



FLOW ENGINEERING AND SERVICE CO.,LTD.

บริษัท โฟลว์ เอ็นจิเนียริ่ง แอนด์ เซอร์วิส จำกัด

Flexitallic

SPIRAL WOUND GASKET



FLEXITALLIC GROUP: ผู้นำตลาดระดับโลก
ด้านผลิตภัณฑ์ ปะเก็นเหล็กสำหรับ
อุตสาหกรรมคุณภาพสูง



ความยืดหยุ่นและการคืนตัวสูง

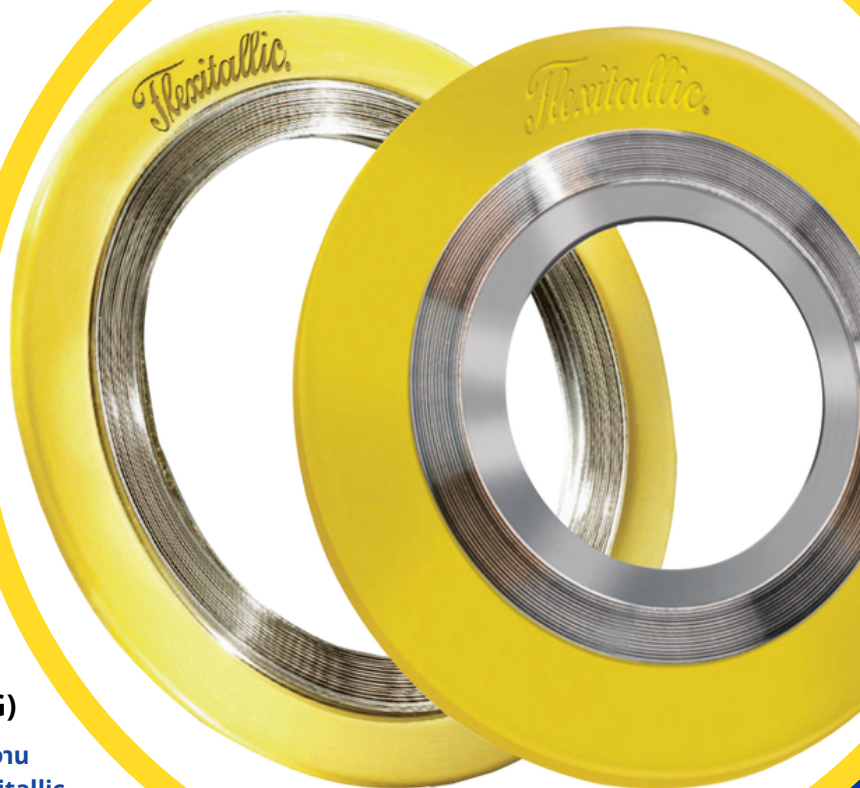


ทนทานต่ออุณหภูมิ ความดัน และสารเคมี



วัสดุที่หลากหลาย

เช่น STAINLESS STEEL (304, 316L, 304L, 310, 316Ti, 317L, 321, 347, 430, 17-7PH),
ALLOY 20, MONEL®, TITANIUM®, NICKEL® 200,
INCONEL® (600, 625, X-750), HASTELLOY® (B2, C276), INCOLOY® (800, 825), DUPLEX,
ZIRCONIUM®, TANTALUM®



ปะเก็นเหล็ก (SPIRAL WOUND GASKETS หรือ SWG)

คือโซลูชันการซีลที่สำคัญซึ่งคิดค้นโดย Flexitallic เพื่อตอบสนองงาน
อุตสาหกรรมต่างๆ ในการซีลที่มีความปลอดภัยและมีประสิทธิภาพ Flexitallic
เป็นผู้คิดค้นปะเก็นเหล็ก (SWG) ขึ้นในปี 1912 โดยมีวัตถุประสงค์หลักเพื่อใช้
งานกับอุณหภูมิและความดันที่รุนแรงขึ้นเรื่อยๆ ซึ่งผลิตและใช้งานโดย โรง
กลั่นในสหรัฐอเมริกาในช่วงครึ่งแรกของศตวรรษที่ 20

CONTACT US ➤



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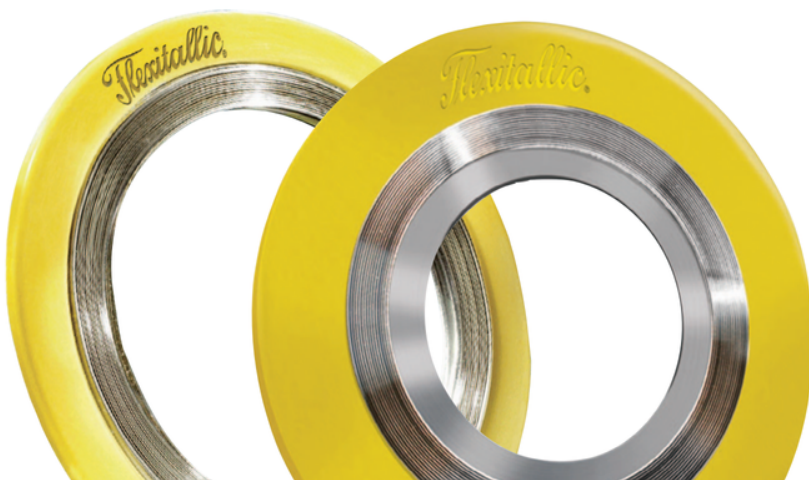
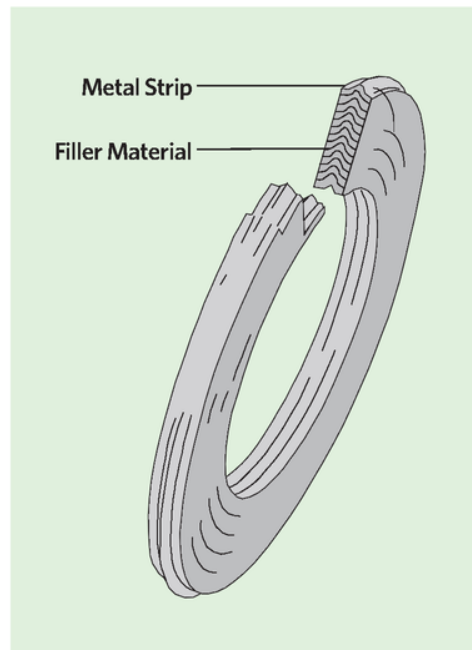
SPIRAL WOUND GASKETS

DRIVEN BY THE INDUSTRY'S NEED FOR SAFE, EFFECTIVE SEALING SOLUTIONS FOR INCREASINGLY DEMANDING APPLICATIONS, FLEXITALLIC INVENTED THE SPIRAL WOUND GASKET IN 1912.

FIRST AND FOREMOST

The concept of spiral wound gasket construction was originated by Flexitallic in 1912, starting a new era in safe, effective sealing. The primary purpose for this development was the increasingly severe temperatures and pressures used by U.S. refinery operators in the first half of the 20th century.

The necessity for a gasket to have the ability to recover cannot be over emphasised. The effects of pressure and temperature fluctuations, the temperature differential across the flange face, together with bolt stress relaxation and creep, demand a gasket with adequate flexibility and recovery to maintain a seal even under these varying service conditions. The Flexitallic Spiral Wound Gasket is the precision engineered solution to such problems, meeting the most exacting conditions of both temperature and pressure in flanged joints and similar assemblies and against virtually every known corrosive and toxic media.



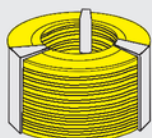
GASKET IDENTIFICATION

Gaskets are colour coded to help expedite the selection and identity of the gaskets you need.

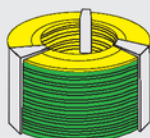
The colour on the outside edge of the centering ring identifies both the winding and filler materials. The metallic winding material is designated by a solid colour. The filler materials are designated by colour stripes at equal intervals on the outside edge of the centering ring. Flexitallic colour coding meets the industry standard for metal and filler materials listed in ASME B16.20.

Metallic Winding Materials

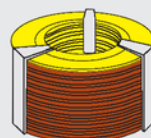
The metallic winding material is designated by a solid colour identification around the outside edge of the centering ring.



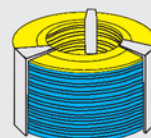
304SS
Yellow



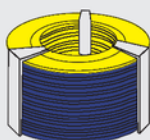
316LSS
Green



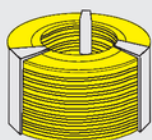
317L
Maroon



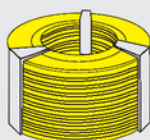
321SS
Turquoise



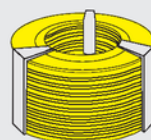
347SS
Blue



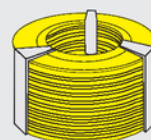
310SS
No colour



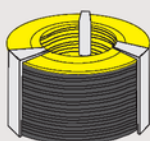
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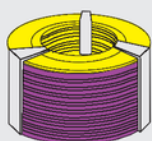
309SS
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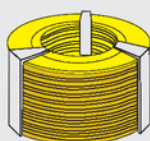
430SS
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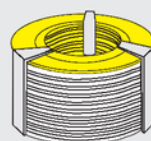
Alloy 20
Black



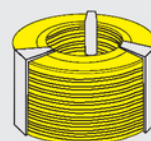
Titanium®
Purple



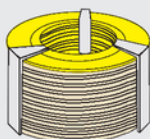
Inconel® 600/625
Gold



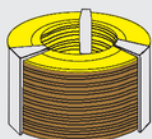
Incoloy® 800/825
White



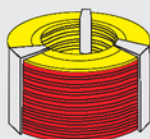
Inconel® X750
No Colour



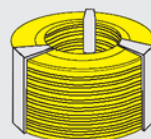
Hastelloy® C276
Beige



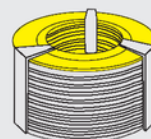
Hastelloy® B2
Brown



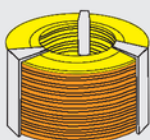
Nickel 200
Red



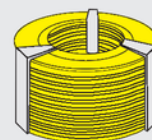
Zirconium
No colour



Carbon Steel
Silver



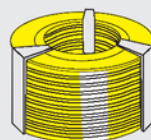
Monel®
Orange



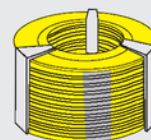
Duplex
No colour

Non Metallic Fillers

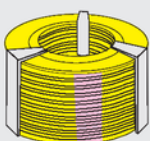
The gasket filler materials are designated by a number of stripes placed at equal intervals around the outside edge of the centering ring.



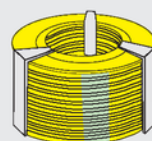
PTFE
White Stripe



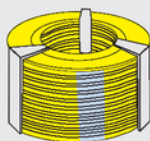
Flexicarb®
Gray Stripe



Flexite Super®
Pink Stripe



Ceramic
Light Green Stripe



Thermiculite® 835
Light Blue Stripe



GASKET MATERIALS

METAL WINDING STRIP AS STANDARD		FILLER MATERIAL	GUIDE RING MATERIAL AS STANDARD	
Stainless Steel	304	Flexicarb® flexible graphite	Carbon Steel	
	316L	Thermiculite® 835		
OTHERS		Flexite Super®	OTHERS	
Stainless Steel	304L	PTFE	Stainless Steel	304
	310	Ceramic		304L
	316Ti	Non-sintered PTFE		316
	317L			316L
	321			316Ti
	347			310
	430			321
	17-7PH			347
Alloy 20		Thermiculite®, FLEXITALLIC'S proprietary high-temperature, sealing material is comprised of chemically exfoliated and thermally exfoliated vermiculite.		410
Monel®		This revolutionary patented product simulates the structure of exfoliated graphite but with one notable exception... gaskets made with Thermiculite® maintain their integrity, even at extreme temperatures.	Inconel®	600
Titanium®				625
Nickel® 200			Monel®	
Inconel®	600		Titanium®	
	625		Nickel®	
	X-750		Incoloy®	800
Hastelloy®	B2	Thermiculite® is thermally stable, ensuring against thermal oxidation, at temperatures in excess of 1000°C (Thermiculite® 835).		825
	C276		Alloy 20	
Incoloy®	800		Hastelloy®	B2
	825			C276
Duplex				
Zirconium®				
Tantalum®				

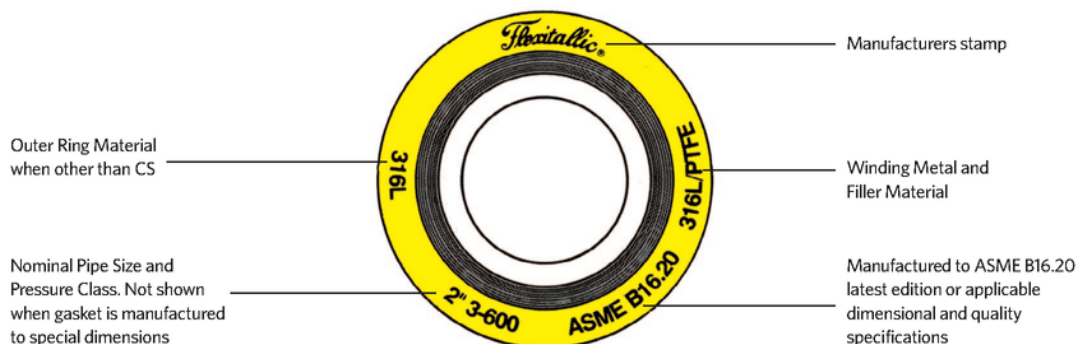
NOTES

Figures stated are for information only. Please refer to the current version of the original standards for dimensional information.

