Metaflex® gaskets are manufactured from V-shaped metal strips, spirally wound with an inlay of filler between each turn. At the start and conclusion of the spiral form, several continuous turns of the metallic windings are securely welded together.

The construction is capable of infinite variety as the number of metal plies in relation to filler plies can be increased or decreased. The metal and filler material can be varied to suit practically any service conditions.

The use of steel supporting rings on the inside or outside of the spiral wound portion (or both) permits the application of Metaflex® gaskets to be extended to flat or raised face flanges under high pressure lines.

**Features**

- Available in materials capable of withstanding temperatures from the cryogenic range to at least 1000°C.
- Can, in standard form, seal pressures up to 350 bar. Higher pressures can be considered on request.
- Maintain a seal under conditions of thermal cycling or vibration.
- Resist corrosion and leave flange faces clean.
- Do not require ground or lapped flange faces.
- Are quick to fit and remove.
- Can often be used on bowed or pitted flanges.
- Offer good performance on difficult dry gas or high vacuum applications.

**Gasket profiles**

**Type C**
Basic construction style. Suitable for tongue and groove, male and female or flat face and recess flanges.

**Type C/IR**
Identical to the Type C but fitted with the protective inner ring which gives high pressure and temperature capabilities with improved sealing performance. Used on male and female flanges.

**Type SG**
As Type C but fitted with an external ring which accurately centralises the sealing element. In addition the ring provides extra radial strength and acts as a compression stop. Generally used on raised face and flat face flanges.

**Type SG/IR**
Identical to the Type SG but also fitted with an inner ring to prevent damage to the gasket bore and inner windings. It also acts as a heat shield and corrosion barrier and improves recovery characteristics and sealing performance.

**Type H and H/IW**
In appearance these are identical to Type C but specifically designed for the sealing of manholes, handholes, tubecaps and plugs in boilers and vessels. They can be produced in a wide variety of shapes, the most common being circular, obround, square, oval and diamond. The H/IW incorporates a stainless steel wire on the inner surface which protects the inner windings and reduces the risk of extrusion under compression.
Note: Due to the compression characteristics of PTFE, full compression may not always be achieved. If flange face contact is essential then special clearances can be considered.
The most widely used material for winding metal is SS 316L and is usually used with carbon steel or stainless steel flanges. The standard inner ring material is also SS 316L. It is normal practice for the inner ring and windings to be the same as, or compatible with, the flange metal. This practice prevents corrosion and differential expansion problems. For very high temperatures or highly corrosive applications, alternative materials may be chosen for both windings and inner rings. PTFE inner rings can be supplied for highly corrosive media.

As standard the centring rings are supplied in carbon steel with an anti-corrosion coating/treatment primarily to prevent corrosion in storage. The use of stainless steel for centring rings is quite common where the external flange environment conditions are corrosive to carbon steel, or temperature conditions prohibit the use of carbon steel.

* As standard supplied with a paint coating to inhibit corrosion during storage. Other protective coatings, eg. zinc plating with a chrome passivate, are available on request.