

CMG Family

Garlock Metallic Gaskets
Corrugated Metal Gaskets for superior reliability



CMG Family of Gaskets

Corrugated metal gaskets for superior reliability

CMG FAMILY

The superior technology of the CMG family of gaskets ensures excellent sealing performance and reliability, even in the most difficult applications. Each of the four styles combines a corrugated metal core with a compressible sealing element of various materials, for resistance to a wide range of harsh conditions, including extreme temperature, corrosive chemicals or thermal cycling.

GRAPHONIC® GASKET

With flexible graphite sealing element

- » Accommodates a wide range of temperatures
- » Seals effectively during thermal cycling
- » Fire safe - withstands API and FITT fire tests
- » Chemically resistant
- » Long service life

TEPHONIC® GASKET

With ePTFE sealing element

- » Chemically inert
- » Forms a tight seal under low bolt load
- » Conforms to minor sealing surface imperfections
- » Withstands temperatures to 500°F (260°C)

G.E.T.™ GASKET

With graphite and ePTFE sealing element

- » Combines fire safety with chemical resistance
- » Conforms to minor sealing surface imperfections
- » Rigid yet compressible

THERPHONIC™ GASKET

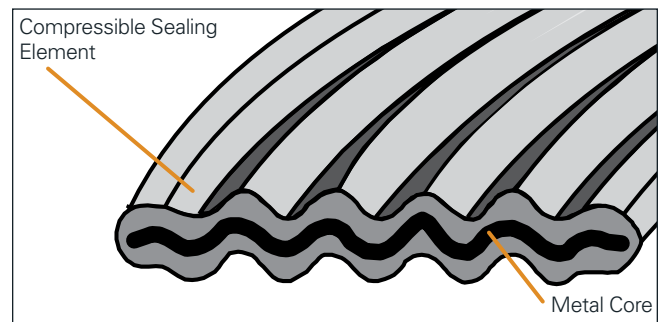
With THERMa-PUR® sealing element

- » Improved resistance to oxidizing media
- » Withstands temperatures to 1832°F (1000°C)

ENGINEERING DATA

	GRAPHONIC®	TEPHONIC® & G.E.T.™	THERMa-PUR®
Temperature:			
Min.:	-400°F (-240°C)	-400°F (-240°C)	1832°F (1000°C)
Max. in atmosphere:	850°F (454°C)	500°F (260°C)	
Max. in steam:	1200°F (650°C)	-	
Pressure, max.:		1000psig (70bar)	
P x T, max.			
1/16" thickness:	700,00 (25,000) [†]	-	-
1/8" thickness:	350,000 (12,000) [†]	250,000 (8,500)	600,000 (21,500)

CONSTRUCTION



STANDARD METALS

- » Carbon steel
- » Stainless 304
- » Stainless 316
- » INCONEL 600®
- » INCONEL 625®
- » INCOLOY 825®
- » HASTELLOY C276®
- » MONEL 400®
- » Titanium Grade 2
- » Duplex 2205
- » Contact Garlock if the metal you require is not shown

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 INCOLOY® is a registered trademark of Inco Alloys International, Inc.
 HASTELLOY® is a registered trademark of Haynes International
 MONEL® is a registered trademark of International Nickel

SEALING ELEMENTS

- » Flexible graphite
- » ePTFE
- » Combination graphite & ePTFE
- » THERMa-PUR®

* Maximum temperatures of 975°F (525°C) can be allowed for flexible graphite with oxidation inhibitors.