Selected materials should be compatible with operating temperature and chemicals. If in doubt, contact Flexitallic Technical Department.

We recommend a max continuous operating temperature of 260°C, above this decomposition starts to occur slowly, increasing rapidly above 400°C (750°C)

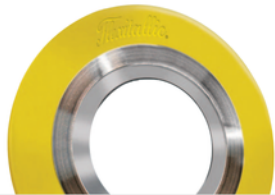
IDENTIFICATION REQUIREMENTS



GASKET SELECTION



Style CG – Is comprised of a sealing element and outer metal ring. The outer ring assists in locating the gasket on the mating flange faces and prevents over compression of the sealing element ensuring optimum sealing performance. Style CG gaskets are suitable for use on raised and flat faced flanged connections. Style CG gaskets are suitable for use in mild to moderate service conditions.



Style CGI – In addition to an outer metal ring the CGI style gasket is fitted with an inner metal ring, constraining the sealing element on both internal and external diameters. The inner ring functions as an additional compression stop and prevents inner buckling of the sealing element. It also creates a physical barrier between the sealing element and process stream shielding from heat and media while preventing erosion. Style CGI gaskets are suitable for use on raised and flat faced flanged connections and moderate to severe service conditions.



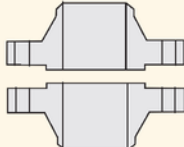
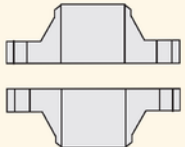
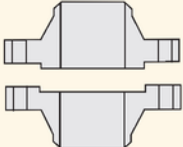
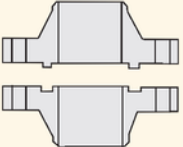
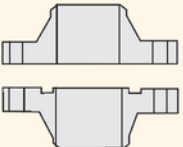
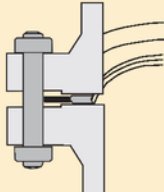
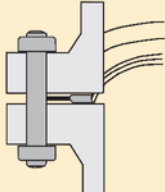
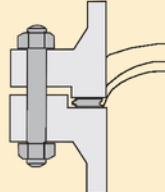
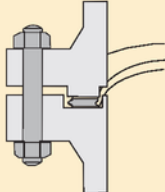
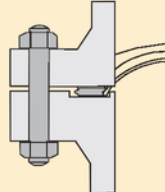
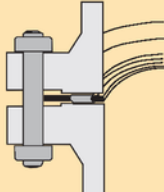
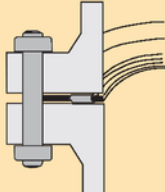
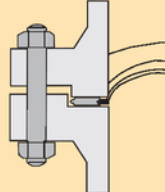
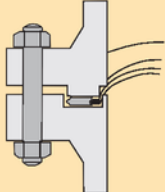
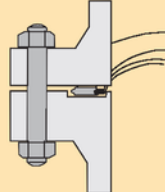
Style R – Is comprised of a sealing element, additional plies of metal are used at the start and termination of the winding process improving stability and sealing performance. Unlike other styles of spiral wound gasket compression of the sealing element is controlled by the use of the correct flange face configuration, style R gaskets are suitable for use on tongue and groove, male and female and flat to groove flanged connections.



Style RIR – Is comprised of a sealing element and inner metal ring. The inner ring functions as both a compression stop and creates a physical barrier between the sealing element and media stream. The inner ring is also designed to reduce turbulent flow, minimising flange erosion and prevents the build up debris in the annular space between the pipe bore and internal diameter of the gasket. Style RIR gaskets are suitable for use on male and female (spigot and recess) flanged connections.

Published as an indication of which Flexitallic spiral wound gasket best suits different pipe flange configurations and service conditions.

SELECTION GUIDE

Flange Face					
	Raised Face	Flat Face	Male and Female	Tongue and Groove	Flat Face to Recess
Recommended Gasket Style For general duties					
	Style CG	Style CG	Style R	Style R	Style R
Recommended Gasket Style For high pressure/ temperature duty, also for gaskets with PTFE filler, corrosive or fluctuating pressure or temperature service conditions.					
	Style CGI	Style CGI	Style RIR	Style RIR	Style RIR

NOTES: Where style R gaskets are fitted it is essential that the flange is correctly dimensioned to provide a compression stop, as over compression can result in failure.



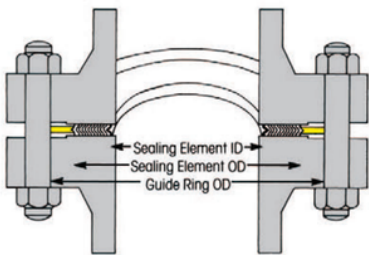
STYLE CG & CGI GASKETS

TO SUIT STANDARD RAISED FACE
AND FLAT FACE FLANGES.

All CG and CGI Gaskets for these standard flanges are 0.175 in (4.5mm) thick, fitted with 0.125 in 3.2mm) thick solid metal rings, unless otherwise stated.

SPECIAL GASKETS

Gaskets of special design can be engineered and fabricated using the same basic fundamentals of Flexitallic Spiral Wound Gasket design and construction to cover a wide range of applications in installations for which there are no industry-wide standards. Special gaskets have been designed for valves, pumps, compressors, turbines, boilers, heat exchangers, etc. Consult with Flexitallic engineers as early in the design stage as possible.

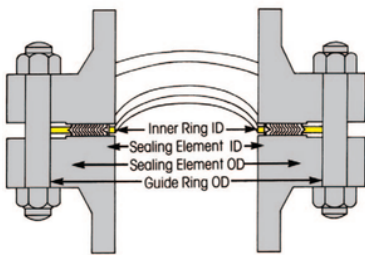


Flexitallic style CG and CGI Spiral Wound Gaskets can be manufactured in accordance with all relevant gasket standards to suit the following flange designations.

Please note that gaskets for non-standard flanges are also readily available.

Low Emission style Gaskets are available, which conform to major oil refinery requirements in accordance with CFET March 2013 revision. Please speak to the Applications Engineering Department for further information.

Note: When using PTFE filler material, Spiral Wound Gaskets shall be fitted with an inner metal ring (i.e. style CGI).



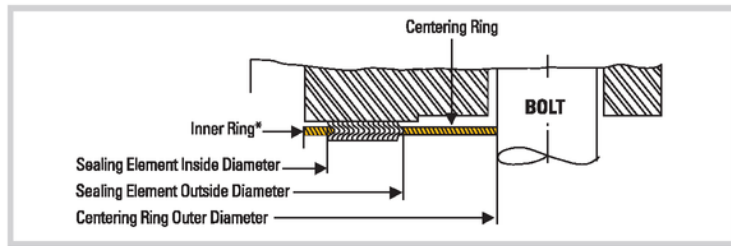
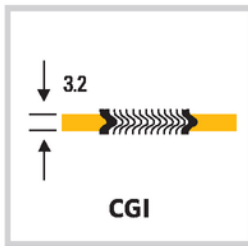
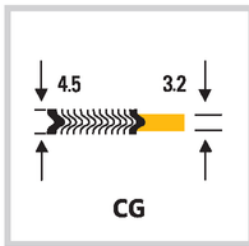
- ASME B16.5
- ASME B16.47 Series A (MSS SP 44)
- ASME B16.47 Series B (API 605)
- BS 10
- BS 1560
- BS 4504
- BS EN 1092
- BS EN 1759
- DIN Flanges
- JIS Flanges

WHEN ORDERING PLEASE SPECIFY	EXAMPLE
Gasket style	Flexitallic Style "CGI" Spiral Wound Gasket
Nominal pipe size (NPS)	4"
Pressure rating	Class 900
Gasket standard	ASME B16.20
Winding materials	316L/Flexicarb (FG)
Outer ring material	Carbon Steel
Inner ring material	316L

DIMENSIONAL DATA

SPIRAL WOUND GASKETS

Dimensions to ASME B16.20
to suit ASME B16.5 Flanges



NOMINAL BORE	INNER RING ID							SEALING ELEMENT ID (1) (2)							SEALING ELEMENT OD							CENTERING RING OD (3)						
mm	#150	#300	#400 (5)	#600	#900 (5)	#1500	#2500 (5)	#150	#300	#400 (4)	#600	#900 (4)	#1500	#2500 (4)	#150	#300	#400	#600	#900	#1500	#2500	#150	#300	#400 (4)	#600	#900 (4)	#1500	#2500 (4)
15	14.2	14.2	-	14.2	-	14.2	14.2	19.1	19.1	-	19.1	-	19.1	19.1	31.8	31.8	31.8	31.8	31.8	31.8	31.8	47.8	54.1	-	54.1	-	63.5	69.9
20	20.6	20.6	-	20.6	-	20.6	20.6	25.4	25.4	-	25.4	-	25.4	25.4	39.6	39.6	39.6	39.6	39.6	39.6	39.6	57.2	66.8	-	66.8	-	69.9	76.2
25	26.9	26.9	-	26.9	-	26.9	26.9	31.8	31.8	-	31.8	-	31.8	31.8	47.8	47.8	47.8	47.8	47.8	47.8	47.8	66.8	73.2	-	73.2	-	79.5	85.9
32	38.1	38.1	-	38.1	-	33.3	33.3	47.8	47.8	-	47.8	-	39.6	39.6	60.5	60.5	60.5	60.5	60.5	60.5	60.5	76.2	82.6	-	82.6	-	88.9	104.9
40	44.5	44.5	-	44.5	-	41.4	41.4	54.1	54.1	-	54.1	-	47.8	47.8	69.9	69.9	69.9	69.9	69.9	69.9	69.9	85.9	95.3	-	95.3	-	98.6	117.6
50	55.6	55.6	-	55.6	-	52.3	52.3	69.9	69.9	-	69.9	-	58.7	58.7	85.9	85.9	85.9	85.9	85.9	85.9	85.9	104.9	111.3	-	111.3	-	143.0	146.1
65	66.5	66.5	-	66.5	-	63.5	63.5	82.6	82.6	-	82.6	-	69.9	69.9	98.6	98.6	98.6	98.6	98.6	98.6	98.6	124.0	130.3	-	130.3	-	165.1	168.4
80	81.0	81.0	-	81.0	78.7	78.7	78.7	101.6	101.6	-	101.6	95.3	92.2	92.2	120.7	120.7	120.7	120.7	120.7	120.7	120.7	136.7	149.4	-	149.4	168.4	174.8	196.9
100	106.4	106.4	102.6	102.6	102.6	97.8	97.8	127.0	127.0	120.7	120.7	120.7	117.6	117.6	149.4	149.4	149.4	149.4	149.4	149.4	149.4	174.8	181.1	177.8	193.8	206.5	209.6	235.0
125	131.8	131.8	128.3	128.3	128.3	124.5	124.5	155.7	155.7	147.6	147.6	147.6	143.0	143.0	177.8	177.8	177.8	177.8	177.8	177.8	177.8	196.9	215.9	212.9	241.3	247.7	254.0	279.4
150	157.2	157.2	154.9	154.9	154.9	147.3	147.3	182.6	182.6	174.8	174.8	174.8	171.5	171.5	209.6	209.6	209.6	209.6	209.6	209.6	209.6	222.3	251.0	247.7	266.7	289.1	282.7	317.5
200	215.9	215.9	205.7	205.7	196.9	196.9	196.9	233.4	233.4	225.6	225.6	222.3	215.9	215.9	263.7	263.7	263.7	263.7	257.3	257.3	257.3	279.4	308.1	304.8	320.8	358.9	352.6	387.4
250	268.2	268.2	255.3	255.3	246.1	246.1	246.1	287.3	287.3	274.6	274.6	276.4	266.7	270.0	317.5	317.5	317.5	317.5	311.2	311.2	311.2	339.9	362.0	358.9	400.1	435.1	435.1	476.3
300	317.5	317.5	307.3	307.3	292.1	292.1	292.1	339.9	339.9	327.2	327.2	323.9	323.9	317.5	374.7	374.7	374.7	374.7	368.3	368.3	368.3	409.7	422.4	419.1	457.2	498.6	520.7	549.4
350	349.3	349.3	342.9	342.9	320.8	320.8	-	371.6	371.6	362.0	362.0	355.6	362.0	-	406.4	406.4	406.4	406.4	400.1	400.1	-	450.9	485.9	482.6	492.3	520.7	577.9	-
400	400.1	400.1	389.9	389.9	374.7	368.3	-	422.4	422.4	412.8	412.8	412.8	406.4	-	463.6	463.6	463.6	463.6	457.2	457.2	-	514.4	539.8	536.7	565.2	574.8	641.4	-
450	449.3	449.3	438.2	438.2	425.5	425.5	-	474.7	474.7	469.9	469.9	463.6	463.6	-	527.1	527.1	527.1	527.1	520.7	520.7	-	549.4	596.9	593.9	612.9	638.3	704.9	-
500	500.1	500.1	489.0	489.0	482.6	476.3	-	525.5	525.5	520.7	520.7	520.7	514.4	-	577.9	577.9	577.9	577.9	571.5	571.5	-	606.6	654.1	647.7	682.8	698.5	755.7	-
600	603.3	603.3	590.6	590.6	590.6	577.9	-	628.7	628.7	628.7	628.7	628.7	616.0	-	685.8	685.8	685.8	685.8	679.5	679.5	-	717.6	774.7	768.4	790.7	838.2	901.7	-

