

Splicing Instructions

SHP butt splice (30) for Fullsan (FLT, CD, PD) Fullsan Pro (FLT+, CD+, PD+)

Splicing procedure	Melt splices
Splice type (AdV)	SHP butt splice (30)
Splicing tool	SlimHeatingPress (SHP) air-cooled press (see the following operating instructions no.: 283)
Preparation tools	Fullsan belt cutter
Accessories	Safety knife, cut-resistant gloves, safety glasses, thickness sensor, thickness sensor, tape measure, extra material, flashlight, cloth (lint-free and colorless), guide rails (inlays) and separating media suitable for the product
Cleaning agents	Ethanol
Thickness allowance FLT	Belt thickness $\cdot\pi$ (like Transilon)
Splicing allowance	Fixing section + cutting position
Cut-off length	Required belt length + splicing allowance + thickness allowance
Info	Only applies if the belt is cut off at a 90° angle

⚠ Caution: Fullsan and Fullsan Pro are available in Flat (FLT), Center Drive (CD), and Positive Drive (PD) variants.

The CD and PD are driven by teeth on the underside. The various versions require special steps in the procedure (see information in the sections concerned).

⚠ Caution: These splicing instructions may only be used in conjunction with an up-to-date splice data sheet for the relevant belt type.

The splicing procedure, splice type, splicing instructions and splicing tool must tally in both documents.

⚠ Caution: All the following instructions assume that the underside of the material is at the bottom and the top face is at the top.

⚠ Caution: Only use the tools, equipment and machinery listed as specified in the relevant operating instructions

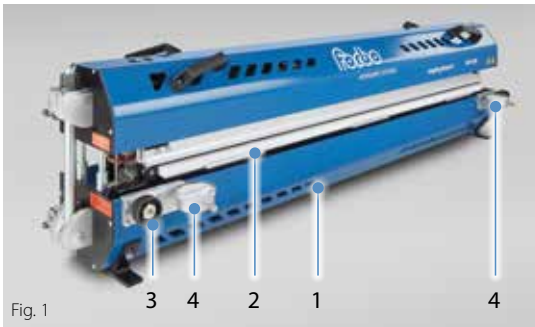
The splicing parameters were determined under standard conditions (23°C, 50% relative humidity) and can differ if other ambient conditions apply. Press used: Blizzard SHP 900 No. 06, 230 V, 2350 W

Please note: We recommend making a trial splice before you make the actual splice.

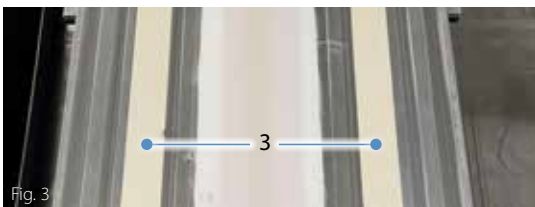
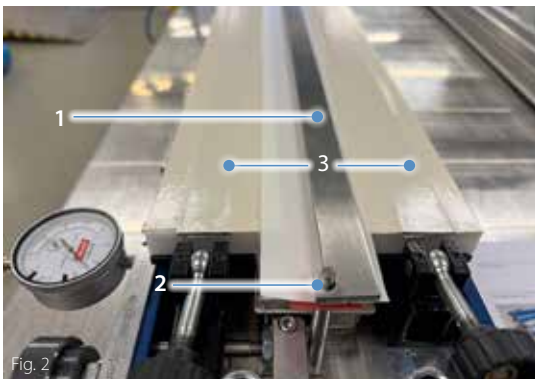
Please note: If you're making a splice in humid conditions, we recommend drying the belt beforehand to prevent any blisters from forming. To do so, a belt is placed in the heating press according to the splicing instructions with the following parameters: Pre-dried: 150°C, x bar, 10 mins. The belt must not be cooled once the hold-down time has expired. Then start splicing with the parameters specified. Please make a trial splice before starting.

1 Preparing/cutting

2 Heating press assembly bottom



3 Press layout bottom



Procedure

- Before starting, read through all the splicing instructions and prepare for each of the steps.
- Choose the right inlays depending on whether FLT, CD or PD belts are to be spliced.
- Use the belt cutter to cut the belt to its final length (see the belt cutter's operating instructions)

The instructions show how to use the heating press properly (see operating instructions no.: 283)

⚠ Warning: To prevent burns, don't touch the device's heating components (heating platens) and the conveyor belt until they have cooled down.