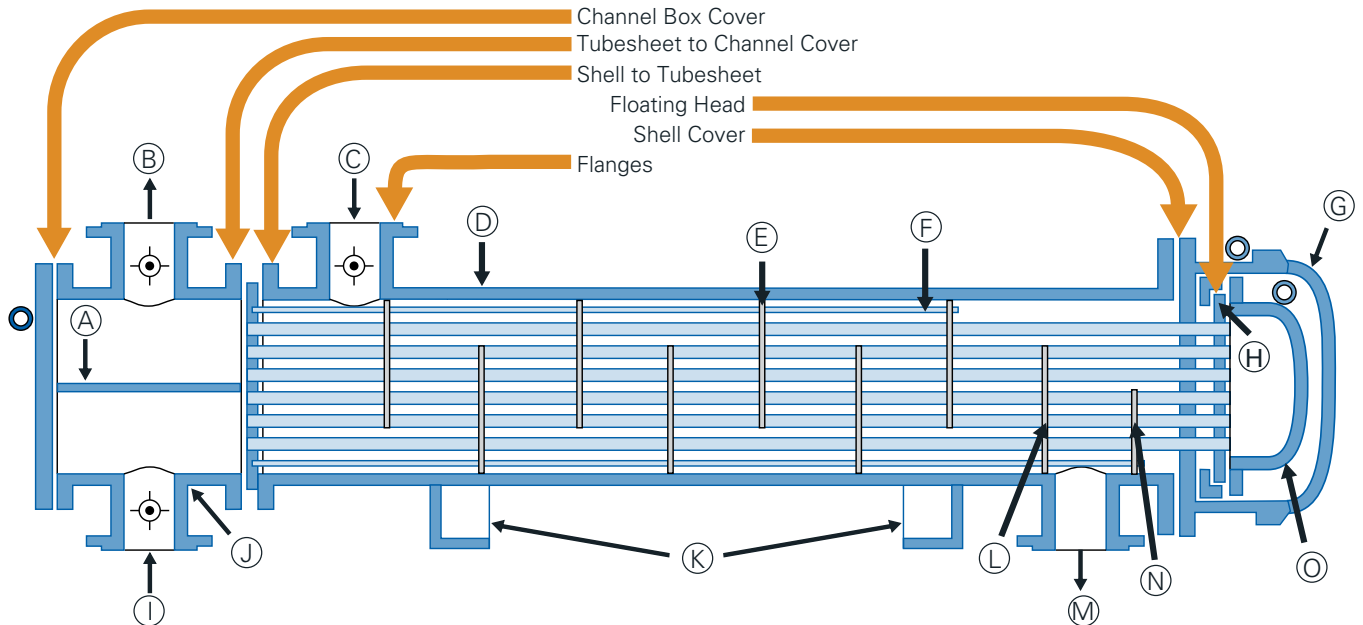
[†] PxT max. = psig x °F (bar x °C)

NOTE:

When approaching maximum temperatures, consult the Garlock Metallic Gasket Engineering Department, 1.877.GARLOCK

Applications for Heat Exchangers

GASKET LOCATIONS

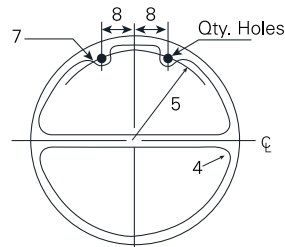
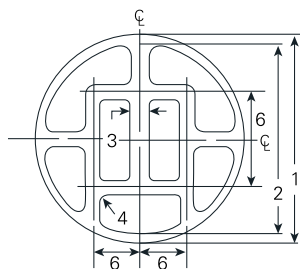


- A. Pass partition
- B. Tubeside fluid out
- C. Shell inlet
- D. Shell
- E. Baffles
- F. Tie rods & spacers
- G. Shell cover
- H. Floating tubesheet
- I. Tubeside fluid in
- J. Stationary-head channel
- K. Support saddles
- L. Last baffle
- M. Shell outlet
- N. Floating-head support plate
- O. Floating-head cover