GENERAL NOTES

All dimensions are in mm.

Figures stated are for information only. Please refer to the current version of the original standards for dimensional information.

The gasket thickness tolerance is ± 0.13 mm measured across the metallic portion of the gasket, not including the filler, which may protrude slightly beyond the metal.

The inner-ring thickness shall be 2.97mm to 3.33mm.

For sizes NPS 1/2 through NPS 3, the inside diameter tolerance is ± 0.8 mm; for larger sizes the inside diameter tolerance is ± 1.5 mm.

NOTES

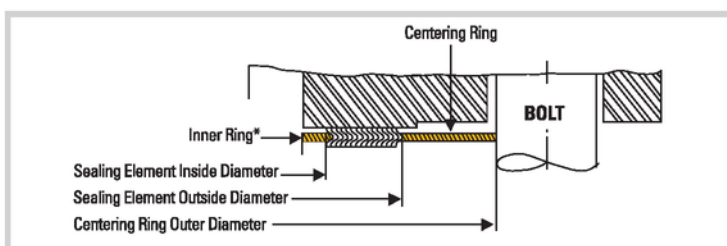
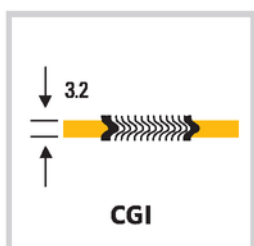
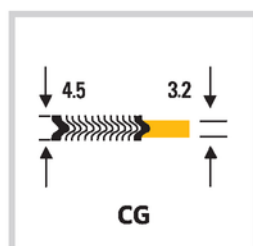
- The gasket outside diameter tolerance for NPS 1/2 through to NPS 8 is ± 0.8 mm; for NPS 10 through NPS 24 ± 1.5 mm -0.8 mm
- The gasket inside diameter tolerance for NPS 1/2 through to NPS 8 is ± 0.4 mm; for NPS 10 through NPS 24 ± 0.8 mm
- The centering ring outside diameter tolerance is ± 0.8 mm
- There are no Class 400 flanges in NPS 1/2 through NPS 3 (use Class 600), Class 900 flanges in NPS 1/2 through NPS 2 1/2 (use Class 1500), or Class 2500 flanges NPS 14 and larger
- There are no NPS 1/2 through NPS 3 Class 400 flanges (use Class 600), NPS 1/2 through NPS 2 1/2 Class 900 flanges (use Class 1500), or NPS 14 and larger Class 2500 flanges



DIMENSIONAL DATA

SPIRAL WOUND GASKETS

Dimensions to ASME B16.20
to suit ASME B16.5 Flanges



NOMINAL BORE	INNER RING ID							SEALING ELEMENT ID (1) (2)							SEALING ELEMENT OD							CENTERING RING OD (3)						
Inches	#150	#300	#400 (5)	#600	#900 (5)	#1500	#2500 (5)	#150	#300	#400 (4)	#600	#900 (4)	#1500	#2500 (4)	#150	#300	#400	#600	#900	#1500	#2500	#150	#300	#400 (4)	#600	#900 (4)	#1500	#2500 (4)
1/2	0.56	0.56	-	0.56	-	0.56	0.56	0.75	0.75	-	0.75	-	0.75	0.75	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.88	2.13	-	2.13	0.00	2.50	2.75
3/4	0.81	0.81	-	0.81	-	0.81	0.81	1.00	1.00	-	1.00	-	1.00	1.00	1.56	1.56	1.56	1.56	1.56	1.56	1.56	2.25	2.63	-	2.63	0.00	2.75	3.00
1	1.06	1.06	-	1.06	-	1.06	1.06	1.25	1.25	-	1.25	-	1.25	1.25	1.88	1.88	1.88	1.88	1.88	1.88	1.88	2.63	2.88	-	2.88	0.00	3.13	3.38
1 1/4	1.50	1.50	-	1.50	-	1.31	1.31	1.88	1.88	-	1.88	-	1.56	1.56	2.38	2.38	2.38	2.38	2.38	2.38	2.38	3.00	3.25	-	3.25	0.00	3.50	4.13
1 1/2	1.75	1.75	-	1.75	-	1.63	1.63	2.13	2.13	-	2.13	-	1.88	1.88	2.75	2.75	2.75	2.75	2.75	2.75	2.75	3.38	3.75	-	3.75	0.00	3.88	4.63
2	2.19	2.19	-	2.19	-	2.06	2.06	2.75	2.75	-	2.75	-	2.31	2.31	3.38	3.38	3.38	3.38	3.38	3.38	3.38	4.13	4.38	-	4.38	0.00	5.63	5.75
2 1/4	2.62	2.62	-	2.62	-	2.50	2.50	3.25	3.25	-	3.25	-	2.75	2.75	3.88	3.88	3.88	3.88	3.88	3.88	3.88	4.88	5.13	-	5.13	0.00	6.50	6.63
3	3.19	3.19	-	3.19	3.10	3.10	3.10	4.00	4.00	-	4.00	3.75	3.63	3.63	4.75	4.75	4.75	4.75	4.75	4.75	4.75	5.38	5.88	-	5.88	6.63	6.88	7.75
4	4.19	4.19	4.04	4.04	4.04	3.85	3.85	5.00	5.00	4.75	4.75	4.75	4.63	4.63	5.88	5.88	5.88	5.88	5.88	5.88	5.88	6.88	7.13	7.00	7.63	8.13	8.25	9.25
5	5.19	5.19	5.05	5.05	5.05	4.90	4.90	6.13	6.13	5.81	5.81	5.81	5.63	5.63	7.00	7.00	7.00	7.00	7.00	7.00	7.00	7.75	8.50	8.38	9.50	9.75	10.00	11.00
6	6.19	6.19	6.10	6.10	6.10	5.80	5.80	7.19	7.19	6.88	6.88	6.88	6.75	6.75	8.25	8.25	8.25	8.25	8.25	8.25	8.25	8.75	9.88	9.75	10.50	11.38	11.13	12.50
8	8.50	8.50	8.10	8.10	7.75	7.75	7.75	9.19	9.19	8.88	8.88	8.75	8.50	8.50	10.38	10.38	10.38	10.38	10.13	10.13	10.13	11.00	12.13	12.00	12.63	14.13	13.88	15.25
10	10.56	10.56	10.05	10.05	9.69	9.69	9.69	11.31	11.31	10.81	10.81	10.88	10.50	10.63	12.50	12.50	12.50	12.50	12.25	12.25	12.25	13.38	14.25	14.13	15.75	17.13	17.13	18.75
12	12.50	12.50	12.10	12.10	11.50	11.50	11.50	13.38	13.38	12.88	12.88	12.75	12.75	12.50	14.75	14.75	14.75	14.75	14.50	14.50	14.50	16.13	16.63	16.50	18.00	19.63	20.50	21.63
14	13.75	13.75	13.50	13.50	12.63	12.63	-	14.63	14.63	14.25	14.25	14.00	14.25	-	16.00	16.00	16.00	16.00	15.75	15.75	-	17.75	19.13	19.00	19.38	20.50	22.75	-
16	15.75	15.75	15.35	15.35	14.75	14.50	-	16.63	16.63	16.25	16.25	16.25	16.00	-	18.25	18.25	18.25	18.25	18.00	18.00	-	20.25	21.25	21.13	22.25	22.63	25.25	-
18	17.69	17.69	17.25	17.25	16.75	16.75	-	18.69	18.69	18.50	18.50	18.25	18.25	-	20.75	20.75	20.75	20.75	20.50	20.50	-	21.63	23.50	23.38	24.13	25.13	27.75	-
20	19.69	19.69	19.25	19.25	19.00	18.75	-	20.69	20.69	20.50	20.50	20.50	20.25	-	22.75	22.75	22.75	22.75	22.50	22.50	-	23.88	25.75	25.50	26.88	27.50	29.75	-
24	23.75	23.75	23.25	23.25	22.75	-	-	24.75	24.75	24.75	24.75	24.75	24.25	-	27.00	27.00	27.00	27.00	26.75	26.75	-	28.25	30.50	30.25	31.13	33.00	35.50	-

GENERAL NOTES

All dimensions are in inches.

Figures stated are for information only. Please refer to the current version of the original standards for dimensional information.

The gasket thickness tolerance is ± 0.13 mm measured across the metallic portion of the gasket, not including the filler, which may protrude slightly beyond the metal.

The inner-ring thickness shall be 0.117 in to 0.131 in

For sizes NPS 1/2 through NPS 3, the inside diameter tolerance is ± 0.03 in; for larger sizes the inside diameter tolerance is ± 0.06 in.

