



SPIRAL WOUND GASKET

SPECIFICATION

Spiral Wound Gaskets consist of a V-shaped metal strip spirally wound in combination with a soft, filler material. The metal strip provides outstanding recovery, while the flexible filler guarantees excellent sealing. Due to this combination of materials the spiral wound gasket is suitable for sealing under severely fluctuating temperature and pressure conditions. Depending on the application, the spiral wound gasket can be specified with outer and/or inner rings.

Properties:

Spiral wound gaskets are suitable for use across a wide gasket stress range.

Spiral wound gaskets can be used to seal fluid pressures up to 250 bar and from cryogenic temperatures up to elevated temperatures of 1000°C.

Because of the robust design of the spiral wound gasket, it is simple to install without damage, although care should be taken in transporting and installing large diameter gaskets without inner or outer guide rings.

By combining different winding materials and metals, the gasket can be tailored to suit a wide variety of operating conditions. The gasket is non adhesive and is easily removed. Spiral wound gaskets will not damage flange surfaces.

Gasket standard styles:

- Gaskets without guide and inner ring
- Gaskets without guide and inner ring
- Gaskets with inner ring
- Gaskets with guide outer ring
- Gaskets with guide and with inner ring





Special profiles :

In the event of a graphite filled spiral wound possibly causing an undesirable reaction between graphite and the medium to be sealed, or of a possible medium contamination, the problem can be solved by using a spiral wound gasket with a GT-Zone.

The spiral wound element of a GT-Zone gasket consists of outer windings of non-asbestos or ceramic material with a central winding zone made of graphite or PTFE (depending on the operating conditions) to improve gas tightness

The result is a spiral wound gasket which will not pollute the sealed medium and gives excellent gas tightness.

Profile selection

Advantages of centering ring:

- Optimum gasket positioning between bolts
- Protection of the sealing element
- Additional security against gasket blow-out
- Acts as a compression limiter preventing overloading and over-compression of the spiral wound element
- Prevents radial flow of soft fillers, such as PTFE

Advantages of inner ring:

- Prevents radial flow of soft fillers, such as PTFE
- Reduces turbulence, minimising flow resistance and crevice corrosion
- Acts as an additional heat shield when the spiral wound gasket is subjected to high temperatures
- Inner and outer rings are particularly recommended for use on spiral wound gaskets exceeding class 600lbs, but specifically recommended for high temperatures and pressures to optimize reliable sealing performance
- For special flanges (male-female, tongue and groove etc) the type of spiral wound gasket selected will depend on the flange geometry, operating conditions and bolt specifications. Novus specialists will be pleased to assist you were necessary





Filler material:

The table below may be used to select the correct filler. It should be pointed out that graphite will be the optimum filler in most cases. Only where graphite could cause media pollution, or is not chemically resistant, should the use of another type of filler material be recommended, In such cases, an alternative solution might be to use a gasket with a GT-Zone.

Material	Temp °c		Max. Op Pressure Bar	Gas Tightness	Application
	Min	Max			
Graphite	-200	550	250	Good	Aggressive Media
PTFE	-200	250	100	Good	Aggressive Media
Non-Asbestos	-100	250	100	Good	Liquids & Gases

Graphite:

Graphite is a universally applicable, high quality material with the following properties:

- Very good chemical resistance
- Resistance to high (fluctuating) temperatures and pressures
- Resistant to ageing
- Excellent gastightness

PTFE :

PTFE is a high quality synthetic material with the following properties:

- Excellent chemical resistance
- Resistant to temperatures up to 250°C
- Resistant to ageing
- Excellent gastightness

