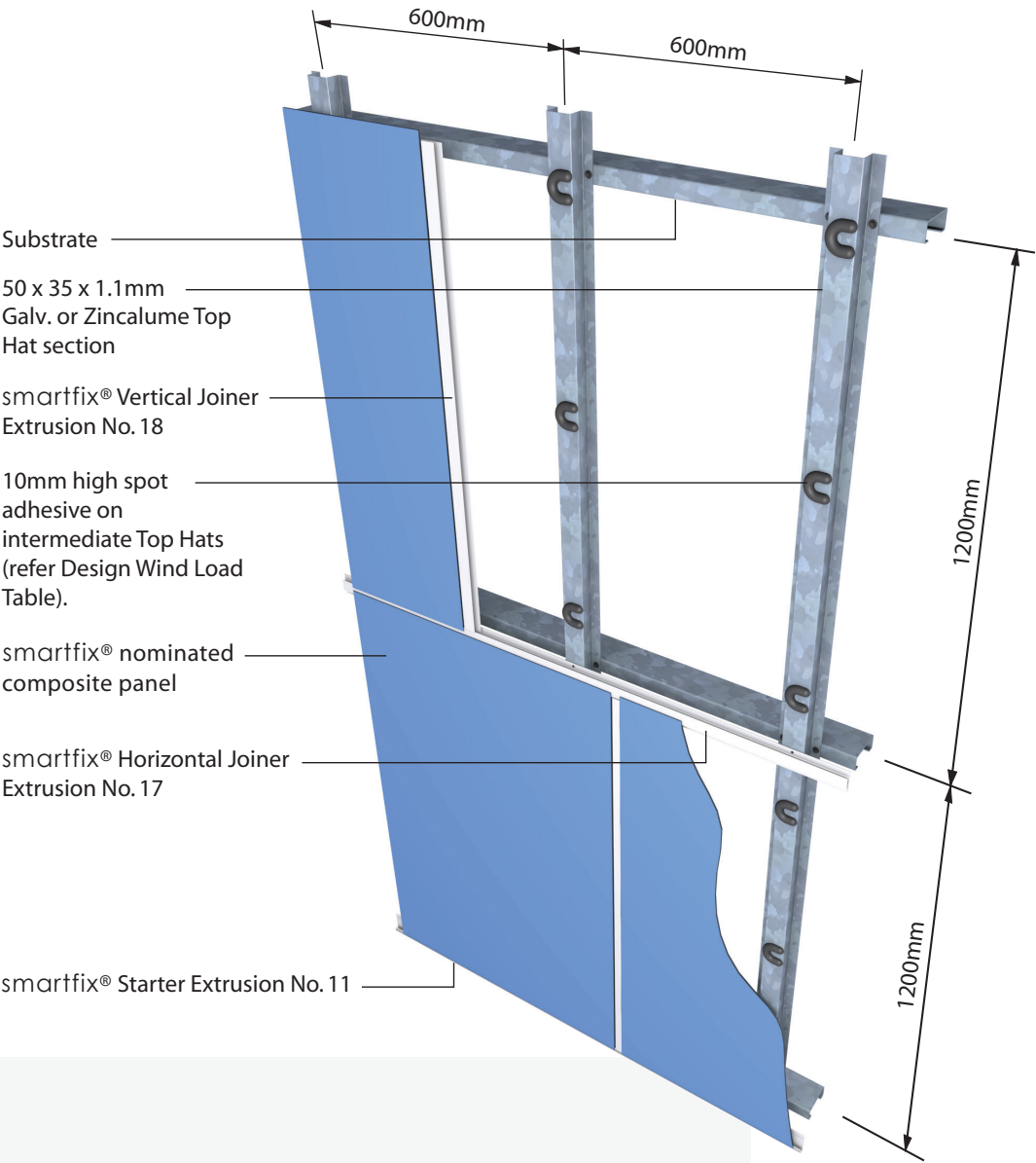




Subframe Installation Guide

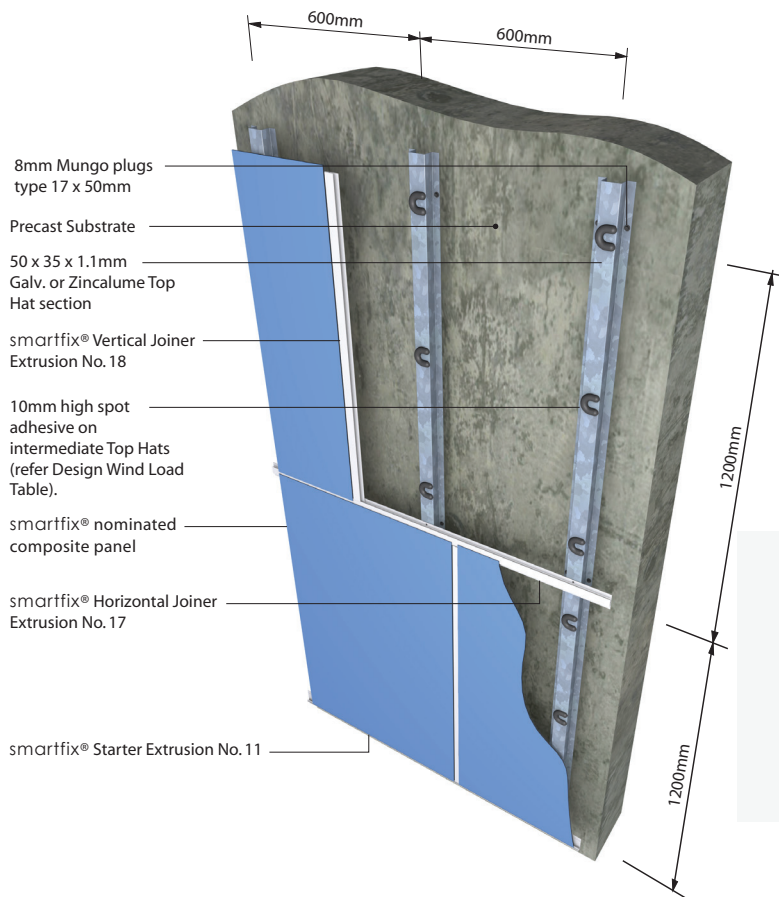
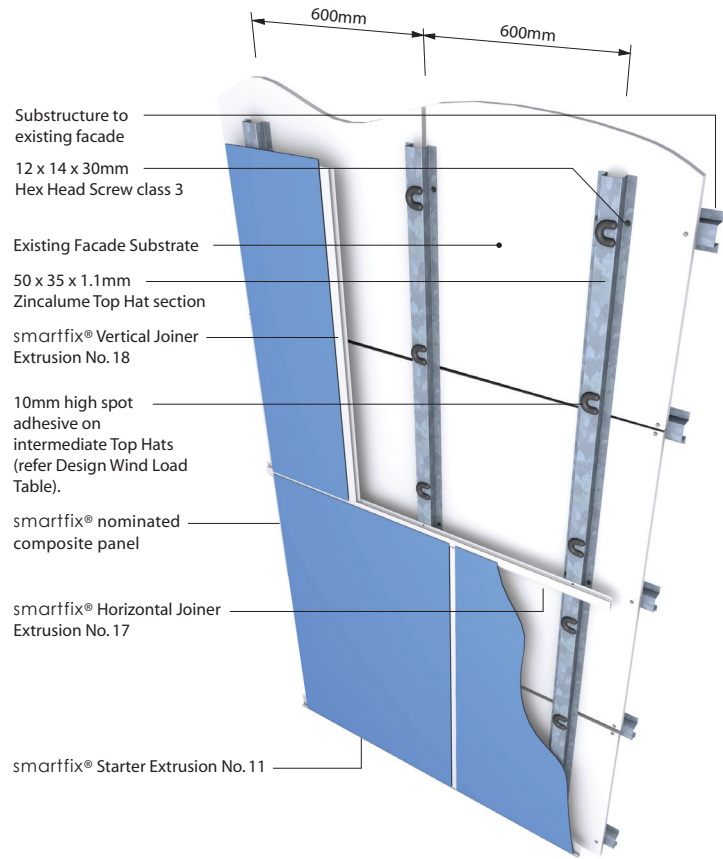
THE smartfix® FIXING DOES NOT REQUIRE
A RAINSCREEN AND HAS PASSED CSIRO
AS4284-1995 WEATHER PERFORMANCE
7.5 AND STRUCTURAL TEST 7.3 HAS ALSO
PASSED NATA ACCREDITATION CYCLONE
TESTING AS4040.3



01 > smartfix® 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.

Substrate Details
Existing Facade Substrate



Substrate Details
Existing Facade Substrate



02> smartfix® *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.



03 > smartfix® 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.



04> smartfix® *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.



