

METAL JACKETED GASKETS

Metal-jacketed gaskets are particularly suitable for sealing flat surfaces of heat exchangers, gas pipes, cast iron flanges, and autoclaves and similar. By their sealing efficiency, provided by exerting strong pressure on circular rims of the flanges, metal-jacketed gaskets can stand up to 30% deviation from the initial thickness, which is very useful in case of irregular or faulty flange rims. The chemical compatibility of the metal and the medium being sealed should be considered. The metallic jacket is normally 0.4 mm thick. Other materials are available on customer request. The metal jacketed gaskets come in sizes according to EN 1514-4 ASME B 16.21 standards. Metal-jacketed gaskets are produced in several types to meet the requirements of the most demanding applications.



APPLICATION

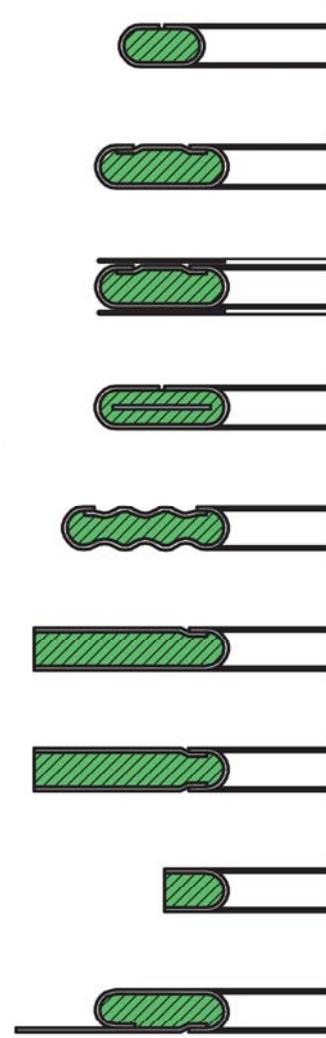
- Refineries
- Chemical and petrochemical industry
- Gas production and distribution
- Petrochemical industry
- Pumps and valves
- Boilers and flues

GASKET PROFILES

Metal jacketed gaskets can be manufactured in the given profiles to profile shapes.

MATERIALS FOR COATING

Material	AISI/ASTM	DIN EN 10 027-2 Material No.
Low carbon steel	Soft iron (CS)	1.0333
Stainless steel	AISI 304	1.4301
Stainless steel	AISI 316, 316 L	1.4401, 1.4404
Stainless steel	AISI 321	1.4541
Stainless steel	AISI 316 Ti	1.4571
Monel (NiCu30Fe)	Alloy 400	2.4360
Copper	Copper	2.0090
Brass	Brass Ms 63	2.0321
Titanium	B348 Gr.1	3.7025



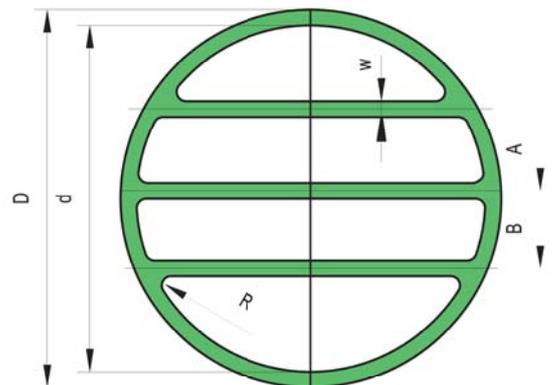
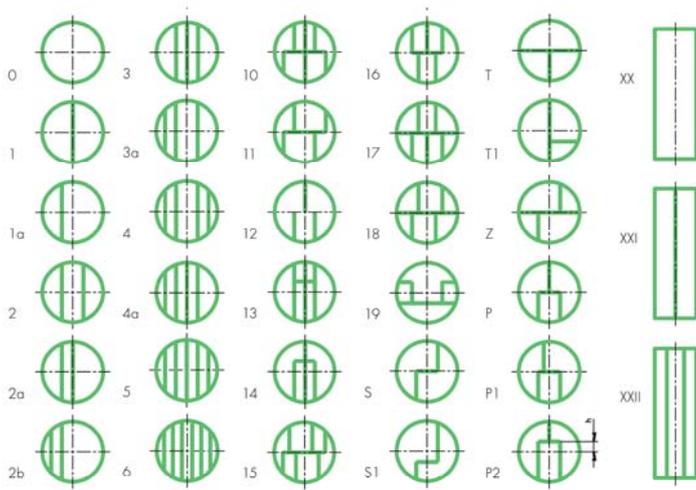
FILLER

The most common filler in metal jacketed gaskets is expanded graphite. Other fillers like ceramic, CSF or other can be used.

