

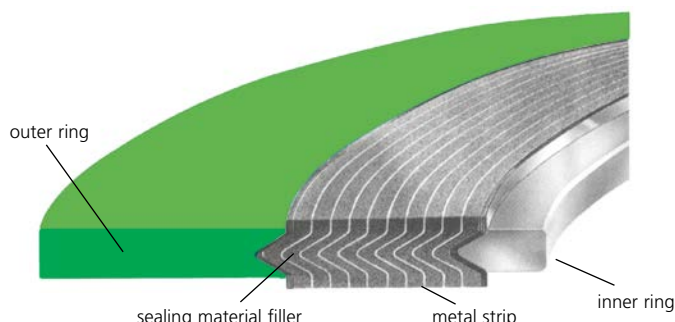
METALLIC / SEMI METALLIC

SPIRAL WOUND GASKETS OF SPIRATEM



General characteristics

The sealing element of the spiral wound gasket consists of a v-shaped metal strip spirallywound in combination with a soft sealing material filler. The metal strip provides outstanding resilience, while the flexible sealing filler guarantees excellent sealing. Due to the combination of materials the spiral wound gasket is suitable for sealing under severely fluctuating temperature and pressure conditions. Depending on the application the spiral wound gasket can be specified with outer and/or inner rings.



- spiral wound gaskets are suitable for use across a wide pressure range, and therefore is general - purpose gasket universally applicable
- spiral wound gaskets can be used to seal fluid pressure up to 250 bar and cryogenic temperature as low as -200 °C and high temperature up to +550 °C / +1100 °C (on special request)
- due to its sturdy design the spiral wound gasket is simple to install without causing damage (although extra care should be taken during transportation and installation of large diameter gaskets without guide rings)
- outer guide rings serves to seat the spiral element centrally onto flange faces and prevent blow-out
- thanks to the combination of different winding materials and metals, gaskets can be tailor made to a wide variety of operating conditions
- due to its non-adhesive character the gasket is easy to remove after service
- gaskets does not cause any damage to the flange faces

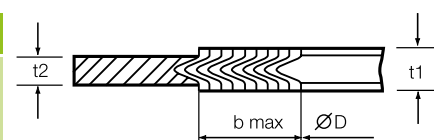
Standard sizes

Raised face, male-female, tongue-groove

- EN 1092-1, EN 1759-1 for flanges, according to gasket standard EN 1514-2 and EN 12560-2
- ASME/ANSI B 16.5 for flanges, 150 to 2500 lbs - 1/2" to 24", according to gasket standard ASME B 16.20
- ASME B 16.47 serie A (MSS SP-44) for flanges, 150 to 900 lbs - 26" to 60" according to gasket standard ASME B 16.20
- ASME B 16.47 serie B (API 605) for flanges, 150 to 900 lbs - 26" to 60" according to gasket standard ASME B 16.20
- GOST 12815 according to gasket standard GOST R 52376 and OST 26.260.454
- BS 1560 ASME/ANSI B 16.5 for flanges, 150 to 2500 lbs - 1/2" to 24" according to gasket standard BS 3381
- flanges according to DIN - for all types
- other dimensions according to the specifications as ÖMV or MIDER, and according to customer's requirements

Selection of gasket thickness

Sealing element t1 [mm]	Tolerance [mm]	D [mm]	b max [mm]	t2 [mm]	Recommended thickness after fitting [mm]
7,2	+0,35	100 – 2800	33	5	5,3 – 5,6
6,4	+0,3	100 – 1600 1601 – 3200	30 25	4	4,7 – 4,9
4,8	+0,3	15 – 630	35	3	3,2 – 3,4
		631 – 1600	30		
		1601 – 2000	20		
3,5	+0,25	15 – 1000	25	2	2,3 – 2,5
3,2	+0,25	15 – 600	20		
2,5	+0,25	15 – 500	10	1,5	1,8 – 2,0



t1 - winding thickness
 t2 - outer ring thickness
 D - inner diameter of sealing element
 b max - maximum recommended width of sealing element (winding)

Please contact our technical team in case of any doubt as regards sealing element thickness.