05> smartfix® *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.
If metallic finish, panels must be installed in same direction.

01 > smartfix® Aluminium Composite Panel

Panel Specification

Panel thickness - 5mm
Skin thickness - 0.5mm
Core material - 4mm Polythelene
or Phenolic Aluminium type – High
Tensile AA3003H18

02 > smartfix® Top Hat framing

The support frame for the smartfix®
system is made up of 1.1mm
50x35mm Zincalume top hat sections,
fixed vertically to a substrate. Design
Wind load Tables are provided
www.smartfix.com.au

03 > smartfix® Sisalation

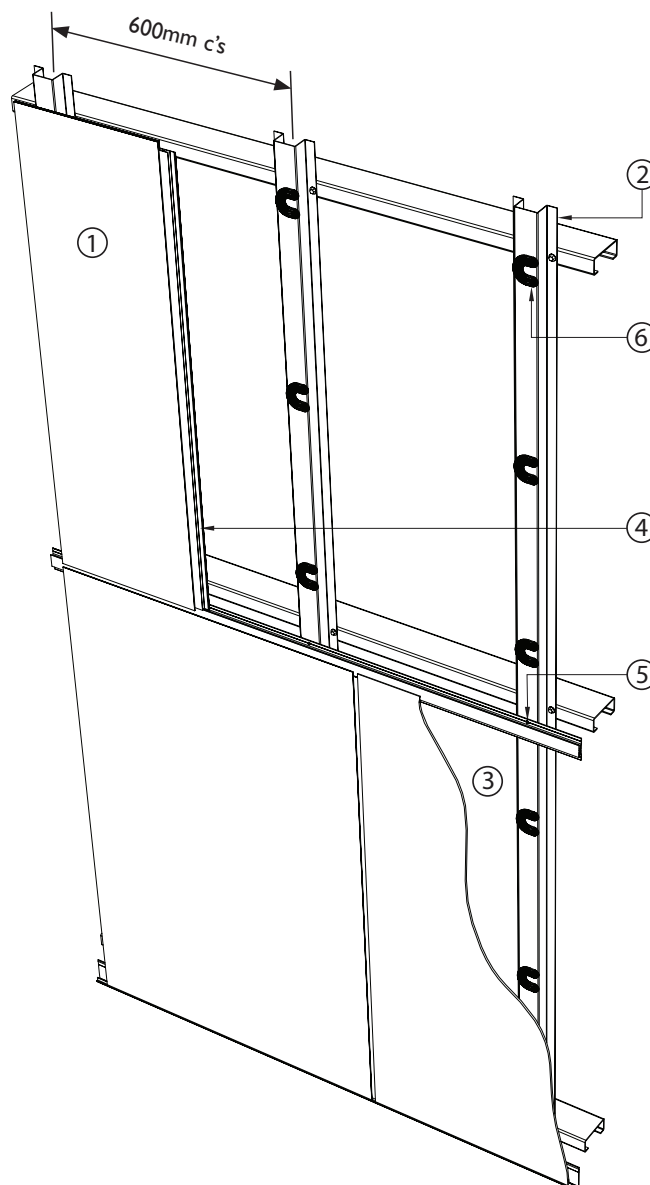
We require that medium to high
strength Sisalation be used to
provide an adequate moisture
barrier between the substrate and
the smartfix® Facade system.

04 > smartfix® Extrusions

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.

05 > smartfix® Fasteners

All fixings are to be class 3 or 4.
Extrusions are to be screwed back to
Top Hat support framing with class 3
10x16x16mm or longer, Wafer head
screws. Top Hats to be screwed to
substrate with 12x30mm Hex Head
screws (class 3).



06 > smartfix® Sealants and Adhesives

Polyurethane sealants are required with the
smartfix® 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

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® profiles can be utilised with 5mm & 6mm thick panels.)

smartfix®
Aluminium Composite Panel

Panel Specification
Panel thickness - 5mm
Skin thickness - 0.5mm
Core material - 4mm Polythelene
or Phenolic Aluminium type – High
Tensile AA3003H18

