



A.R. Thomson Group

FLUID CONTAINMENT AND CONTROL SPECIALISTS SINCE 1967



CANFLEX® METALLIC GASKETS

CANFLEX® Spiral Wound Gaskets

Manufactured in Accordance with ASME B16.20

Spiral wound gaskets — made with an alternating combination of formed metal wire and soft filler materials — form a very effective seal when compressed between two flanges. A V-shaped crown centered in the metal strip acts as a spring, giving the gaskets greater resiliency under varying conditions. Filler and wire material can be changed to accommodate different chemical compatibility requirements. If the load available to compress a gasket is limited, gasket construction and dimensions can be altered to provide an effective seal.

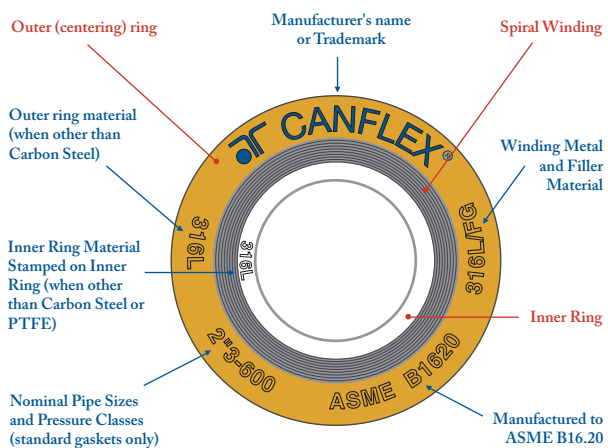
A spiral wound gasket may include a centering ring, an inner ring or both. The outer centering ring accurately positions the gasket within the flange and acts as a compression limiter, while the inner ring provides additional radial strength. The inner ring also reduces flange erosion and protects the sealing element.

Resiliency and strength make spiral wound gaskets an ideal choice under a variety of conditions and applications. Widely used throughout refineries and chemical processing plants, spiral wound gaskets are also effective for power generation, aerospace, and a variety of valve and specialty applications.

The ASME B16.20 gasket specification has been updated and changed to a new recommended standard. The new criteria incorporates a default to inner rings in all graphite-filled spiral wound gaskets unless the purchaser specifies otherwise. However, a graphite-filled spiral wound gasket without an inner ring will still be stamped with and in compliance to the ASME B16.20 standard.

Spiral Wound Specifications

Gasket Identification Markings Required by ASME B16.20



Temperature Limits for Common Metals

Material	Minimum		Maximum		Abbreviation	Guide Ring Color Code
	°F	°C	°F	°C		
304 Stainless Steel	-320	-195	1400	760	304	Yellow
316L Stainless Steel	-150	-100	1400	760	316L	Green
317L Stainless Steel	-150	-100	1400	760	317L	Maroon
321 Stainless Steel	-320	-195	1400	760	321	Turquoise
347 Stainless Steel	-320	-195	1700	925	347	Blue
Carbon Steel	-40	-40	1000	540	CRS	Silver
20Cb-3 (Alloy 20)	-300	-185	1400	760	A-20	Black
HASTELLOY® B 2	-300	-185	2000	1090	HAST B	Brown
HASTELLOY® C 276	-300	-185	2000	1090	HAST C	Beige
INCOLOY® 800	-150	-100	1600	870	IN 800	White
INCONEL® 600	-150	-100	2000	1090	INC 600	Gold
INCONEL® X750	-150	-100	2000	1090	INX	No Color
MONEL® 400	-200	-130	1500	820	MON	Orange
Nickel 200	-320	-195	1400	760	NI	Red
Titanium	-320	-195	2000	1090	TI	Purple

Temperature Limits for Filler Material

Material	Minimum		Maximum		Abbreviation	Guide Ring Color Code
	°F	°C	°F	°C		
Ceramic	-350	-212	2000	1090	CER	Light Green
Flexible graphite	-350	-212	950	510	F.G.	Gray
PTFE	-400	-240	500	260	PTFE	White
Verdicarb (Mica Graphite)	-350	-212	350	177	VC	Pink
CANFLEX® Thermal Guard	-350	-212	1250	677	MIFGMI	No Color
CANFLEX® High Temp	-350	-212	1832	1000	THT	No Color

