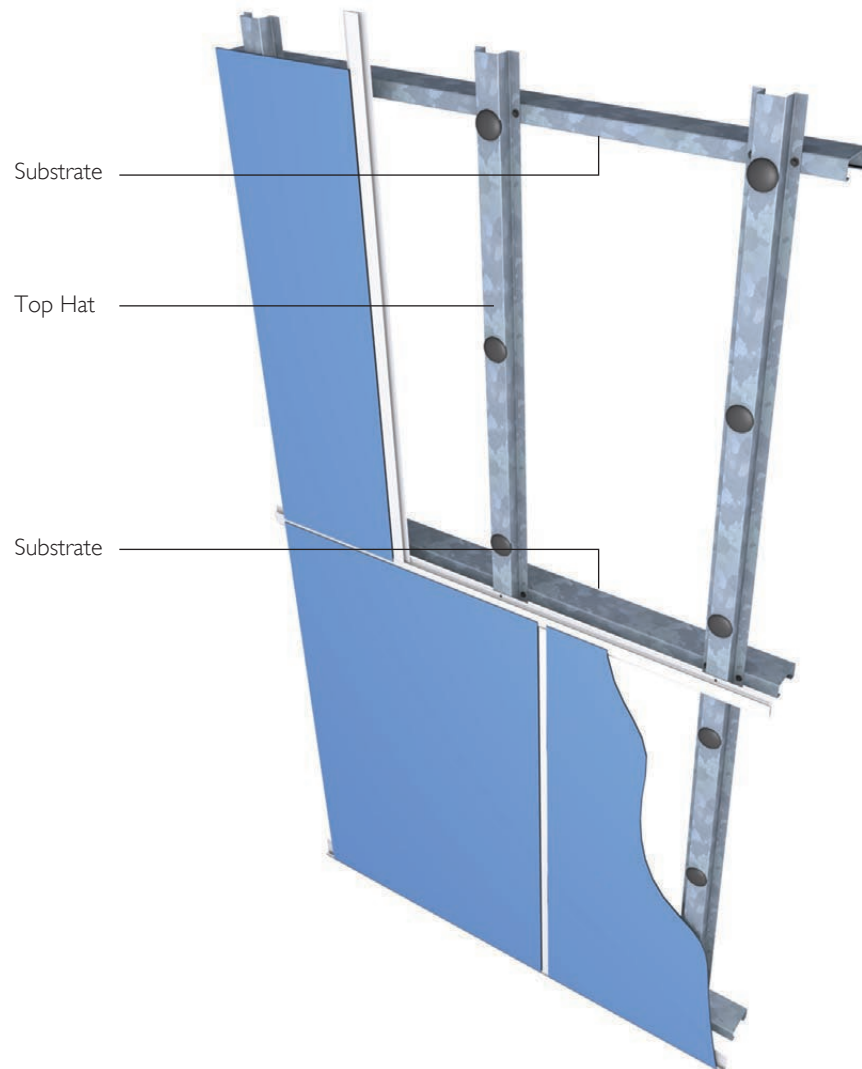
**Basic 5 Step Sub-frame and ACP Installation Guide  
&  
Components List**

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## smartfix<sup>®</sup> Basic 5 Step Sub-frame & ACP Installation Guide

### I. Sub-frame

Prior to installing Top Hats, ensure wall members, girts, etc are straight and plum and are close enough to grid and RL's on architectural drawings.



## smartfix® Basic 5 Step Sub-frame & ACP Installation Guide

### 2. Vapour Barrier

smartfix® is designed as a water tight facade system. Unless there is waterproof membrane in place. Sisalation is required behind the smartfix® Facade System for any moisture or condensation which may build up.



## smartfix® Basic 5 Step Sub-frame & ACP Installation Guide

### 3. Top Hats

Generally top hats are spaced at 600mm centres and fixed at 1200mm or less into horizontal main substructure using class 3 to 4 12x30 Hex Head Screws, to achieve the Australian standard of 3.9kpa.

(Please refer to wind load table on smartfix® website regarding higher wind load areas.)



**Note:** Top hats to be packed out in a plum vertical plane using nylon packers.

## smartfix® Basic 5 Step Sub-frame & ACP Installation Guide

### 4. Structural Adhesives (Sealant)

Depending on wind load, smartfix® recommends 300mm spacings for all spot adhesives on vertical top hats. Please refer to wind load table on smartfix® website for reduced spacings.

All perimeter smartfix® extrusions must be sealed with a continual bead of polyurethane.



