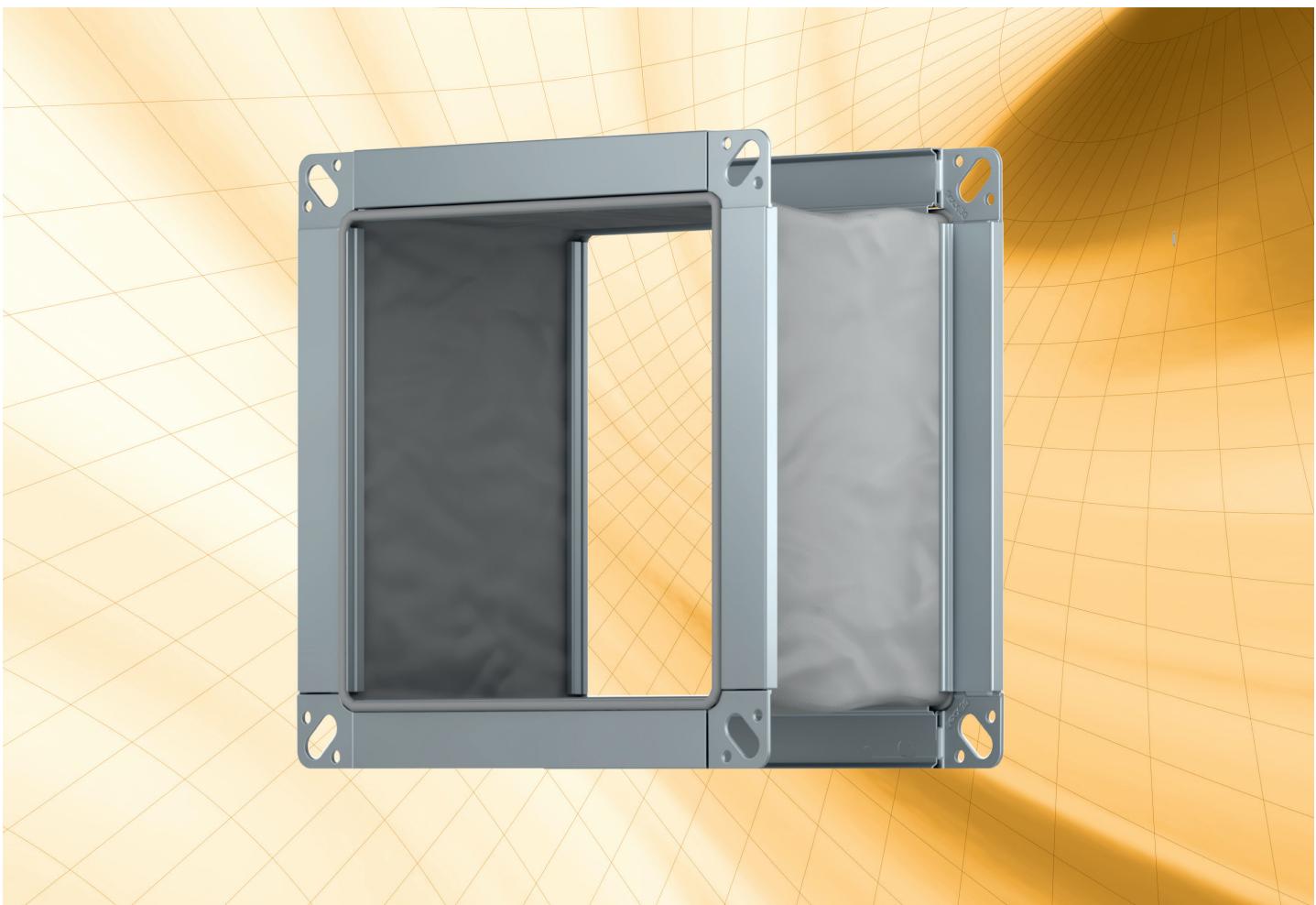




ASSEMBLY INSTRUCTIONS for flex.x-system



Manufacturing recommendation

How to create fabric compensators for use in HVAC systems. Compensators serve to prevent vibration transmission in air ducts. They also ensure acoustic decoupling and expansion compensation.

