

SPIRAL WOUND GASKETS
FLEXITECK UK
Style : 440

Flexiteck Spiral Wound Gaskets are manufactured in Round, Obround, Square, Oval, Diamond and Pear shapes.

Sizes : All sizes available for ANSI, API, JIS, MSS & DIN Flanges.

Our Flexiteck gasket passed ASTM D3850-12 Fire Safe, analysis was performed by TGA.
our SWG'S are approved by Chevron, McJunkin Redmann, Philips 66, Shell, Valero & Exxon/Mobil

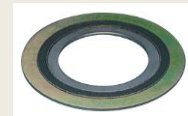
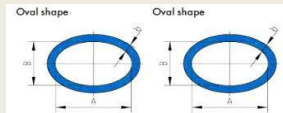
The traditional spiral wound gasket has its steel windings(hoop) protruding above the compression stop, this requires a significant loading stress to compress the gasket to its optimum operating thickness. Our improved SPW gaskets have the filler protruding above the metal winding and guide ring. Henceforth, as the gasket is compressed, the filler is readily compressed and produces the sealing effect at an earlier stage. This low stress gasket has been designed in such a way that compression & sealing requirements are achieved under very low seating stresses.

It is suitable for use across a wide pressure range and is therefore virtually universally applicable. Can be used to seal fluid pressures up to 30Mpa(305bar) and cryogenic temperatures as low as -200°C and up to elevated temperatures of 1000°C.

Due to its sturdy design, the spiral wound gasket is simple to install without causing damage. The outer guide ring serves to locate the spiral element centrally on the flange faces and prevents any blow-out.

By combining different winding materials and metals, the gasket can be tailored to a wide variety of operating conditions.

Due to its non-adhesive character, the gasket is easy to remove after service. The gasket does not cause any damage to the flange faces.



Types of Gaskets
Basic Type (R)

It consists of filler and V-shaped metal wound into a spiral shape by welding at the beginning and end of the spiral wind. Used for male & female type flanges and tongue & groove type flanges.

Inner ring Type (RIR)

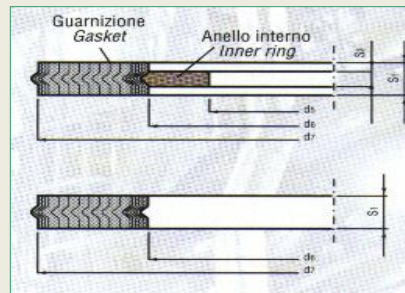
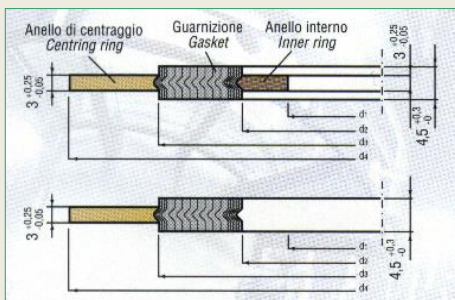
Identical to R, but fitted with an inner ring.

Outer Ring Type (CG)

The standard spiral wound gasket type consisting of a wound component fitted with an outer centring ring.

Inner and Outer Ring Type (CGI)

An inner ring is added to the basic type gasket with outer ring, inner ring protects the gasket from protrusion and deformation during tightening.