Standard metal materials

Material	CSN specification	DIN specification	DIN material No.	AISI/ASTM	B.S.	Temperature [°C]	
						Min.	Max.
carbon steel	11 375	RSt. 37.2 CS	1.0038	238-C	40B	-40	+500
stainless steel	17 240	X5CrNi 18-10	1.4301	304	304S15	-250	+550
stainless steel	17 247	X6CrNiTi 18-10	1.4541	321	321S31	-250	+550
stainless steel	17 249	X2CrNi 19-10	1.4306	304L	304S11	-250	+550
stainless steel	17 251	X15CrNiSi 20-12	1.4828	309	309S24	-100	+1000
stainless steel	17 346	X5CrNiMo 17-12-2	1.4401	316	316S31	-100	+550
stainless steel	17 348	X6CrNiMoTi 17-12-2	1.4571	316Ti	320S31	-100	+550
stainless steel	17 349	X2CrNiMo 17-12-2	1.4404	316L	316S11/13	-100	+550

Standard fillers

Material	Temperature [°C]		pH	Application	Colour coding
	Min.	Max.			
Graphite	-200	+550	0 – 14	agressive medium	grey
PTFE	-200	+250	0 – 14	agressive medium	white
Ceramic	-200	+1100	-	very high temperatures	light green
Mica	-200	+1000	-	high temperatures	pink

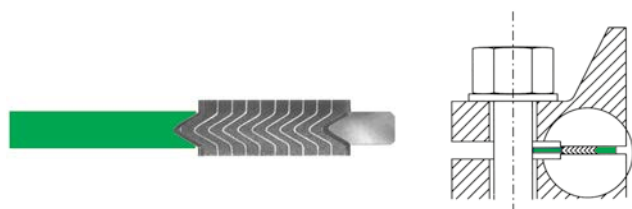
Seating stress range „Q“

Sealing element	Single-side enclosed „Q“ (N/mm ²) seating stress +20°C			Double-side enclosed „Q“ (N/mm ²) seating stress +20°C		
	Min.	Recommended	Max.	Min.	Recommended	Max.
	Graphite	50	90	180	50	122
PTFE	50	80	130	50	110	250
Ceramic	60	90	150	70	120	300

Standard gasket profiles

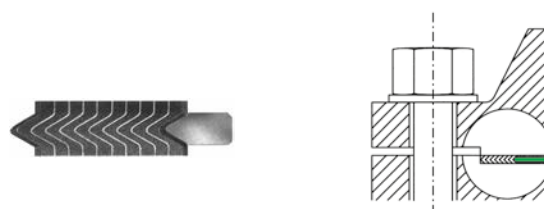
SPIRATEM 123

Spiral wound gasket consist of sealing element with outer and inner rings - complete gasket.



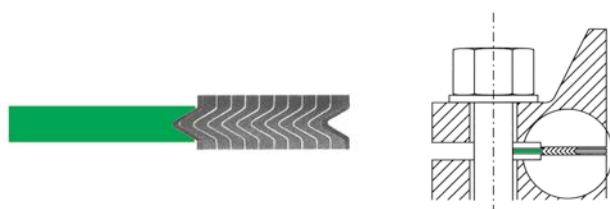
SPIRATEM 23

Identical to spiratem 123 but made and supplied without the outer ring (applied to male / female flanges).



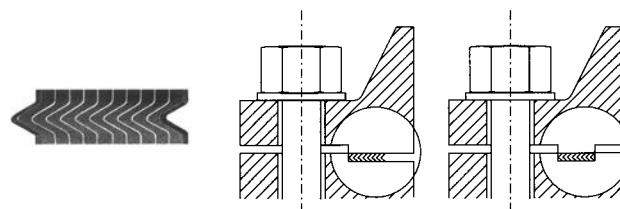
SPIRATEM 12

The standard spiral wound gasket format identical to Spiratem 2 but fitted with outer/centering ring (applied to raised face flanges).



SPIRATEM 2

The gasket consists of sealing element and V-shaped metal strip wound in combination.



Recommended flange surface finish

Ra= 3,2 to 12,5 (µm)

Spiral wound gaskets are also available in oval/elliptical shapes. Bars can be made upon the receipt of the drawing only. All of these are welded.