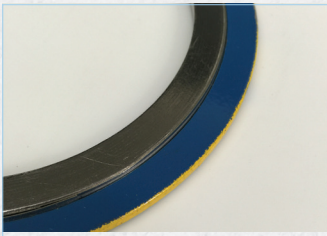


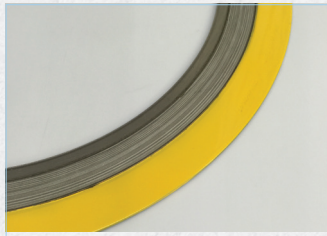
# SPIRAL WOUND GASKETS

## GASKET SELECTION

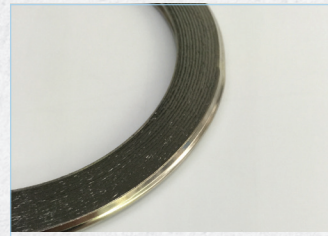
What Style of Gasket Should I Select?



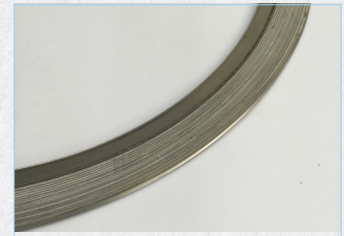
**Style CG** - Utilizes an external ring which accurately centers gasket on flange face, provides additional radial strength to prevent gasket blow-out and acts as a compression stop. A general purpose gasket suitable for use with flat face and raised face flanges up to and inclusive of class 2500.



**Style CGI** - A Style CG gasket fitted with internal ring which gives an additional compression limiting stop and provides heat and corrosion barrier protecting gasket windings and preventing flange erosion. Suitable for use with flat face and raised face flanges.



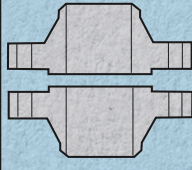
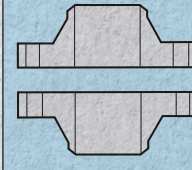
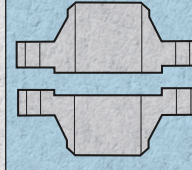
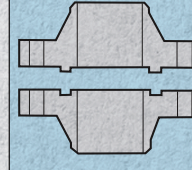
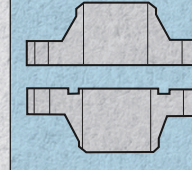
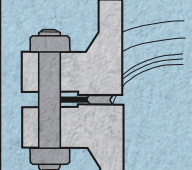
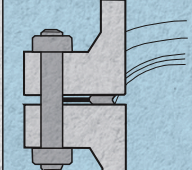
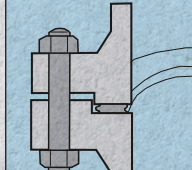
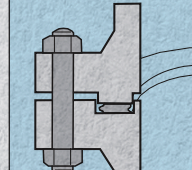
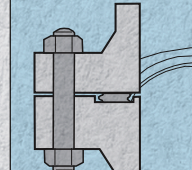
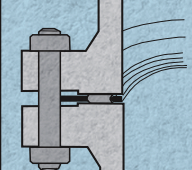
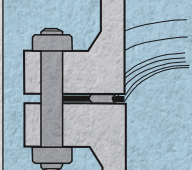
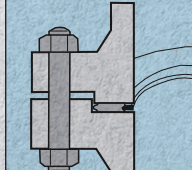
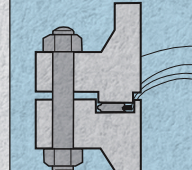
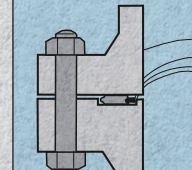
**Style R** - Basic construction type. Inner and outer diameters are reinforced with several plies of metal without filler to give greater stability and better compression and sealing characteristics. Suitable for tongue and groove or male and female flange assemblies.



**Style RIR** - Solid inner metal ring acts as a compression stop and fills the annular space between flange bore and the inside diameter of the gasket. Designed to prevent accumulation of solids, reduce turbulent flow of process fluids and minimize erosion at flange faces. Suitable for male and female pipe flanges.

## SELECTION GUIDE

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

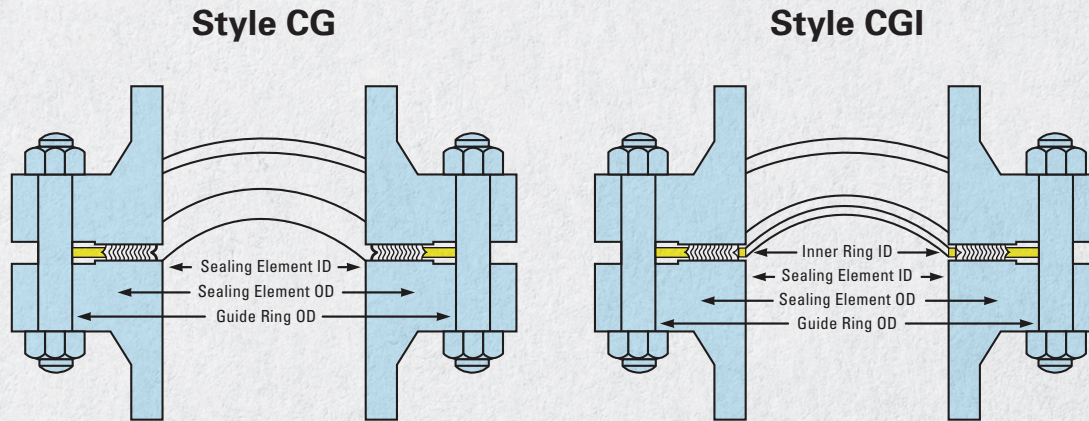
<b>FLANGE FACE</b>	 Raised Face	 Flat Face	 Male and Female	 Tongue and Groove	 Flat Face to Recess
<b>RECOMMENDED GASKET STYLE</b> For general duties	 Style CG	 Style CG	 Style R*	 Style R*	 Style R*
<b>RECOMMENDED GASKET STYLE</b> For high pressure/-temperature duty, also for gaskets with PTFE filler, corrosive or fluctuating pressure or temperature service conditions.	 Style CGI**	 Style CGI**	 Style RIR**	 Style RIR**	 Style RIR**

