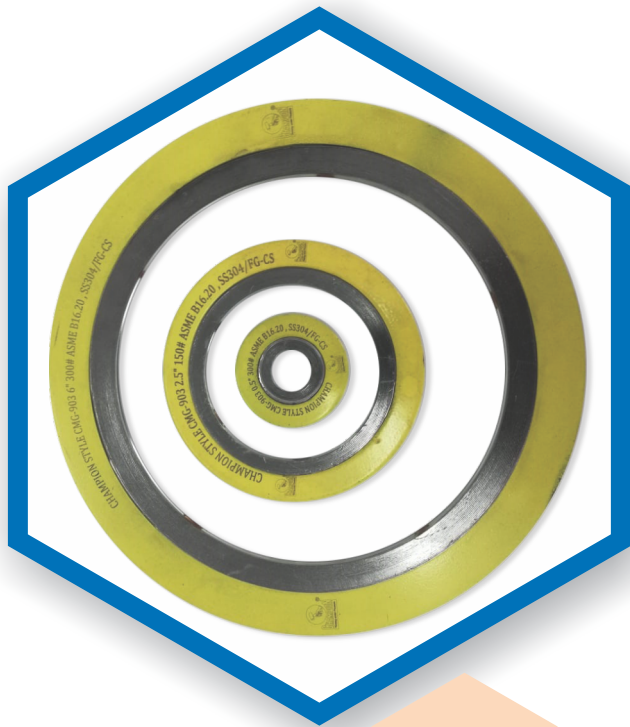


# CHAMPION METALLIC GASKET

## SPIRAL WOUND GASKETS



**CHAMPION METALLIC GASKETS** are being successfully used in a wide range of applications : piping, heat exchangers or pressure vessels on steam, petrochemical, nuclear and marine plants.

The basic element of metallic gasket is the wound core. The pre - formed V-shaped metal strip is spirally wound together under pressure with the soft- material filler (PTFE or Graphite) to improve the mechanical strength and other sealing characteristics, some layers at the beginning and at the end are wound without soft material and spot-welded over the total circumference. The constant tensile force during the complete winding process permits a defined, constant thickness of the structure. This gives forces which provide for a reliable surface load even at fluctuating operating conditions. This provides perfect sealing under fluctuating pressure and temperature conditions (thermal Cycling) providing mechanical durability along with high flexibility and exceptional recovery.

The usual nominal thickness of spiral wound gaskets are between 3,2 mm and 4,5 mm. For gaskets with a diameter no superior to 1200 mm the thickness of 4,5 mm is recommended



CMG Sizes		
Nominal Thickness	Compressed Thickness	Guide Ring Thickness
3.2 mm	2.4 - 2.6 mm	2.0 - 2.2 mm
4.5 mm	3.2 - 3.45 mm	3.0 - 3.2 mm

Metallic Material	Temp (°C)		Ring OD Colour
	Min.	Max.	
CS	-250	550	Silver
SS 304/1.4301	-250	550	Yellow
SS 316/1.44	-100	550	Green
SS 321/1.4541	-250	550	Torquoise
SS 347/1.455	-250	550	Blue
Nickel 200	-250	600	Red
Money 400	-125	600	Orange
Inconel 600	-100	850	Gold
Hastelloy B2	-200	450	Brown
Hastelloy C276	-200	450	Beige
Titanium	-250	500	Purple

Filler Material	Temp Limits upto (°C)	Strip Colour
PTFE	260	White
Graphite - Oxlsiding	450	Grey
- Inert	550	
- Steam	600	
High Temp Mica	900	Pink