- Put the bottom half of the press (1) in position (ensuring it's in a stable position and at a height safe to work at, without a belt holder and inlays). (Fig. 1)
- Turn the two belt set screws (3) to put the infeed unit (2) in the starting position. (Turn them tightly towards Open until they go no further). (Fig. 1)
- **Only applies to CD and PD belts:** Place an end of the belt over both guide rails (inlays). To ensure that the tooth pitch in the splice is correct later on, the belt end's profiles must sit properly in the PD-belt grooves and inlays' CD-belt cavities. If necessary, readjust the belt's set screws on both sides evenly until profile engagement is perfect. Following an adjustment, the set screws must not be adjusted again.
- Turn the two dial gauges (4) to zero. (Fig. 1)

⚠ Caution: Clean the surfaces specified below with an ethanol-soaked cloth. Before continuing, allow the ethanol to evaporate fully from the surfaces

- Clean the top and bottom heating platens.
- Place the layers (except the belt material) to line the press (underside) on the bottom part of the heating press.
Press layout >> see splice data sheet
- Clean the adjustment aid (1) and put it onto the centering bolts (2). (Fig. 2)
- **FLT belts:** Cover the whole length and width of the inlays with double-sided adhesive tape (3). (Fig. 2)
- **PD belts:** Apply adhesive tape between the PD grooves (3) across the full width of the PD inlays, ensuring PD profiles can still be fully inserted. (Fig. 3)
- **CD belts:** Apply adhesive tape to the whole length and width of the CD inlays. Leave out the CD cavities (3) so that you can still fully insert the CD profiles. (Fig. 4)

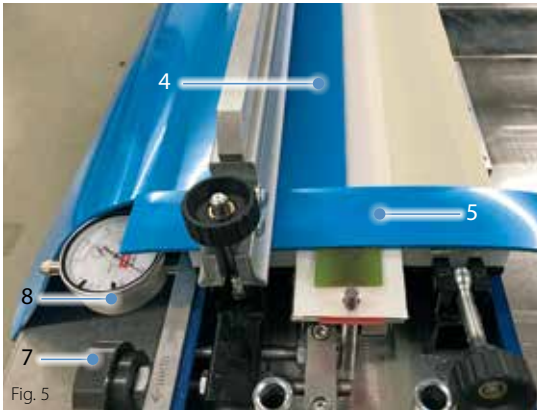


Fig. 5

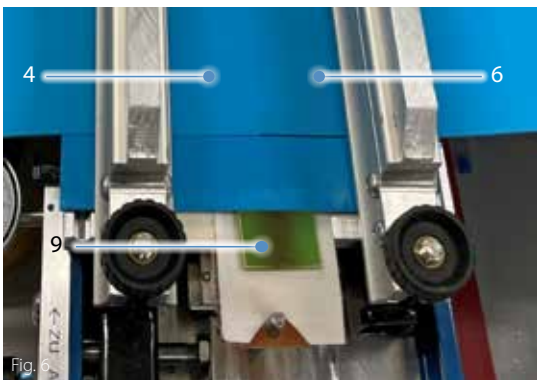


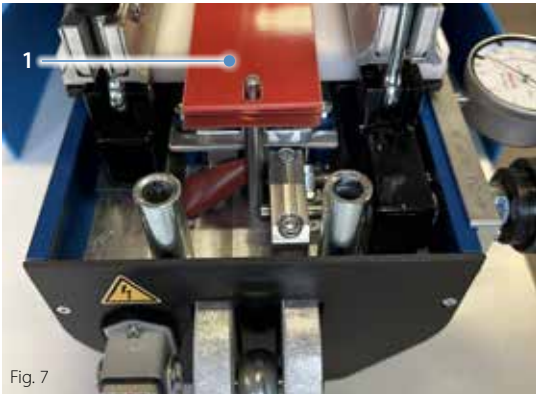
Fig. 6

⚠ Caution: If the belting material is narrower than the press's nominal width, both the inlays and the rest of the area to be heated must be fully lined with material (5). (Fig. 5)

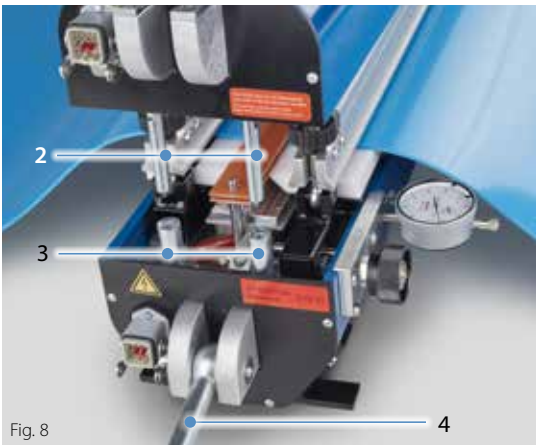
Otherwise, there could be a negative impact on the belt bonding and pressure distribution in the area to be heated. This could result in a poorer quality of splice.

