



GORE-TEX® Series 600 GASKET TAPE

Sealing with Certainty™

INSTALLATION INSTRUCTIONS

GORE-TEX® Series 600 gasket tape is a self-adhesive gasketing material for use in glass-lined equipment flanges. It can be assembled on all types of easily accessible flanges regardless of dimension, shape or position. To install, please follow the instructions below:

1. Size Selection

1.1 Determining the width of the gasket b_D

The gasket selected should be wide enough to allow the inside edge of the gasket tape to be in line with the inside diameter of the flange, while protruding by at least 3 mm on the outside diameter (see figure 1).

Due to its excellent compressibility the tape conforms well to the shape of the glass-lined sealing surface during tightening. The large radius on the inside of the glass-lined flange and the fact that the tape projects out over the outer edge of the flange causes sealing bulbs to form. This shape prevents the gasket from being pressed outwards when high pressures are created or pulled inwards when operating in a vacuum (when selecting a gasket for standard mixer containers a selection table is available).

1.2 Selecting the thickness of the tape h_D

For equipment measuring up to 800 mm we recommend 6 mm thick GORE-TEX® Series 600 gasket tape and for even larger equipment 9 mm thick gasket tape.

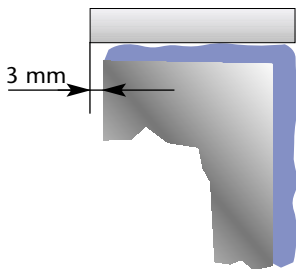


Figure 1

1.3 Selecting the right tape for irregularities greater than 1 mm

If the irregularities are > 1 mm, irrespective of flange diameter, 9 mm thick tape should be used.

For every additional millimetre of irregularity, a layer of 3 mm thick gasket tape is used since GORE-TEX® Series 600 gasket tape compresses to roughly $\frac{1}{3}$ of its original thickness. Even severe irregularities can be compensated in this manner.

The 3 mm thick gasket tape used for overlays has to be the same width as the original tape to ensure that the correct shape (see point 1.1) is achieved even once the overlays have been put into place.

Selection Table

Thickness h_D (mm) \ Width b_D (mm)	3	6	9
40	x	x	x
55	x	x	x
65	x	x	x

2. Installation

- 2.1 **In order to ensure trouble-free installation** the flanges should be opened up so that the distance between them is at least 10-15 cm. If the flanges are horizontal, ensure that the top flange is well secured.
- 2.2 **Clean the sealing surfaces to remove any oil, graphite or other residue**, preferably with a special grease remover. The adhesive will only stick well on a surface that is free of residue.
- 2.3 **Unwind about half a metre of the tape** and cut the end with a sharp knife on a clean, firm surface using the skiving technique shown in figure 2. Select the appropriate dimensions for the cut (l_s), depending on the gasket thickness being used, from the table below.

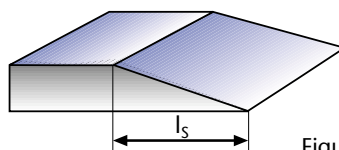


Figure 2

Thickness (mm)	3	6	9
l_s (mm)	15-25	25-35	30-40

GORE cutting templates and special knives are available on request.

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ATTENTION

Before the gasket tape is compressed all contact with oil and fat should be avoided.





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2.4 Remove the adhesive backing a little at a time to prevent the adhesive strip from picking up dirt during installation. The gasket tape is then firmly pressed onto the sealing face (figure 3). We recommend that you work in twos for this.

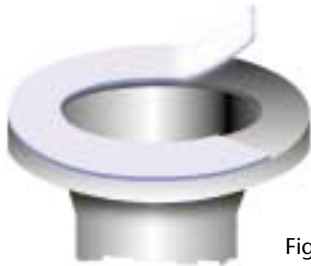


Figure 3

2.5 Close the gasket and cut off any excess material leaving a total thickness of approximately 120% of the original gasket height (figure 4).

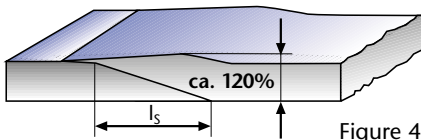


Figure 4

ATTENTION

When using the skiving technique (points 2.3 and 2.5), no matter what thickness of tape, it is most important to make sure that the end of the cut is smooth.

Overlays for irregularities of over 1 mm

a) Cut the overlays to the required length. The overlays should be long enough to extend about 4 cm either side of the area to be overlaid (see figure 5).

- b) Both ends of the overlays are then cut at an angle (see point 2.3).
- c) The overlays are then placed in layers on the original gasket, the number of layers depending on the size of the flange irregularities (see figure 5).

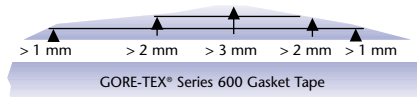


Figure 5

ATTENTION

In the case of very large pieces of equipment or those that are particularly distorted – especially in the case of glass-lined columns – we recommend that the gaps between the flange surfaces are examined very carefully. More detailed information can be obtained on request.

3. Torquing

3.1 In order to apply the desired torque value accurately the threads of the bolts need to be cleaned and then well lubricated. The maximum torque value should be achieved in 4 steps (in increments of 25%), in a star-pattern. A calibrated torque wrench should be used.

3.2 Finally, continue to torque in a circular sequence until all of the maximum torque value has been applied to all the bolts and they retain the stress.

ATTENTION

The torque recommendations of the equipment manufacturer must be observed at all times.

3.3 If the equipment does not go into operation immediately after installation of the gasket, it is advisable to re-check the bolt torque before start-up and make any necessary adjustments.

4. Retorquing

The bolts are retorqued **once** after the first temperature cycle and in accordance with the torque value recommended by the equipment manufacturer.

This, however, should only be done once the flange has cooled down to ambient temperature!

If possible, the equipment should be subjected to a temperature cycle and have been retorqued before going into operation.

We also recommend that you watch our installation video and read our special installation instructions for glass-lined columns and equipment flanges with severe irregularities > 4 mm.

NOTE

- Some manufacturers define different torque values, e.g. for envelope gaskets with different inserts. In such cases you can always use the higher value for GORE-TEX® Series 600 gasket tapes.
- Whereas envelope gaskets have a residual height of between 8 – 10 mm after compression, the height of GORE-TEX® Series 600 gasket tapes when assembled is only about 1/3 of this amount. For this reason, when you change from envelope gaskets to GORE-TEX® Series 600 gasket tapes it is important that you check the minimum size of the bolts. If the bolts are too big the gasket cannot be compressed sufficiently, if at all.

Should you have any further questions about installation, or about our gaskets in general, simply phone our hotline on +44 (0) 15 06 46 06 07.

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