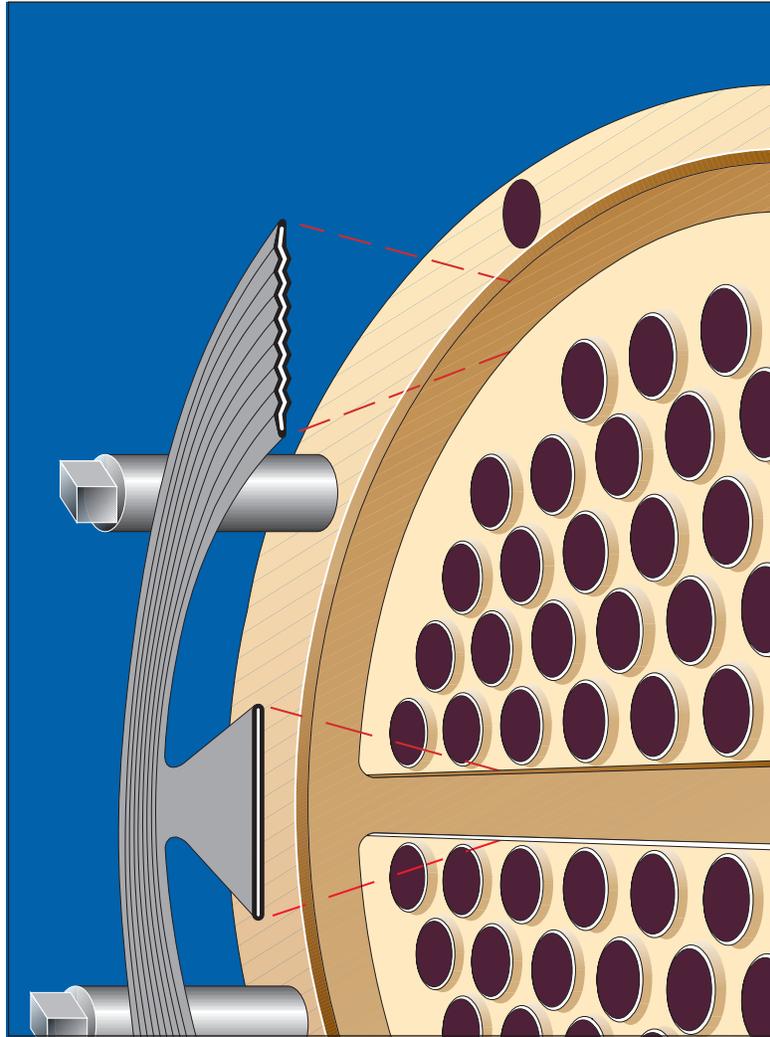


# The GRAPHONIC® Family of Gaskets

*Corrugated metal gaskets for superior reliability*



**Garlock**  
SEALING TECHNOLOGIES®

an EnPro Industries company

# The GRAPHONIC® Family of Gaskets

## Corrugated metal gaskets for superior reliability

### GRAPHONIC® Family

The superior technology of the GRAPHONIC® family of gaskets ensures excellent sealing performance and reliability, even in the most difficult applications. Each of the three 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

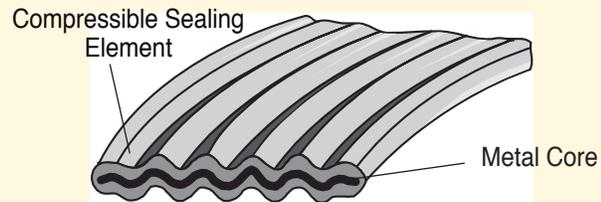
- Chemically inert
- Forms a tight seal under low bolt load
- Conforms to minor sealing surface imperfections
- Withstands temperatures to 500°F (260°C)

### 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

### Construction



#### Standard Metals

- Mild steel
- Stainless 304
- Stainless 316
- INCONEL 600®
- INCONEL 625®
- INCOLOY 300®
- INCOLOY 825®
- HASTELLOY C276®
- MONEL 400®

#### Sealing Elements

- Flexible graphite
- ePTFE
- Combination graphite and ePTFE

INCONEL® is a registered trademark of Inco Alloys International, Inc.  
 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.

### Engineering Data

	GRAPHONIC®	TEPHONIC® and G.E.T.™
<b>Temperature</b>		
Min.:	-400°F (-240°C)	-350°F (-210°C)
Max. in atmosphere:	850°F (454°C)*	500°F (260°C)
in steam:	1200°F (650°C)	—
continuous in reducing or inert media:	5432°F (3000°C)	—
<b>Pressure, max.:</b>	2000 psig (140 bar)	
<b>P x T, max.</b>		
1/16" thickness:	700,000 (25,000)†	
1/8" thickness:	350,000 (12,000)†	