Winding Colour Code on Outer Ring (Centering)																											
Green- SS316L Turquoise - 6Mo Red - Nickel Black - Duplex Blue - SS347 Yellow - SS304 White - Incoloy													Turquoise - SS321 Orange - Monel Beige - Hastelloy Purple - Titanium Silver - Alloy Lt. Blue - SS317L														
Filler's Colour Code on Outer Ring (Centering)																											
Grey stripe - Graphite Red stripe - Asbestos White stripe - PTFE light green stripe - Ceramic Blue stripe - MICA Orange stripe - NA Yellow stripe - Thermiculite Pink stripe - Verdicarb (micagraph)																											
INNER RING MATERIAL						HOOP MATERIAL						FILLER MATERIAL						OUTER RING MATERIAL									
SPCC (CS) SUS 304 (S304) SUS 304L (S304L) SUS 316 (S316) SUS 316L (S316L) SUS 316Ti (S316Ti) SUS 310 (S310) SUS 347 (S347) MONEL (M) INCONEL (IN) DUPLEX (DX) TITANIUM (TI) COPPER (CU) HASTELLOY (HS)						SUS 304 (S304) SUS 304L (S304L) SUS 316 (S316) SUS 316L (S316L) SUS 316Ti (S316Ti) SUS 310 (S310) SUS 347 (S347) MONEL (M) INCONEL (IN) DUPLEX (DX) TITANIUM (TI) COPPER (CU) HASTELLOY (HS)						ASBESTOS (A) (-150 ~ 500C) GRAPHITE (G) (-200 ~ 600C) PTFE (PTFE) (-200 ~ 260C) NON ASB (NA) (-100 ~ 400C) CERAMIC (CE) (-200 ~ 1100C) ALUMINIUM (AL) LEAD (LE) MICA (MC) (-200 ~ 900C) THERMICULITE (TL) Verdicarb (V)						SPCC (CS) SUS 304 (S304) SUS 304L (S304L) SUS 316 (S316) SUS 316L (S316L) SUS 316Ti (S316Ti) SUS 310 (S310) SUS 347 (S347) MONEL (M) INCONEL (IN) DUPLEX (DPX) TITANIUM (TI) COPPER (CU) HASTELLOY (HS)									
DIMENSIONS																											
Nom. Thickness 2.5mm 3.2mm 4.5mm 6.4mm 7.3mm						Normally supplied as follows: Min. Dia. 10mm 10mm 10mm 60mm 60mm										Max. Dia. 300mm 760mm 1520mm 3550mm 3550mm											
NOMINAL	WINDINGS - OD		WINDINGS - ID								OUTER RING - OD								INNER RING - ID								
	150 thru 600	900 thru 2500	150	300	400	600	900	1500	2500	150	300	400	600	900	1500	2500	150	300	400	600	900	1500	2500	150	300	400	600
1/2	1.25		0.75	0.75	0.75	0.75	0.75	0.75	0.75	1.88	2.13	2.13	2.13	2.50	2.50	2.75	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56
3/4	1.56		1.00	1.00	1.00	1.00	1.00	1.00	1.00	2.25	2.63	2.63	2.63	2.75	2.75	3.00	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
1	1.88		1.25	1.25	1.25	1.25	1.25	1.25	1.25	2.63	2.88	2.88	2.88	3.13	3.13	3.38	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06	1.06
1 1/4	2.38		1.88	1.88	1.88	1.88	1.56	1.56	1.56	3.00	3.25	3.25	3.25	3.50	3.50	4.13	1.50	1.50	1.50	1.50	1.31	1.31	1.31	1.31	1.31	1.31	1.31
1 1/2	2.75		2.13	2.13	2.13	2.13	1.88	1.88	1.88	3.38	3.75	3.75	3.75	3.88	3.88	4.63	1.75	1.75	1.75	1.75	1.63	1.63	1.63	1.63	1.63	1.63	1.63
2	3.38		2.75	2.75	2.75	2.75	2.31	2.31	2.31	4.13	4.38	4.38	4.38	5.63	5.63	5.75	2.19	2.19	2.19	2.19	2.06	2.06	2.06	2.06	2.06	2.06	2.06
2 1/2	3.88		3.25	3.25	3.25	3.25	2.75	2.75	2.75	4.88	5.13	5.13	5.13	6.50	6.50	6.63	2.62	2.62	2.62	2.62	2.50	2.50	2.50	2.50	2.50	2.50	2.50
3	4.75		4.00	4.00	4.00	4.00	3.75	3.63	3.63	5.38	5.88	5.88	5.88	6.63	6.88	7.75	3.19	3.19	3.19	3.19	3.10	3.10	3.10	3.10	3.10	3.10	3.10
4	5.88		5.00	5.00	4.75	4.75	4.75	4.63	4.63	6.88	7.13	7.00	7.63	8.13	8.25	9.25	4.19	4.19	4.04	4.04	4.05	3.85	3.85	3.85	3.85	3.85	3.85
5	7.00		6.13	6.13	5.81	5.81	5.81	5.63	5.63	7.75	8.50	8.38	9.50	9.75	10.00	11.00	5.19	5.19	5.05	5.05	5.05	4.90	4.90	4.90	4.90	4.90	4.90
6	8.25		7.19	7.19	6.88	6.88	6.88	6.75	6.75	8.75	9.88	9.75	10.50	11.38	11.13	12.50	6.19	6.19	6.10	6.10	6.10	5.80	5.80	5.80	5.80	5.80	5.80
8	10.38	10.13	9.19	9.19	8.88	8.88	8.75	8.50	8.50	11.00	12.13	12.00	12.63	14.13	13.88	15.25	8.50	8.50	8.10	8.10	7.75	7.75	7.75	7.75	7.75	7.75	7.75
10	12.50	12.25	11.31	11.31	10.81	10.81	10.88	10.50	10.63	13.38	14.25	14.13	15.75	17.13	17.13	18.75	10.56	10.56	10.05	10.05	9.69	9.69	9.69	9.69	9.69	9.69	9.69
12	14.75	14.50	13.38	13.38	12.88	12.88	12.75	12.75	12.50	16.13	16.63	16.50	18.00	19.63	20.50	21.63	12.50	12.50	12.10	12.10	11.50	11.50	11.50	11.50	11.50	11.50	11.50
14	16.00	15.75	14.63	14.63	14.25	14.25	14.00	14.25		17.75	19.13	19.00	19.38	20.50	22.75		13.75	13.75	13.50	13.50	12.63	12.63					
16	18.25	18.00	16.63	16.63	16.25	16.25	16.25	16.00		20.25	21.25	21.13	22.25	22.63	25.25		15.75	15.75	15.35	15.35	14.75	14.50					
18	20.75	20.50	18.69	18.69	18.50	18.50	18.25	18.25		21.63	23.50	23.38	24.13	25.13	27.75		17.69	17.69	17.25	17.25	16.75	16.75					
20	22.75	22.50	20.69	20.69	20.50	20.50	20.50	20.25		23.88	25.75	25.50	26.88	27.50	29.75		19.69	19.69	19.25	19.25	19.00	18.75					
24	27.00	26.75	24.75	24.75	24.75	24.75	24.75	24.25		28.25	30.50	30.25	31.13	33.00	35.50		23.75	23.75	23.25	23.25	23.25	22.75					