\* 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.



# STYLE CG & CGI GASKETS

## 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 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 your Ragco location as early in the design stage as possible.

## GOVERNMENT SPECIFICATIONS

Spiral Wound Gaskets are available in accordance with Military Specification MIL-G-24716.

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.

ASME B16.5  
 BS 1560  
 BS 10  
 ASME B16.47 SERIES B (API 605)  
 ASME B16.47 SERIES A (MSS SP 44)  
 BS 4504  
 DIN FLANGES  
 JIS FLANGES

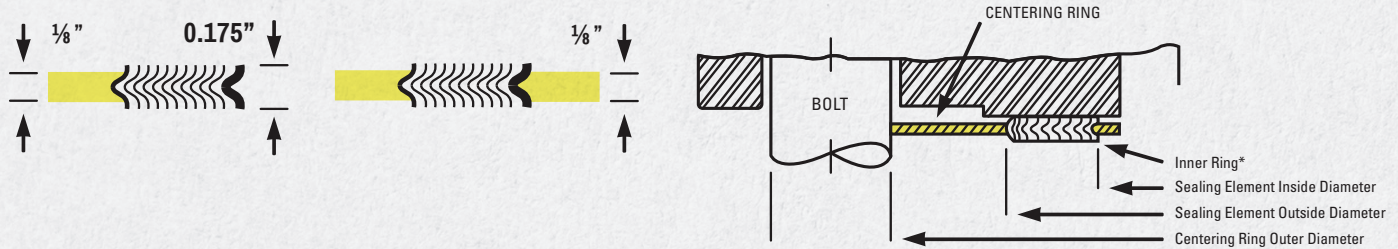
## WHEN ORDERING PLEASE SPECIFY

- GASKET STYLE (Example: Flexitallic Style "CGI" Spiral Wound Gasket)
- NOMINAL PIPE SIZE (NPS) (Example: 4 inches)
- PRESSURE RATING (Example: Class 900)
- GASKET STANDARD (Example: ASME B16.20)
- WINDING MATERIALS (Example: 316SS)
- OUTER RING MATERIAL (Example: Carbon Steel)
- INNER RING MATERIAL (Example: 316SS)

\* RAGCO supports the autonomy of its locations to select the best products to service their markets. Subtle variations of these specification may exist. Contact your RAGCO affiliate for confirmation.



