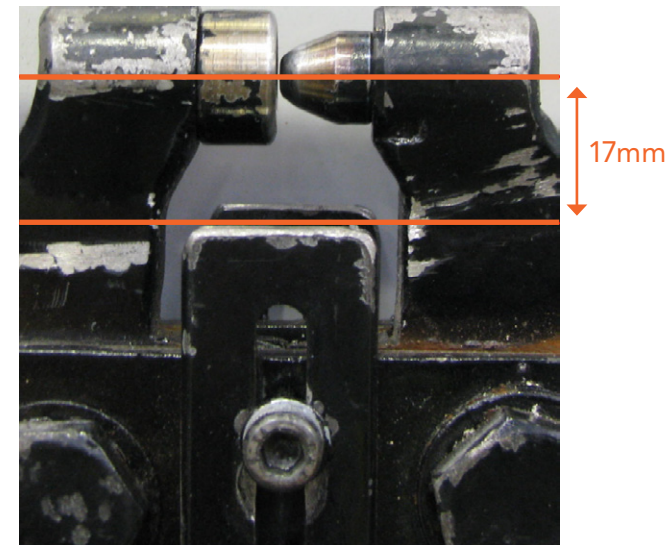
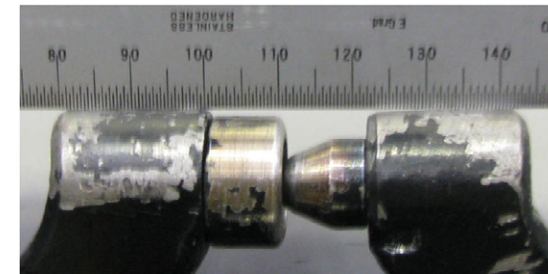
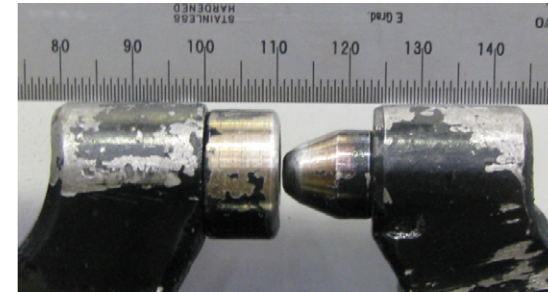


### Setting Your Button Punch

1. First set the depth that the button punch will punch.
2. Place the button punch on its handles and lean it against a support with the button lining up with the face of the cup.
3. Measure between the two punch holders (in photo about 24mm).
4. Close the handles until the gap decreases by 2.0mm.
5. Adjust the stop adjustment until it is set at that distance.
6. Setting the distance down from the top of the rib of the roof sheet that the button punch is located.
7. The distance from the centre of the button punch to the support guides is 17mm as shown.
8. If this needs to be adjusted, loosed the set screws, adjust the stop and retightened.
9. After you do the first button punch check that it is in fact punching to that dimension.
10. Some minor adjustment may be required as it should punch in the centre of the hole in the clip.



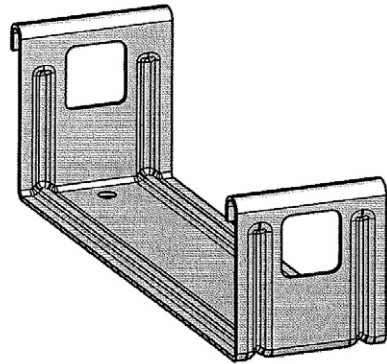


Figure SL NC 001

Installation guide: Button Punched (Concealed Fixed)

1. Fix a clip to the first and last purlin.
2. Attached a string line to the first and last clip as a guide to fix the remainder of the clips to the purlins in between.
3. Place the first sheet over the clips with the correct length into the gutter.

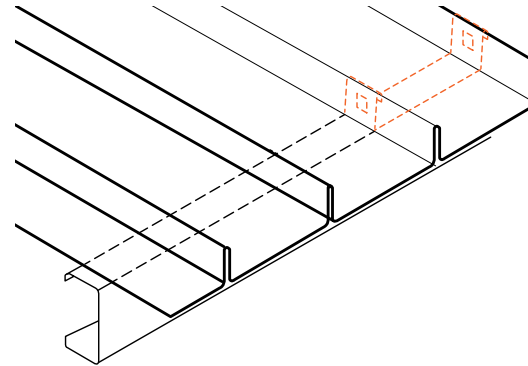


Figure SLWA IG 001

4. Using the rib closing tool squeeze the male rib of the first sheet. Place top clip over each squashed male rib and fix to purlin. This needs to be done to prevent the sheet from lifting in the wind before the barges are fitted. The use of string lines will assist in ensuring sheets are installed straight.

