



**Manufacturer of Industrial  
Gaskets and Customized  
Gaskets from India.**

**CAF**

**Non Asbestos**

**Spiral Wound**

**Ring Joint**

**Metal Jacketed**

**Corrugated**

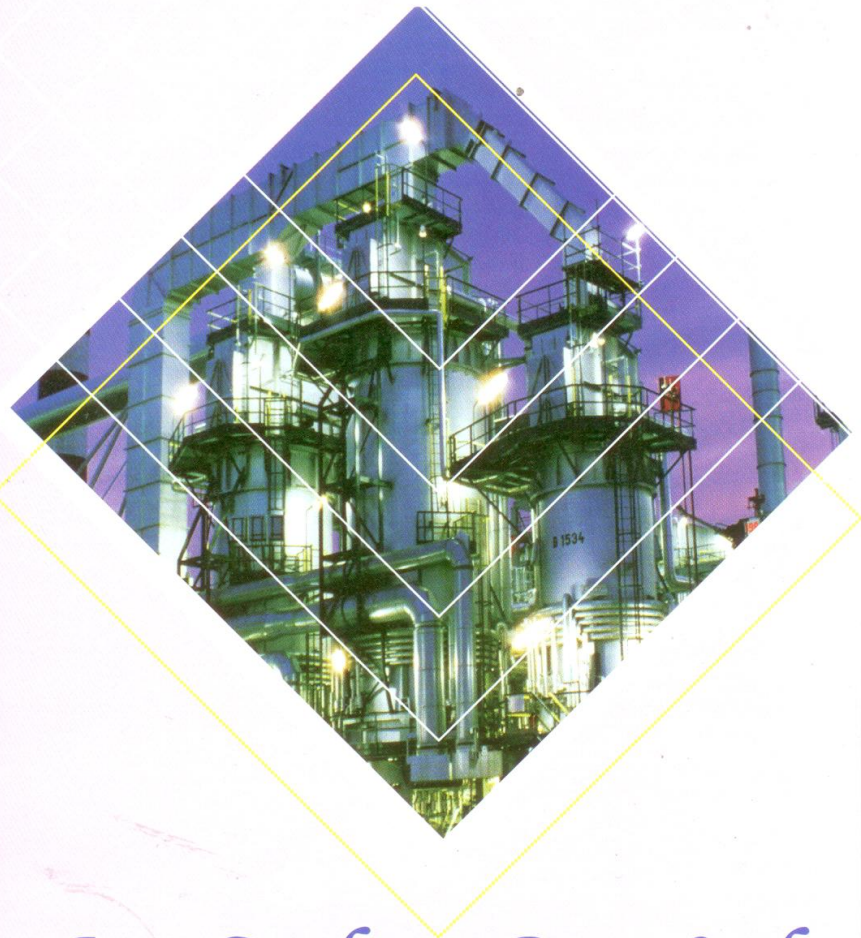
**PTFE (Teflon)**

**Rubber**

**Graphite Gaskets**

**Camprofile Gaskets**

**& Allied Products**



***Jay Gaskets Pvt. Ltd.***

**An ISO 9001-2000 Company**

## Our Mission

Recognized leadership in all types of Industrial Gaskets.

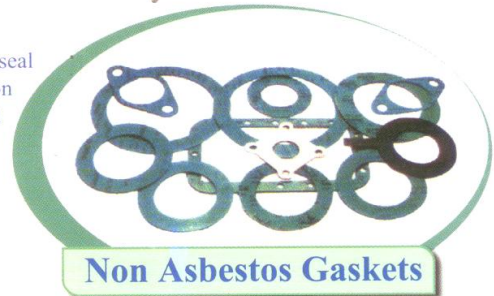
### CAF Gaskets



CAF/Non Asbestos Gaskets are die cut or circle cut from compressed asbestos fibre/non asbestos jointings which are manufactured from carefully selected chrysolite fibre intimately blended with suitable heat resistant binders etc. and vulcanised into sheet of homogenous compositions and uniform thickness. CAF/Non Asbestos cut gasket seal is effected by yielding or flow of material into the imperfections of joint contact faces. In this way gasket provides an unbroken barrier of homogenous structure through which no pathway exist for escape of confined media. Gaskets are made as per ASME B 16.21, DIN Std., IS Std and Gaskets as per clients specification & drawings.