# STYLE CG & CGI\* TO ASME B16.20



**TABLE 1: Style CG & CGI\* to ASME B16.20 To Suit ASME B16.5 Flanges (INCHES)**

Nom Pipe Size	OUTSIDE DIAMETER OF SEALING ELEMENT		INNER DIAMETER OF SEALING ELEMENT							OUTER DIAMETER OF CENTERING RING						
	Class 150, 300, 400, 600	Class 900, 1500, 2500	Class 150	Class 300	Class 400	Class 600	Class 900	Class 1500	Class 2500	Class 150	Class 300	Class 400	Class 600	Class 900	Class 1500	Class 2500
1/4	7/8		1/2	1/2	1/2	1/2	-	-	-	1-3/4	1-3/4	1-3/4	1-3/4	-	-	-
1/2	1-1/4	1-1/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	1-7/8	2-1/8	2-1/8	2-1/8	2-1/2	2-1/2	2-3/4
3/4	1-9/16	1-9/16	1	1	1	1	1	1	1	2-1/4	2-5/8	2-5/8	2-5/8	2-3/4	2-3/4	3
1	1-7/8	1-7/8	1-1/4	1-1/4	1-1/4	1-1/4	1-1/4	1-1/4	1-1/4	2-5/8	2-7/8	2-7/8	2-7/8	3-1/8	3-1/8	3-3/8
1-1/4	2-3/8	2-3/8	1-7/8	1-7/8	1-7/8	1-7/8	1-9/16	1-9/16	1-9/16	3	3-1/4	3-1/4	3-1/4	3-1/2	3-1/2	4-1/8
1-1/2	2-3/4	2-3/4	2-1/8	2-1/8	2-1/8	2-1/8	1-7/8	1-7/8	1-7/8	3-3/8	3-3/4	3-3/4	3-3/4	3-7/8	3-7/8	4-5/8
2	3-3/8	3-3/8	2-3/4	2-3/4	2-3/4	2-3/4	2-5/16	2-5/16	2-5/16	4-1/8	4-3/8	4-3/8	4-3/8	5-5/8	5-5/8	5-3/4
2-1/2	3-7/8	3-7/8	3-1/4	3-1/4	3-1/4	3-1/4	2-3/4	2-3/4	2-3/4	4-7/8	5-1/8	5-1/8	5-1/8	6-1/2	6-1/2	6-5/8
3	4-3/4	4-3/4	4	4	4	4	3-3/4	3-5/8	3-5/8	5-3/8	5-7/8	5-7/8	5-7/8	6-5/8	6-7/8	7-3/4
3-1/2	5-1/4	5-1/4	4-1/2	4-1/2	4-1/8	4-1/8	4-1/8	4-1/8	-	6-3/8	6-1/2	6-3/8	6-3/8	7-1/2	7-3/8	-
4	5-7/8	5-7/8	5	5	4-3/4	4-3/4	4-3/4	4-5/8	4-5/8	6-7/8	7-1/8	7	7-5/8	8-1/8	8-1/4	9-1/4
4-1/2	6-1/2	6-1/2	5-1/2	5-1/2	5-5/16	5-5/16	5-5/16	5-5/16	-	7	7-3/4	7-5/8	8-1/4	9-3/8	9-1/8	-
5	7	7	6-1/8	6-1/8	5-13/16	5-13/16	5-13/16	5-5/8	5-5/8	7-3/4	8-1/2	8-3/8	9-1/2	9-3/4	10	11
6	8-1/4	8-1/4	7-3/16	7-3/16	6-7/8	6-7/8	6-7/8	6-3/4	6-3/4	8-3/4	9-7/8	9-3/4	10-1/2	11-3/8	11-1/8	12-1/2
8	10-3/8	10-1/8	9-3/16	9-3/16	8-7/8	8-7/8	8-3/4	8-1/2	8-1/2	11	12-1/8	12	12-5/8	14-1/8	13-7/8	15-1/4
10	12-1/2	12-1/4	11-5/16	11-5/16	10-13/16	10-13/16	10-7/8	10-1/2	10-5/8	13-3/8	14-1/4	14-1/8	15-3/4	17-1/8	17-1/8	18-3/4
12	14-3/4	14-1/2	13-3/8	13-3/8	12-7/8	12-7/8	12-3/4	12-3/4	12-1/2	16-1/8	16-5/8	16-1/2	18	19-5/8	20-1/2	21-5/8
14	16	15-3/4	14-5/8	14-5/8	14-1/4	14-1/4	14	14-1/4	-	17-3/4	19-1/8	19	19-3/8	20-1/2	22-3/4	-
16	18-1/4	18	16-5/8	16-5/8	16-1/4	16-1/4	16-1/4	16	-	20-1/4	21-1/4	21-1/8	22-1/4	22-5/8	25-1/4	-
18	20-3/4	20-1/2	18-11/16	18-11/16	18-1/2	18-1/2	18-1/4	18-1/4	-	21-5/8	23-1/2	23-3/8	24-1/8	25-1/8	27-3/4	-
20	22-3/4	22-1/2	20-11/16	20-11/16	20-1/2	20-1/2	20-1/2	20-1/4	-	23-7/8	25-3/4	25-1/2	26-7/8	27-1/2	29-3/4	-
24	27	26-3/4	24-3/4	24-3/4	24-3/4	24-3/4	24-3/4	24-1/4	-	28-1/4	30-1/2	30-1/4	31-1/8	33	35-1/2	-

\*For Style CGI - see Table 3 for Inner Ring dimensions.

Gasket sizes 1/4" to 3" Class 300, 400 & 600 as well as sizes 1/2" to 2-1/2" Class 900 & 1500 are identical within their respective nominal pipe sizes, therefore inventories need not be duplicated.

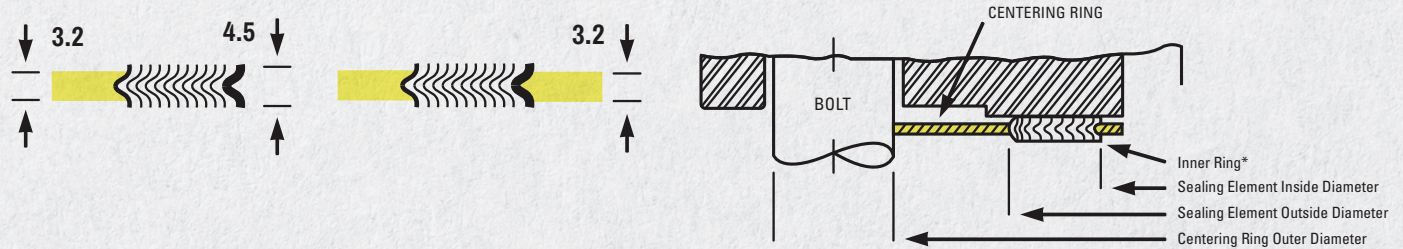
In accordance with ASME B16.20, Inner Rings are mandatory for the following flange designations (see Table 3).