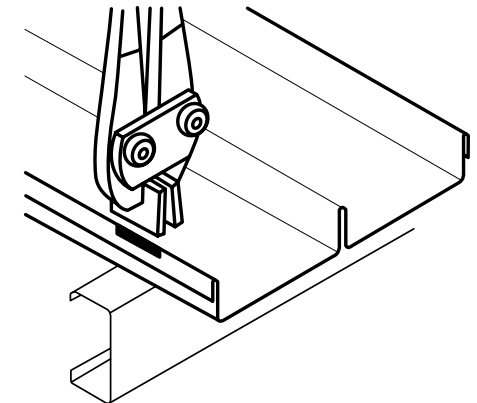


Figure SLWA IG 002

5. Make a small non-permanent mark in the pan to enable you to locate the clips in the latter locking operation with the button punch.
6. Position the female rib of the next sheet over the male rib and clips ensuring that it is fully engaged.

Fully engage the sheet with the clips using foot pressure on the ribs over each clip. You can do this by walking along the full length of the sheet with one foot in the tray next to the overlapping rib and the other foot applying pressure to the top of the interlocking ribs at regular intervals.

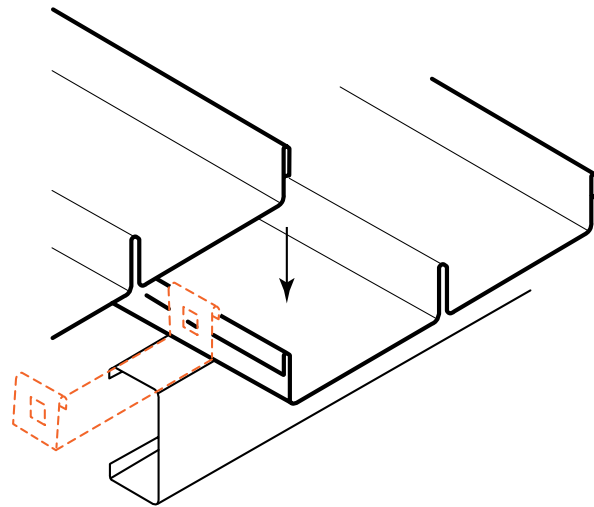


Figure SLWA IG 003

7. Repeat steps 3 to 5.
8. All lapped ribs must be locked along their length, by button punching at the clips, and if necessary between the clips (typically at 900mm centre to centre). Punching to a string line guide stretched across the sheeting is recommended as random punching marks the appearance of the finished work.

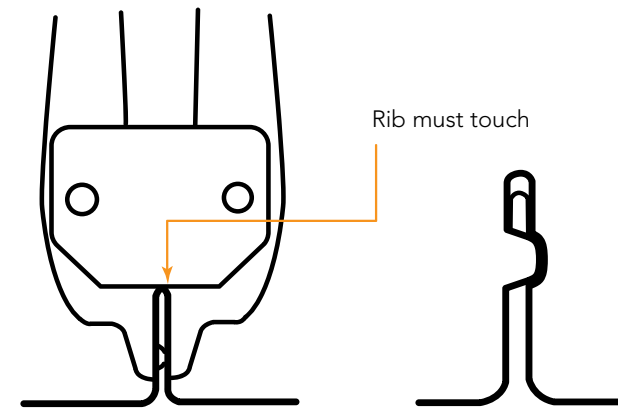


Figure SLWA IG 004

You must button punch through the hole in each top fixing clip, you can locate the clip with the non-permanent mark made previously. When operating the punching tool, stand on the pan of the overlapping sheet to ensure that the sheets are fully engaged.

