



### **Grafseal Formed Packings**

#### **Advantages in use of Formed Packings**

Due to its multifarious properties GRAFSEAL enables variety of packing materials to be reduced resulting in saving in storage and inventory costs.

GRAFSEAL Packings are self lubricating, with the result wear on moving parts will be minimum.

As a result of the high thermal dissipation property, it is not necessary to have gland cooling arrangement. This results in saving of operational cost.

When GRAFSEAL Packings are used, it is not necessary to remove the complete packing from stuffing box, even when it is compressed after prolonged use. Due to the exceptional characteristics of the material GRAFSEAL does not harden or undergo any change, affecting its sealing efficiency. Therefore, only adding one additional ring to the stuffing box solves the problem. The use of GRAFSEAL packing minimises downtime as compared to conventional packing.

GRAFSEAL Packing Rings are recommended for use in valves and pumps handling heat transfer fluids, oils, acids, alkalies, solvents, hot water, boiler feed water, hydrocarbon products as well as super heated high pressure steam. GRAFSEAL Packing are excellent for Nuclear Services. The "Chloride content" of this packing is kept much below the permissible values. In radiation atmosphere, especially the packing mechanic will be able to spend limited time for packing valves and pumps. Precision moulded packing will therefore be safer and advantageous.

It is not only the pump and valves manufacturers who draw benefit of this cost-saving GRAFSEAL ready made Rings, but also other actual users who realising the importance of preformed Rings have standardized their requirements, on this packing Pre-formed GRAFSEAL rings have distinct advantages as compared to preparing the rings from Tape on a " Do It At Site " basis.

Some of the shortcomings in using the Tape are :

- lack of uniform winding tension, due to physical obstruction in one particular orientation,
- or the slippery nature of the product when handled by greasy hands,
- the time consuming necessity to compress and tighten the gland followers each time.

On the other hand, ready made rings are formed in such a way that they fit exactly into the space provided for them. They possess sufficient compressibility and resiliency. These rings have uniform density, smooth finish, close tolerance and also save labour and wastage. Due to their special construction, formed packing rings offer uniform axial and radial expansion.

GRAFSEAL Packings are designed to provide optimum seal efficiency. These packings are precision made; and need careful installation. Stuffing boxes should be in a sound condition. Stuffing box and shaft or spindle surface should be absolutely clean and smooth. The gap between the shaft and the housing at the bottom of the stuffing box should not exceed 0.5 mm. Before putting a Valve or pump into operation, the spindle or shaft should be checked for freedom of rotation. In case it is too tight slacken off the gland slightly. If there is a leakage, reduce it by gradually tightening the gland. In case of very high pressure applications, it may be necessary to add one more ring to the stuffing box.

For best results, special top and bottom header rings are recommended with the packing set especially when the packings are subject to extremes of high pressure conditions or in case of excessive clearances. These header rings prevent extrusion and act as wipers to prevent particle transfer.

While ordering GRAFSEAL Packing Rings, service conditions viz., temperature, pressure, and the medium to be sealed should be indicated.

GRAFSEAL Packing Rings are supplied in three forms, endless, split and in two halves.

#### **Rings**

- Endless
- Split
- In 2 halves: Oblique or Straight cut

Sizes in all types can be supplied as per customer's specification.