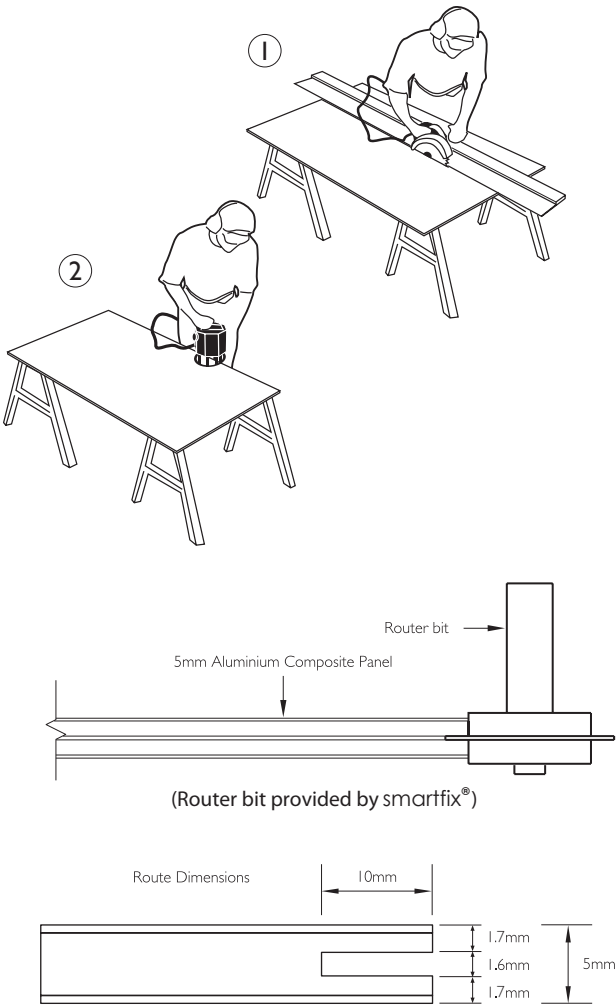
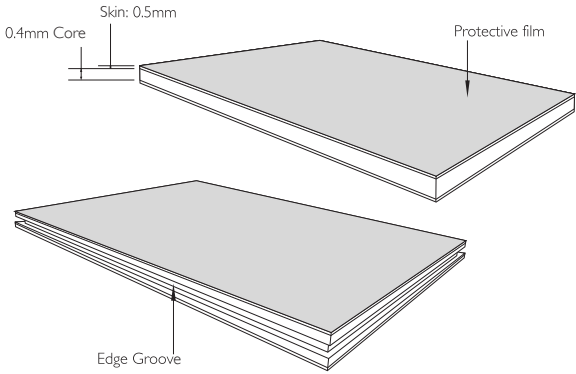


Figure A

smartfix®
On-site cutting and routing
procedure 5mm ACP

Note:
Procedures 1 and 2 are only recommended where factory cuts are not possible.

Recommended tools:
- Festool circular saw
- Handheld router

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 100mm 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.

② Now turn sheet over face paint side down and using variable speed router with RPM adjusted to between 1200-8000 carefully groove. Using smartfix® custom router blade.

Note: Router bits are an off the shelf item obtainable from smartfix® Industries.

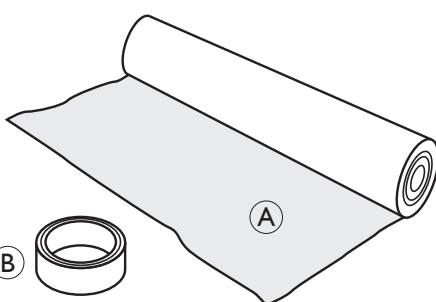
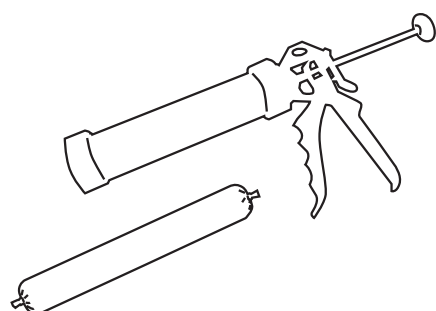
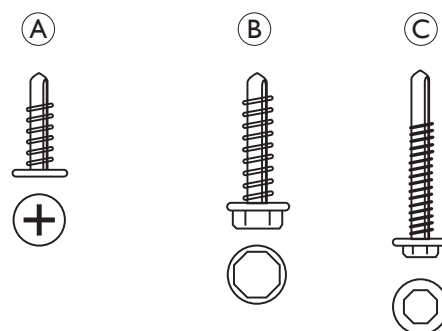
> smartfix® Fasteners

Type:

- (A) Wafer Flat Head 10x16x16
- (B) Buildex Class 3-4 12x30 Hex Head
- (C) Buildex Class 3-4 Series 500 Hex Head

Application:

