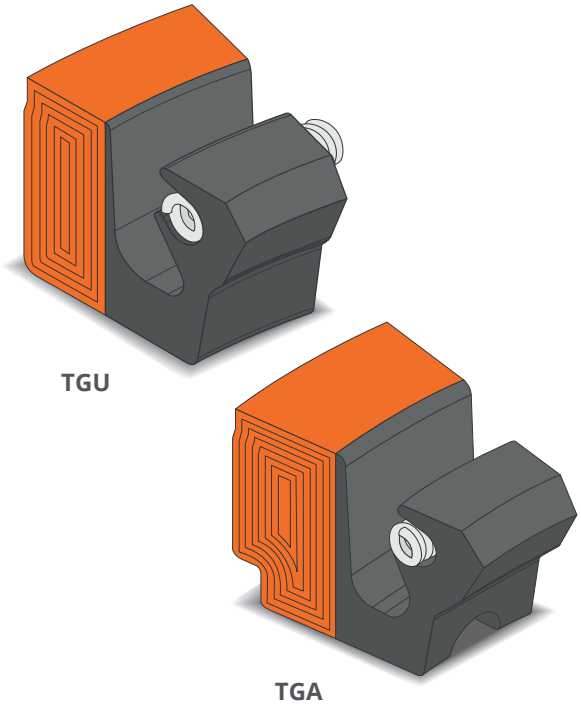
Rev. 01 30-03-2017

TEXTILE RUBBER OIL SEALS TYPE TGU - TGA - TGR



TGU

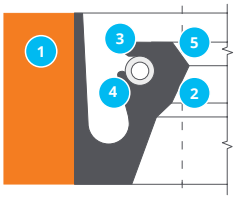
TGA

- Oil seal with flexible reinforced textile-rubber back and rubber sealing lip with garter spring.
- A clamping plate is required.
- The seat of the garter spring (stainless steel) is designed to prevent its accidental loss during assembly. Particularly useful for "blind" installations on site.
- Garter spring also available encapsulated in resin or other materials, for protection from chemicals and dirt.
- TGA type provided with axial (A) and radial (R) lubrication groves.
- TGR type provided with radial (R) lubrication grooves.

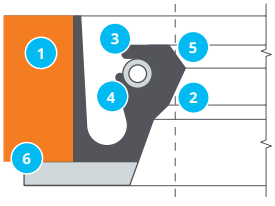
Applications
Any industrial sector

Dimensions: Minimum I.D. 150 mm; Maximum O.D. 2.000 mm in one single piece; larger than 2.000 mm by hot-vulcanizing jointing technique
Working speed: up to 25 m/s
Pressure: 0 BAR ("split") - 0.5 BAR ("endless")
Operating temperature range: - 40°C / + 220°C
Remarks: All working parameters vary, considering the different type of materials and elastomer used.

TGU



TGA



Technical features

1. Textile-rubber reinforced back
2. Rubber sealing lip
3. Spring housing with engineered seat to prevent its accidental loss during assembly
4. Garter spring
5. Sealing edge made through cutting process
6. Lubrication grooves

Materials

1. Textile-rubber reinforced back: **NBR; FKM; HNBR**
2. Elastomer: **NBR; FKM; HNBR**
4. Garter spring: **AISI 302; AISI 316**

For further information on all our seals, please check our web page or contact our offices.

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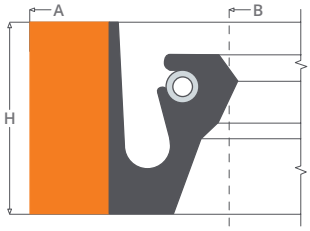
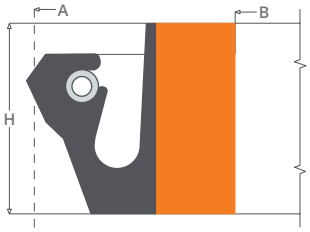
TGU TYPES



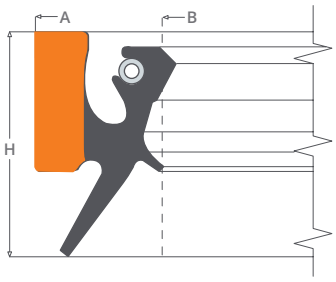
TGU

Oil seal with a flexible reinforced textile-rubber back, and a rubber sealing lip with a garter spring.



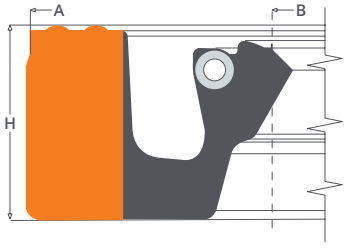
TGU-TE

Sealing lip on the outside diameter.



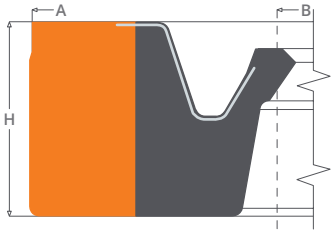
TGU-VGUARD

Special profile that combines the characteristics of a rotary shaft seal and a front seal.



