

## Inflatable seals - storage / installation / operation

You will receive an inflatable seal, tested by flohreus. This was made exactly to your requirements. In order to ensure a safe and optimal operation, note the following points:

## Storage:

The seal must be protected from light and stored dryly in a temperature-controlled room (between 15  $^{\circ}$  C and maximum 20  $^{\circ}$  C).

The seal is to be stored at all events, packed in a PE wrap. Contact with other Elastomere should be avoided, since plasticizer migration can occur.

**Warning:** Inflatable silicone seals tend to "cold cure". Which means, that, when a seal is stored rolled up or when one seal is superimposed on another, it can lead to cold welding and the seals will stick together.

So before a longer storing the surface of the seals must be rubbed with talcum powder or the seals have to be kept separate by a polyethylene sheet layer.

## Installation:

The seal must always be kept in a groove, so that it can extend only in the defined direction.

The seal must NEVER be charged with pressure when not installed, because otherwise it can crack. The installation area must not contain sharp surfaces, which could damage the seal (cutting / scarify).

The seal must be bonded to ensure safe operation. We recommend the appropriate adhesives from Flohreus.

If the seal is not installed and bonded professionally, any guarantee expires! The seal must be bonded only on the groove base. The side walls of the groove or sealing may not be coated with glue, as the seal extends at the side surfaces.

The surface to be sealed must be smooth. Perfect sealing results are obtained with polished or electro-polished surfaces.



## **Commissioning / maintenance**

Pressure filling:

Important for a long life of the seal, is the steady filling of the seal (avoid large pressure shocks).

For first time use, keep to the following points:

- Always install a pressure reducer.
- Begin with an initial pressure of 0.5 bar then increase the pressure until the desired sealing effect is achieved. Because with a lower filling pressure, the expansion of the seal is smaller and therefore its service life is longer.

For seals which are meant to stay under permanent pressure, there may be, depending upon the material, a reduction of the internal pressure due to the gas diffusion through the used material. Within silicone seals the pressure has to be refilled. So for this kind of use a different filling media is preferable.

Depending on construction materials following fillings are possible:

- Clean (i.e. oil-free) compressed air
- Tap water or demineralized water
- Nitrogen

Other fillings are possible, so please contact us for details. Otherwise particular tests are required!

The seal is to be checked regularly for damage or heavy dirt and to be cleaned if necessary.

If you follow the above mentioned advices, your flohreus seal can face long lifetime.