SEAL Gasket and Sealing Solutions

SPIRAL WOUND GASKETS

Spiral Wound Gaskets have considerable mechanical strength and good recovery characteristics even under fluctuating loads, providing an extremely effective seal over a wide range of operating conditions.



The Spiral Wound Gasket element is precision formed using a 'V' shaped metallic winding strip continually wound and incorporating an inner wound soft filler material. This construction helps maintain an effective seal at high fluctuating temperatures and pressures.

Type R

Type R is a sealing element only where controlled compression must be in the flange. Inner and outer diameters are reinforced with several plies of metal, without filler, to give greater stability and sealing. All other SWG's (except Type R) have compression built into the gasket. Type R gaskets are typically produced 3.2mm and 4.5mm thick however, thicknesses up to 7.2mm can be manufactured to order.

Type SGIR

Type SGIR includes inner and outer rings with the element component of the gasket for an additional compression limiting stop. For use with flat face and raised face flanges, Type SGIR features increased compressive force for blow-out prevention and is specified for high pressure/ temperature service or where corrosive or toxic media are present.

Type SGIR gaskets are manufactured with a 4.5mm thick sealing element and 3mm inner and outer rings. On larger gaskets, wider sealing elements can be offered with thicker inner and outer rings.

Type SG

Type SG are produced with a sealing element and an outer ring,.

Type RIR

Type RIR gaskets are produced with a sealing element and an inner ring.

Type LD (Low Density Spiral Wound)

Type LD is a 'Type R' gasket wound with a lower density and designed as an alternative to sheet gaskets in Class 150 and 300 service. These gaskets have the inherent strength, resiliency and blowout resistance of spiral wound gaskets, yet require low bolt load for seating. They are manufactured with high purity graphite filler or a PTFE filler for optimum sealability, and are available for the full range of standard Class 150 and Class 300 flanges, as well as other non-standard low pressure flanges.

Type LDS (Low Density Soft Spiral Wound)

Manufactured identically to 'Type LD', plus the inclusion of a graphite facing to each side. This makes the gasket especially suitable for difficult to seal applications where the surface of the flange isn't perfectly smooth or the flange has been slightly damaged.

Unless specified, 'Type SGIR' gaskets are produced with Carbon Steel outer rings, Stainless Steel (SS316L) inner rings and Stainless Steel (SS316L) winding with a Graphite filler. Where custom sizes are required for your application, the manufacturing guidelines set out in the ASME B16.20 and EN 1514-2 standards are followed for production and marking.

The information contained in this technical data sheet are based on our experience to date and we believe it to be reliable. It is intended only as a guide for use at your own risk and discretion. We can not guarantee favourable results and assume no liability in connection with its use or the use of the products described. None of this information is to be taken as a licence to operate under, or a recommendation to infringe any existing patents. Prior to any application, the above product has to be tested and accepted by the processor.

Spiral Wound Gaskets - Typical Product Data

Max Pressure Limits 400bar

Applicable Standards

Spiral Wound Gaskets are manufactured to custom and standard dimensional specifications to suit your flange:

Standard	To Suit Flange
ASME B16.20	B16.5
	B16.47 Series A (MSS SP 44)
	B16.47 Series B (API 605)
Dims To Suit	B1560 & B16.5
TABLE To Suit	BS 10
BS EN 1514-2	BS EN 1092-1
BS 4865-1	BS 4504
PN To Suit	DIN 2631 to 2638
PN To Suit	DIN Standard
IIS B2404	JIS B2220
	JIS B2238 to 2240

Temp Limits & Colour Coding (ASME B16.20)

Winding Strip Denoted By Solid Colour On Outer Ring

Material	Temperature	Colour
Carbon Steel	500°C	Silver
Titanium®	540°C	Purple
SS304	650°C	Yellow
SS316L	800°C	Green
Duplex [®]	800°C	N/A
Monel [®] 400	800°C	Orange
SS347	870°C	Blue
SS321	870°C	Turquoise
Hastelloy [®] B2	1000°C	Brown
Hastelloy [®] C276	1000°C	Beige
Inconel [®] 600/625	1000°C	Gold
Incoloy [®] 825	1000°C	White
Inconel [®] X750	1000°C	N/A

Filler Material: Denoted By Stripes On Outer Ring

Material	Temperature	Colour
Flexible Graphite	-240°C to 400°C	Grey
PTFE	-184°C to 260°C	White
Ceramic	1000°C	Light Green

Spiral Wound Gaskets should not reach the maximum temperature and pressure limits simultaneously.

Gasket Profile



Type R Sealing Element only gasket which can be used with 'flat face' and 'tongue & groove' flange face configurations.

Type SGIR

Sealing Element with inner and outer rings for use with 'flat face' and 'raised' flange configurations.

Type SG

Sealing Element with outer rings for use with 'flat face' and 'raised' flange configurations.

Type RIR

Sealing Element with inner rings for use with 'male to female' flange configurations.

Type LDSR Low density wound Sealing Element with graphite facing on both sides for use with 'flat face' and 'tongue & groove' flange configurations.

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