TGU-MTV

Special Oil seal with a flexible reinforced textile-rubber back. Garter spring vulcanized into the sealing lip.



TGU-GM

Profile with a special sealing lip to withstand higher pressures

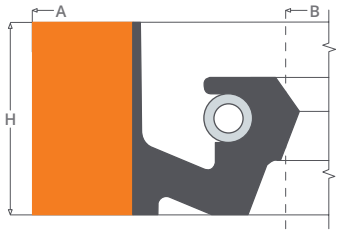
The TGU-GM type is a ring with a reinforced textile-rubber back, produced with a finger spring in stainless steel:

- The finger spring is vulcanized into the sealing lip.
- The assembly requires a clamping plate.
- By special request it can be produced in its "split" (open) shape. In this case, there should be no pressure in the application.

The minimum inside diameter that can be produced is 150 mm. For smaller dimensions, please contact •FP• to verify production capacity.

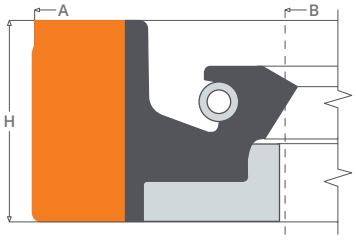
All the profiles are also available with dust lip "P"

SPECIAL TEXTILE-RUBBER SEALS FOR HIGH PRESSURES



TGU-BP

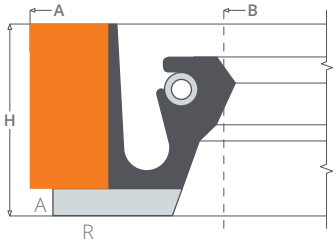
These types of textile-rubber sealing rings are variations of the standard TGU type and are engineered to be used in high-pressure environments.



TGU-BP RANN

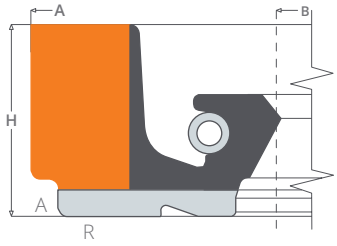
The resistance to pressure varies depending on the profiles of the sealing ring used in the application. These rings are not available in their "split" (open) form.

TGA and TGR TYPES



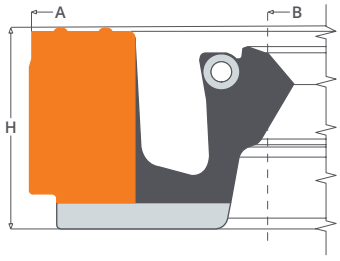
TGA

Provided with axial (A) and radial (R) lubrication grooves; mostly used in "back-to-back" applications.



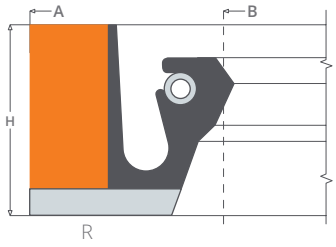
TGA-BP

Provided with axial (A) and radial (R) lubrication grooves; mostly used in "back-to-back" applications. Special profile of the sealing lip to withstand pressures up to 4 BAR. Not recommended in its "split" (open) shape.



TGA-MTV

Special Oil seal with textile-rubber back. Garter spring vulcanized into the sealing lip. Provided with axial (A) and radial (R) lubrication grooves.



TGR

Provided only with radial (R) lubrication grooves.

TECHNICAL DATA-SHEET: All the textile-rubber profiles

Shaft surface finishing	The surface on the shaft should have a roughness: Ra = 0.3 - = 0.5 µm; Rmax = 1-2 µm. Obtained by plunge grinding
Shaft hardness	Recommended: 40 ÷ 50 HRC.
Shaft misaligment	Depending on the speed, should not exceed 1.5 mm.
Housing and shaft tolerances	All types of TGU, TGA and TGR must be axially assembled in the housing, and flanged. **Shaft:** h 11 **Housing:** H 8 **Thickness or height:** nominal dimension of the ring ± 0.1 mm

Assembly instruction:
TGU, TGA and TGR

The rings type TGU, TGA, and TGR are always used with a retaining plate, which creates an axial preload, ensuring the static sealing of the ring. To facilitate the mounting of the ring, it would be better to provide the housing with a chamfer.
The ring must be inserted evenly and pressed into the seat. Before tightening the retaining plate, check that the sealing lip and the fabric's back are in the right position and that the spring is in place.

Assembly instruction:
TGU SPLIT, TGA SPLIT, TGR SPLIT (open shape)

Remove the spring and open the joint. Place the spring around the shaft. Join the two ends of the spring together and close. Place the ring on the shaft and push the spring into its seat. Make sure the ring's jointing point is facing the 12 o'clock position. When using two split rings, the jointing points should be facing the 11 o'clock and the 1 o'clock positions. When it is verified that both ends are perfectly aligned, press the ring into the seat and tighten the retaining plate as described above.

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