NOTES

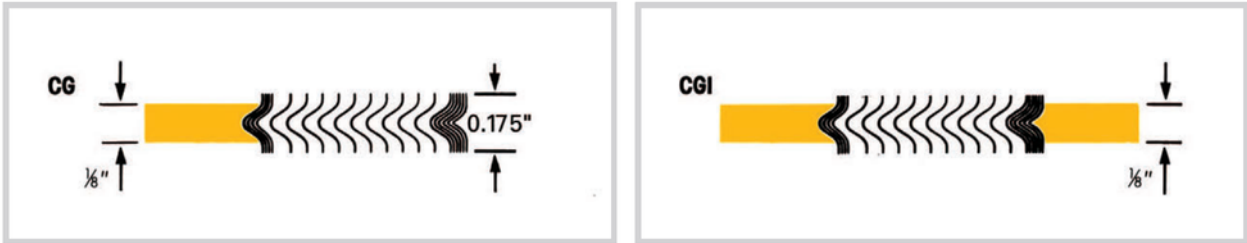
- The gasket outside diameter tolerance for NPS 1/2 through to NPS 8 is ± 0.03 in for NPS 10 through NPS 24 ± 0.06 in - 0.03 in
- The gasket inside diameter tolerance for NPS 1/2 through to NPS 8 is ± 0.016 in; for NPS 10 through NPS 24 ± 0.03 in.
- The centering ring outside diameter tolerance is ± 0.03 in
- There are no Class 400 flanges in NPS 1/2 through NPS 3 (use Class 600), Class 900 flanges in NPS 1/2 through NPS 2 1/2 (use Class 1500), or Class 2500 flanges NPS 14 and larger
- There are no NPS 1/2 through NPS 3 Class 400 flanges (use Class 600), NPS 1/2 through NPS 2 1/2 Class 900 flanges (use Class 1500), or NPS 14 and larger Class 2500 flanges



DIMENSIONAL DATA

STYLE CG & CGI GASKETS

Dimensions to ASME B16.20 & BS1560
Small Daimeter Screwed or Slip-on Flanges



NOMINAL PIPE SIZE	INNER RING INSIDE DIAMETER		SEALING ELEMENT				GUIDE RING OUTSIDE DIAMETER											
			INSIDE DIA.		OUTSIDE DIA.		CLASS 150		CLASS 300		CLASS 400		CLASS 600		CLASS 900		CLASS 1500	
	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM
¼	-	-	0.56	14.3	0.88	22.2	1.75	44.5	1.75	44.5	1.75	44.5	1.75	44.5	-	-	-	-
½	0.56	14.3	0.94	23.8	1.25	31.8	1.88	47.6	2.13	54.0	2.13	54.0	2.13	54.0	2.50	63.5	2.50	63.5
¾	0.81	20.6	1.19	30.2	1.56	39.7	2.25	57.2	2.63	66.7	2.63	66.7	2.63	66.7	2.75	69.9	2.75	69.9
1	1.06	27.0	1.44	36.5	1.88	47.6	2.63	66.7	2.88	73.0	2.88	73.0	2.88	73.0	3.13	79.4	3.13	79.4
1¼	1.38	34.9	1.88	47.6	2.38	60.3	3.00	76.2	3.25	82.6	3.25	82.6	3.25	82.6	3.50	88.9	3.50	88.9
1½	1.63	41.3	2.13	54.0	2.75	69.9	3.38	85.7	3.75	95.3	3.75	95.3	3.75	95.3	3.88	98.4	3.88	98.4

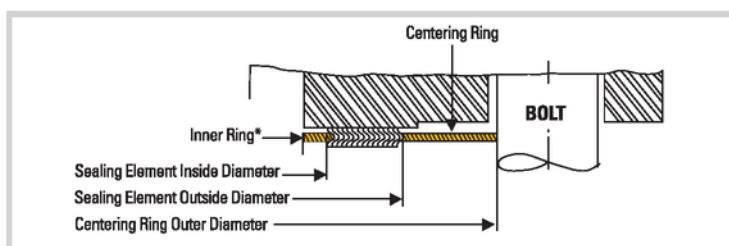
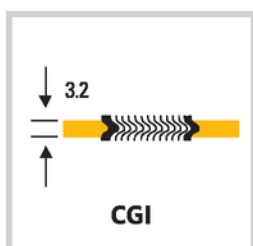
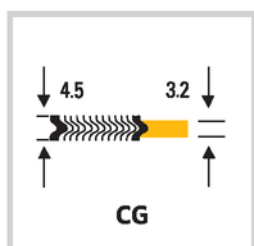
GENERAL NOTES
All dimensions are in mm and inches.

NOTES
The above style CG & CGI Spiral Wound Gaskets are dimensioned to suit existing screwed or slip-on flanges for NPS ¼ to 1½ ASME B16.5 & BS 1560 flanges.

DIMENSIONAL DATA

SPIRAL WOUND GASKETS

Style CG & CGI ASME B16.20 Gaskets
to suit ASME B16.47 Flanges Series A



NOMINAL BORE	INNER RING ID					SEALING ELEMENT ID (2) (4)					SEALING ELEMENT OD (1) (4)					CENTERING RING OD (3) (4)				
mm	#150	#300	#400	#600	#900 (4)	#150	#300	#400	#600	#900	#150	#300	#400	#600	#900	#150	#300	#400	#600	#900
650	654.1	654.1	660.4	647.7	660.4	673.1	685.8	685.8	685.8	685.8	704.9	736.6	736.6	736.6	736.6	774.7	835.2	831.9	866.9	882.7
700	704.9	704.9	711.2	698.5	711.2	723.9	736.6	736.6	736.6	736.6	755.7	787.4	787.4	787.4	787.4	831.9	898.7	892.3	914.4	946.2
750	755.7	755.7	755.7	755.7	768.4	774.7	793.8	793.8	793.8	793.8	806.5	844.6	844.6	844.6	844.6	882.7	952.5	946.2	971.6	1009.7
800	806.5	806.5	812.8	812.8	812.8	825.5	850.9	850.9	850.9	850.9	860.6	901.7	901.7	901.7	901.7	939.8	1006.6	1003.3	1022.4	1073.2
850	857.3	857.3	863.6	863.6	863.6	876.3	901.7	901.7	901.7	901.7	911.4	952.5	952.5	952.5	952.5	990.6	1057.4	1054.1	1073.2	1136.7
900	908.1	908.1	917.7	917.7	920.8	927.1	955.8	955.8	955.8	958.9	968.5	1006.6	1006.6	1006.6	1009.7	1047.8	1117.6	1117.6	1130.3	1200.2
950	958.9	952.5	952.5	952.5	1009.7	977.9	977.9	971.6	990.6	1035.1	1019.3	1016.0	1022.4	1041.4	1085.9	1111.3	1054.1	1073.2	1104.9	1200.2
1000	1009.7	1003.3	1000.3	1009.7	1060.5	1028.7	1022.4	1025.7	1047.8	1098.6	1070.1	1070.1	1076.5	1098.6	1149.4	1162.1	1114.6	1127.3	1155.7	1251.0
1050	1060.5	1054.1	1051.1	1066.8	1111.3	1079.5	1073.2	1076.5	1104.9	1149.4	1124.0	1120.9	1127.3	1155.7	1200.2	1219.2	1165.4	1178.1	1219.2	1301.8
1100	1111.3	1104.9	1104.9	1111.3	1155.7	1130.3	1130.3	1130.3	1162.1	1206.5	1178.1	1181.1	1181.1	1212.9	1257.3	1276.4	1219.2	1231.9	1270.0	1368.6
1150	1162.1	1152.7	1168.4	1162.1	1219.2	1181.1	1178.1	1193.8	1212.9	1270.0	1228.9	1228.9	1244.6	1263.7	1320.8	1327.2	1273.3	1289.1	1327.2	1435.1
1200	1212.9	1209.8	1206.5	1219.2	1270.0	1231.9	1235.2	1244.6	1270.0	1320.8	1279.7	1286.0	1295.4	1320.8	1371.6	1384.3	1324.1	1346.2	1390.7	1485.9
1250	1263.7	1244.6	1257.3	1270.0	-	1282.7	1295.4	1295.4	1320.8	-	1333.5	1346.2	1346.2	1371.6	-	1435.1	1378.0	1403.4	1447.8	-
1300	1314.5	1320.8	1308.1	1320.8	-	1333.5	1346.2	1346.2	1371.6	-	1384.3	1397.0	1397.0	1422.4	-	1492.3	1428.8	1454.2	1498.6	-
1350	1358.9	1352.6	1352.6	1378.0	-	1384.3	1403.4	1403.4	1428.8	-	1435.1	1454.2	1454.2	1479.6	-	1549.4	1492.3	1517.7	1555.8	-
1400	1409.7	1403.4	1403.4	1428.8	-	1435.1	1454.2	1454.2	1479.6	-	1485.9	1505.0	1505.0	1530.4	-	1606.6	1543.1	1568.5	1612.9	-
1450	1460.5	1447.8	1454.2	1473.2	-	1485.9	1511.3	1505.0	1536.7	-	1536.7	1562.1	1555.8	1587.5	-	1663.7	1593.9	1619.3	1663.7	-
1500	1511.3	1524.0	1517.7	1530.4	-	1536.7	1562.1	1568.5	1593.9	-	1587.5	1612.9	1619.3	1644.7	-	1714.5	1644.7	1682.8	1733.6	-

GENERAL NOTES

All dimensions are in mm.

Figures stated are for information only. Please refer to the current version of the original standards for dimensional information.

The gasket thickness tolerance is ± 0.13 mm measured across the metallic portion of the gasket, not including the filler, which may protrude slightly beyond the metal.

ASME B16.47 Series A flanges NPS 12 through NPS 24 have the same raised face dimensions as ASME B16.5 flanges.

The inner-ring thickness shall be 2.97 mm to 3.33 mm.

The inside diameter tolerance is ± 3.0 mm.

These inner rings are suitable for use with pipe walls 9.53 mm or thicker.

NOTES

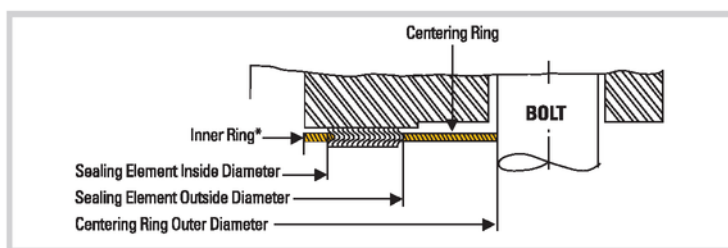
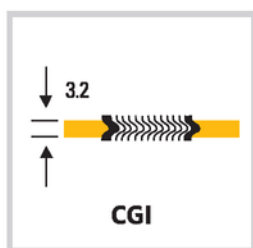
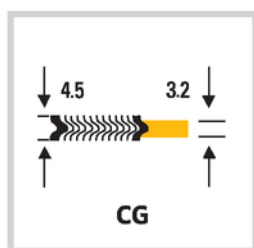
1. The gasket outside diameter tolerance for NPS 26 through NPS 60 is ± 1.5 mm.
2. The gasket inside diameter tolerance for NPS 26 through NPS 34 is ± 0.8 mm; and the tolerance for NPS 36 through NPS 60 is ± 1.5 mm.
3. The centering ring outside diameter tolerance is ± 0.8 mm.
4. There are no Class 900 flanges NPS 50 and larger.