- Ensure that the belt width does not exceed the maximum width allowed for your press model.
- Clean the first end of the belt (4) and center it over the width of the press. Pre-fix it with the belt holder.
- **Only applies to FLT and CD products:** Now press the end of the belt against the edge of the adjustment aid (1). Ensure that the adjustment aid doesn't distort in the process. (Fig. 2).
- Use the belt holder to affix the end of the belt.
- Remove the adjustment aid.
- Clean the second end of the belt (4), place it flush with the first end of the belt and affix it with the second belt holder. (Fig. 6)
- Press the second end of the belt (6) so that it touches the first end of the belt and affix it. (Fig. 6)
- **Only applies to FLT belts:** There must be no gap in the area where the two belts touch each other. Should there be a gap, use the belt set screws (7) to close it. (Fig. 5)
Turn the belt set screw (7) to create even impact pressure until the two ends of the belt touching one another lift up slightly. Turn both belt set screws by the same value towards Closed. The dial gauge (8) shows the value. (Fig. 5)
- **Only applies to CD and PD belts:** The impact pressure is achieved by adding material when cutting the final length. To obtain the right pitch, the set screws must not be adjusted. (See point 2 of the procedure)
- Then clean the surface of the splice. Place the pieces of laminated fabric to the left and right of the material to ensure the area to be heated is fully covered (9). (Fig. 6)

4 Press layout top

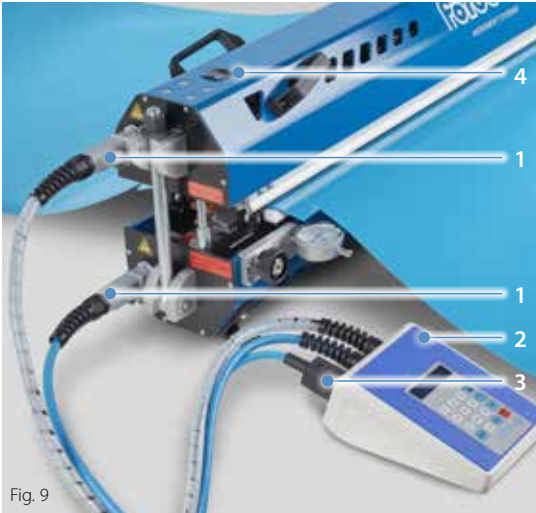


- Place the layers required to line the press (top face) (1) onto the splice. (Fig. 7)
Press layout >> see splice data sheet



- Place the top half of the press with the help of the centering bolts (2) into the center hole (3) on the bottom part of the press. (Fig. 8)
- Tighten the eye bolts (4) and collar nuts by hand to join the top and bottom part of the press with each other (no tools required). (Fig. 8)
Please note: Ensure uniform contact pressure by alternately tightening the clamping screws.

5 Heating splices



- Connect the plugs (1) on the control device (2) to the heating press.
- Use the power lead (3) to connect the heating press to the mains.
- Enter all the parameters required on the compressed air regulator (4) and control device (2). (>> see operating instructions) (Fig. 9)

Top heating temperature	>> see splice data sheet
Bottom heating temperature	>> see splice data sheet
Heating temperature's hold-down time	>> see splice data sheet
Pressure	>> see splice data sheet

⚠ Caution: The press may only build up pressure (be started) once both halves of the press have been connected by tightening the eye bolts.

Please note: The pressure starts building up via an in-built compressor as soon as the start button on the external control device (2) has been pressed. The pressure is released automatically after one splicing cycle (heat, hold, cool). (Fig. 9)

- Start the heating process.
The heating process starts, pressure is generated.

6 Cooling down the press

Cooling is carried out by in-built fans that use ambient air to cool the press and the splice.

The air-cooling process starts and ends automatically based on parameters in the control device.

7 Completing the heating procedure

If all parameters required have been met, the control device indicates Process Complete and asks you to confirm by pressing the OK button.

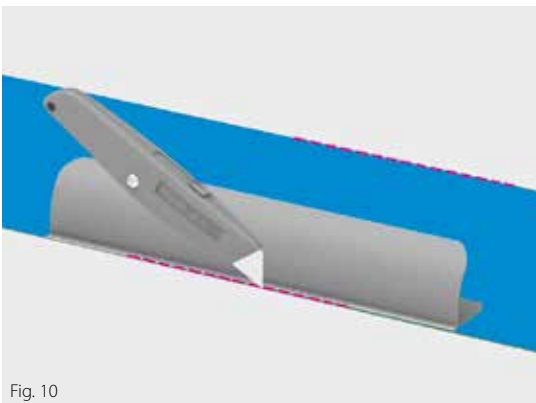
- After confirming by pressing the OK button, disconnect the press from the mains.

8 Opening the press

- Unplug the top half of the press.
- Open the press.
- Place the top part of the press carefully onto the centering bolts.

Warning: For safety reasons, don't touch the heating platen after heating.

9 Removing the belt



- Take the belt out of the heating press.
- **Only applies to CD and PD belts:** Ensure the positions of the teeth on the splice to ensure the pitch is correct and that they are parallel.
- Use the safety knife to straighten up the edges of the splice (use cut-resistant gloves). (Fig. 10)
- The belt is now ready for use.