CANFLEX® RW, RWI and CW Gaskets

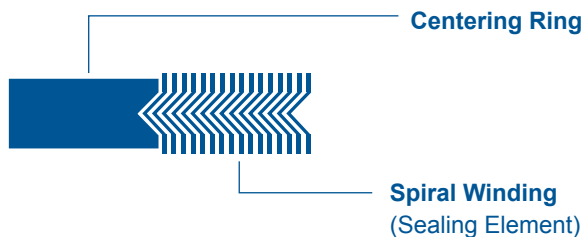
Advantages

- Durable; easy installation and removal
- Seals pressures to flange ratings, in accordance with ASME B16.5
- Suited to temperatures from cryogenic to 2000°F (1093°C)
- Guide ring simplifies centering of sealing element on the flange face.
- Custom-tailored solutions accommodate a variety of conditions by combining various metals and filler materials.

Style RW

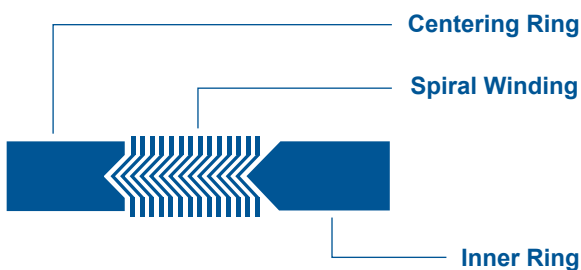
- General purpose gasket suitable for flat face and raised face flanges up to Class 2500
- Centering ring accurately locates the gasket on the flange face, provides additional radial strength, and acts as a compression limiter
- Spiral winding (sealing element) consists of pre-formed metal and soft filler material

NOTE: An inner ring is recommended for applications above Class 600, due to the high available bolt load. See Style RWI.



Style RWI

- Suitable for flat face and raised face flanges up to Class 2500
- Recommended for higher pressure applications, for use with PTFE fillers, and when delineated by ASME B16.20
- Inner ring acts as a compression limiter and protects sealing elements from process media attack



Style CW

- Suitable for tongue and groove, male-female, or groove-to-flat face flanges
- Spiral winding only, containing preformed metal and soft filler material
- Inner and outer diameters of winding are reinforced with several plies of metal without filler to give greater stability

NOTE: Also available with inner rings Style CWI.



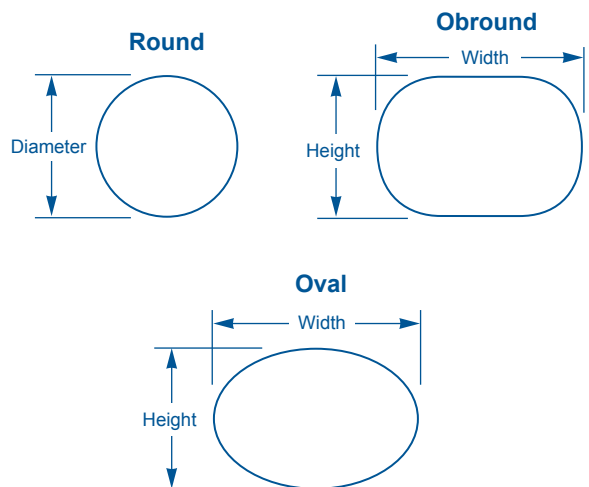
CANFLEX® MC and MCR Gaskets For Manhole Cover Assemblies

MC Gasket (manhole cover)

- Spiral winding only, containing preformed metal and soft filler material.



MC Configurations



CANFLEX® Corrugated Gaskets

The superior technology of the CANFLEX® corrugated family of gaskets ensures excellent sealing performance and reliability, even in the most difficult applications. Each of the 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, and thermal cycling.

