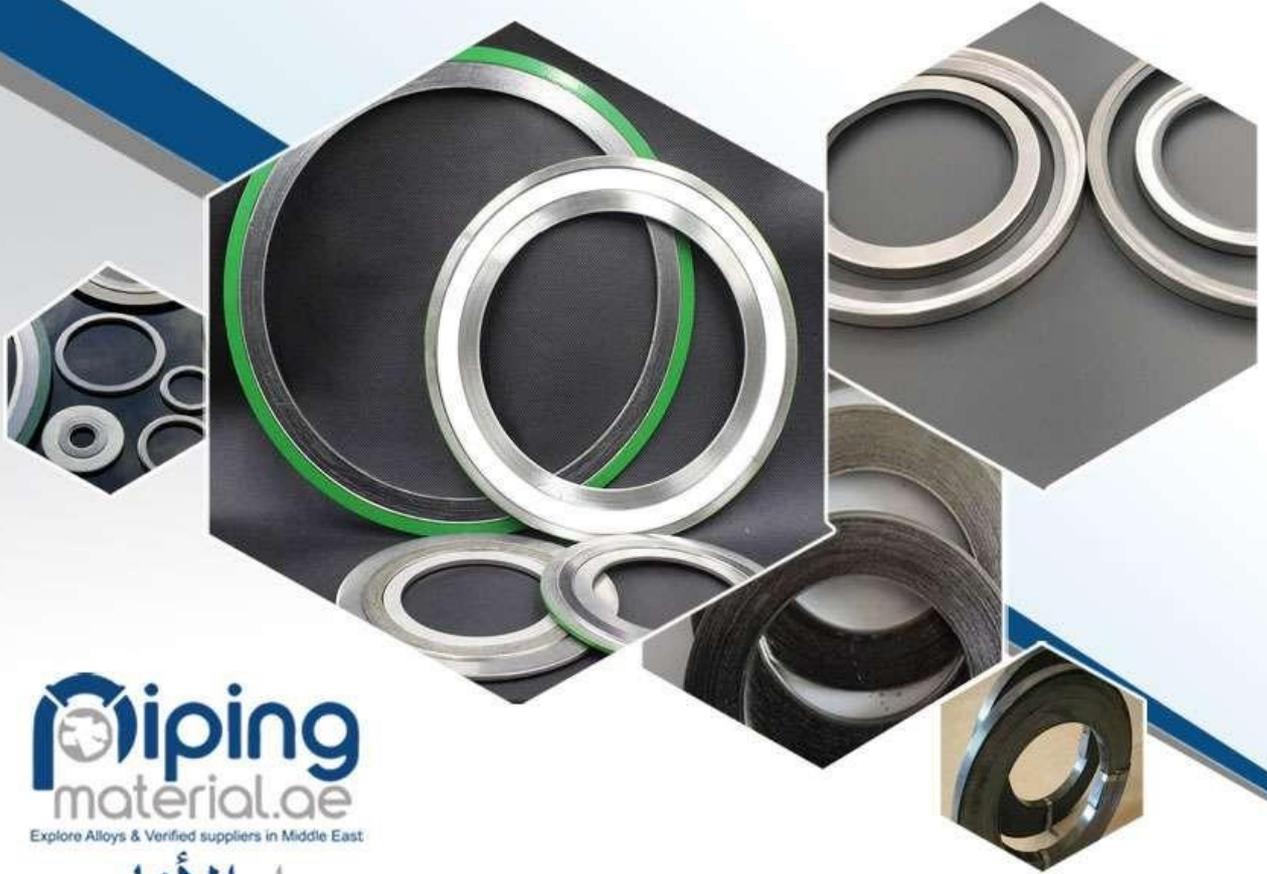




Spiral Wound Gaskets



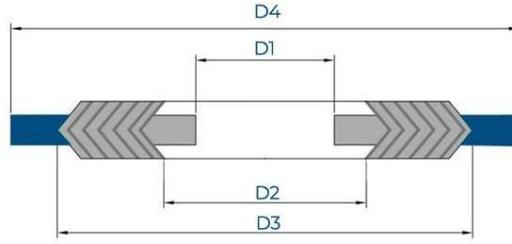
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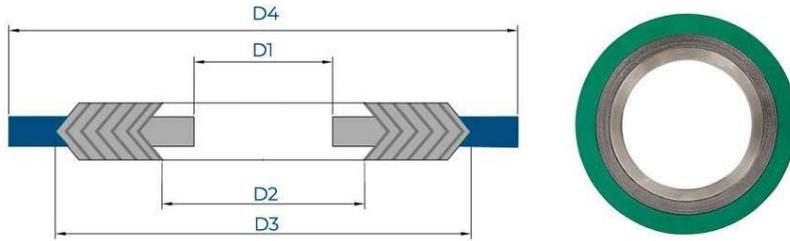
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حشيات الجرح الحلزوني