DIMENSIONAL DATA

SPIRAL WOUND GASKETS

Style CG & CGI ASME B16.20 Gaskets
to suit ASME B16.47 Flanges Series A



NOMINAL BORE	INNER RING ID					SEALING ELEMENT ID (2) (4)					SEALING ELEMENT OD (1) (4)					CENTERING RING OD (3) (4)				
Inches	#150	#300	#400	#600	#900 (4)	#150	#300	#400	#600	#900	#150	#300	#400	#600	#900	#150	#300	#400	#600	#900
26	25.75	25.75	26.00	25.50	26.00	26.50	27.00	27.00	27.00	27.00	27.75	29.00	29.00	29.00	29.00	30.50	32.88	32.75	34.13	34.75
28	27.75	27.75	28.00	27.50	28.00	28.50	29.00	29.00	29.00	29.00	29.75	31.00	31.00	31.00	31.00	32.75	35.38	35.13	36.00	37.25
30	29.75	29.75	29.75	29.75	30.25	30.50	31.25	31.25	31.25	31.25	31.75	33.25	33.25	33.25	33.25	34.75	37.50	37.25	38.25	39.75
32	31.75	31.75	32.00	32.00	32.00	32.50	33.50	33.50	33.50	33.50	33.88	35.50	35.50	35.50	35.50	37.00	39.63	39.50	40.25	42.25
34	33.75	33.75	34.00	34.00	34.00	34.50	35.50	35.50	35.50	35.50	35.88	37.50	37.50	37.50	37.50	39.00	41.63	41.50	42.25	44.75
36	35.75	35.75	36.13	36.13	36.25	36.50	37.63	37.63	37.63	37.75	38.13	39.63	39.63	39.63	39.75	41.25	44.00	44.00	44.50	47.25
38	37.75	37.50	37.50	37.50	39.75	38.50	38.50	38.25	39.00	40.75	40.13	40.00	40.25	41.00	42.75	43.75	41.50	42.25	43.50	47.25
40	39.75	39.50	39.38	39.75	41.75	40.50	40.25	40.38	41.25	43.25	42.13	42.13	42.38	43.25	45.25	45.75	43.88	44.38	45.50	49.25
42	41.75	41.50	41.38	42.00	43.75	42.50	42.25	42.38	43.50	45.25	44.25	44.13	44.38	45.50	47.25	48.00	45.88	46.38	48.00	51.25
44	43.75	43.50	43.50	43.75	45.50	44.50	44.50	44.50	45.75	47.50	46.38	46.50	46.50	47.75	49.50	50.25	48.00	48.50	50.00	53.88
46	45.75	45.38	46.00	45.75	48.00	46.50	46.38	47.00	47.75	50.00	48.38	48.38	49.00	49.75	52.00	52.25	50.13	50.75	52.25	56.50
48	47.75	47.63	47.50	48.00	50.00	48.50	48.63	49.00	50.00	52.00	50.38	50.63	51.00	52.00	54.00	54.50	52.13	53.00	54.75	58.50
50	49.75	49.00	49.50	50.00	-	50.50	51.00	51.00	52.00	-	52.50	53.00	53.00	54.00	-	56.50	54.25	55.25	57.00	-
52	51.75	52.00	51.50	52.00	-	52.50	53.00	53.00	54.00	-	54.50	55.00	55.00	56.00	-	58.75	56.25	57.25	59.00	-
54	53.50	53.25	53.25	54.25	-	54.50	55.25	55.25	56.25	-	56.50	57.25	57.25	58.25	-	61.00	58.75	59.75	61.25	-
56	55.50	55.25	55.25	56.25	-	56.50	57.25	57.25	58.25	-	58.50	59.25	59.25	60.25	-	63.25	60.75	61.75	63.50	-
58	57.50	57.00	57.25	58.00	-	58.50	59.50	59.25	60.50	-	60.50	61.50	61.25	62.50	-	65.50	62.75	63.75	65.50	-
60	59.50	60.00	59.75	60.25	-	60.50	61.50	61.75	62.75	-	62.50	63.50	63.75	64.75	-	67.50	64.75	66.25	68.25	-

GENERAL NOTES

All dimensions are in inches.

Figures stated are for information only. Please refer to the current version of the original standards for dimensional information.

The gasket thickness tolerance is ± 0.005 in measured across the metallic portion of the gasket, not including the filler, which may protrude slightly beyond the metal.

ASME B16.47 Series A flanges NPS 12 through NPS 24 have the same raised face dimensions as ASME B16.5 flanges.

NOTES

1. The gasket outside diameter tolerance for NPS 26 through NPS 60 is ± 0.06 in

2. The gasket inside diameter tolerance for NPS 26 through NPS 34 is ± 0.03 in and the tolerance for NPS 36 through NPS 60 is ± 0.05 in

3. The centering ring outside diameter tolerance is ± 0.03 in

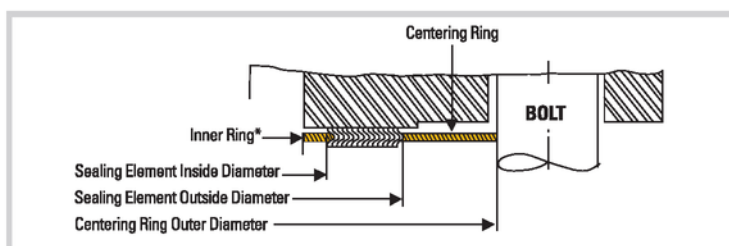
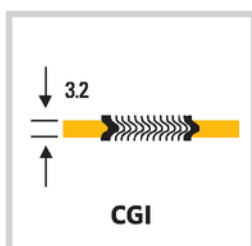
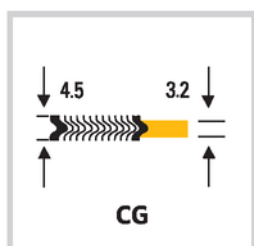
4. There are no Class 900 flanges NPS 50 and larger.



DIMENSIONAL DATA

SPIRAL WOUND GASKETS

Style CG & CGI ASME B16.20 Gaskets
to suit ASME B16.47 Flanges Series B



NOMINAL BORE	INNER RING ID					SEALING ELEMENT ID (2) (4)					SEALING ELEMENT OD (1) (4)					CENTERING RING OD (3) (4)				
mm	#150	#300	#400	#600	#900	#150 (4)	#300	#400	#600	#900	#150	#300	#400	#600	#900	#150	#300	#400	#600	#900
650	654.1	654.1	654.1	644.7	666.8	673.1	673.1	666.8	663.7	692.2	698.5	711.2	698.5	714.5	749.3	725.4	771.7	746.3	765.3	838.2
700	704.9	704.9	701.8	685.8	717.6	723.9	723.9	714.5	704.9	743.0	749.3	762.0	749.3	755.7	800.1	776.2	825.5	800.1	819.2	901.7
750	755.7	755.7	752.6	752.6	781.1	774.7	774.7	765.3	778.0	806.5	800.1	812.8	806.5	828.8	857.3	827.0	886.0	857.3	879.6	958.9
800	806.5	806.5	800.1	793.8	838.2	825.5	825.5	812.8	831.9	863.6	850.9	863.6	860.6	882.7	914.4	881.1	939.8	911.4	933.5	1016.0
850	857.3	857.3	850.9	850.9	895.4	876.3	876.3	866.9	889.0	920.8	908.1	914.4	911.4	939.8	971.6	935.0	993.9	962.2	997.0	1073.2
900	908.1	908.1	898.7	901.7	920.8	927.1	927.1	917.7	939.8	946.2	958.9	965.2	965.2	990.6	997.0	987.6	1047.8	1022.4	1047.8	1124.0
950	958.9	971.6	952.5	952.5	1009.7	974.9	1009.7	971.6	990.6	1035.1	1009.7	1047.8	1022.4	1041.4	1085.9	1044.7	1098.6	1073.2	1104.9	1200.2
1000	1009.7	1022.4	1000.3	1009.7	1060.5	1022.4	1060.5	1025.7	1047.8	1098.6	1063.8	1098.6	1076.5	1098.6	1149.4	1095.5	1149.4	1127.3	1155.7	1251.0
1050	1060.5	1085.9	1051.1	1066.8	1111.3	1079.5	1111.3	1076.5	1104.9	1149.4	1114.6	1149.4	1127.3	1155.7	1200.2	1146.3	1200.2	1178.1	1219.2	1301.8
1100	1111.3	1124.0	1104.9	1111.3	1155.7	1124.0	1162.1	1130.3	1162.1	1206.5	1165.4	1200.2	1181.1	1212.9	1257.3	1197.1	1251.0	1231.9	1270.0	1368.6
1150	1162.1	1178.1	1168.4	1162.1	1219.2	1181.1	1216.2	1193.8	1212.9	1270.0	1224.0	1254.3	1244.6	1263.7	1320.8	1255.8	1317.8	1289.1	1327.2	1435.1
1200	1212.9	1231.9	1206.5	1219.2	1270.0	1231.9	1263.7	1244.6	1270.0	1320.8	1270.0	1311.4	1295.4	1320.8	1371.6	1306.6	1368.6	1346.2	1390.7	1485.9
1250	1263.7	1267.0	1257.3	1270.0	-	1282.7	1317.8	1295.4	1320.8	-	1325.6	1355.9	1346.2	1371.6	-	1357.4	1419.4	1403.4	1447.8	-
1300	1314.5	1317.8	1308.1	1320.8	-	1333.5	1368.6	1346.2	1371.6	-	1376.4	1406.7	1397.0	1422.4	-	1408.2	1470.2	1454.2	1498.6	-
1350	1365.3	1365.3	1352.6	1378.0	-	1384.3	1403.4	1403.4	1428.8	-	1422.4	1454.2	1454.2	1479.6	-	1463.8	1530.4	1517.7	1555.8	-
1400	1422.4	1428.8	1403.4	1428.8	-	1444.8	1479.6	1454.2	1479.6	-	1478.0	1524.0	1505.0	1530.4	-	1514.6	1593.9	1568.5	1612.9	-
1450	1478.0	1484.4	1454.2	1473.2	-	1500.1	1535.2	1505.0	1536.7	-	1528.8	1573.3	1555.8	1587.5	-	1579.6	1655.8	1619.3	1663.7	-
1500	1535.2	1557.3	1517.7	1530.4	-	1557.3	1589.0	1568.5	1593.9	-	1586.0	1630.4	1619.3	1644.7	-	1630.4	1706.6	1682.8	1733.6	-

GENERAL NOTES

All dimensions are in mm.

Figures stated are for information only. Please refer to the current version of the original standards for dimensional information.

The inner-ring thickness shall be 2.97 mm to 3.33 mm.

The inside diameter tolerance is ± 0.30 mm.

These Inner rings are suitable for use with pipe walls 9.53 mm or thicker.

The gasket thickness tolerance is ± 0.13 mm measured across the metallic portion of the gasket, not including the filler, which may protrude slightly beyond the metal.

NOTES

1. The gasket outside diameter tolerance for NPS 26 through NPS 60 is ± 1.5 mm

2. The gasket inside diameter tolerance for NPS 26 through NPS 34 is ± 0.8 mm, and the tolerance for NPS 36 through NPS 60 is ± 1.2 mm.

3. The centering ring outside diameter tolerance is ± 0.8 mm.

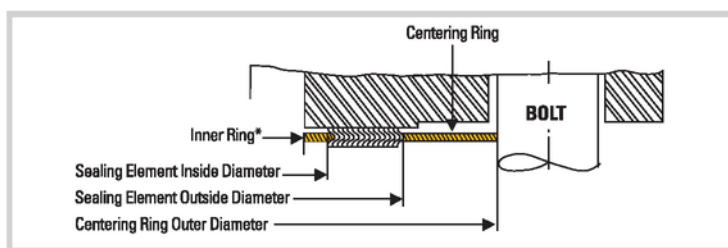
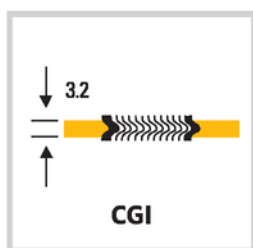
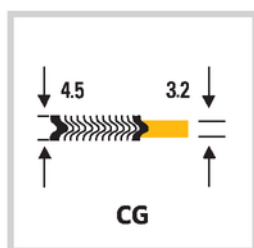
4. There are no Class 900 flanges NPS 50 and larger.



