SOLID METAL GASKETS

RING TYPE JOINTS (RTJ)

Service parameters		
T (°C)	-200 ÷ +1100	550*
P_{max} (bar)	1500	350*
Q_{max} (MPa)	650	400*

General information

Description:
SPETORING® gaskets are applied at extreme temperatures and pressure loads in refineries, power plants, petrochemical industry, oil drilling, pipelines, valves and pressure vessels, RTJ-R, RTJ-OR, RTJ-BX, RTJ-RX gaskets need special flange arrangement for the installation; SPETORING® RTJ are are applied in pressures up to 20.000 psi.

Ring joint gaskets (RTJ) are metallic solid sealing solution for high pressure / temperature applications and are fitted in special ring groove type flanges. They are blowing-out resistant and very reliable solution.
RTJ gaskets are widely used in pressure vessels like valves, pipelines in the Petrochemical and Oil&Gas industry.
Material selection can be determined dependent on fluid temperature and flange hardness. They comply with EN 12560-5, ASME B16.20 standard and API spec 6A. The gaskets are turned to the required dimensions/tolerances and surface finish using CNC high quality techlology. Carbon steel and soft iron RTJ gaskets can be zinc plated in accordance with API specifications.
Any other non-standard styles and workmanship are possible. All type of EN 10204 certificates on request.

Materials available
For wide range of materials available please look into “Common Used Materials” table.

* – please contact SPETECH if the specified values are higher

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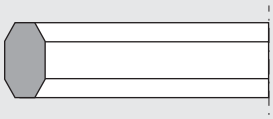
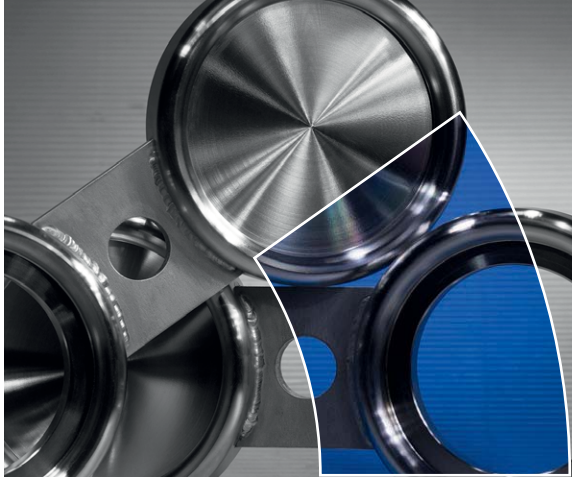
SPETORING® RTJ

Designation	Sketch	Description
SPETORING® RTJ OCTAGONAL		SPETORING® RTJ (octagonal) gaskets have been widely used mainly in oil and gas industry; they are manufactured from steel (special alloys on request) and installed in special flange arrangement; at present only trapezoidal arrangement is applied for octagonal RTJ-R gaskets; RTJ-R gaskets have total blowout resistance, its design provides two sealing barriers, therefore they do not fail in very dangerous installatios; in special styles available also as a plug, wiht centring ring, galvanized; manufactured almost exclusivily in dimension standards according to NPS 36, non standard up to 3000 mm.
SPETORING® RTJ OVAL		SPETORING® RTJ (oval) gasket is manufactured from steel or special alloys, available in the same dimensions as octagonal gasket; may be applied also in very old, semi-round grooves in flanges; gasket is blowout resistant, has two sealing barriers; due to the contact area between semi-round surface of the gasket and the flange face the stress is built up which helps improve tightness; applied in installations containing dangerous medium; in special styles available as the plug with centring ring or galvanized; manufactured almost always in dimension standards according to NPS 36, non standard up to 3000 mm.



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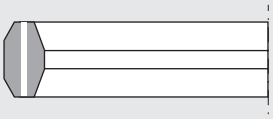
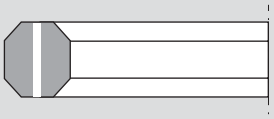
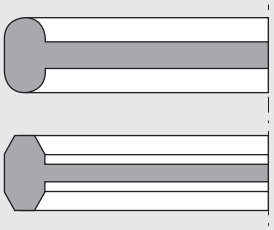
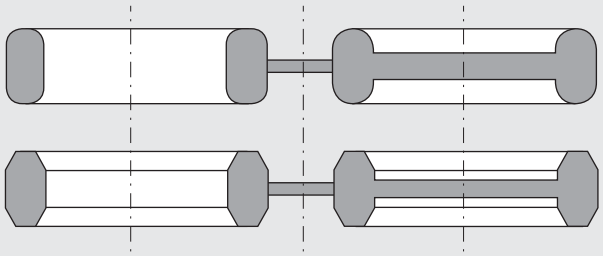
RING TYPE JOINTS (RTJ)
SPETORING® RTJ

Designation	Sketch	Description
SPETORING® RTJ-RX		SPETORING® RTJ-RX gasket is a modified version of RTJ-R which has higher active internal pressure resulting in increased contact stress; RTJ-RX gaskets are manufactured from various sealing materials; in special constructions with galvanic coating.
SPETORING® RTJ-BX		SPETORING® RTJ-BX gaskets are engineered for the highest pressure ratings up to 20.000 psi; it is a solution requiring special facing arrangement; blowout resistant, opening in the axial direction has the function of balancing the pressure loads in the situation when the inner sealing barrier is not tight; the gasket manufactured only in dimension standards to NPS 30.
SPETORING® RTJ-BLIND		Beside the standard RTJ seals we provide RTJ oval or octagonal, RX and BX profiles as blind rings. Shape of the rings is similar to seals which they replace, but commonly they are equipped with a plate which facilitate installation for maintenance service and also enable to include any necessary information of basic data of the connection.
RTJ-SPECTACLE-BLIND		Spectacle Blind RTJ gaskets are used in purpose to separate pipesystems or to connect with each other. Set of two Ring Type Joints of certain size (where one of the gasket is blind and the other is a ring) is connected by flat section of steel. Such Spectacle-Blind pair is applied in pipelines which regularly need to be separated from other installations. When pipeline is in "working conditions" Spectacle Blind RTJ is mounted in the „open" position so that flow through the pipe is possible. "Maintenance condition" on a pipeline section is the reason to change the spectacle to the „close" position. In such case, after removal of bolts, the Spectacle Blind is rotated and after re-installing the bolts, pipe is blocked and no flow is possible.