General notes..
Dimensions are in millimeters unless otherwise indicated.
Image shows a Spiral Wound gasket with Inner - and Outer ring.
d1 = Inside diameter when Inner ring is used.
d2 = Inside diameter sealing element when no Inner ring is used.
d3 = Outside diameter of sealing element.
d4 = Outside diameter of Outer ring.

Thickness of inner and outer ring.. 2.97 mm - 3.33 mm.

Thickness sealing element.. 4.45 mm.

Tolerance Outside diameter for NPS 1/2 through NPS 8 is ± 0.8 mm; for NPS 10 through NPS 24 tolerance is + 1.5 mm - 0.8 mm.

ASME B16.20 does not covers class 400 flanges up to NPS 3 and class 900 flanges up to NPS 2.1/2.

There are no class 400 flanges NPS 1/2 thru NPS 3 (use Class 600), class 900 flanges NPS 1/2 thru NPS 2.1/2 (use Class 1500), or Class 2500 flanges NPS 14 or larger.

The inner ring inside diameters shown for NPS 1.1/4 thru 2.1/2 in class 1500 and 2500 will produce inner ring widths of 0.12 inches, a practical minimum for production purposes.

ASME B16.20 which covers spiral wound gaskets requires the use of solid metal inner rings in.. Pressure Class 900, nominal pipe sizes 24 and larger, Pressure Class 1500 from nominal pipe sizes 12 and larger, Pressure Class 2500 from nominal pipe sizes 4 and larger and all PTFE filled gaskets.

GASKET COMPRESSION & CHOICE OF THICKNESS

<i>Nom. Thickness</i>	<i>Compressed Thickness</i>
2.5mm	1.9/2.1mm
3.2mm	2.4/2.6mm
4.5mm	3.2/3.45mm
6.4mm	4.6/4.8mm
7.3mm	4.7/4.9mm

SELECTION OF GASKET THICKNESS

<i>Nom. Thickness</i>	<i>Flange Dimensions</i>
7.2 and 6.4mm	Nominal Pipe Diameters From 1001 - 3000mm Machine Flange From 801 - 3000mm Nominal Pipe Diameters Up To 1000mm Machine Flange Up 800mm Valve Bonnets
4.5	Nominal Pipe Diameters Up To 100mm
3.2	
2.5	

TEMP.DEG. C

SPCC (CS)	-40 ~ 500
SUS 304 (S304)	-250 ~ 550
SUS 316 (S316)	-100 ~ 550
SUS 316L (S316L)	-100 ~ 550
SUS 316Ti (S316Ti)	-100 ~ 550
SUS 321 (S321)	-250 ~ 550
SUS 347 (S347)	-250 ~ 550
MONEL 400(M400)	-125 ~ 600
MONEL 600(M600)	-100 ~ 950
MONEL 800(M800)	-100 ~ 850
MONEL 825(M825)	-100 ~ 450
INCONEL 600(IN600)	-100 ~ 950
INCONEL 800(IN800)	-100 ~ 850
INCONEL 825(IN825)	-100 ~ 450
DUPLEX (DX)	-300 ~ 400
TITANIUM (TI)	-250 ~ 350
COPPER (CU)	250 ~ 400
HASTELLOY C276(HSC276)	-250 ~ 350

FLANGE STANDARDS

flexitack spiral wound gaskets can be manufactured in accordance with all relevant gasket standards to suit the following flange designations :

ANSI B16.5 / API 601/ ASME 16.20

BS 1560 / BS3381

BS 10

API 605 (ASME B16.47 SERIES B)

MSS SP 44 (ASME B16.47 SERIES A)

BS 4504

DIN FLANGES

JIS FLANGES

FRENCH NF STANDARD

PIPING STANDARDS

Size : 1/2" to 1" Sch 80 - 900#

Size : 1-1/4" to 6" Sch 40 - 900#

Size : 4" to 6" Sch 80 - 1500#

Size : 8" to 24" Sch 10S - 300#

Size : 8" to 24" Sch 30 - 600#

Size : 8" to 24" Sch 80 - 1500#

N.B. Gaskets for non-standard flanges are also readily available.

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