DIMENSIONAL DATA

SPIRAL WOUND GASKETS

Style CG & CGI ASME B16.20 Gaskets
to suit ASME B16.47 Flanges Series B



NOMINAL BORE	INNER RING ID					SEALING ELEMENT ID (2) (4)					SEALING ELEMENT OD (1) (4)					CENTERING RING OD (3) (4)				
Inches	#150	#300	#400	#600	#900	#150 (4)	#300	#400	#600	#900	#150	#300	#400	#600	#900	#150	#300	#400	#600	#900
26	25.75	25.75	25.75	25.38	26.25	26.50	26.50	26.25	26.13	27.25	27.50	28.00	27.50	28.13	29.50	28.56	30.38	29.38	30.13	33.00
28	27.75	27.75	27.63	27.00	28.25	28.50	28.50	28.13	27.75	29.25	29.50	30.00	29.50	29.75	31.50	30.56	32.50	31.50	32.25	35.50
30	29.75	29.75	29.63	29.63	30.75	30.50	30.50	30.13	30.63	31.75	31.50	32.00	31.75	32.63	33.75	32.56	34.88	33.75	34.63	37.75
32	31.75	31.75	31.50	31.25	33.00	32.50	32.50	32.00	32.75	34.00	33.50	34.00	33.88	34.75	36.00	34.69	37.00	35.88	36.75	40.00
34	33.75	33.75	33.50	33.50	35.25	34.50	34.50	34.13	35.00	36.25	35.75	36.00	35.88	37.00	38.25	36.81	39.13	37.88	39.25	42.25
36	35.75	35.75	35.38	35.50	36.25	36.50	36.50	36.13	37.00	37.25	37.75	38.00	38.00	39.00	39.25	38.88	41.25	40.25	41.25	44.25
38	37.75	38.25	37.50	37.50	39.75	38.37	39.75	38.25	39.00	40.75	39.75	41.25	40.25	41.00	42.75	41.13	43.25	42.25	43.50	47.25
40	39.75	40.25	39.38	39.75	41.75	40.25	41.75	40.38	41.25	43.25	41.88	43.25	42.38	43.25	45.25	43.13	45.25	44.38	45.50	49.25
42	41.75	42.75	41.38	42.00	43.75	42.50	43.75	42.38	43.50	45.25	43.88	45.25	44.38	45.50	47.25	45.13	47.25	46.38	48.00	51.25
44	43.75	44.25	43.50	43.75	45.50	44.25	45.75	44.50	45.75	47.50	45.88	47.25	46.50	47.75	49.50	47.13	49.25	48.50	50.00	53.88
46	45.75	46.38	46.00	45.75	48.00	46.50	47.88	47.00	47.75	50.00	48.19	49.38	49.00	49.75	52.00	49.44	51.88	50.75	52.25	56.50
48	47.75	48.50	47.50	48.00	50.00	48.50	49.75	49.00	50.00	52.00	50.00	51.63	51.00	52.00	54.00	51.44	53.88	53.00	54.75	58.50
50	49.75	49.88	49.50	50.00	-	50.50	51.88	51.00	52.00	-	52.19	53.38	53.00	54.00	-	53.44	55.88	55.25	57.00	-
52	51.75	51.88	51.50	52.00	-	52.50	53.88	53.00	54.00	-	54.19	55.38	55.00	56.00	-	55.44	57.88	57.25	59.00	-
54	53.75	53.75	53.25	54.25	-	54.50	55.25	55.25	56.25	-	56.00	57.25	57.25	58.25	-	57.63	60.25	59.75	61.25	-
56	56.00	56.25	55.25	56.25	-	56.88	58.25	57.25	58.25	-	58.18	60.00	59.25	60.25	-	59.63	62.75	61.75	63.50	-
58	58.19	58.44	57.25	58.00	-	59.07	60.44	59.25	60.50	-	60.19	61.94	61.25	62.50	-	62.19	65.19	63.75	65.50	-
60	60.44	61.31	59.75	60.25	-	61.31	62.56	61.75	62.75	-	62.44	64.19	63.75	64.75	-	64.19	67.19	66.25	68.25	-

GENERAL NOTES

All dimensions are in inches.

Figures stated are for information only. Please refer to the current version of the original standards for dimensional information.

The gasket thickness tolerance is ± 0.005 in measured across the metallic portion of the gasket, not including the filler, which may protrude slightly beyond the metal.

NOTES

1. The gasket outside diameter tolerance for NPS 26 through NPS 60 is ± 0.06 in
2. The gasket inside diameter tolerance for NPS 26 through NPS 34 is ± 0.03 in, and the tolerance for NPS 36 through NPS 60 is ± 0.05 in
3. The centering ring outside diameter tolerance is ± 0.03 in
4. There are no Class 900 flanges NPS 50 and larger.

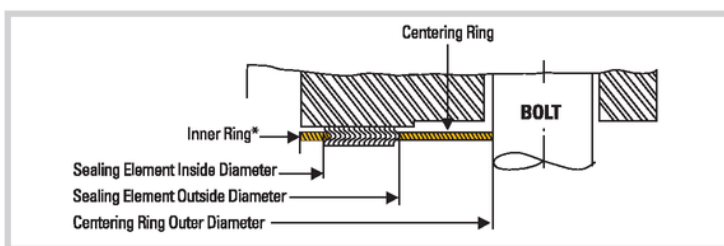
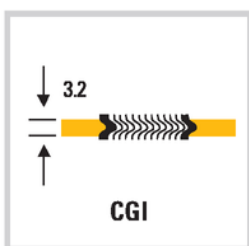
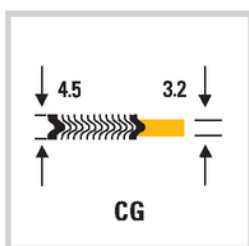


DIMENSIONAL DATA

SPIRAL WOUND GASKETS

Style CG & CGI ASME BS EN 1514-2

to suit BS EN 1092-1 Flanges



NOMINAL DIAMETER	INNER DIAMETER OF THE INNER RING	WIDTH OF THE INNER RING	INNER DIAMETER OF THE SEALING ELEMENT	WIDTH OF THE SEALING ELEMENT	INNER DIAMETER OF THE GUIDE RING	WIDTH OF THE SEALING ELEMENT	INNER DIAMETER OF THE GUIDE RING	OUTSIDE DIAMETER OF THE GUIDE RING TO EACH PRESSURE CLASS						
MM				PN10-PN40		PN63-PN160		PN10	PN16	PN25	DN40	PN63	PN100	PN160
10	18	3	24	5	34	5	34	46	46	46	46	56	56	56
15	23	3	29	5	39	5	39	51	51	51	51	61	61	61
20	28	3	34	6	46	-	-	61	61	61	61	-	-	-
25	35	3	41	6	53	6	53	71	71	71	71	82	82	82
32	43	3	49	6	61	-	-	82	82	82	82	-	-	-
40	50	3	56	6	68	6	68	92	92	92	92	103	103	103
50	61	4.5	70	8	86	8	86	107	107	107	107	113	119	119
65	77	4.5	86	8	102	10	106	127	127	127	127	137	143	143
80	90	4.5	99	8	115	10	119	142	142	142	142	148	154	154
100	115	6	127	8	143	10	147	162	162	168	168	174	180	180
125	140	6	152	10	172	12	176	192	192	194	194	210	217	217
150	167	6	179	10	199	12	203	218	218	224	224	247	257	257
200	216	6	228	10	248	12	252	273	273	284	290	309	324	324
250	267	6	279	12	303	14	307	327	329	340	352	364	391	388
300	318	6	330	12	354	14	358	377	384	400	417	424	458	458
350	360	8	376	12	400	14	404	437	444	457	474	486	512	-
400	410	6	422	14	450	17	456	488	495	514	546	543	572	-
500	510	6	522	14	550	17	556	593	617	624	628	657	704	-
600	610	6	622	14	650	17	656	695	734	731	747	764	813	-
700	710	6	722	17	756	20	762	810	804	833	852	879	950	-
800	810	10	830	17	864	20	870	917	911	942	974	988	-	-
900	910	10	930	17	964	20	970	1017	1011	1042	1084	1108	-	-
1000	1010	10	1030	22	1074	25	1080	1124	1128	1154	1194	-	-	-

GENERAL NOTES

Dimensions in mm.

Figures stated are for information only. Please refer to the current version of the original standards for dimensional information.

The use of an inner ring is recommended for gaskets for use with PN100 Flanges and above.

Gasket dimensions are available to suit PN250 and above, consult the technical department.

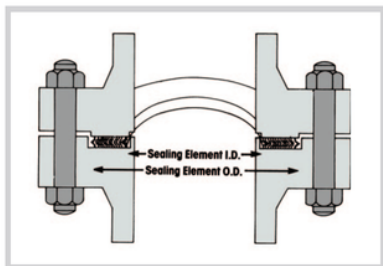
Ref: EN1514-2 - standard



DIMENSIONAL DATA

STYLE R

Flexitallic dimensions for use with Male & Female Tongue & Groove
ASME 16.5 & BS EN1092



Standard Style R gaskets embody all the exclusive features of Flexitallic design for keeping compression values in balance with bolting and providing adequate resilience to compensate for variable stresses encountered in service. Standard Style R gaskets are manufactured to a nominal thickness of .125" (3.2mm). Optimum compression is in the range of .090" to .100" (2.3mm to 2.5mm) thick.

There are three types of Style R gaskets:

- (a) Style R-1 indicates gaskets for use with large male and female flanges.*
- (b) Style R-3 indicates gaskets for use with large tongue and groove flanges.
- (c) Style R-4 indicates gaskets for use with small tongue and groove flanges.

**As a general rule, the use of Flexitallic Spiral Wound Gaskets with small male and female flange facings is not recommended.*

Dimensional limitations established by the proportions of the small tongue and groove facings limit the possibility of increasing gasket dimensions to improve the load carrying capacity in the higher pressure series. For this reason, it is suggested that large tongue and groove facings be selected for new construction when class 900, 1500 and 2500 flanges are to be used.

Style R-4 gaskets may be compressed an additional amount when exposed to the higher bolt loads, but not to the degree that the gasket will be crushed due to the radial support provided by the confining groove.

Special Style R gaskets are adaptable to non-standard flanges and can be designed and manufactured according to specifications for high and low pressure applications and for severe corrosive conditions.

When ordering special Style R gaskets for non-standard flanges and for special applications, contact the Applications Engineering Team.

NOMINAL PIPE SIZE	STYLE R1 FOR LARGE MALE & FEMALE								STYLE R3 FOR LARGE TONGUE & GROOVE				STYLE R4 FOR SMALL TONGUE & GROOVE			
	SEALING ELEMENT CLASS 150-1500				SEALING ELEMENT CLASS 2500				SEALING ELEMENT CLASS 150-2500				SEALING ELEMENT CLASS 150-2500			
	ID		OD		ID		OD		ID		OD		ID		OD	
	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM
¼	0.50	12.7	1.00	25.4	-	-	-	-	0.50	12.7	1.00	25.4	-	-	-	-
½	1.00	25.4	1.38	34.9	0.19	20.6	1.38	34.9	1.00	25.4	1.38	34.9	1.00	25.4	1.38	35.1
¾	1.31	33.3	1.69	42.9	1.06	27.0	1.69	42.9	1.31	33.3	1.69	42.9	1.31	33.3	1.69	42.9
1	1.50	38.1	2.00	50.8	1.25	31.8	2.00	50.8	1.50	38.1	2.00	50.8	1.50	38.1	1.88	47.8
1¼	1.88	47.6	2.50	63.5	1.63	41.3	2.50	63.5	1.88	47.6	2.50	63.5	1.88	47.6	2.25	57.2
1½	2.12	54.0	2.88	73.0	1.88	47.6	2.88	73.0	2.12	54.0	2.88	73.0	2.12	54.0	2.50	63.5
2	2.88	73.0	3.62	92.1	2.38	60.3	3.62	92.1	2.88	73.0	3.62	92.1	2.88	73.0	3.25	82.6
2½	3.38	85.7	4.12	104.8	3.00	76.2	4.12	104.8	3.38	85.7	4.12	104.8	3.38	85.7	3.75	95.2
3	4.25	108.0	5.00	127.0	3.75	95.3	5.00	127.0	4.25	108.0	5.00	127.0	4.25	108.0	4.62	117.5
3 ½	4.75	120.6	5.50	139.7	-	-	-	-	4.75	120.6	5.50	139.7	4.75	120.6	5.12	130.2
4	5.19	131.8	6.19	157.2	4.75	120.7	6.19	157.2	5.19	131.8	6.19	157.2	5.19	131.8	5.69	144.5
4 ½	5.69	144.5	6.75	171.5	-	-	-	-	5.69	144.5	6.75	171.5	-	-	-	-
5	6.31	160.3	7.31	185.7	5.75	146.1	7.31	185.7	6.31	160.3	7.31	185.7	6.31	160.3	6.81	173.0
6	7.50	190.5	8.50	215.9	6.75	171.5	8.50	215.9	7.50	190.5	8.50	215.9	7.50	190.5	8.00	203.2
8	9.38	238.1	10.62	269.9	8.75	222.3	10.62	269.9	9.38	238.1	10.62	269.9	9.38	238.1	10.00	254.0
10	11.25	285.8	12.75	323.9	10.75	273.1	12.75	323.9	11.25	285.8	12.75	323.9	11.25	285.8	12.00	304.8
12	13.50	342.9	15.00	381.0	13.00	330.2	15.00	381.0	13.50	342.9	15.00	381.0	13.50	342.9	14.25	362.0
14	14.75	374.6	16.25	412.8	-	-	-	-	14.75	374.6	16.25	412.8	14.75	374.6	15.50	393.7
16	16.75	425.4	18.50	469.9	-	-	-	-	16.75	425.4	18.50	469.9	16.75	425.4	17.62	447.5
18	19.25	489.0	21.00	533.4	-	-	-	-	19.25	489.0	21.00	533.4	19.25	489.0	20.12	511.2
20	21.00	533.4	23.00	584.2	-	-	-	-	21.00	533.4	23.00	584.2	21.00	533.4	22.00	558.8
24	25.25	641.4	27.25	692.2	-	-	-	-	25.25	641.4	27.25	692.2	25.25	641.4	26.25	666.8

GENERAL NOTES

All dimensions are in mm and inches.