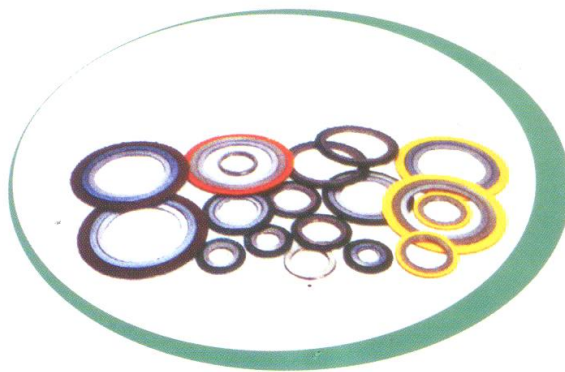
### Operating Condition and Choice of Gaskets

The resisting power of gasket to the fluid media in manufacturing a perfect seal against variation on temperature and pressure under working condition determines the selection of gasket Style or Grade as per Indian standard IS2712-1998 have specified Grades of Compressed Asbestos Fibres (CAF) depending upon the application as follows:







### Non Asbestos Gaskets


Grade	Application	Temp. And Pressure
IS2712/1998 W/1	Water, steam and for some chemical high service conditions	Upto 350° c and 130 Bar
IS2712/1998 W/2	Water, steam and for some chemical medium service condition	Upto 350° c and 40 Bar
IS2712/1998 W/3	Water, steam and for some chemical low service condition	Upto 250° c and 30 Bar
IS2712/1998 O/1	Oils - high service conditions	Upto 350°c and 130 Bar
IS2712/1998 O/2	Oils - medium and nominal service conditions	Upto 300°c and 80 Bar
IS2712/1998 A/1	Acids - highly corrosive	Upto 250°c and 100 Bar



### Spiral Wound Gaskets





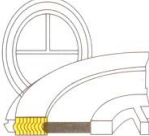
The Spiral Wound Gaskets  are composed of a metallic continuous stripe with a special shaped profile, coupled with a continuous filling stripe (Asbestos, PTFE, Grafoil, Ceramic etc.) evenly wound in concentric spiral under constant stress. The Spiral Wound Gaskets  are reinforced on the inner and outer diameter by winding of several electrically welded spiral metal only.

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The main property of  Spiral Wound Gasket, owing to elastic action of the special metallic stripe profile, is that of offering a perfect sealing under all fluctuating pressure and temperature conditions, also where temperature excursion has considerable value, maintaining tightening elastic recovering. This elasticity can be modified by a proper selection of components, and they can be installed even with flanges at standard working with lightly pitted or buckled by the use of flanges. A proper selection of materials (both metal and fillers) allows to adequate the spiral gasket to the most various operating conditions.

The normal shape is circular but it is possible to make oval shape, oblong shape. They can also be combined with jacketed gaskets to tightening heat exchangers internal shapes. Spiral Gaskets are made as per ASME B 16.20 to suit ASME B 16.5 flanges and as per "A" Series and "B" Series to suit ASME B 16.47 flanges. We also make spiral as per DIN 2632-2638, IS Stds.

 **Spiral Gaskets are manufactured in following types:**

- Type JR**  Spiral Without Inner And Outer Ring Suitable For Groove Flanges.
- Type JCR**  Spiral With Only Outer Ring Used As Centering Device And Compression Stop  
- General Applications.
- Type JRIR**  Spiral With Only Inner Ring Used As A High Pressure Temperature Capability  
- For Groove Flanges And General Applications.
- Type JCRIR**  Spiral With Inner And Outer Ring Of Solid Metal For High Pressure And Temperature Applications. Prevents Damage to The Gaskets Bore And Inner Windings - Acts As A Heat And Corrosion Barrier - Application As General And Critical Duties.
- Type JHTX**  Spiral With Inner Or Outer Or With Partition Ribs Acts As A Pass Bars.  
Manufactured To Customer Design.