Applications

- Valves
- Pumps
- Flanges
- Heat Exchangers
- Vessels

900 - S6G Gasket

With flexible graphite sealing element

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

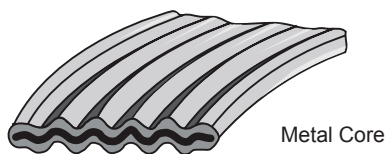
900 - ePTFE Gasket

With ePTFE sealing element

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

Construction

Compressible
Sealing Element



Standard Metals

- 304 Stainless
- 316L Stainless
- INCONEL® 600
- INCONEL® 625
- INCOLOY® 800
- INCOLOY® 825
- HASTELLOY® C276
- MONEL® 400

Sealing Elements

- Flexible graphite
- ePTFE
- Combination graphite and ePTFE

Ring Joint Gaskets (API 6A Certified)

Thomson RTJ gaskets are manufactured in all configurations (RX, BX, R Oval and Octagonal) and materials for API wellhead assemblies and high pressure/temperature ASME piping systems. Custom profile gaskets and lens rings are also available upon request.

CANFLEX® Cammprofile Gaskets

Applications

- Valves
- Pumps
- Flanges
- Heat Exchangers
- Vessels

Superior Performance

Serrated solid metal core

- Serrations concentrate bolt load on small area for tight seal at lower stress
- Solid metal core resists cold flow, over-compression and blowout
- Rigid core provides exceptional stability, even in large sizes, and facilitates handling and installation

CANFLEX® Cammprofile Styles		
942 A		
942 AR		
942 AR2		
Gasket Factor	"M" = 4.00	"Y" (psi) = 2,500

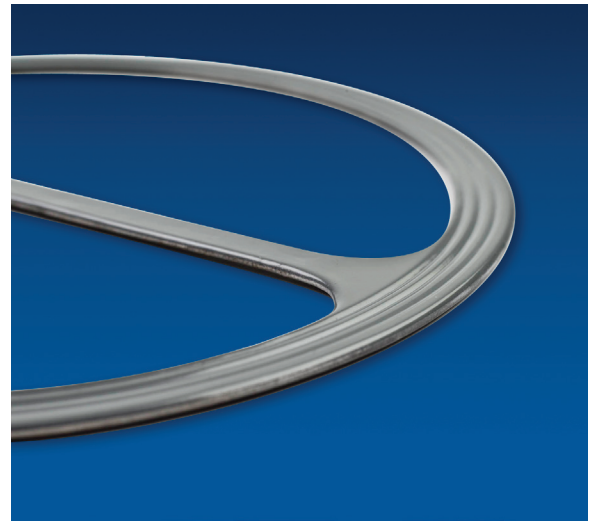
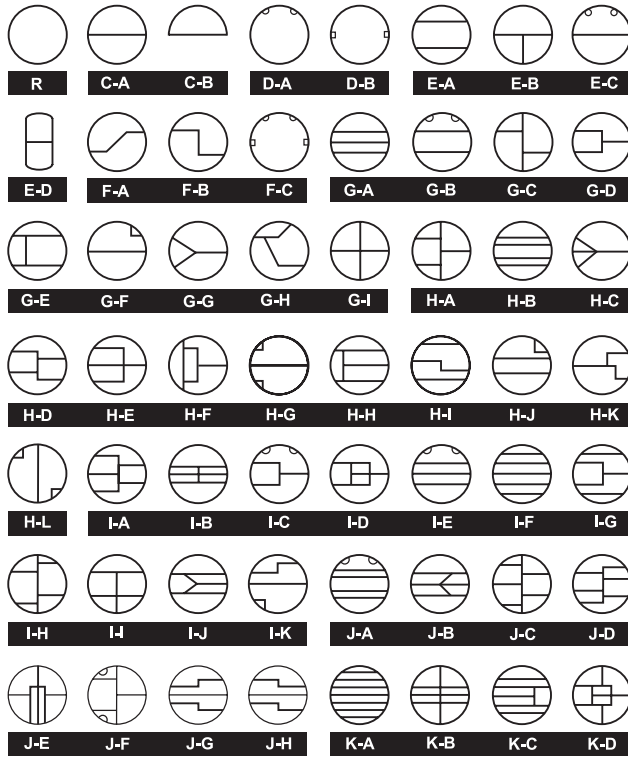
Benefits