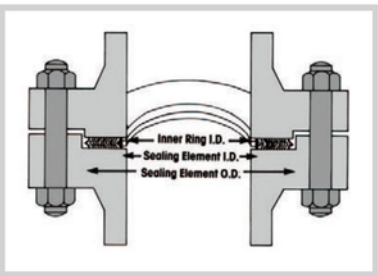
*It is essential that Style R gaskets are fitted with a compression stop. Without a correctly dimensioned stop the gasket can easily be over-compressed resulting in failure. To provide a compression stop the depth of the tongue, groove or recess should be controlled to provide optimum compressed gasket thickness with metal to metal contact on the flange faces.



DIMENSIONAL DATA

SPIRAL WOUND GASKETS

Flexitallic dimensions for use with Large Male & Female
ASME 16.5



Standard RIR gaskets are manufactured to 0.125" (3.2mm) thickness. The gasket features a solid metal inner ring nominally 0.090" (2.3mm) thick, as an integrated part of its design. The inner ring provides a positive stop preventing the gasket from over compression and possible damage.

Special styles are available in other thickness.

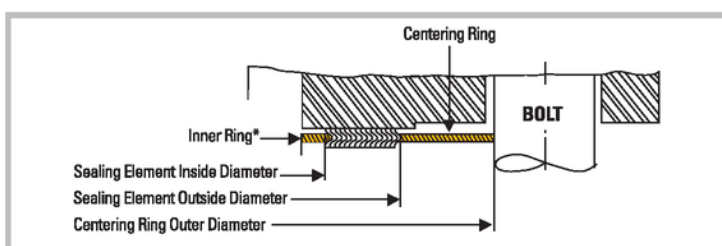
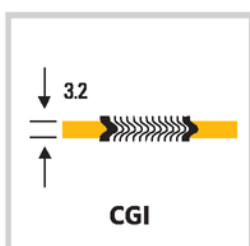
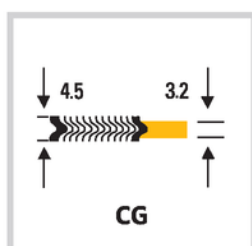
NOMINAL PIPE SIZE	STYLE R1 FOR LARGE MALE AND FEMALE									
	INNER RING		SEALING ELEMENT CLASS 150 - 1500				SEALING ELEMENT CLASS 2500			
	ID		ID		OD		ID		OD	
	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM	INCHES	MM
¼	-	-	0.50	12.7	1.00	25.4	-	-	-	-
½	0.56	14.2	1.00	25.4	1.38	34.9	0.81	20.6	1.38	34.9
¾	0.81	20.6	1.31	33.3	1.69	42.9	1.06	27.0	1.69	42.9
1	1.06	26.9	1.50	38.1	2.00	50.8	1.25	31.8	2.00	50.8
1¼	1.38	34.9	1.88	47.6	2.50	63.5	1.63	41.3	2.50	63.5
1½	1.63	41.3	2.12	54.0	2.88	73.0	1.88	47.6	2.88	73.0
2	2.06	52.4	2.88	73.0	3.62	92.1	2.38	60.3	3.62	92.1
2½	2.50	63.5	3.38	85.7	4.12	104.8	3.00	76.2	4.13	104.8
3	3.06	77.8	4.25	108.0	5.00	127.0	3.75	95.3	5.00	127.0
3½	3.56	90.5	4.75	120.6	5.50	139.7	-	-	-	-
4	4.06	103.2	5.19	131.8	6.19	157.2	4.75	120.7	6.19	157.2
4½	4.56	115.9	5.69	144.5	6.75	171.5	-	-	-	-
5	5.06	128.6	6.31	160.3	7.31	185.7	5.75	146.1	7.31	185.7
6	6.06	154.0	7.50	190.5	8.50	215.9	6.75	171.5	8.50	215.9
8	8.00	203.2	9.38	238.1	10.62	269.9	8.75	222.3	10.62	269.9
10	10.00	254.0	11.25	285.8	12.75	323.9	10.75	273.1	12.75	323.9
12	11.94	303.2	13.50	342.9	15.00	381.0	13.00	330.2	15.00	381.0
14	13.50	342.9	14.75	374.6	16.25	412.8	-	-	-	-
16	15.50	393.7	16.75	425.4	18.50	469.9	-	-	-	-
18	17.50	444.5	19.25	489.0	21.00	533.4	-	-	-	-
20	19.50	495.3	21.00	533.4	23.00	584.2	-	-	-	-
24	23.50	596.9	25.25	641.4	27.25	692.2	-	-	-	-

GENERAL NOTES
All dimensions in mm and inches.
Figures stated are for information only. Please refer to the current version of the original standards for dimensional information.

DIMENSIONAL DATA

SPIRAL WOUND GASKETS

Dimensions to JIS B2404 for JIS
B2220 & JIS B2238 - 2240 Flanges



NOMINAL BORE	INNER RING ID (d1)					SEALING ELEMENT ID (d2)					SEALING ELEMENT OD (d3)					CENTERING RING OD (d4)				
mm	10K	16 to 20K	30K	40K	63K	10K	16 to 20K	30K	40K	63K	10K	16 to 20K	30K	40K	63K	10K	16 to 20K	30K	40K	63K
10	18.0	18.0	18.0	15.0	15.0	24.0	24.0	24.0	21.0	21.0	37.0	37.0	37.0	34.0	34.0	52.0	52.0	59.0	59.0	64.0
15	22.0	22.0	22.0	18.0	18.0	28.0	28.0	28.0	24.0	24.0	41.0	41.0	41.0	37.0	37.0	57.0	57.0	64.0	64.0	69.0
20	28.0	28.0	28.0	23.0	23.0	34.0	34.0	34.0	29.0	29.0	47.0	47.0	47.0	42.0	42.0	62.0	62.0	69.0	69.0	75.0
25	34.0	34.0	34.0	29.0	29.0	40.0	40.0	40.0	35.0	35.0	53.0	53.0	53.0	48.0	48.0	74.0	74.0	79.0	79.0	80.0
32	43.0	43.0	43.0	38.0	38.0	51.0	51.0	51.0	44.0	44.0	67.0	67.0	67.0	60.0	60.0	84.0	84.0	89.0	89.0	90.0
40	49.0	49.0	49.0	43.0	43.0	57.0	57.0	57.0	51.0	51.0	73.0	73.0	73.0	67.0	67.0	89.0	89.0	100.0	100.0	107.0
50	61.0	61.0	61.0	55.0	55.0	69.0	69.0	69.0	63.0	63.0	89.0	89.0	89.0	79.0	79.0	104.0	104.0	114.0	114.0	125.0
65	77.0	77.0	68.0	68.0	68.0	87.0	87.0	78.0	78.0	78.0	107.0	107.0	98.0	98.0	98.0	124.0	124.0	140.0	140.0	152.0
80	89.0	89.0	80.0	80.0	80.0	98.0	99.0	90.0	90.0	90.0	118.0	119.0	110.0	110.0	110.0	134.0	140.0	150.0	150.0	162.0
90	102.0	102.0	92.0	92.0	92.0	110.0	114.0	102.0	102.0	102.0	130.0	139.0	127.0	127.0	127.0	144.0	150.0	162.0	162.0	179.0
100	115.0	115.0	104.0	104.0	104.0	123.0	127.0	116.0	116.0	116.0	143.0	152.0	141.0	141.0	141.0	159.0	165.0	172.0	182.0	194.0
125	140.0	140.0	128.0	128.0	128.0	148.0	152.0	140.0	140.0	140.0	173.0	177.0	165.0	165.0	165.0	190.0	202.0	207.0	224.0	235.0
150	166.0	166.0	153.0	153.0	153.0	174.0	182.0	165.0	165.0	165.0	199.0	214.0	197.0	197.0	197.0	220.0	237.0	249.0	265.0	275.0
175	-	-	202.0	202.0	202.0	201.0	-	218.0	218.0	218.0	226.0	-	250.0	250.0	250.0	245.0	-	294.0	315.0	328.0
200	217.0	217.0	251.0	251.0	251.0	227.0	233.0	271.0	271.0	271.0	252.0	265.0	311.0	311.0	311.0	270.0	282.0	360.0	378.0	394.0
225	-	-	300.0	300.0	300.0	252.0	-	320.0	320.0	320.0	277.0	-	360.0	360.0	360.0	290.0	-	418.0	434.0	446.0
250	268.0	268.0	336.0	336.0	336.0	278.0	288.0	356.0	356.0	356.0	310.0	328.0	396.0	396.0	396.0	332.0	354.0	463.0	479.0	488.0
300	319.0	319.0	383.0	383.0	383.0	329.0	339.0	403.0	403.0	403.0	361.0	379.0	453.0	453.0	453.0	377.0	404.0	524.0	531.0	545.0
350	356.0	356.0	-	-	-	366.0	376.0	-	-	-	406.0	416.0	-	-	-	422.0	450.0	-	-	-
400	407.0	407.0	-	-	-	417.0	432.0	-	-	-	457.0	482.0	-	-	-	484.0	508.0	-	-	-
450	458.0	458.0	-	-	-	468.0	483.0	-	-	-	518.0	533.0	-	-	-	539.0	573.0	-	-	-
500	508.0	508.0	-	-	-	518.0	533.0	-	-	-	568.0	583.0	-	-	-	594.0	628.0	-	-	-
550	559.0	559.0	-	-	-	569.0	584.0	-	-	-	619.0	634.0	-	-	-	650.0	684.0	-	-	-
600	610.0	610.0	-	-	-	620.0	635.0	-	-	-	670.0	685.0	-	-	-	700.0	734.0	-	-	-

GENERAL NOTES

All dimensions are in mm.

Figures stated are for information only. Please refer to the current version of the original standards for dimensional information.

NOTES

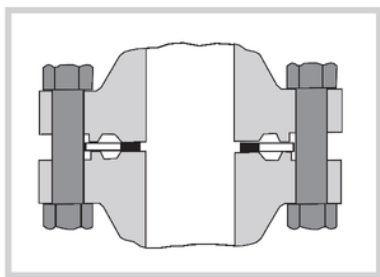
With these dimensions the inner ring will not protrude into the bore of the pipe to be sealed.



DIMENSIONAL DATA

STYLE CG-RJ & CGI-RJ GASKETS

For use with ASME B16.5 and API 6A Ring Joint Flanges



CG-RJ and CGI-RJ Spiral Wound Gaskets

are designed for use, as a replacement maintenance item, of standard oval and octagonal ring joint gaskets. These gaskets are available for NPS ½ to 24 and pressure classes 150 to 1500. Gasket thickness is 0.175" (4.5mm) and the outer ring thickness is 0.125" (3.2mm).

Style CGI-RJ gaskets are fitted with an inner ring 0.125" (3.2mm) thick. Flexitallic recommends CGI-RJ gaskets for pressure classes 900 and above, and where operating temperatures are above 572°F (300°C). Consult our technical department for CGI-RJ gasket dimensions.

Note: Clearance dimensions between flange faces should be checked on close coupling pipework prior to installation of CG-RJ and CGI-RJ gaskets to ensure that optimum compression can be achieved without over stressing bolts and or flanges.

It is the user's responsibility to ensure that there is sufficient clearance between the flange bore and ring groove for proper seating of the gasket.