The material of construction of Spiral Wound Gaskets are as per annexure

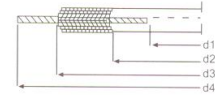
**Annexure**

Filler Material	Recommended Maximum Temperature	ASME B16.20 Color Coding
Graphite	550° c	Grey Stripe
PTFE	260° c	White Stripe
Non Asbestos/CAF	350° c	White/Pink Stripe
Ceramic	650° c	-
Wind Material	Recommended Maximum Temperature	ASME B16.20 Color Coding
304 Stainless Steel	650° c	Yellow
304L Stainless Steel	650° c	Yellow with Red Strip
316/316L Stainless Steel	650° c	Green
316Ti Stainless Steel	650° c	Light Blue
347 Stainless Steel	650° c	Blue
321 Stainless Steel	650° c	Turquoise Blue
Monel 400	600° c	Orange
Nickel 200	600° c	Red
Titanium	350° c	Purple
Hastelloy B-2	450° c	Brown
Hastelloy C-276	450° c	Belge
Inconel 600	950° c	Gold
Inconel 625	950° c	Gold
Inconel X-750	1000° c	Light Grey
Incoloy 825	950° c	White

**Notes:**

1. Inner Rings are required for all PTFE filled gaskets.
2. Gaskets outside Diameter Tolerance for 1/2" to 8" +I- 0.762mm.  
10" to 24" + 1.524 & -0.762mm.
3. Gaskets Inside Diameter Tolerance for 1/2" to 8" +I- 0.406mm.  
10" to 24" +1-0.762mm.
4. Center ring outside Diameter Tolerance is +I- 0.762mm,
5. There are no Class marked as (5).
6. Inner thickness 2.97 mm to 3.33 mm.
7. Inside diameter tolerance is for 1 1/4" to 3" +/- 0.762mm.  
4" to 24" +/- 1.524 mm.

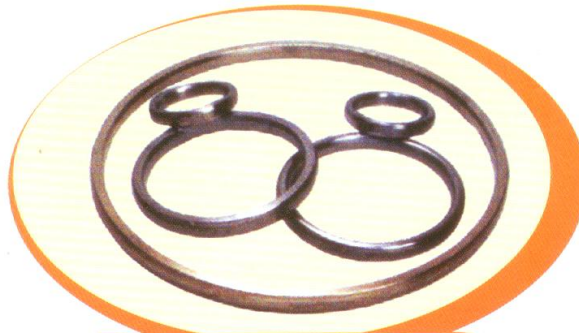
**TABLE 9 DIMENSIONS FOR SPIRAL WOUND GASKETS USED WITH ASME B16.5 FLANGES GASKETS DIMENSION AS PER ASME B16.20-1998**



Outside Diameter of Gaskets			Inside Diameter of Class (3) mm								Outside Diameter of centering ring by Class mm						
d3			d2								d4						
Flanges Size	Classes 150,300	Classes 900,1500															
(NPS)	400,600	2500	150	300	400	600	900	1500	2500	150	300	400	600	900	1500	2500	
1/2	31.75	31.75	19.05	19.05	(5)	19.05	(5)	19.05	19.05	47.75	54.10	(5)	54.10	(5)	63.50	69.85	
3/4	39.62	39.62	25.40	25.40	(5)	25.40	(5)	25.40	25.40	57.15	66.80	(5)	66.80	(5)	69.85	76.20	
1	47.75	47.75	31.75	31.75	(5)	31.75	(5)	31.75	31.75	66.80	73.15	(5)	73.15	(5)	79.50	85.85	
1.25	60.45	60.45	47.75	47.75	(5)	47.75	(5)	39.62	39.62	76.20	82.55	(5)	82.55	(5)	88.90	104.90	
1.5	69.85	69.85	54.10	54.10	(5)	54.10	(5)	47.75	47.75	85.85	95.25	(5)	95.25	(5)	98.55	117.60	
2	85.85	85.85	69.85	69.85	(5)	69.85	(5)	58.67	58.67	104.90	111.25	(5)	111.25	(5)	143.00	146.05	
2.5	98.55	98.55	82.55	82.55	(5)	82.55	(5)	69.85	69.85	123.95	130.30	(5)	130.30	(5)	165.10	168.40	
3	120.65	120.65	101.60	101.60	(5)	101.60	95.25	92.20	92.20	136.65	149.35	(5)	149.35	168.40	174.75	196.85	
4	149.35	149.35	127.00	127.00	120.65	120.65	120.65	117.60	117.60	174.75	181.10	177.80	193.80	206.50	209.55	234.95	
5	177.80	177.80	155.70	155.70	147.57	147.57	147.57	143.00	143.00	196.85	215.90	212.85	241.30	247.65	254.00	279.40	
6	209.55	209.55	182.63	182.63	174.75	174.75	174.75	171.45	171.45	222.25	250.95	247.65	266.70	289.05	282.70	317.50	
8	263.65	257.30	233.43	233.43	225.55	225.55	222.75	215.90	215.90	279.40	308.10	304.80	320.60	358.90	352.55	387.35	
10	317.50	311.15	287.27	287.27	274.57	274.57	276.35	266.70	270.00	339.85	361.95	358.90	400.05	435.10	435.10	476.25	
12	374.65	368.30	339.85	339.85	327.15	327.15	323.85	323.85	317.50	409.70	422.40	419.10	457.20	498.60	520.70	549.40	
14	406.40	400.05	371.60	371.60	361.95	361.95	355.60	361.95	(5)	450.85	485.90	482.60	492.25	520.70	577.85	(5)	
16	463.55	457.20	422.40	422.40	412.75	412.75	412.75	406.40	(5)	514.35	539.75	536.70	565.15	574.80	641.35	(5)	
18	527.05	520.70	474.73	474.73	469.90	469.90	463.55	463.55	(5)	549.40	596.90	593.85	612.90	638.30	704.85	(5)	
20	577.85	571.50	525.53	525.53	520.70	520.70	520.70	514.35	(5)	606.55	654.05	647.70	682.75	698.50	755.65	(5)	
24	685.80	679.45	628.65	628.65	628.65	628.65	628.65	615.95	(5)	717.55	774.70	768.35	790.70	838.20	901.70	(5)	