System components



flex.x-flanges

Art.-Nr. 309 600 010 (20 mm)



flex.x-corner

Art.-Nr. 309 500 010 (20 mm)

Art.-Nr. 309 510 010 (30 mm)



flex.x-PVC 155

Art.-Nr. 309 750 010 (B2)

Art.-Nr. 309 750 015 (B1)

other dimension will follow



flex.x-welding tape

Art.-Nr. 309 800 010



ASSEMBLY INSTRUCTIONS for flex.x-system

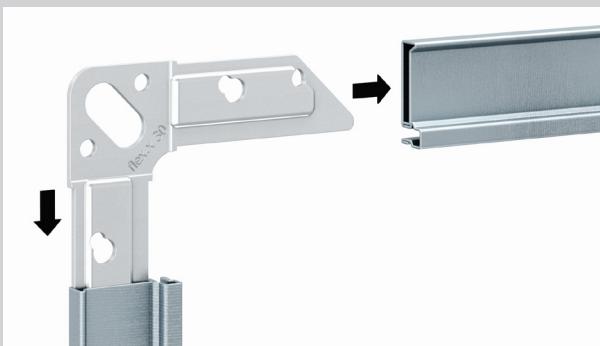


Fig. 1



Fig. 2



Fig. 3



Fig. 4

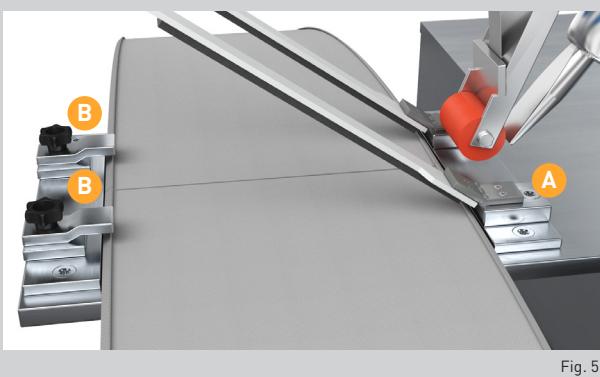


Fig. 5

1. Assembling the flex.x-flanges

Cut the profiles to the edge length of the duct, minus 10 mm. For each spigot, 8 profile bars and 8 corners are required.

Attention: Make sure to always assemble the flange vertically!

This is how to proceed:

1. Insert 2 corner brackets each into 4 same-length profile bars on the right and left.
2. Slip 2 profile bars onto 2 corner brackets each.
3. Complete the flange by slipping on the two remaining profile elements.

2. Punching the flange

By punching the flange (with the centre punch press) so as to create cams, the corner brackets (which are so far only loosely inserted in the profile) are firmly locked in place.

This not only prevents the flanges from falling apart in transit or during installation, but also significantly improves stability: The profile and the corner brackets are connected in such a way that they can only be detached from each other by violent means, i. e. by destroying the cams.

The pneumatic punch press always creates 4 cams at a time (for more information, please refer to the general catalogue).

3. Cutting the flex.x PVC to size

3. Cut the elastic connection to the desired length. In doing so, make sure to hold the edge of cut at exactly right angles. Calculate the PVC cutting length as follows:

Clear inside length + clear inside width x 2 + 15mm.

4. Joining the flex.x PVC

Butt both ends of the elastic joint flush in the centre area of the welding plate. The centre area is provided with two markings for accurate positioning. Insert the moulded sealing lips into the longitudinal grooves provided in the combination carrier plate. Depending on the dimensions of the elastic connection, close the grooves underneath with the adapters so as to ensure an even welding surface.

5. Fixing the flex.x PVC

Fix the elastic connection with the upper hold-down bars **A**. Then slide the front locking clamps **B** forward over the hold-down bars and tighten them.



6. Welding the flex.x PVC

Start the switched-on welding device (please refer to the separate operating manual for pertinent details). The front area with the pressure roller will automatically rise and move forward. Now pull the fusion tape slightly forward so as to prevent the sealing unit from heat damaging the tape. The pressure roller will then lower to the starting position.

The backward movement of the pressure roller will cause the fusion tape to be firmly welded with the elastic connection. Once the end position is reached, the welding process is automatically stopped.

7. Cutting off the flex.x fusion tape

With a cutter knife, remove the edges of the fusion tape protruding on both sides (the small slits in the welding plate can be used as a guide). Then loosen the hold-down bars and take out the welded collar.

Caution! Take care not to damage the elastic connection!