- Class 900 - NPS 24 to 48
- Class 1500 - NPS 12 to NPS 24
- Class 2500 - NPS 4 to NPS 12
- All PTFE filled gaskets
- All flexible graphite gaskets unless otherwise requested by the customer

ASME B16.20 does not include dimensions for NPS 1/4, 3/2, or 4 1/2, or Class 400 Flanges up to NPS 3 and Class 900 Flanges up to NPS 2 1/2.



# STYLE CG & CGI\* TO ASME B16.20



**TABLE 2: Style CG & CGI\* to ASME B16.20 To Suit ASME B16.5 Flanges (MILLIMETERS)**

Nom Pipe Size	OUTSIDE DIAMETER OF SEALING ELEMENT		INNER DIAMETER OF SEALING ELEMENT							OUTER DIAMETER OF CENTERING RING						
	Class 150, 300, 400, 600	Class 900, 1500, 2500	Class 150	Class 300	Class 400	Class 600	Class 900	Class 1500	Class 2500	Class 150	Class 300	Class 400	Class 600	Class 900	Class 1500	Class 2500
1/4	22.2	-	12.7	12.7	12.7	12.7	-	-	-	44.5	44.5	44.5	44.5	-	-	-
1/2	31.8	31.8	19.1	19.1	19.1	19.1	19.1	19.1	19.1	47.8	54.1	54.1	54.1	63.5	63.5	69.9
3/4	39.6	39.6	25.4	25.4	25.4	25.4	25.4	25.4	25.4	57.2	66.8	66.8	66.8	69.9	69.9	76.2
1	47.8	47.8	31.8	31.8	31.8	31.8	31.8	31.8	31.8	66.8	73.2	73.2	73.2	79.5	79.5	85.9
1-1/4	60.5	60.5	47.8	47.8	47.8	47.8	39.6	39.6	39.6	76.2	82.6	82.6	82.6	88.9	88.9	104.9
1-1/2	69.9	69.9	54.1	54.1	54.1	54.1	47.8	47.8	47.8	85.9	95.3	95.3	95.3	98.6	98.6	117.6
2	85.9	85.9	69.9	69.9	69.9	69.9	58.7	58.7	58.7	104.9	111.3	111.3	111.3	143	143	146.1
2-1/2	98.6	98.6	82.6	82.6	82.6	82.6	69.9	69.9	69.9	124	130.3	130.3	130.3	165.1	165.1	168.4
3	120.7	120.7	101.6	101.6	101.6	101.6	95.3	92.2	92.2	136.7	149.4	149.4	149.4	168.4	174.8	196.9
3-1/2	133.4	133.4	114.3	114.3	104.8	104.8	104.8	104.8	-	161.9	165.1	161.9	161.9	190.5	187.3	-
4	149.4	149.4	127	127	120.7	120.7	120.7	117.6	117.6	174.8	181.1	177.8	193.8	206.5	209.6	235
4-1/2	165.1	165.1	139.7	139.7	134.9	134.9	134.9	134.9	-	177.8	196.9	193.7	209.6	238.1	231.8	-
5	177.8	177.8	155.7	155.7	147.6	147.6	147.6	143	143	196.9	215.9	212.9	241.3	247.7	254	279.4
6	209.6	209.6	182.6	182.6	174.8	174.8	174.8	171.5	171.5	222.3	251	247.7	266.7	289.1	282.7	317.5
8	263.7	257.3	233.4	233.4	225.6	225.6	222.3	215.9	215.9	279.4	308.1	304.8	320.8	358.9	352.6	387.4
10	317.5	311.2	287.3	287.3	274.6	274.6	276.4	266.7	270	339.9	362	358.9	400.1	435.1	435.1	476.3
12	374.7	368.3	339.9	339.9	327.2	327.2	323.9	323.9	317.5	409.7	422.4	419.1	457.2	498.6	520.7	549.4
14	406.4	400.1	371.6	371.6	362	362	355.6	362	-	450.9	485.9	482.6	492.3	520.7	577.9	-
16	463.6	457.2	422.4	422.4	412.8	412.8	412.8	406.4	-	514.4	539.8	536.7	565.2	574.8	641.4	-
18	527.1	520.7	474.7	474.7	469.9	469.9	463.6	463.6	-	549.4	596.9	593.9	612.9	638.3	704.9	-
20	577.9	571.5	525.5	525.5	520.7	520.7	520.7	514.4	-	606.6	654.1	647.7	682.8	698.5	755.7	-
24	685.8	679.5	628.7	628.7	628.7	628.7	628.7	616	-	717.6	774.7	768.4	790.7	838.2	901.7	-

\*For Style CGI - see Table 3 for Inner Ring dimensions.

Gasket sizes 1/4" to 3" Class 300, 400 & 600 as well as sizes 1/2" to 2-1/2" Class 900 & 1500 are identical within their respective nominal pipe sizes, therefore inventories need not be duplicated.

In accordance with ASME B16.20, Inner Rings are mandatory for the following flange designations (see Table 3).

- Class 900 - NPS 24 to 48
- Class 1500 - NPS 12 to NPS 24
- Class 2500 - NPS 4 to NPS 12
- All PTFE filled gaskets
- All flexible graphite gaskets unless otherwise requested by the customer

ASME B16.20 does not include dimensions for NPS 1/4, 3 1/2, or 4 1/2, or Class 400 Flanges up to NPS 3 and Class 900 Flanges up to NPS 2 1/2.