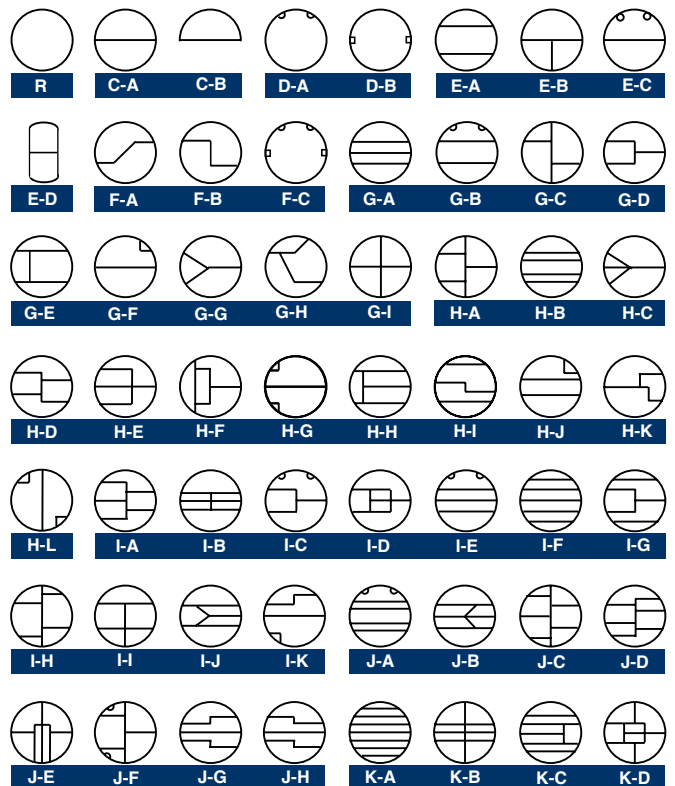
ORDERING INFORMATION

To order CMG heat exchanger gaskets, specify:

- » Style
- » Shape (see chart on right)
- » Material (metal & facing)
- » Thickness
- » Outside diameter (1)
- » Inside diameter (2)
- » Width of rib (3)
- » Radius of rib (4)
- » Bolt circle radius (5)
- » CL of gasket to CL of rib (6)
- » Radius around bolt (7)
- » Location & number of bolt holes (8)



GASKET CONFIGURATIONS



GASKET DIMENSIONS

ASME / ANSI B16.5 Flanges to ASME B16.21-2011

Nominal Pipe Size		Gasket Contact		Gasket Inside		Gasket Outside Diameter [2] Flange Pressure Class (lb)			
		Width W [1]		Diameter [3]		Class 150		Class 300	
inch	mm	inch	mm	inch	mm	inch	mm	inch	mm
1/2	12.7	0.27	6.9	27/32	21.4	1-7/8	47.6	2-1/8	54.0
3/4	19.1	0.31	7.9	1-1/16	27.0	2-1/4	57.2	2-5/8	66.7
1	25.4	0.34	8.6	1-5/16	33.3	2-5/8	66.7	2-7/8	73.0
1-1/4	31.8	0.42	10.7	1-21/32	42.1	3	76.2	3-1/4	82.6
1-1/2	38.1	0.48	12.2	1-29/32	48.4	3-3/8	85.7	3-3/4	95.3
2	50.8	0.62	15.7	2-3/8	60.3	4-1/8	104.8	4-3/8	111.1
2-1/2	63.5	0.62	15.7	2-7/8	73.0	4-7/8	123.8	5-1/8	130.2
3	76.2	0.75	19.1	3-1/2	88.9	5-3/8	136.5	5-7/8	149.2
3-1/2	88.9	0.75	19.1	4	101.6	6-3/8	161.9	6-1/2	165.1
4	101.6	0.84	21.3	4-1/2	114.3	6-7/8	174.6	7-1/8	181.0
5	127.0	0.88	22.4	5-9/16	141.3	7-3/4	196.9	8-1/2	215.9
6	152.4	0.94	23.9	6-5/8	168.3	8-3/4	222.3	9-7/8	250.8
8	203.2	1.00	25.4	8-5/8	219.1	11	279.4	12-1/8	308.0
10	254.0	1.00	25.4	10-3/4	273.1	13-3/8	339.7	14-1/4	362.0
12	304.8	1.12	28.4	12-3/4	323.9	16-1/8	409.6	16-5/8	422.3
14	355.6	1.12	28.4	14	355.6	17-3/4	450.9	19-1/8	485.8
16	406.4	1.25	31.8	16	406.4	20-1/4	514.4	21-1/4	539.8
18	457.2	1.50	38.1	18	457.2	21-5/8	549.3	23-1/2	596.9
20	508.0	1.50	38.1	20	508.0	23-7/8	606.4	25-3/4	654.1
24	609.6	1.62	41.1	24	609.6	28-1/4	717.6	30-1/2	774.7

WARNING:

Properties/applications shown throughout this brochure are typical. Your specific application should not be undertaken without independent study and evaluation for suitability. For specific application recommendations consult Garlock. Failure to select the proper sealing products could result in property damage and/or serious personal injury.

Performance data published in this brochure has been developed from field testing, customer field reports and/or in-house testing.

While the utmost care has been used in compiling this brochure, we assume no responsibility for errors. Specifications subject to change without notice. This edition cancels all previous issues. Subject to change without notice.

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GARLOCK

an *EnPro* Industries family of companies

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