- (A) Fixing extrusions to Top Hat sections
- (B) Fixing Top Hats to steel girts
- (C) Fixing Top Hats to heavy secondary steel



Approx, 50mm sisalation tape



> smartfix® Structural Adhesives (Sealant)

Type:

Sikaflex 252 or Bostik Seal'n'Flex or equivalent

Application:

Adhesive between the Top Hats and Panels at intermediate Top Hats
Sealant between smartfix® extrusions and panels
Sealant to waterproof intersection of smartfix® extrusions

> smartfix® Sisalation

Type:

- (A) Medium-high density reflective foil Approx, 1350mm wide

- (B) Reflective sisalation tape 50mm

Application:

Vapour barrier, behind smartfix® system

> smartfix® Plastic Packers

Type:

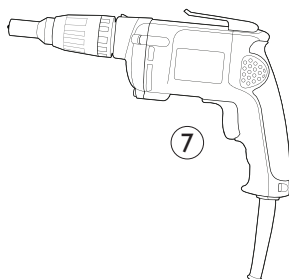
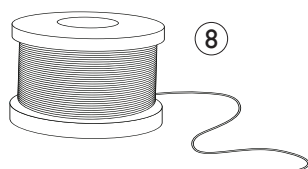
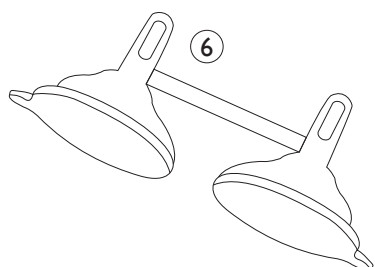
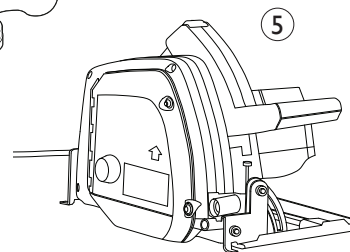
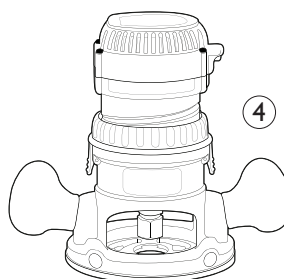
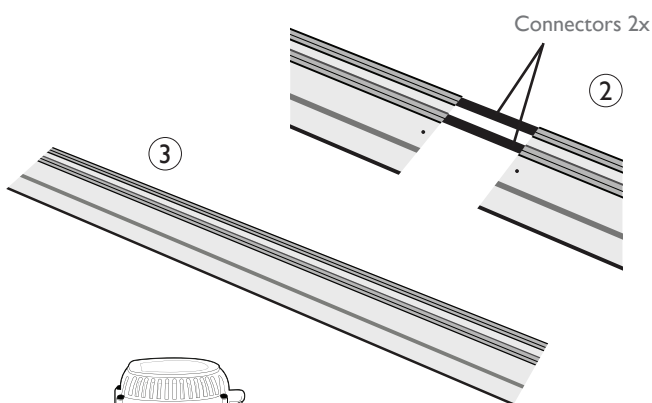
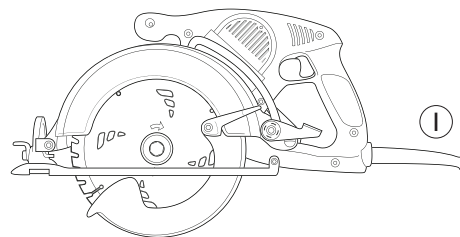
for leveling and creating framing alignment)

TOOLS AND ACCESSORIES

There is no recommendation of screws for fixing Top Hats to main frame. These screws are determined on the type of main framing you will be fixing. Please consult a smartfix® representative to help determine the type of screws required.

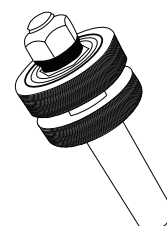
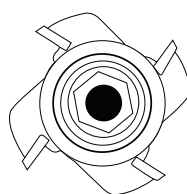
> Required Machinery/Tools

- ① **Saw**
Specification:
Festool Saw or similar Plunge cut
model FEST56I 166
- ② **Connector**
Specification:
Festool connector FSV model
FEST482107 (For Saw and V Groover)
- ③ **Guide Rails**
Specification:
Festool Guide rails FS3000 model
FEST491501 (For Saw and V Groover)
- ④ **Router**
Specification:
For edge grooving smartfix® edge
- ⑤ **Groover Saw (optional)**
Specification:
Festool V Groover Saw (for folding panels)
- ⑥ **Glazier Window Suckers**
- ⑦ **Drill**
Specification:
NORMAL (Standard)
- ⑧ **String Line**