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**TABLE 3: STANDARD INSIDE DIAMETERS OF INNER RINGS FOR STYLE CGI GASKETS TO ASME B16.20 TO SUIT ASME B16.5 FLANGES (INCHES & MILLIMETERS)**

NOM PIPE SIZE (in)	PRESSURE CLASS													
	150		300		400		600		900		1500		2500	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
1/2	0.56	14.22	0.56	14.22	0.56	14.22	0.56	14.22	0.56	14.22	0.56	14.22	0.56	14.22
3/4	0.81	20.57	0.81	20.57	0.81	20.57	0.81	20.57	0.81	20.57	0.81	20.57	0.81	20.57
1	1.06	26.92	1.06	26.92	1.06	26.92	1.06	26.92	1.06	26.92	1.06	26.92	1.06	26.92
1-1/4	1.50	38.10	1.50	38.10	1.50	38.10	1.50	38.10	1.31	33.27	1.31	33.27	1.31	33.27
1-1/2	1.75	44.45	1.75	44.45	1.75	44.45	1.75	44.45	1.63	41.40	1.63	41.40	1.63	41.40
2	2.19	55.63	2.19	55.63	2.19	55.63	2.19	55.63	2.06	52.32	2.06	52.32	2.06	52.52
2-1/2	2.62	66.55	2.62	66.55	2.62	66.55	2.62	66.55	2.50	63.60	2.50	63.50	2.50	63.50
3	3.19	81.03	3.19	81.03	3.19	81.03	3.19	81.03	3.10	78.74	3.10	78.74	3.10	78.74
4	4.19	106.43	4.19	106.43	4.04	102.62	4.04	102.62	4.04	102.62	3.85	97.79	3.85	97.79
5	5.19	131.83	5.19	131.63	5.05	128.27	5.05	128.27	5.05	128.27	4.90	124.46	4.90	124.46
6	6.19	157.23	6.19	157.23	6.10	154.64	6.10	154.94	6.10	154.95	5.80	147.32	5.80	147.32
8	8.50	215.90	8.50	215.90	8.10	205.74	8.10	205.74	7.75	196.85	7.75	196.85	7.75	196.85
10	10.56	288.22	10.56	268.22	10.05	255.27	10.05	255.27	9.69	246.13	9.69	246.13	9.69	246.13
12	12.50	317.50	12.50	317.50	12.10	307.34	12.10	307.34	11.50	292.10	11.50	292.10	11.50	292.10
14	13.75	349.28	13.75	349.25	13.50	342.80	13.50	342.90	12.63	320.80	12.63	320.80	-	-
16	15.75	400.05	15.75	400.05	15.35	389.89	15.35	389.89	14.75	374.65	14.50	388.30	-	-
18	17.69	449.33	17.69	449.33	17.25	438.15	17.25	438.15	16.75	425.45	16.75	425.45	-	-
20	19.69	500.13	19.69	500.13	19.25	488.95	19.25	488.95	19.00	482.60	18.75	476.25	-	-
24	23.75	603.25	23.75	603.25	23.25	590.55	23.25	590.65	23.25	590.55	22.75	577.85	-	-

In accordance with ASME B16.20, Inner Rings are mandatory for the following flange designations (see Table 3).

- Class 900 - NPS 24 to 48
- Class 1500 - NPS 12 to NPS 24
- Class 2500 - NPS 4 to NPS 12
- All PTFE filled gaskets
- All flexible graphite gaskets unless otherwise requested by the customer

ASME B16.20 does not include dimensions for NPS ¼, 3 ½, or 4 ½, or Class 400 Flanges up to NPS 3 and Class 900 Flanges up to NPS 2 ½.



# STYLE CG & CGI

To Suit ASME B16.5 & BS 1560 Small Diameter Screwed or Slip-On Flanges



**TABLE 4: STYLE CG & CGI To Suit ASME B16.5 & BS 1560 Small Diameter Screwed or Slip-On Flanges (INCHES & MILLIMETERS)**

NOM PIPE SIZE (in)	Inner Ring Diameter		SEALING ELEMENT				GUIDE RING OUTSIDE DIAMETER											
			Inside Dia.		Outside Dia.		Class 150		Class 300		Class 400		Class 600		Class 900		Class 1500	
	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)	(in)	(mm)
1/4	-	-	9/16	14.3	7/8	22.2	1-3/4	44.5	1-3/4	44.5	1-3/4	44.5	1-3/4	44.5	-	-	-	-
1/2	9/16	14.3	15/16	23.8	1-1/4	31.8	1-7/8	47.6	2-1/8	54.0	2-1/8	54.0	2-1/8	54.0	2-1/2	63.5	2-1/2	63.5
3/4	13/16	20.6	1-3/16	30.2	1-9/16	39.7	2-1/4	57.2	2-5/8	66.7	2-5/8	66.7	2-5/8	66.7	2-3/4	69.9	2-3/4	69.9
1	1-1/16	27.0	1-7/16	36.5	1-7/8	47.6	2-5/8	66.7	2-7/8	73.0	2-7/8	73.0	2-7/8	73.0	3-1/8	79.4	3-1/8	79.4
1-1/4	1-3/8	34.9	1-7/8	47.6	2-3/8	60.3	3	76.2	3-1/4	82.6	3-1/4	82.6	3-1/4	82.6	3-1/2	88.9	3-1/2	88.9
1-1/2	1-5/8	41.3	2-1/8	54.0	2-3/4	69.9	3-3/8	85.7	3-3/4	95.3	3-3/4	95.3	3-3/4	95.3	3-7/8	98.4	3-7/8	98.4

**NOTE:** The above style CG & CGI spiral wound gaskets are dimensioned to suit existing screwed or slip-on flanges for NPS 1/4 to 1-1/2 ASME B16.5 & BS 1560 flanges.