**TABLE 12 INNER-RING INSIDE DIAMETER FOR SPIRAL - WOUND GASKETS AS PER ASME B16.20 a. 2000**

Flange size:	Pressure Class in mm (d1)						
(NPS in)	150	300	400(1)	600	900(1,2)	1500(2,3)	2500(1-3)
0.50	14.22	14.22		14.22		14.22	14.22
0.75	20.57	20.57		20.57		20.57	20.57
1	26.92	26.92		26.92		26.92	26.92
1.25	38.10	38.10		38.10		33.27	33.27
1.50	44.45	44.45		44.45		41.40	41.40
2	55.63	55.63		55.63		52.32	52.32
2.50	66.55	66.55		66.55		63.50	63.50
3	81.00	81.00		78.74	78.74	78.74	78.74
4	106.43	106.43	102.62	102.62	102.62	97.79	97.79
5	131.83	131.83	128.27	128.27	128.27	124.46	124.46
6	157.23	157.23	154.94	154.94	154.94	147.32	147.32
8	215.90	215.90	205.74	205.74	196.85	196.85	196.85
10	268.22	268.22	255.27	255.27	246.13	246.13	246.13
12	317.50	317.50	307.35	307.35	292.10	292.10	292.10
14	349.25	349.25	342.90	342.90	320.80	320.80	
16	400.05	400.05	389.89	389.89	374.65	368.30	
18	449.33	449.33	438.15	438.15	425.45	425.45	
20	500.13	500.13	488.95	488.95	482.60	476.25	
24	603.25	603.25	590.55	590.55	590.55	577.85	










## Ring Joint Gaskets





**Ring Joint Gaskets** are produced from different solid metal types. They are used to stand high pressure and temperatures and they are employed where corrosive agents are present. These gaskets are obtained by mechanical working from forged or laminated metals in one single piece. They are employed in production and refining process of oil and chemical industries. Ring Joint Gaskets are strictly manufactured to API-6A/ASME B16.20 specifications.

Ring Joint Gaskets shall be either octagonal or oval in cross section and identify by R, RX or BX number that relates to flange size (NPS), pressure class and appropriate flange standards. (ASME B16.20, ASME B16.47 or API Specification 6A.)