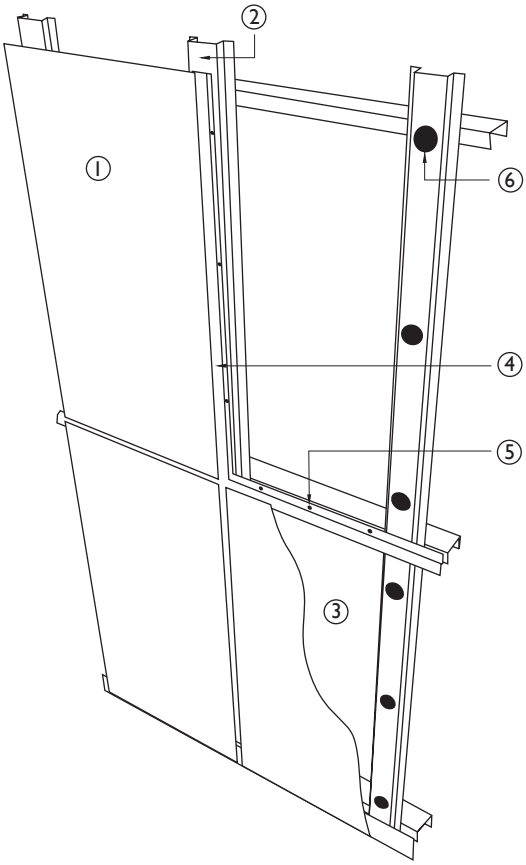
## smartfix<sup>®</sup> Basic 5 Step Sub-frame & ACP Installation Guide

### 5. smartfix<sup>®</sup> Panel Installation

It is recommended that installation begins at the bottom run of the wall, Install panels across bottom of wall and then step up, repeat the process.



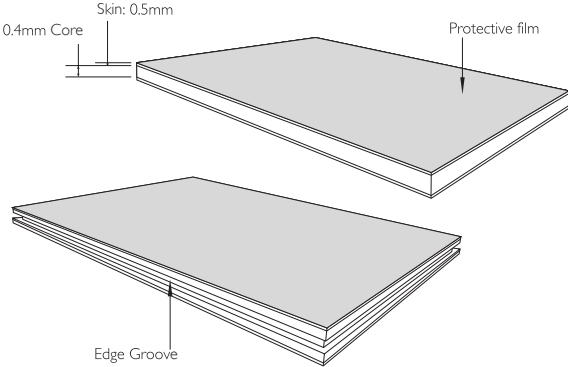
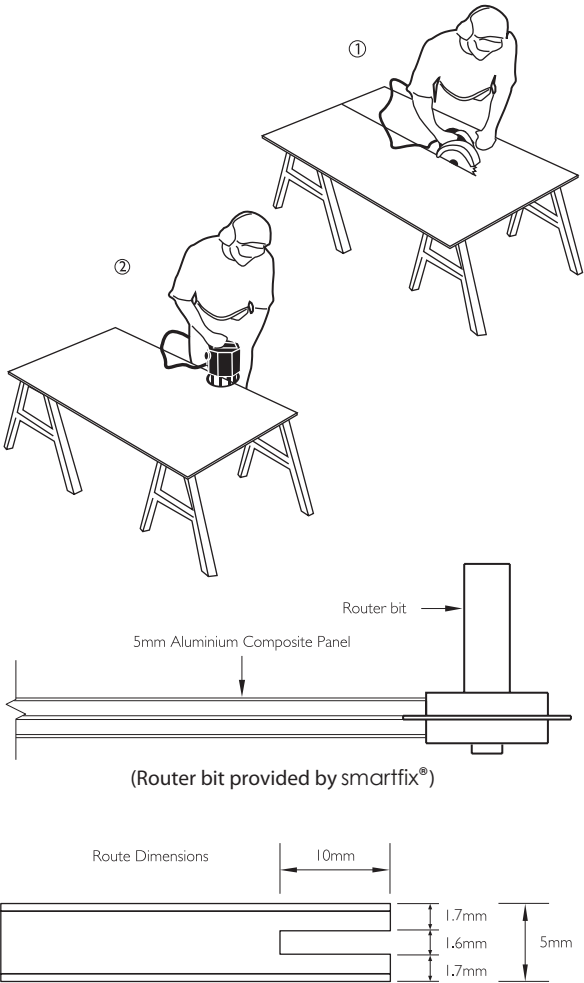
**smartfix**<sup>®</sup> Components

Components		
<b>5mm Aluminium Composite Panel</b> ①		<b>External and Internal Application</b> Panel Specification Panel thickness - 5mm Skin thickness - 0.5mm Core material - 4mm Polythelene or Phenolic Aluminium type – High Tensile AA3003H18
<b>Top Hat framing</b> ②		The support frame for the smartfix <sup>®</sup> system is made up of 1.1 mm 50 x 35 mm Zincalume top hat sections, fixed vertically to a substrate. Design Wind load Tables are provided <a href="http://www.smartfix.com.au">www.smartfix.com.au</a>
<b>Sisalation</b> ③		We require that medium to high strength Sisalation be used to provide an adequate moisture barrier between the substrate and the smartfix <sup>®</sup> Facade system.
<b>Extrusions</b> ④		Length: 4800mm, Aluminium Extrusions are used around the perimeter of the panel to fix to horizontal top hats. All extrusions are provided in unlimited finishes. Mill finish, anodised finish or powdercoat finishes available.
<b>Fasteners</b> ⑤		All fixings are to be class 3 or 4. Extrusions are to be screwed back to Top Hat support framing with class 3 10x16x16 mm or longer, Ripple Tek screws. Top Hats to be screwed to substrate with 12 x 30 mm Hex Head screws (class 3).
<b>Sealants and Adhesives</b> ⑥		Polyurethane sealants are required with the smartfix <sup>®</sup> system. At intermediate Top Hats where "spot adhesives" are required we recommend Sikaflex 252, or equivalent. In all sealant applications we recommend Sikaflex 252 or Bostik Seal'n'Flex or equivalent