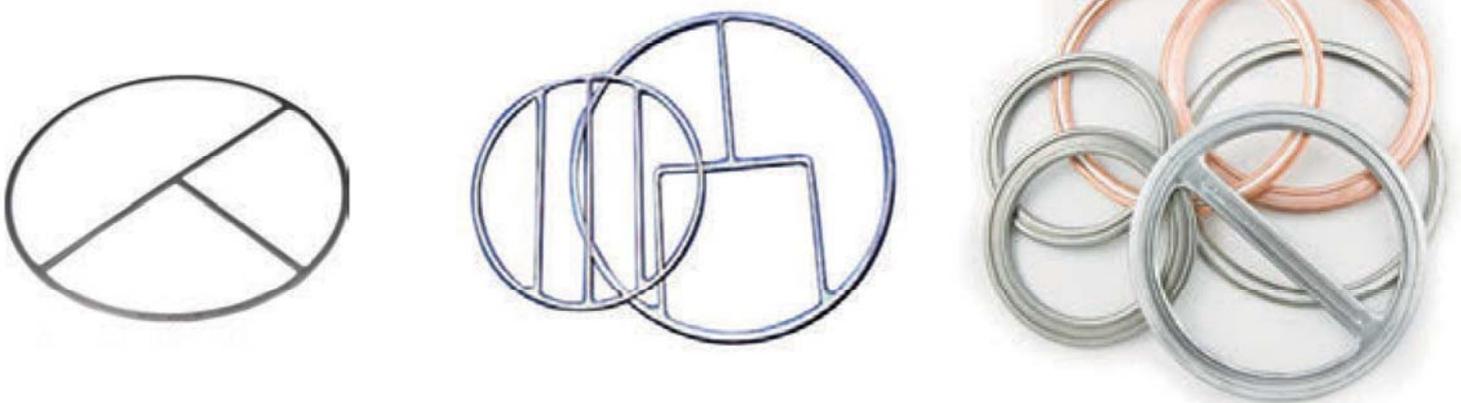
STANDARD SEALING FILLER – TEMPERATURE RANGE		
Graphite	-200 °C	+550 °C
CSF	- 40 °C	+250 °C
Ceramic	-200°C	+1100°C

SHAPES

Metal jacketed gaskets can be produced in different shapes with or without bars as shown in the drawing.



OT1, Type 3



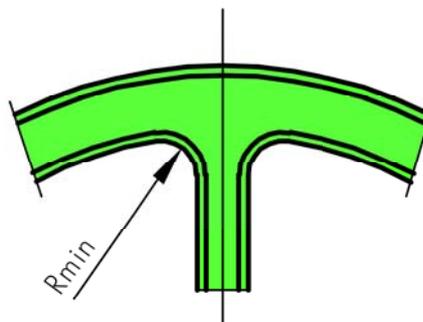
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GASKETS WITH INTEGRATED BARS

Usually, double-jacketed gaskets for heat exchangers are manufactured with integrated bars. There is a radius between the bars and an internal diameter of the gaskets.

The values of the corresponding radius for the most commonly used metals and alloys are shown in the following table. If a radius is less than R_{min} , the material can crack, reducing the sealing properties of the gaskets.

GASKET MATERIAL and R_{min}	
Copper	8 mm
Soft iron (CS)	8 mm
Brass, Monel	10 mm
Stanless steel	10 mm

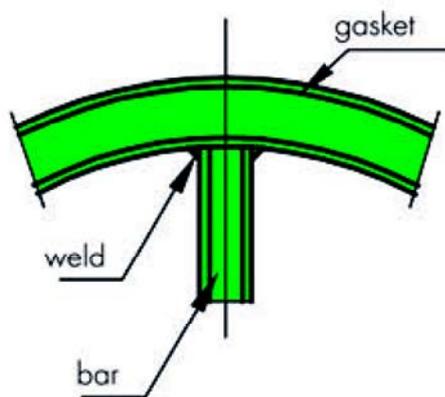


Integrated bars

GASKETS WITH WELDED BARS

Gaskets with welded bars have eliminated one of the greatest problems of conventional gaskets, which are cracks in the radius area.

The primary and secondary seals are continuous all around the gasket. The gasket has an excellent sealability, reducing leaks to the environment. The bars which seal between the heat exchanger passages are plasma or TIG welded with spot welds at each end.



Welded bars

DIMENSIONS AND SIZES

Standard sizes are made according to EN 1514-4 or ASME B 16.21 standards. Non standard sizes are available on request. Outside diameter of metal jacketed gaskets can be up to 4000 mm, thickness of the gasket can be from 2 to 12 mm.

STANDARD DIMENSIONS	
Gasket thickness	3,2 mm
Gasket width	10, 13 and 16 mm
Bar width	8,10 and 13 mm