Dimensions are listed below for CG-RJ Spiral Wound Gaskets. Flexitallic's technical department should be consulted for CGI-RJ and API gasket sizes.

NOMINAL PIPE SIZE	PRESSURE CLASS																	
	150			300			400			600			900			1500		
	GASKET		RING	GASKET		RING	GASKET		RING	GASKET		RING	GASKET		RING	GASKET		RING
	ID	OD	OD	ID	OD	OD	ID	OD	OD	ID	OD	OD	ID	OD	OD	ID	OD	OD
1/2	-	-	-	0.69	1.06	2.13	0.69	1.06	2.13	0.69	1.06	2.13	0.69	1.06	2.50	0.69	1.06	2.50
3/4	-	-	-	0.88	1.31	2.63	0.88	1.31	2.63	0.88	1.31	2.63	0.88	1.38	2.75	0.88	1.38	2.75
1	1.13	1.63	2.63	1.13	1.63	2.88	1.13	1.63	2.88	1.13	1.63	2.88	1.13	1.63	3.13	1.13	1.63	3.13
1 1/4	1.44	1.88	3.00	1.44	2.00	3.25	1.44	2.00	3.25	1.44	2.00	3.25	1.44	2.00	3.50	1.44	2.00	3.50
1 1/2	1.69	2.19	3.38	1.69	2.38	3.75	1.69	2.38	3.75	1.69	2.38	3.75	1.69	2.38	3.88	1.69	2.38	3.88
2	2.13	2.88	4.13	2.13	2.75	4.38	2.13	2.75	4.38	2.13	2.75	4.38	2.25	3.25	5.63	2.25	3.25	5.63
2 1/2	2.75	2.31	4.88	2.75	3.31	5.13	2.75	3.31	5.13	2.75	3.31	5.13	2.56	3.63	6.50	2.56	3.63	6.50
3	3.31	3.94	5.38	3.31	3.94	5.88	3.31	3.94	5.88	3.31	3.94	5.88	3.19	4.19	6.63	3.19	4.69	6.88
4	4.31	5.19	6.88	4.31	5.19	7.13	4.31	5.19	7.00	4.31	5.19	7.63	4.25	5.19	8.13	4.25	5.69	8.25
5	5.31	6.19	7.75	5.31	6.44	8.50	5.31	6.44	8.38	5.31	6.44	9.50	5.31	6.44	9.75	5.06	6.94	10.00
6	6.31	7.19	8.75	6.44	7.63	9.88	6.44	7.63	9.75	6.44	7.63	10.50	6.31	7.63	11.38	6.31	7.56	11.13
8	8.25	9.19	11.00	8.25	9.94	12.13	8.25	9.94	12.00	8.25	9.94	12.63	8.25	9.94	14.13	8.13	9.75	13.88
10	10.31	11.44	13.38	10.31	12.00	14.25	10.31	12.00	14.13	10.31	12.00	15.75	10.31	12.00	17.13	10.25	11.88	17.13
12	12.19	13.56	16.13	12.88	14.25	16.63	12.88	14.25	16.50	12.88	14.25	18.00	12.88	14.25	19.63	11.94	13.81	20.50
14	13.44	14.94	17.75	14.25	15.75	19.13	14.25	15.75	19.00	14.25	15.75	19.38	13.81	15.56	20.50	13.44	15.19	22.75
16	15.50	16.94	20.25	16.25	17.75	21.25	16.25	17.75	21.13	16.25	17.75	22.25	15.56	17.56	22.63	15.00	17.00	25.25
18	17.25	19.00	21.63	18.25	20.25	23.50	18.25	20.25	23.38	18.25	20.25	24.13	17.69	19.94	25.13	17.25	19.50	27.75
20	19.75	21.13	23.88	20.25	22.19	25.75	20.25	22.19	25.50	20.25	22.19	26.88	19.69	21.94	27.50	19.19	21.44	29.75
24	23.50	25.25	28.25	24.25	26.31	30.50	24.25	26.31	30.25	24.25	26.31	31.13	23.19	25.94	33.00	23.25	25.50	35.50

GENERAL NOTES

All dimensions in inches.



DIMENSIONAL DATA

MAXIMUM BORE OF ASME B16.5 FLANGES

For use with CG & CGI Spiral Wound Gaskets

This table shows the maximum bore of flanges for which the Spiral Wound gasket dimensions shown are recommended considering the tolerances involved, possible eccentric installation, and the possibility that the gasket may extend into the assembled flange bore.

FLANGE SIZE (NPS)	PRESSURE CLASS										
	75	150	300	400	600	900	1500*	2500*			
1/2	No flanges	WN flange only ^a		No flanges Use Class 600	WN flange only ^a	No flanges Use Class 1500	WN flange only ^b				
3/4											
1											
1-1/4		SO flange ^c WN flange ^b			SO flange ^c WN flange ^b						
1-1/2											
2					SO flange ^c WN flange, any bore						
2-1/2		SO flange ^c WN flange, any bore ^b									
3					SO flange ^c WN flange, any bore						
4		SO flange WN flange, any bore		WN flange with Schedule 10S bore described in ASME B36.19M (includes nozzle ^d but excludes SO flange)		WN Flange with Schedule 80 bore (excludes nozzle and SO flange)	WN flange with SW bore (includes nozzle ^d but excludes SO flange)				
6											
8											
10				WN flange with Schedule 10S bore described in ASME B36.19M (excludes nozzle ^d and SO flange) ^e							
12											
14											
16											
18											
20											
24					No flanges						

NOTES

SO = slip on and threaded; WN = welding neck; SW = standard wall.

^a Inner rings are required for Class 900 gaskets, NPS 24; Class 1500 gaskets, NPS 12 through NPS 24; and Class 2500 gaskets, NPS 4 through NPS 12. These inner rings may extend into the pipe bore a maximum of 0.06 inch (15 millimeters) under the worst combination of maximum bore, eccentric installation, and additive tolerances.

^b In these sizes the gasket is suitable for welding-neck flange with a standard-wall bore, if the gasket and the flanges are assembled concentrically. This also applies to nozzle. It is the user's responsibility to determine if the gasket is satisfactory for a flange of any larger bore.

^c Gaskets in these sizes are suitable for slip-on flanges only if the gaskets and flanges are assembled concentrically.

^d A nozzle is a long welding neck; the bore equals the flange NPS.

^e An NPS 24 gasket is suitable for nozzles.

* Spiral Wound gasket dimensions for use on screwed or slip-on flanges.



TECHNICAL INFORMATION

ASSEMBLY TECHNIQUES.

GASKET STYLE SELECTION

Ensure that the correct style of gasket has been selected for the appropriate application.

All PTFE filled Spiral Wound Gaskets for raised face and flat face flanges should utilise an inner and outer guide ring. When using Style 'R' Spiral Wound Gaskets ensure that a compression stop is incorporated into the flange arrangement.

REQUIRED GASKET COMPRESSION

For optimum sealing performance Flexitallic Spiral Wound Gaskets should be compressed to the thicknesses shown in the table left.

Spiral Wound Gaskets with internal or external guide rings i.e. Style CG and CGI, should be fully compressed to the guide ring. This will not damage the gasket or affect the sealing performance, since the rings are provided as a compression limiting stop.

REQUIRED GASKET COMPRESSION

INITIAL GASKET THICKNESS mm	RECOMMENDED COMPRESSED THICKNESS mm
1.61	1.3/1.4
2.5	1.9/2.0
3.2	2.3/2.5
4.5	3.2/3.4
6.4	4.6/5.1
7.2	5.1/5.6

FLANGES

Check that the flange faces are clean, in good condition and with a turned surface finish within the following range Ra 3.2 to 6.3 micro metres (125 to 250 micro inches).

BOLTING

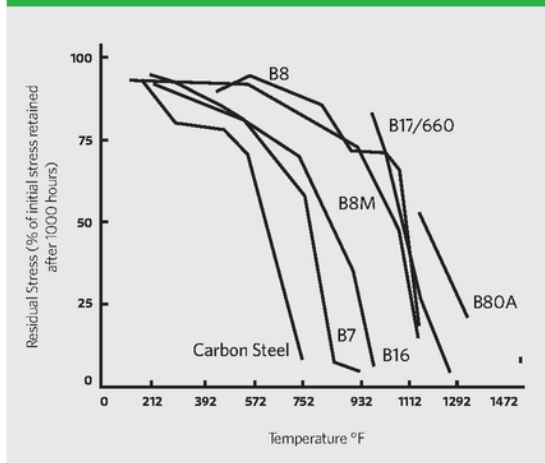
Ensure that the correct bolting material is utilised to suit the operating conditions, taking into account the limitation of low yield strength bolts.

Ensure that the use of bolt lubrication is employed. For torque tightening methods Flexitallic recommends the use of molybdenum disulphide bolt lubrication or similar nickel based compound. Do not apply any lubricants when using PTFE coated fasteners. Consult with the coating manufacturers for product specific friction coefficients.

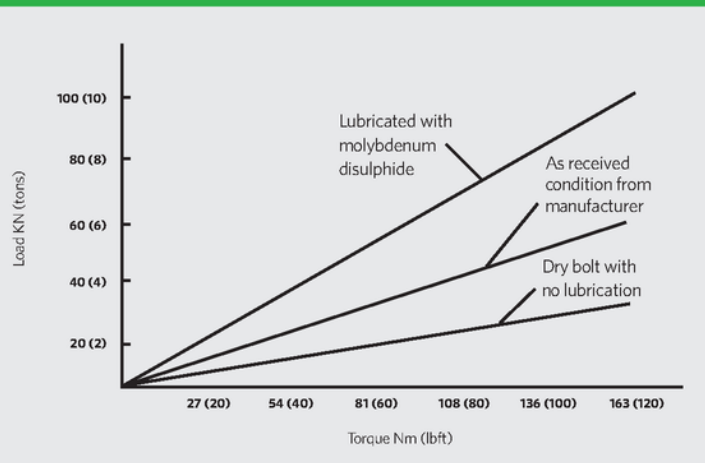
TIGHTENING PROCEDURES

Controlled tightening procedures should be used when installing Spiral Wound Gaskets. Flexitallic recommends that the use of hydraulic tensioning equipment be considered where possible for bolt diameters 1-1/4" and above. Please refer to Flexitallic's Design Criteria for further technical information.

STRESS RELAXATION OF BOLT STRESS & ALLOYS AT UPPER TEMPERATURE LIMITS



THE IMPORTANCE OF BOLT LUBRICATION



FLOW ENGINEERING AND SERVICE CO.,LTD.

บริษัท โฟลว์ เอ็นจิเนียริง แอนด์ เซอร์วิส จำกัด

55/89 หมู่ที่ 5 ต.ทับมา อ.เมืองระยอง จ.ระยอง 21000



ABOUT US

WHO WE ARE

บริษัท โฟลว์ เอ็นจิเนียริง แอนด์ เซอร์วิส จำกัด (Flow Engineering and Service Co.,Ltd.) ดำเนินธุรกิจเกี่ยวกับการจำหน่ายผลิตภัณฑ์ซีล และปะเก็นต่างๆ. บริษัทก่อตั้งขึ้นเมื่อวันที่ 28 พฤษภาคม 2558

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ผลิตภัณฑ์ที่ลูกค้าต้องการ

ผลิตภัณฑ์และบริการของบริษัทฯ จำหน่ายผลิตภัณฑ์ซีลและปะเก็นหลากหลายชนิด, โอริงและชุดคิก, ซีลประเภทต่างๆ เช่น Oil Seal, V-Ring, Gamma Seal, Hydraulic Seal, Pneumatic Seal, ซีลกลึงตามแบบ (Machined Seal), ท่องานอุตสาหกรรม(Food Hose), และชิ้นส่วนยางสั่งทำ พิเศษ (Custom Rubber Parts) ให้บริการ ด้วย ประสบการณ์มากกว่า 10 ปี



Flexitallic

บริษัท โฟลว์ เอ็นจิเนียริง แอนด์ เซอร์วิส จำกัด

ได้รับการแต่งตั้งให้เป็นตัวแทนจำหน่ายอย่างเป็นทางการในประเทศไทยโดย Flexitallic Thailand