- Accommodates standard ASME flanges as well as weaker and non-circular flanges
- Seals less-than-perfect flanges
- Handles pressures from vacuum to Class 2500
- Performance replacement for jacketed heat exchanger gaskets

Soft, deformable sealing material

- Under compression, fills seating surface imperfections to form a tight connection
- Seals under low stress – ideal for weaker flanges
- Withstands extreme fluctuations in temperature and pressure
- Integral centering ring ensures optimum gasket positioning
- Floating centering ring allows for expansion and contraction during thermal cycling

Heat Exchanger Gasket Configurations



CANFLEX® Heat Exchanger Gaskets

Gasket Styles

Style 900 – Corrugated Solid Metal

A plain, all-metal corrugated gasket for use in low pressure applications that require a thin line contact because of space or weight limitations. Corrugated gaskets are a versatile sealing element where the available bolt loads are low. Depending on the materials and construction, these gaskets can be very resilient.



Style 923 – Double-Jacketed

The double-jacketed gasket has good compressibility and resilience and is the most popular clad gasket manufactured.



Style 926 – Double-Jacketed Corrugated

Concentric corrugated sealing element totally encapsulates the soft filler material. The corrugations give improved resilience in applications where thermocycling is a problem.



Style 929 – Double-Jacketed Corrugated with Corrugated Metal Filler

The metal filler in this style has greater resilience to problems resulting from temperature changes. This unique multi-ply construction provides a more resilient gasket that adapts well to temperature and pressure cycling. The temperature limits of this gasket are governed only by the metal selected.



Style 940 – Solid Metal

This plain solid metal gasket can be supplied in any desired configuration. Where bolting force is sufficient, this style is capable of extremely tight make-ups, giving high mechanical strength, good heat conductivity, and resistance to temperature, corrosion and pressure.



Style 941 – Solid Metal Profile

Profile gaskets combine the desirable qualities of a solid metal gasket with the advantages of a reduced area of contact, thereby reducing the bolt load required to effect a seal. This gasket has the same advantages of strength, heat conductivity, and resistance to temperature, pressure and corrosion as CANFLEX® Style 940.



Other Styles of CANFLEX® Heat Exchanger Gaskets Available Upon Request

CORPORATE PROFILE

The A.R. Thomson Group was established in 1967 as a regional manufacturer/ distributor of gaskets and other fluid containment products. With the rapid growth of oil and gas production, petrochemical, oil refining and pulp and paper industries, our manufacturing facilities expanded to meet increased demand for these products. We currently design and manufacture a wide variety of products using the latest technology. Some examples include:

- ALL VARIETIES OF INDUSTRIAL METALLIC AND NON-METALLIC GASKETS
- PRE-FORMED PACKING SETS FOR VALVES, PUMPS AND MIXERS
- FLEXIBLE METAL HOSE AND EXPANSION JOINTS
- SEAL SPECIALTIES FOR THE OIL AND GAS INDUSTRY

A.R. Thomson Group has also increased the product scope for its Fluid Control Division. This includes a complete line of process and specialty valves along with fittings, pumps and accessories for process as well as product transfer piping systems.

Further to our industrial product offering, ARTG has developed an Energy Efficiency and Environmental program which identifies and minimizes system inefficiencies. The various elements of the program can significantly reduce operating costs and environmental impact. As part of this program ARTG has developed a technical services team which provides:

- ON-SITE TRAINING
- EQUIPMENT SURVEYS AND AUDITS
- APPLICATION ENGINEERING
- MAINTENANCE AND REPAIR OPTIMIZATION PROGRAMS

Since 1967, we have developed our expertise and know-how to become the leader in solving fluid containment and control problems. No matter what your control or containment needs, we can help.

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*Denotes manufacturing location.