\* RAGCO supports the autonomy of its locations to select the best products to service their markets. Subtle variations of these specification may exist. Contact your RAGCO affiliate for confirmation.



# SPIRAL WOUND MANWAY & HANDHOLE GASKETS

Gaskets for boiler handhole, tubecap and manhole covers incorporating the unique Flexitallic Spiral Wound profile and specially manufactured with graphite filler, are ideal for corrosive, high pressure or temperature duties. Flexitallic's anticipation of developments in modern steam generating and engineering equipment and ability to design to specific requirements are the guarantee of the perfect seal at minimum maintenance cost with consistently high standards of performance.

- High safety factor related to specific operating conditions
- Resilient under concentrated and fluctuating loads
- Compression loadings proportional to safe stresses of cover assemblies
- Prolonged trouble-free service
- Reduced seat cleaning time



**Elliptical Handhole Gasket**



**Diamond Shaped Handhole Gasket**



**Elliptical Manway Gasket**

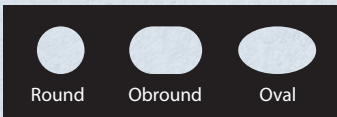


## STYLE M & MC & MCS

### Spiral Wound Gaskets for Boiler Manhole Cover Assemblies

The manhole gasket spiral constructions incorporate modified compression values to provide seating loads within the normal range of cover assemblies.

**SIZE/RANGE SPECIFICATION:** Available in circular, obround, and oval shapes to suit standard manhole plate configurations.

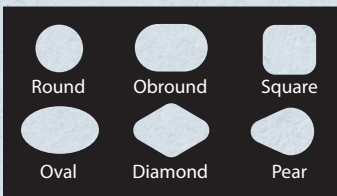


## STYLE T

### Spiral Wound Gaskets for Boiler Handhole and Tubecap Assemblies

The design features of the basic spiral wound construction alleviate the need for sealing compound. Particularly suitable where old and pitted faces have rendered other gaskets ineffective.

**SIZE/RANGE SPECIFICATION:** Available in several standard shapes - Supplied in thicknesses of 3.2mm (0.125in.) or 4.5mm (0.175 in.). The standard thickness of 4.5mm (0.175in.) is recommended for use in assemblies where the seat is relatively broad and bolting load is low.



## MATERIALS

Standard materials are Type 304 Stainless Steel and graphite windings. Special materials to suit specific operating conditions are available.

## TO ORDER

**Submit the following with all inquiries:** 1) Name of boiler or equipment manufacturer; 2) Gasket style; 3) Dimensions of gasket; 4) Gasket thickness; 5) Flange width of gasket; 6) Pressure service rating; 7) Gasket material preference



# STYLES M & MC

For Manhole Cover Assemblies

## STYLES M & MC FOR MANHOLE COVER ASSEMBLIES

STYLE	NOMINAL I.D. DIMENSIONS (IN)	THICKNESS (IN)	FLANGE WIDTH (IN)
M-Oval	10 x 15	0.250	15/16
M-Oval	10 x 16	0.250	15/16
M-Oval	11 x 15	0.250	15/16
MC-Oval	11 x 15	0.250	13/16
M-Oval	11 x 15	0.175	3/4
M-Oval	11 x 15	0.175	15/16
M-Oval	11 x 15	0.175	1/2
M-Oval	11 x 15	0.175	1-1/4
M-Oval	11 x 15	0.250	1-1/4
M-Obround	11-1/16 x 14-7/8	0.250	15/16
M-Obround	11-7/16 x 15-1/16	0.250	15/16
M-Oval	12 x 16	0.250	15/16
MC-Oval	12 x 16	0.250	13/16
M-Oval	12 x 16	0.175	1/2
M-Oval	12 x 16	0.175	3/4
M-Oval	12 x 16	0.175	15/16
M-Oval	12 x 16	0.175	1-1/4
M-Oval	12 x 16	0.250	1-1/4
M-Obround	12 x 16	0.250	15/16
M-Obround	12 x 16	0.250	1-1/4
MC-Oval	12-1/8 x 16-1/8	0.250	13/16
M-Obround	14 x 16	0.175	3/4
M-Round	14	0.175	3/4
M-Round	16-1/16	0.175	3/4

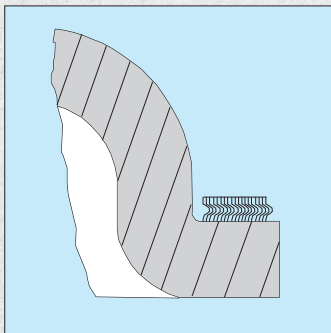
**NOTE:** When ordering gaskets specify operating pressure and temperature and type of steel desired.