## Ring Gasket Materials

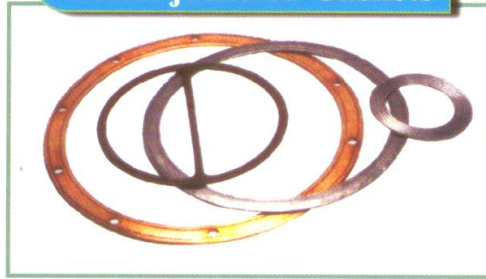
### Max. Hardness

Gasket Material	Identification	Brinell	Rockwell	Marking
			B Scale	
Soft Iron	D	90	56	R No. D 
Low Carbon Steel	S	120	68	R No. S 
4-5 Chrome Half Moly	F5	130	72	R No. F5 
Type 410	S410	170	86	R No. S410 
Type 304	S304	160	83	R No. S304 
Type 316	S316	160	83	R No. S316 
Type 347	S347	160	83	R No. S347 

SECTION	TYPE	PRESSURE Kg/cm <sup>2</sup>	STANDARD
	RJ Oval	700	ASME B16.20
	RJ Octogonal	700	ASME B16.20
	Rx	700	ASME B16.20
	Bx	1500	ASME B16.20

Dimensions and tolerances for ring joint gaskets shall be as per table 3 through 8 of ASME B 16.20-1998. Surface finish of Ring Gaskets shall be 63 in roughness for Type R and RX and 32 in roughness for Type Bx. Surface finish shall pertain to the gaskets Sealing surface.

## Metal jacketed Gaskets



Jacketed gaskets consist of a sheet metal jacketed and filler of Asbestos, CAF/Non Asbestos, PTFE, Grafoil etc. which improves its resistance peculiarities to temperature and loads. By its structure easily compressible with tightening loads lower than those required for metallic gaskets. The metallic jacketed gaskets find their proper employment in the presence of high pressures and temperatures. **Metal Jacketed Gaskets** offer an economical seal where sealing faces are narrow and can be produced in variety of shapes. The Metal Jacketed Gaskets are specifically recommended for sealing of heat exchangers, valve cover, autoclaves, manhole etc. The Metal Jacketed Gaskets are also made as per ASME B 16.20 table 21, 22, 23.

Metal Materials Used are soft iron, all grade of steel, brass, monel, inconel, aluminum, brass, copper, titanium, nickel, incoloy etc.

### Types Of Metal Jacketed Gaskets



Single Jacketed Gaskets-Used on application where poor or pitted flanges exist.



Double Jacketed Gaskets-Used on high temperature application or where corrosion problem may exist.

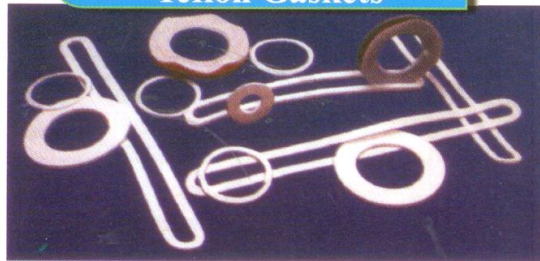


Double Jacketed Corrugated Gaskets-Reduces contact area, enhances compressive characteristics and suitable for uneven flanges.



Single Corrugated Gaskets-Plain corrugated metal gaskets mainly used in valve applications.

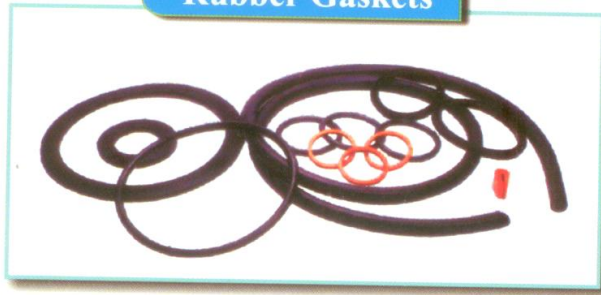
## Teflon Gaskets



PTFE gaskets are cut from a moulded PTFE sheets. We do make PTFE slitted enveloped in 'V' type and mill type. We also make fused enveloped for tanks and manholes with required inserts of CAF, Rubber, SS corrugated etc. as per customer's specifications. We also cut type of PTFE gaskets as per customer specifications.

PTFE (Teflon) Gaskets are made in segment (Dowtail) joints where the Gasket size are more than the Width of available PTFE (Teflon) Sheets.