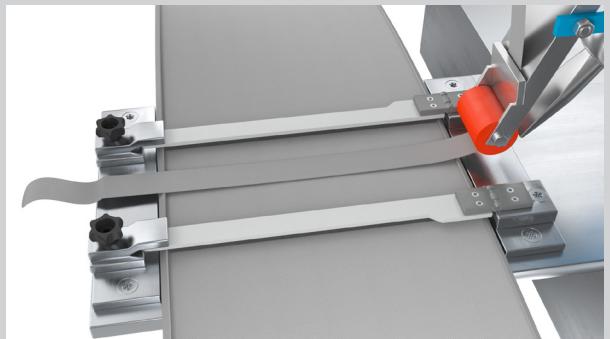


Fig. 6

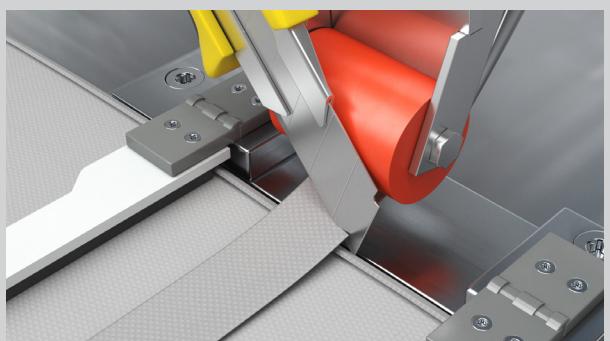


Fig. 7

8. Reversing the collar

Now turn the welded collar to the other side.



Fig. 8



Fig. 9

9. Pressing the sealing lip into the flange

Press the sealing lip of the elastic joint into the opening provided for it in the first flange. Begin with the welded joint in the middle of a flange profile. Press the sealing lip in evenly on both sides (left and right).

10. Inserting the fabric through the flange

Put the elastic connection through the flange and place it on the work surface with the flange facing down.

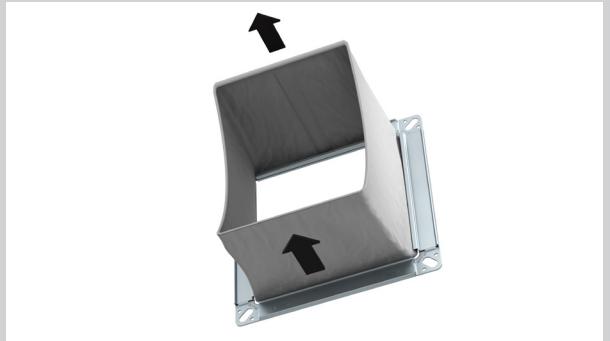


Fig. 10



Fig. 11

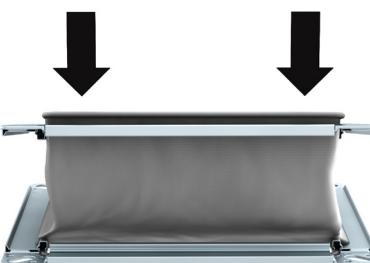


Fig. 12



Fig. 13

11. Joining the second flange

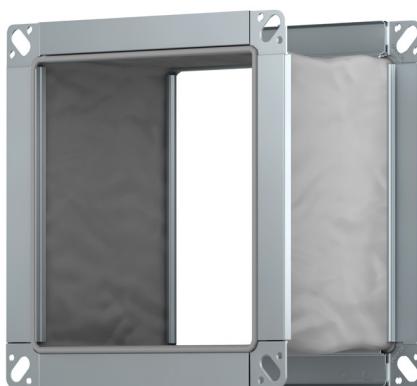
Slip the prepared second flange over the elastic connection and align the two flanges with each other.

12. Connecting the bellow to the second flange

Bend the edge on this side to prepare the sealing lip for insertion. Then press the elastic connection in all around, again starting with the welded joint.

13. Extending the flex.x. spigot

Now pull the flex.x spigot apart and check whether the two flanges are twisted against each other. If so, remove the elastic connection from the second flange and reinstall it by following the steps from point 10 onwards.



GEBHARDT STAHL GmbH

Runtestr. 33
D-59457 Werl

Telefon +49 (0) 29 22 / 97 33 - 0
Telefax +49 (0) 29 22 / 97 33 - 291

info@gebhardt-stahl.de
www.gebhardt-stahl.de