## STYLE MCS SPIRAL WOUND GASKETS

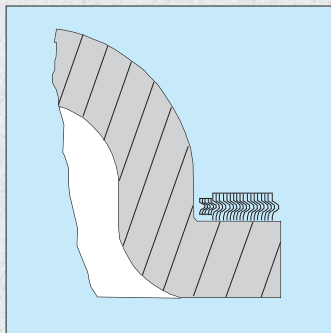
In keeping with our tradition of taking a leadership role in the gasket industry we are pleased to introduce the style MCS spiral wound gasket for use on boiler manhole cover assemblies. The style MCS gasket is an exclusive design, consisting of a spiral wound gasket with an integral solid metal inner ring. The spiral wound sealing element provides resilience, strength, blowout resistance and superior sealability. The solid metal ring prevents over-compression of the gasket, which is especially important on high pressure boilers. In addition, the rings provide stability and facilitate proper positioning of the gasket on the cover which prevents pinching, shouldering, and other gasket damage resulting from misalignment, irregular plate contours and fillets.

Style MCS spiral wound gaskets are available in a wide range of materials for standard, as well as special design manhole cover assemblies, in pressure classes of 0-499 psi, 0-999 psi, and 1000 psi and higher. For additional information or style MCS spiral wound gaskets, contact the Ragco location nearest you.

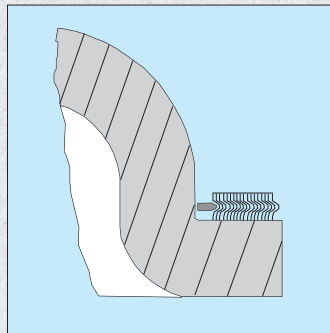
### STYLE M



### STYLE MC



### STYLE MCS



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### STYLE T FOR BOILER HANDHOLE AND TUBECAP ASSEMBLIES

0-499 lbs, 0-999 lbs, 1000 lbs and above. Specify operating temperature, pressure and type of steel.