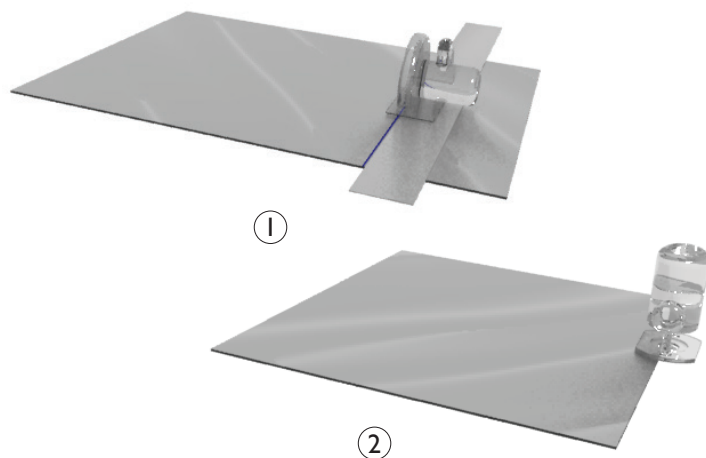
> Accessories Supplied by smartfix®

- ⑨ **Edge Groove**
Arbor for Router + Blades



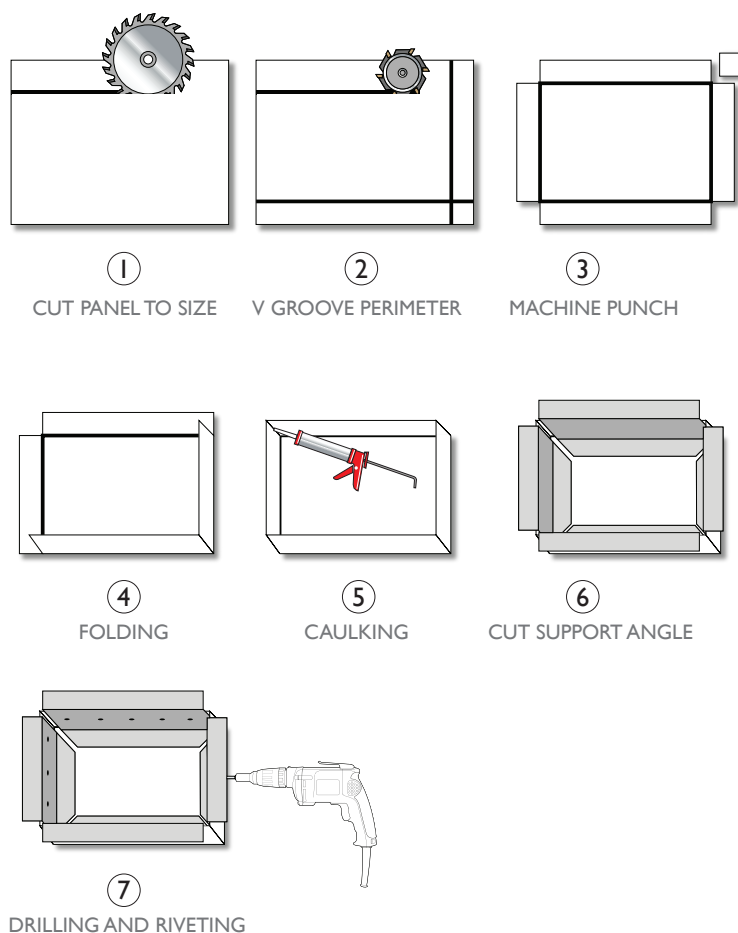
smartfix® Over 50% Less Handling

- ① Cut panel to size
- ② Edge route full perimeter of panel
- ③ Panel Ready for installation



Conventional Cassette Fix - Leading Brand

- ① Cut panel to size
- ② V Groove full perimeter of panel to allow for cassette fold
- ③ Punch out corners and sides of panel to allow for hanging panel (if not using angle fixing)
- ④ Fold all four sides of panel (material wastage)
- ⑤ Caulk corners inside fold full perimeter
- ⑥ Measure and cut supporting angle (for inside of cassette panel for support)
- ⑦ Screw support angle to inside of cassette panel
- ⑧ Panel Ready for installation



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