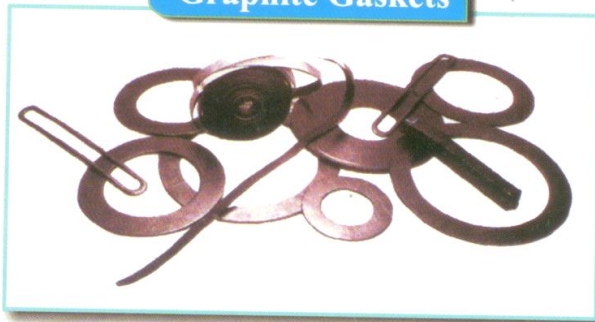
## Rubber Gaskets



**Rubber Gaskets** are cut from moulded sheets. We also do a rubber moulding in Natural, Nitrile, Neoprene, Silicon, Viton, SBR, EPDM, Polyurethane etc. Rubber Gaskets are made as per customer's specifications.

Rubber Gaskets are also manufactured in the form of Rubber Rope (Cord), "O" Rings, Seals, Extruded Products in a different sections. Rubber Gaskets with metal insertions, segment (Dowtail) joints and single moulded Gaskets up to 4000 mm Dia are also manufactured by us.

## Graphite Gaskets



Flexible Graphite Gaskets are die cut from Graphite sheets in various sizes and shapes. Graphite Gaskets have features like it lasts life time, can withstand maximum thermal shock, no thermal expansions, offers light weight sealing even at moderated bolt loads. Gaskets are self lubricating, dose not stick to flanges, non corrosive and non abrasive and not affected by electro corrosion.

Graphite Gaskets are die cut from plain Graphite sheets, laminated or reinforced sheets with stainless steel screen wire, tanged metal etc.

Graphite Gaskets have unique properties like excellent compressibility, good recovery and less creep Relaxation.

## Customer Spec. Gaskets



We make **Customized Gaskets** as per customer's specifications like in different Material Construction, in various shapes as per customer's drawing and specifications.

Customer's specification Gaskets are also made from Copper, Brass, Aluminum, PVC etc. Such Gaskets are used for bonnet valves, different sealing uses. We also make eyelet Gaskets which protects inner diameter of Gaskets directly coming in contact with flow media with sealing material.

## Camprofile Gaskets



### Properties and Application

The **Jay-Seal**® grooved camprofile gasket is the preferred gasket when improved performance at low seating stresses is required. It features excellent anti-blow-out properties linked with the reliability of solid metal-to-metal seal combined with a soft sealing face to provide a tighter joint. Metal gaskets with grooved faces have proven to be very effective for sealing flange connections and are particularly suitable for applications where high temperatures, pressures and fluctuating conditions are encountered. Non-metal cover layers ensure that flanges are not damaged, even at extreme loads, and provide excellent sealing properties when supported by the grooved metallic gasket. The **Jay-Seal**® grooved camprofile gasket is an ideal replacement for problem applications associated with jacketed gaskets, for heat exchangers, vessels and reactors and various flanged connections.

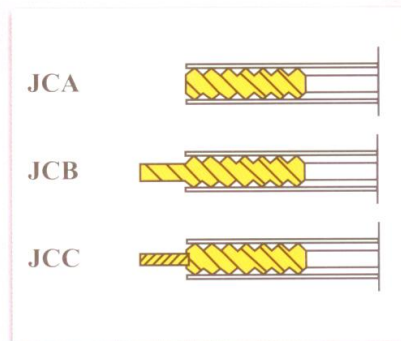
### Advantages

- Capable of sealing pressure exceeding 250 bar
- Capable of withstanding temperatures up to 700°C
- Particularly effective in maintaining performance under condition of fluctuating temperatures and pressures
- Solid construction provides stability even for large diameters and ensures trouble-free handling and installation.
- Gaskets can be fitted to existing assemblies without modification.

### Shape and Construction

The **Jay-Seal**® grooved gaskets are produced in several types to fit the most demanding application.

Metallic Materials		
Materials	ASTM	DIN Material No.
Stainless Steel	AISI 304/304L	1.4301/6
Stainless Steel	AISI 316/316L	1.4401/4



### Sizes

Upon request the grooved gaskets can be manufactured in various shapes and sizes.



## Jay Gaskets Pvt. Ltd.

An ISO 9001-2000 Company

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