IDENTIFICATION	SHAPE	NOMINAL I.D. (IN)	FLANGE WIDTH (IN)	IDENTIFICATION	SHAPE	NOMINAL I.D. (IN)	FLANGE WIDTH (IN)
American Engineering	Obround Round	3-5/16 x 3-11/16 3-5/16	3/16 3/16	Foster Wheeler (con't.)	Round Round Rectangular	3-1/8 or 3-1/16 4-1/8 or 4-1/16 4-15/16 x 5-3/16	3/8 3/8 7/32
Babcock and Wilcox				Geary			
No.41	Obround	2-9/64 x 2-33/64	5/32	31/2"	Obround	3-13/16 x 4-5/8	3/8
No.40	Diamond	3-3/8 x 3-3/4	3/16	4"	Obround	4-1/4 x 5-1/4	7/16
No.48	Oval	3-13/16 x 4-3/4	7/32	4" (.285" Thick)	Obround	4-1/4 x 5 1/4	7/16
No.79	Obround	4-5/32 x 4-25/32	1/4	Heine	Obround	3-5/8 x 4-5/8	3/8
No.24	Oval	4-1/2 x 5-1/2	7/32	Round	Round	3-5/8	3/8
No.76	Oval	5-1/32 x 5-31/32	1/4	International	Oval	2-19/32 x 3-19/32	7/16
2" Econ.	Round	1-5/8	1/4	Keeler	Diamond	4-1/4x 5-1/4	3/8
No.47	Round	2-1/32	3/16	Round	Round	4-1/4	3/8
No.32	Round	3	1/4	Obround	Obround	3 x 4	3/8
No.70	Round	3-9/32	3/16	Murray	Obround	3-5/8 x 4-9/16	3/8
No.89	Round	3-7/16	5/32	Obround	Obround	3-5/8 x 4-9/16	7/16
No.92	Round	4-1/32	1/4	Obround	Obround	4-1/32 X 4-29/32	3/8
No.28	Rectangular	4-13/16 x 5	7/32	Oil Field	Obround	2-1/2 x 3-1/2	3/8
Badenhausen (See Riley Stoker)				Oval	Oval	3 x 4	3/8
Bros				Oval	Oval	3-1/2 x 4-1/2	3/8
HB-5 and HB-10	Round	2-1/4	1/4	Oval	Oval	4-1/16 x 5-1/16	7/16
HB-6 and HB-11	Round	3-3/8	1/4	Orr & Sembower	Oval	2-23/32 x 3-21/32	3/8
HB-12	Round	4-1/4	1/4	Oval	Oval	3-13/32 x 4-13/32	3/8
HB-8 and HB-13	Obround	3-3/8 x 4-1/4	1/4	Pacific	Round	1-1/2	1/2
HB-14	Obround	4-1/4 x 5	1/4	Round	Round	2	1/2
Bucyrus-Erie				2-1/2		2-1/2	1/2
Q227	Obround	3 x 4-1/2	3/8	Page			
Q260	Oval	4 x 6	7/16	Larrabee	Oval	2-27/32 x 3-29/32	3/8
Q208	Round	2-1/2	1/4	Junior	Oval	3-1/8 x 4-1/8	3/8
Casey-Hedges	Obround	4-1/4 x 5-1/8	3/8	Page	Oval	3-1/8 x 4-1/4	3/8
Cleaver-Brooks	Obround	2-27/32 x 3-19/32	5/16	P-B	Oval	3-5/16 x 4-5/16	3/8
	Obround	3-9/32 x 4-17/32	3/8	Drum	Oval	3-25/32 x 5-13/32	5/8
	Obround	4 x 6	3/8	Consol	Round	2-3/16	3/8
Combustion Engineering				Riley Stoker			
24N-L1206	Diamond	3 x 3-7/8	1/4	W-C22	Oval	3-17/32 x 4-17/32	5/16
29N-L839	Diamond	3-3/8 x 4-1/4	1/4	W-C2	Obround	3-23/32 x 5-23/32	11/32
30N-L866	Diamond	3-5/8 x 4-1/2	1/4	W-C16	Round	1-31/32	3/8
33N-L1205	Diamond	3-3/4 x 4-5/8	1/4	W-C6	Round	3-9/32	5/16
31N-L579	Diamond	4-1/4 x 5-1/8	1/4	W-C9	Square	4 x 4	11/32
21N-L1291	Obround	2-1/8 x 2-1/2	5/32	Square	Square	5-1/2 x 5-1/2	3/8
22N	Oval	2-1/8 x 2-5/8	7/32	Springfield	Oval	3-17/32 x 4-17/32	5/16
23N	Obround	2-25/32 x 3-13/32	7/32	Oval	Oval	4-1/16 x 5-1/16	3/8
25N-L1 278	Obround	3-1/8 x 4-1/8	3/16	Square	Square	5-1/2 x 5-1/2	3/8
27N	Diamond	3-3/8 x 3-3/4	3/16	Square	Square	7-3/8 x 7-3/8	5/8
28N-L1277	Obround	3-3/8 x 3-7/8	3/16	Superheater	Obround	2-21/32 x 3-9/32	15/64
32N	Oval	4-1/2 x 5-1/2	7/32	Obround	Obround	3-3/32 x 4-3/32	1/4
1N-L1272	Round	1-1/2	3/16	Obround	Obround	3-11/32 x 3-23/32	3/16
7N-L1131	Round	1-3/4	3/16	Obround	Obround	3-3/8 x 3-3/8	1/4
3N-L1274	Round	2-5/8	7/32	Round	Round	15/16	3/16
4N-L740	Round	3-1/8	1/4	Round	Round	3-3/32	1/4
L741	Round	3-3/8	1/4	Union			
5N-L902	Round	3-5/8	1/4	3 1/4"	Pear	3-7/16 x 4-7/16	3/8
5N-L744	Round	4-1/8	1/4	Pear	Pear	3-1/2 x 4-1/2	3/8
51N	Rectangular	4-13/16 x 5	7/32	Pear	Pear	4-1/4 x 5-1/4	3/8
52N-L1117	Rectangular	4-7/8 x 5-3/16	7/32	(.285" Thick)	Pear	4-1/4 x 5-1/4	3/8
PB9474	Obround	4-1/8 x 4-7/8	3/16	Oval	Oval	3-1/2 x 4-1/2	3/8
PB9474	Round	3-1/2	3/16	Oval	Oval	3 x 4	3/8
Connelly	Obround	3 x 3-15/16	3/8	Vogt	Oval	3 x 4	5/16
Edge Moor	Oval	4-1/8 x 5-1/4	3/8	Oval	Oval	3-3/8 x 4-1/4	7/32
	Round	2-1/2	1/2	Oval	Oval	3-1/4 x 4-1/2	5/16
	Round	4-1/16	15/32	Oval	Oval	3-3/4 x 5	3/8
Erie City	Pear	3-1/2 x 4-5/8	3/8	Oval	Oval	4 x 5	5/16
	Obround	3 x 4-1/2	3/8	Oval	Oval	4 x 6	3/8
	Oval	3-1/32 x 4-1/32	5/16	Oval	Oval	4-1/4 x 5-1/8	7/32 (new)
	Oval	3-17/32 x 4-17/32	5/16	Oval	Oval	4-1/4 x 5-1/8	5/16 (old)
	Oval	4-1/32 x 5-1/32	5/16	Oval	Oval	4-9/32 X 5-5/32	7/32
	Oval	4-1/32 x 6-1/32	3/8	31/2"	Round	3-19/32	3/8
	Round	3-1/2	3/8	Round	Round	4-1/8	3/8
Foster Wheeler	Diamond	4 x 5	3/8	Ward	Square	4-7/8 x 4-7/8	1/4
23/4"	Obround	2-25/32 x 3-13/32	7/32	Wickes	Pear	4-1/8 x 5-1/8	9/32
	Obround	3 x 4	3/8	Pear	Pear	4-1/4 x 5-1/8	3/8
	Obround	3-11/32 x 3-31/32	7/32	Oval	Oval	3 x 4	5/16
	Oval	4-3/16 x 5-3/16	5/16	D2301	Oval	3-1/2 x 4-1/2	5/16
	Round	15/16	5/32	D2361	Oval	4 x 5	5/16
	Round	2-1/32	13/64	D2724	Oval	4 x 6	5/16
	Round	2-1/32	15/64	Round	Round	4-1/8	3/8
	Round	2-1/8 or 2-1/16	3/8	Round	Round	4-1/4	3/8