Spiral Wound Gaskets

NPS	Inner Ring	Sealing Element		Outer Ring
	d1	d2	d3	d4
1/2	14.2	19.1	31.8	47.8
3/4	20.6	25.4	39.6	57.2
1	26.9	31.8	47.8	66.8
1.1/4	38.1	47.8	60.5	76.2
1.1/2	44.5	54.1	69.9	85.9
2	55.6	69.9	85.9	104.9
2.1/2	66.5	82.6	98.6	124
3	81	101.6	120.7	136.7
4	106.4	127	149.4	174.8



Check spiral gasket dimensions as per ASME 16.20 standards

NPS	Inner Ring	Sealing Element		Outer Ring
	d1	d2	d3	d4
5	131.8	155.7	177.8	196.9
6	157.2	182.6	209.6	222.3
8	215.9	233.4	263.7	279.4
10	268.2	287.3	317.5	339.9
12	317.5	339.9	374.7	409.7
14	349.3	371.6	406.4	450.9
16	400.1	422.4	463.6	514.4
18	449.3	474.7	527.1	549.4
20	500.1	525.5	577.9	606.6
24	603.3	628.7	685.8	717.6



What is inner ring and outer ring in spiral wound gaskets dimensions?

You will require these special semi-metallic gaskets if the operating conditions in your industry are severe. Spiral gasket dimensions depend on two main components: a metallic strip and a non-metallic filler. Many designs use rings – an outer or guide ring and an inside one – to strengthen the gasket. While the outer one manages the compression, the inner ring gasket dimensions decide the resilience and reduce turbulence.

Both rings play crucial roles in making the gasket more robust. The centering ring usually uses carbon steel with electroplating. The inner one should be of the same material as the metal strip. You can see the specifications in a spiral wound gasket dimensions pdf.

These gaskets mustn't protrude from the flange. The metallic and non-metallic parts get wound together, with the strip holding the filler for a tight connection. You will find these components across industries like pharmaceuticals, shipbuilding, food processing, etc.

ASME B16 20 gasket and spiral wound metallic gaskets in the size range of 1/2" to 24" diameter

What is the sealing element in ASME B16.20 gasket dimensions?

These gaskets got first built to suit high pressures, temperatures, and harsh chemicals in refineries. ANSI B16.20 spiral wound gaskets are highly resilient and flexible. The sealing element used for these gaskets covers the windings and the filler. It helps guarantee a long-lasting joint that stands in extreme operating conditions.

Graphite is a favored choice as it is suitable for high temperatures and resists distortion. The filler materials used in oil and gas applications are usually stainless steel. Another choice in several sectors with low-temperature conditions is PTFE or Polytetrafluoroethylene.



How do you read a spiral wound gasket size?

You can get these gaskets in various sizes depending on the requirement. Usually, the standard spiral wound gasket sizes are 2.5mm to 6.5mm. This thickness gets measured across the metal strip but excludes the filler. The latter extends beyond the metallic portion.

The typical thickness of the metallic strip of these gaskets is 0.2mm. The filler can be 0.5-0.6mm thick. You also have to consider the various diameters, i.e., of the inner ring, the outer ring, and the sealing element. These get specified per standards like EN 1514-2. EN (DIN) specifications are popular in many sectors.

Check class 150 to 2500 spiral wound flange gasket and Spw Gasket dimensions as per EN 1514-2

Installation process of spiral gasket

Cross-face scoring is the prime concern you should be cautious of during installation. The first step is to ensure that the gasket is not damaged and adheres to the correct specification, like asme b16 20 gasket dimensions. The flange faces are clean. If you detect scoring, you should machine the surface afresh with a flange-facing machine. Once you complete it, you should check it with a surface comparator.

Next, ensure the flange faces are parallel and concentric. You need not have to drag them into the correct position. A flange gap measurement tool can help you here. During installation, abstain from using lubricant. These gaskets are not congenial to reuse.

Thickness of spiral wound gaskets with inner and outer ring usually ranges between 3.2 mm and 4.5 mm

How can you measure spiral wound gasket thickness?

The method to measure the thickness involves finding the diameters of the outer and inner rings. It will give you a nominal pipe size. The thickness will depend on the outer ring gasket dimensions.



You can generally find these gaskets in variable thicknesses from 1.6mm to 7.2mm. However, the usual range is 3.2 mm to 4.5 mm. If you have tubing of large diameters, you will need a greater thickness of 7mm. The dimensions get fixed based on the standards you conform to, e.g. ANSI, in the particular sector. While scanning the asme b16.20 gasket dimensions pdf, you should also keep an eye on the material. The guide ring can use carbon steel for cost-effectiveness. But the inner one must use the same material as the metallic strip.

Full face spiral wound gasket can be used in a petrochemical and ring face application

What is the difference between outer ring gasket and inner ring gasket dimensions?

Many gaskets used in extreme operating conditions rely on outer and inner rings for enhanced strength. The outer ring helps manage the compression and keeps the gasket centrally placed. Likewise, the inner one lowers the turbulence near the flange and makes the gasket more rigid. Their gasket inner ring and outer ring metrics get decided based on the nominal pipe size and industry-specific standards like ASME B16.20.

The measurements will vary based on the type of gasket you use. For instance, a gasket with only a guide ring (Style CG) and one with both outer and inner rings (Style CGI) have different specifications. Note that Style R has no rings. A spiral wound gasket without outer ring inner ring is called Style RIR.

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