



## SEMI METAL GASKETS

### SPIRAL WOUND GASKETS

#### Service parameters

T (°C)	-200 ÷ +950	450*
P <sub>max</sub> (bar)	420	100*
Q <sub>max</sub> (MPa)	300	110*

#### Widely used in:

Traditional gaskets widely used in refinery, petrochemical, chemical industry, often used in power industry, gas industry, fixture construction; high blowing, thermal, fire resistance; an economical alternative to other high quality gaskets. SPETECH manufactures highest quality gaskets allowing for using small surface pressure and an economical alternative (SPETOSPIR® standard) for big series.

#### Custom styles:

- gaskets of shape other than round, e.g. oval, elliptical
- gaskets with partition bars e.g. MPL® 23, MPL® 10, GUS® 32
- gaskets with locating lugs
- gaskets with low minimum contact stresses
- gaskets for steam applications, with the inner ring from austenitic steel and metal windings from Hastelloy
- gaskets replacing RTJ style, designed as SZ-RJ
- gaskets in fire-safe constructions with PTFE filler
- gaskets of thickness over 4,5 mm where the metal windings are of W cross section
- special construction: with centring ring for two pressure classes

#### General information

##### Availability:

- for flanges ASME/ANSI B 16.5, class 150 to 2500 LBS, NPS 1" to 24" according to norm ASME B 16.20 (API 601)
- for flanges ASME B 16.47 series A (MSS SP-44), 150 to 900 LBS, 26" to 60" according to norm ASME B 16.20 (API 601)
- for flanges ASME B 16.47 series B (API 605), class 150 to 900 LBS, NPS 26" to 60" according to ASME B 16.20 (API 601)
- for DIN or EN flanges according to DIN 2699 or EN 1514-2
- for flanges according to ISO 7005
- SPETECH standard for ASME flanges
- other national standards

##### Ordering:

- for gaskets obeying EN 1514-2, DIN 2699, ISO 7483, please indicate the symbol, material, DN, PN, the standard number, e.g. SPETOSPIR® SWZ 316L/316L/PTFE/316L, DN 50 PN 40, EN 1514-2
- for gaskets obeying EN 12560-2, please indicate the symbol, material, DN, CLASS, the standard number, e.g. SPETOSPIR® SWZ 316L/316L/PTFE/CRS, DN 50 CLASS 150, EN 12560-2
- for gaskets obeying ASME B 16.20 please indicate the symbol, material, NPS, CLASS, the standard number, e.g. SPETOSPIR® SZ, 304/PTFE.CRS, NPS 2" CLASS 150, ASME 16.20
- please provide the dimensions or a drawing of non-standard gaskets, or any special requirements, e.g. "for oxygen"

##### If full data is not provided, standard gaskets will be produced:

- default standard: EN 1514-2 (DN and PN); EN 12560-2/ASME B 16.20 (DN/NPS and CLASS)
- default type: SPETOSPIR® SWZ
- default thickness: SPETOSPIR® SWZ and SZ: 4.5/3 mm  
 SPETOSPIR® SW 3.2/2 mm up to DN 600 (NPS 24")  
 4.5/3 mm from DN 700 (NPS 26")  
 SPETOSPIR® S 3.2 mm up to DN 600 (NPS 24")  
 4.5 mm up from DN 700 (NPS 26")
- default material: SPETOSPIR® SWZ: 316L/316L/FG-C/CRS\*\*  
 SPETOSPIR® SZ: 316L/FG-C/CRS  
 SPETOSPIR® SW: 316L/316L/FG-C  
 SPETOSPIR® S: 316L/FG-C

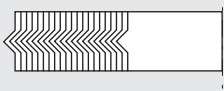
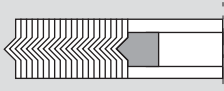
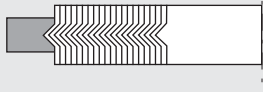
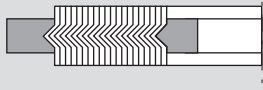
##### Materials available