## smartfix<sup>®</sup> On-site Cutting and Routing.

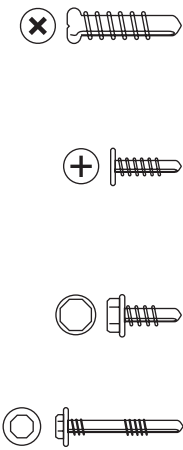
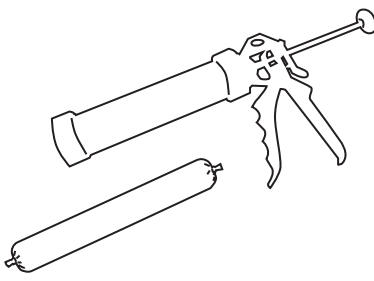
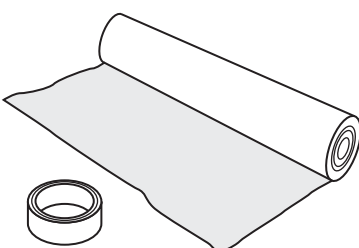
Please Note: All panels are computerised cut and edge grooved prior to delivery. Procedure ① and ② are only recommended where factory cuts are not possible.

(Figure A. Shows panel dimensions 5mm. smartfix<sup>®</sup> profiles can be utilised with 5mm & 6mm thick panels.)

<b>Specifications</b>		
<b>5mm Aluminium Composite Panel</b>		<p>Panel thickness - 5mm          Skin thickness - 0.5mm          Core material - Polythelene or Phenolic          Aluminium type – High Tensile AA3003H18</p>
<p><b>On-site cutting and routing procedure 5mm ACP</b></p> <p>Note:          Procedures ① and ② are only recommended where factory cuts are not possible.</p> <p><b>Recommended Tools</b></p> <ul style="list-style-type: none"> <li>• Festool circular saw</li> <li>• Handheld router</li> </ul>	 <p>(Router bit provided by smartfix<sup>®</sup>)</p> <p>Route Dimensions</p> <p>10mm</p> <p>1.7mm</p> <p>1.6mm</p> <p>1.7mm</p> <p>5mm</p> <p><b>Figure A</b></p>	<p>① Establish a line to which the panel has to be cut and make sure plastic film is hard down on the panel along this line and to 100 mm each side.          Cut the panel using guided Festool circular saw or equivalent, face paint side up, ensuring that the base plate isn't scratching the finished surface.</p> <p>② Now turn sheet over and using variable speed router with RPM adjusted to between 1200-8000 carefully groove. Using smartfix custom router blade.</p> <p><b>Note:</b> Router bits are an off the shelf item obtainable from smartfix<sup>®</sup> Industries</p>

**smartfix**<sup>®</sup> Components

Fasteners, Structural Adhesives and Sealants

Tools and Accessories		Type	Application
<b>Fasteners</b>		Buildex Class 3-4 10x16x16 Ripple Tek  or  Flat Head 10x16x16  Buildex Class 3-4 12x30 Hex Head  Buildex Class 3-4 Series 500 Hex Head	Fixing extrusions to Top Hat sections      Fixing Top Hats to steel girts   Fixing Top Hats to heavy secondary steel
<b>Structural Adhesives (Sealant)</b>		Sikaflex 252 or Bostik Seal'n'Flex or equivalent   Sikaflex 252 or Bostik Seal'n'Flex   Sikaflex 252 or Bostik Seal'n'Flex	Adhesive between the Top Hats and Panels at intermediate Top Hats   Sealant between smartfix <sup>®</sup> extrusions and panels   Sealant to waterproof intersection of smartfix <sup>®</sup> extrusions
<b>Sisalation</b>	  Approx, 50 mm sisalation tape	Medium-high density reflective foil Approx, 1350 mm wide   Reflective sisalation tape 50 mm	Vapour barrier, behind smartfix <sup>®</sup> system

**smartfix**<sup>®</sup> Disclaimer**Disclaimer**

If the following installation procedures are not in accordance to the Basic 5 Step Sub-frame and ACP Installation Guide and non specified materials used which are not mentioned in the components list, will void all warranties.

**Please sign the smartfix<sup>®</sup> disclaimer page and return to smartfix<sup>®</sup> on**

**Fax: (02) 6282 8800 or Email: [info@smartfix.com.au](mailto:info@smartfix.com.au)**

Date: .....

Project Name: .....

Company: .....

Installers Name: .....

Signature: .....