



INSTALLATION MANUAL

NON-ASBESTOS FLAT GASKETS

SELECTION

Leakage reduction in mounting flanges is the number one concern for the industry. It is important to choose the material best suited for different applications sealing; as well as installation and proper maintenance thereof to ensure optimal performance. In the following lines we give basic notions to help you select and install the ideal gasket. If you have any questions or require further advise, please contact our technical department.

The conditions that the gasket will have to withstand are critical to assess the proper selection of the gasket: temperature, pressure, chemical corrosion. Most data sheets of the sealing products on the market provide information of the combination temperature / pressure resistance. In the Technical Area section in our website you will find the data sheets of the most common materials for your perusal.

Once the adaptability to pressure and temperature is clear, the material requires to be checked for chemical compatibility with the fluid or vapor. As well our Technical Area will provide further information about chemical compatibility of the materials we work with: Klinger®, Flexitallic® and Tesnit®.

The use of a seal for steam is one of the determining factors and could be problematic if not installed properly. The vapor changes the nature of many polymers and fibers; which causes them to stiffen fragility. The steam



influences the internal pressure that must support the gasket; steam at a higher temperature, the higher the pressure and higher the voltage required. Therefore, the leading brands often advise the following materials:

Material	Max. Steam Temperature
Laminated Graphite	460 °C
Modified PTFE	260 °C
Multilayer	300 °C
Premium Compressed Fiber	200 °C
Standard Compressed Fiber	150 °C

For steam temperatures higher than the recommended maximum, metallic or semi-metallic gaskets are preferred: spiral wound type, metallic or kamprofile.

Contrary to popular belief, if all elements of the flange are in good condition, it is preferable to use a gasket as thin as possible. The thickest, the most safe seal since it requires a minimum voltage to guarantee airtightness and is better able to withstand high loads. However, the gasket must have a sufficient thickness to withstand deformation due to roughness and surface irregularities of the flange.

STORAGE

Finally storage, handling and assembly of the gasket has to be properly performed to ensure a safe and reliable sealed connection flange. Sealing non-asbestos materials, because of its rubber content, may experience premature aging if not stored properly. Temperature, humidity levels and adequate light ambient must be ensured.

Recommended storage conditions:

- Temperature below 25 °C
- Humidity between 50-60%
- Reduced ambient light
- Avoid pollution
- Flat storage, specially big dimensions

INSTALLATION

Carefully place the gasket in position, handle with care to avoid damage on the surface of it. It is recommended that the screws are tightened using a torque wrench which will ensure a controlled pressure to be applied. Tighten the screws in sequences of 3 diagonally (30%, 60% and 100% of the final value of tightening) Make a final tightening round clockwise. If a readjustment is required, it should be at room temperature before the pipeline is filled. For security reasons reuse joints are never recommended.