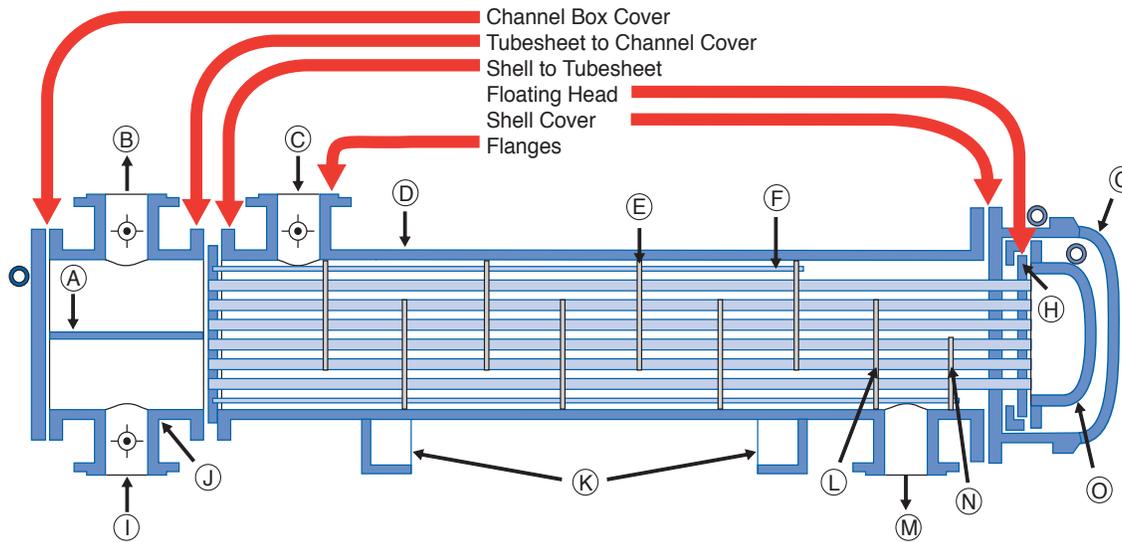
\* Maximum temperatures of 975°F (525°C) can be allowed for flexible graphite with oxidation inhibitors.

† P x T max. = psig x °F (bar x °C)

Note: When approaching maximum temperatures, consult the Garlock Metallic Gasket Engineering Dept. at 1-800-972-7638 or 1-281-459-7200.

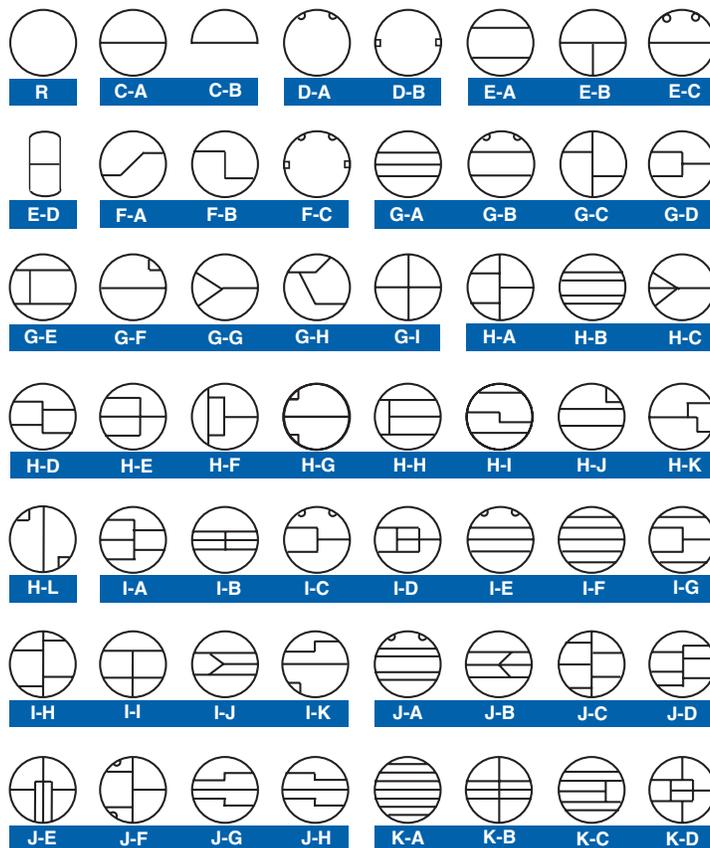
# Applications for Heat Exchangers

## Gasket Locations



- A Pass partition
- B Tubeside fluid out
- C Shell inlet
- D Shell
- E Baffles
- F Tie rods and 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

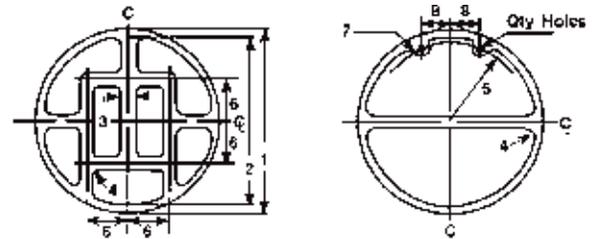
## Gasket Configurations



## Ordering Information

To order GRAPHONIC® heat exchanger gaskets, specify:

- Style
- Shape (see chart at left)
- Material (metal)
- 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 and number of bolt holes (8)



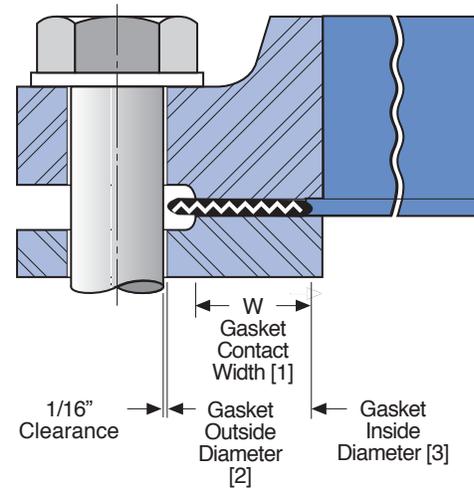
### WARNING:

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. GARLOCK is a registered trademark for packings, seals, gaskets, and other products of Garlock.

# Gasket Dimension Table

## ASME / ANSI B16.5 Flanges to ANSI B16.21-1992

Nominal Pipe Size	Pipe Size	Gasket Contact Width W [1]		Gasket Inside Diameter [3]		Gasket Outside Dia. [2]			
						Flange Pressure Class (lb)			
						Class 150		Class 300	
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



### AUTHORIZED REPRESENTATIVE

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an EnPro Industries company

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