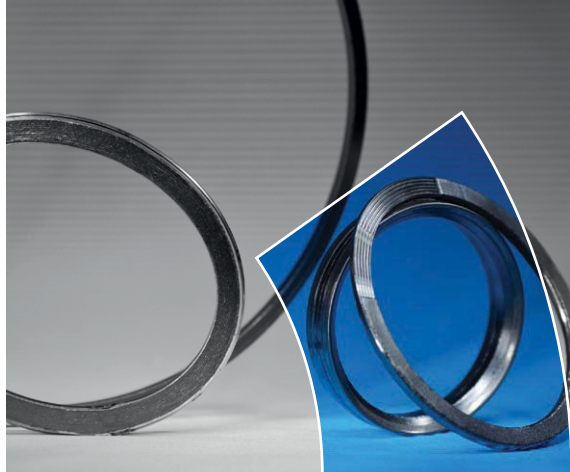
For wide range of materials available please look into "Common Used Materials" table.

\* – please contact SPETECH if the specified values are higher

## SEMI METAL GASKETS

### SPIRAL WOUND GASKETS SPETOSPIR®

Designation	Sketch	Description
SPETOSPIR® S		<b>SPETOSPIR® S</b> – spiral wound gasket made from alternate layers of metal strip and filler; reinforced only by the metal piles welded together, wound around the soft filler. S style is applied in male and female, tongue and groove flange, also in the joints with so called multi-channel load transmission.
SPETOSPIR® SW		<b>SPETOSPIR® SW</b> gasket with inner ring providing additional strength, made from the same metal as the strips; besides giving strength, the ring fills the space between flange bore and the inside diameter, minimizes erosion of flange faces; applied in male and female flanges, even in very high pressures.
SPETOSPIR® SZ		<b>SPETOSPIR® SZ</b> gasket with outer centring ring, facilitating proper installation of the gasket; outer ring also protects gasket from blowout and provides the space for coding the gaskets with digits, letters and colour, which inform about the gasket's style, materials and manufacturer; in some constructions used as a compression stop. Gasket engineered for flat and raised face flanges; for applications in flanges above PN 40 (class 300) and when the filler is PTFE, SWZ style is recommended. As standard, centring ring is made from carbon steel, painted or galvanized.
SPETOSPIR® SWZ		<b>SPETOSPIR® SWZ</b> gasket has two metal rings: outer (centring) and inner – reinforcing; due to „enclosing“ the proper sealing element between the to rigid metal rings, the gasket has excellent compression resistance; the style recommended for flat face and raised face flanges over PN 40 (class 300), for gaskets with PTFE filler also of lower PN; for gaskets of large dimensions (above 800mm) suggested as standard. The standard inner ring is made from the same material as gasket's metal strip in the sealing area.



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### SPIRAL WOUND GASKETS SPETOSPIR®

Designation	Sketch	Description
SPETOSPIR® SWZ LS Low Stress		<b>SPETOSPIR® SWZ</b> gasket might be produced as Low Stress (LS) style gasket. Style LS, provides all the superior sealing properties of a spiral wound gasket for the applications where only the low-stress forming pressure is available.
SPETOSPIR® SnWZ		<b>SPETOSPIR® SnWZ</b> gasket with inner ring made from the metal strip thinner than that applied in the sealing area; it may result from the necessity of providing the gasket with very narrow ring e.g. when the active width of the gasket is optimized, or due to accessibility of non-standard alloys for the rings.
SPETOSPIR® SWZD		<b>SPETOSPIR® SWZD</b> gasket is a two zones gasket applied as antioxidation style for gaskets working in temperatures above 500°C – in the zone exposed to medium graphite, outside – mica, or as firesafe style of the PTFE filled spiral wound gasket, in such a case inner filler – PTFE, outer filler – graphite
SPETOSPIR® SWZT		Triple-zone <b>SPETOSPIR® SWZT</b> special gasket for strongly oxidizing media with graphite at middle zone, mica at inside and outside.
SPETOMET® MWK® 50 / SPETOSPIR® SWZ		<b>SPETOSPIR® MWK® 50/SPETOSPIR® SWZ</b> double gasket provides additional sealability performance, especially under variable conditions; usually for heating or cooling shell pipelines.