Ends of Sheets

Wind can drive water uphill under the flashings or cappings. Also, at the low end of a roof, wind or capillary action can cause water to run back up the underside of the sheeting. To minimise these problems, turn the pans up at the top of sheets, and turn them down at the bottom. A tool is available for these jobs (ref. Figure SLWA IG 005)

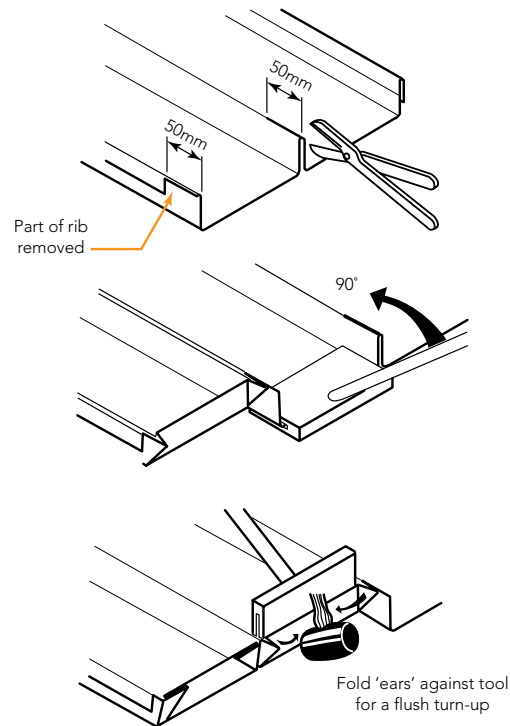


Figure SLWA IG 005

Turning-up

Flush turn-ups are usually used on Shadowline 305. Cut off a portion of the female rib for at least 50mm. For a flush turn-up, you also need to cut the crown of the centre rib for at least 50mm.

Holding the end of the tool against the end of the sheet, pull the handle up 90°. If turning-up flush, fold the protruding ears flush against the turn-up tool with a rubber mallet (ref. Figure SLWA IG 005).

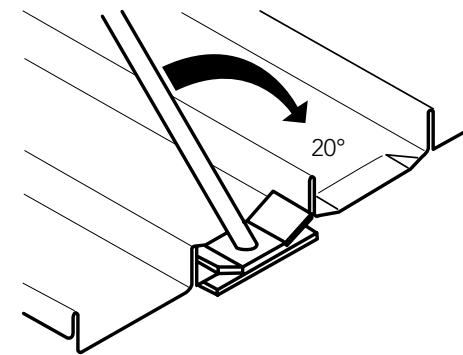


Figure SLWA IG 006

### Turning-down

All roofing on slopes below 1 in 5 (10°) must be turned-down.

Turning-down is usually done after the sheeting is fixed on the roof, provided there is no obstruction to the operation of the turn-down tool.

Push the turn-down tool over the end of the tray, as far as it will go.

Hold the tool hard against the end of the tray and push the handle to form a turn-down of about 20° (ref. Figure SLWA IG 006).

### Insulation

Care needs to be taken when installing insulation with roof sheeting. When insulation thickness up to 50mm are installed the screws may need to be increased depending on the thickness and density of the insulation. When the screw is properly tightened into metal there should be a minimum of three (3) threads protruding past the support being fixed in to. For timber the screw must penetrate the timber. For insulation thicknesses greater than 50mm Fielders recommend the use of a roof raiser to help maintain R<sub>w</sub> values as well as minimising any bulging in the profile caused by the insulation.

#### Recommended Fasteners

Shadowline™ WA Button-Punched (Concealed Fixed)

Supports	Recommended Fastener (Without Insulation)
Steel 1.5 mm	No. 10 x 16 mm Hexagon head self-drilling screws for metal
Timber Hardwood	No.12 x 25 mm Hexagon head Type 17 self-drilling screws
Timber Softwood	No.12 x 45 mm Hexagon head Type 17 self-drilling screws

Table SLWA RF NC 001

#### Recommended Fasteners

Shadowline™ WA Screw-Fixed (Pierced Fixed)

Supports	Recommended Fastener (Without Insulation)
Steel 1.5 mm	No. 10 x 16 mm Hexagon head self-drilling screws for metal
Timber Hardwood	No.12 x 25 mm Hexagon head Type 17 self-drilling screws
Timber Softwood	No.12 x 45 mm Hexagon head Type 17 self-drilling screws

Table SLWA RF NC 002