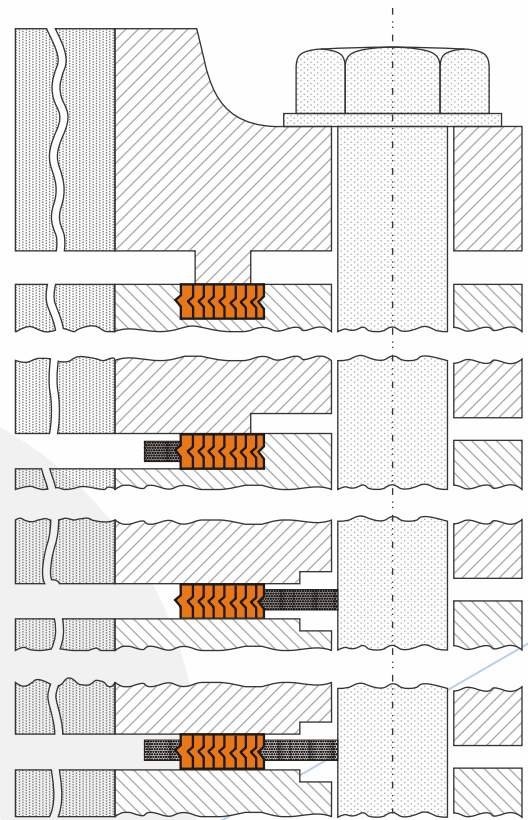
**CHAMPION Spiral Gaskets** are manufactured in following types :

● **CMG-901:** This is simplest style of spiral wound metallic gasket, consisting of a circular winding without inner or inner rings. Spiral wound gaskets Style 901 are mainly used in large tongue and groove or male and female joints. They are also used in equipment with space and width limitations. They are also recommended for valves and high pressure pumps .

● **CMG-901M:** A style 901-M spiral wound metallic gasket is a sealing winding with an inner ring only. This is used as a high temperature capability for grove flanges and general application, used in Pressure vessels, Pumps, Boilers, Manholes, Caps, Covers. The basic purpose of this inner ring is to fill out the space between the flanges, avoiding turbulence in the flow of the fluid in piping or as a protection for flange against corrosion or erosion or high temperatures.

● **CMG-903:** A style 903 spiral wound metallic gasket is a circular metal winding with an outer guide ring used as centering device and compression stop. The sealing element is made of a soft sealing material and a specified solid metal and soft sealing material. These gaskets are used in a very wide variety of applications in industry as the outer ring centres the gasket, prevent blow out, resists atmospheric conditions and provides gauge reference point for determining compression during bolt pull up.

● **CMG-903M:** A Style 903M is the most popular spiral wound metallic gasket with an inner and outer ring for high temperature and pressure applications including vacuum services . The purpose of the inner ring is to fill out the space between the flanges, avoiding turbulence in the flow of the fluid or as protection against corrosion or erosion. It is also used as a compression limit.



Champion Metallic Gaskets are made as per ASME B16.20 to suit ASME B16.5 flanges and as per "A" Series and "B" Series to suit ASME B16.47 flanges. We can offer on request CMG as per DIN 2632-2638 , IS Standards also .

**Tolerances (for ASME B16.20 Gaskets) :**

	Outside Diameter Tolerances	Inside diameter tolerances
½" through 8" NPS	+/- 0.762 mm/0.03"	+/- 0.406 mm/0.016"
10" through 24" NPS	+ 1.524 mm/0.06" to - 0.762 mm/0.03"	+/- 0.762 mm/0.03"

The materials most commonly used for the metal strip are the classical Stainless Steels (AISI-316L, AISI-304, AISI-321), special Stainless Steels (AISI-309 or similar), and other special metals as Monel-400 or Titanium are available on request. The materials for the inner or outer rings used to be the same as that used for the metal strip. The soft materials for the sealing filler strip can be manufactured from Graphite (for temperatures up to 550°C) PTFE or others.

**Adaptable production:** Our production offers extensive possibilities:

- Special sizes as per customer requirements.
- Production according to customer's specifications.
- Gaskets made of special materials, etc.

**CHAMPION SEALS INDIA PVT. LTD  
SEALANT & GASKET INDIA PVT. LTD.**

Champion Building, First Floor, 15/18 Parsee Panchayat Road, Andheri (East), Mumbai - 400 069.  
Maharashtra - INDIA. **Tel.:** +91-2228367311-15 | **Customer Care:** +91-9820171162  
**Email:** info@championseals.in | **Website:** www.championseals.in

**Disclaimer:** Information given in this datasheet is based on general experience and given in good faith. As the company's products are used for a multiplicity of purposes without control over the method of installation or selection or use with other equipment, the company excludes all conditions, liabilities or warranties, expressed or implied by statute or otherwise, as to their products and or their fitness for any purpose. Any technical suggestions is shared in good faith without any liability whatsoever.