SPIRAL WOUND GASKET

DESCRIPTION

Spiral wound gaskets consist of a V-shaped metal strip spirally wound in combination with a soft, filler material. The metal strip provides strength and resiliency, while the flexible filler guarantees an excellent sealing.

The combination of these materials provide to the spiral wound gaskets an excellent sealing properties under fluctuating temperature and pressure conditions.

Depending on the application, the spiral wound gaskets can be manufactured with outer and/or inner rings.

PROPERTIES

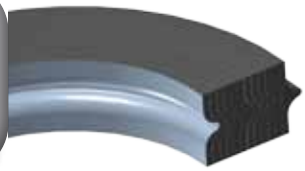
- Spiral wound gaskets can be used to seal fluid pressures up to 250 bar and from cryogenic temperatures up to elevated temperatures to 1000º (1832 ºF).
- By combining different winding materials and metals, the gasket can be tailored to suit a wide variety of operating conditions.
- The gasket is easily removed and will not damage flange surfaces.
- The outer guide ring simplifies assembly and prevents blow out of the gasket.

SPIRAL WOUND GASKETS TYPES

CALVO SEALING´S Spiral Wound Gaskets are available in the following formats:

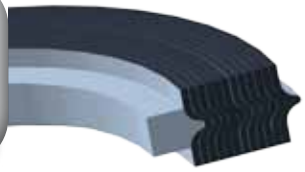
ICP SM01

The gasket is composed of "V" shape metal strip with different kind of soft fillers.



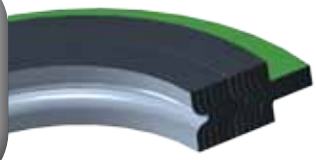
ICP SM03

The gasket contains a solid metal inner ring, where the insertion facilitates the installation and prevents gasket blow-out.



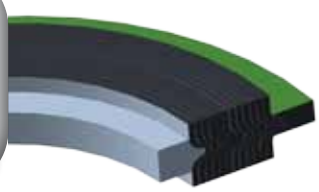
ICP SM04

The gasket consists of a solid metal outer ring which is used as centering device and stop. Designed for use in general services.



ICP SM05

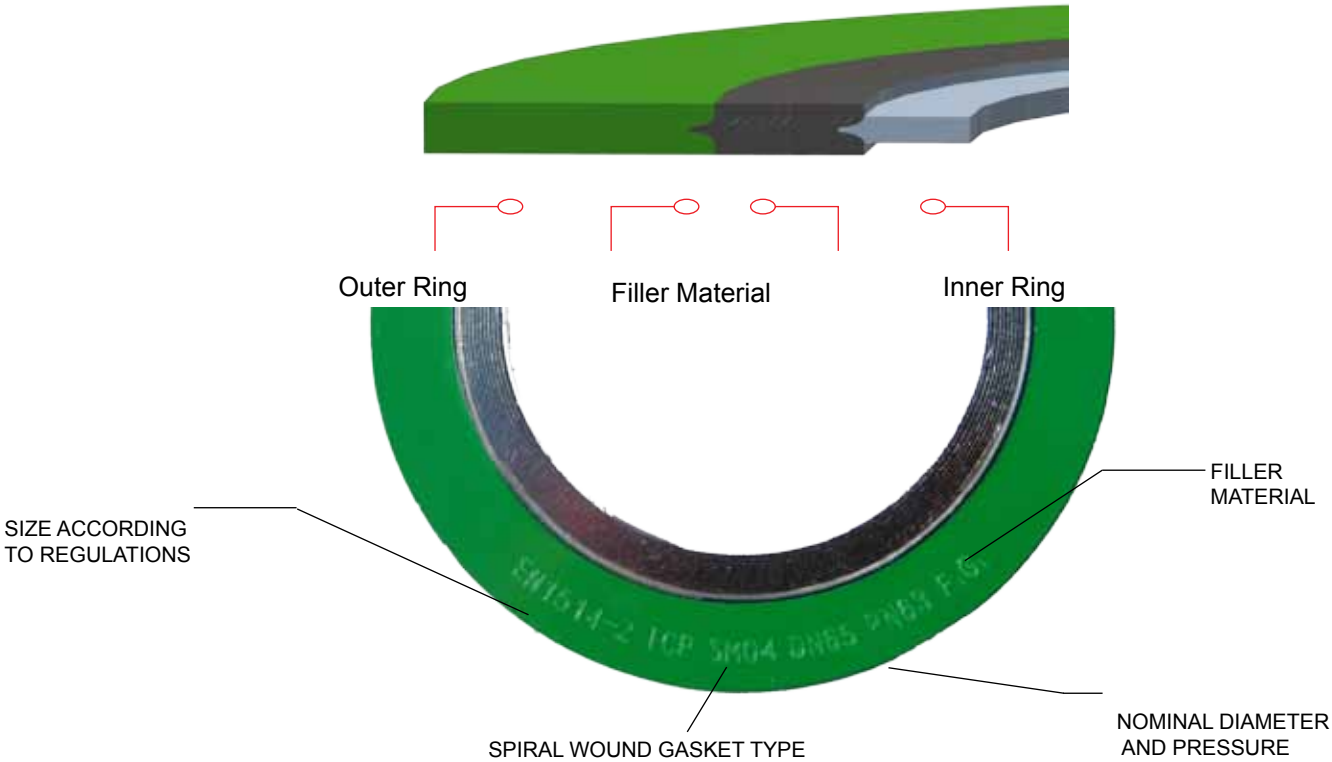
The gasket contains a solid metal outer and inner ring, where the inner ring insertion acts like additional compression limiter. Specially designed for resist high pressure and temperature services and aggressive media.



CHARACTERISTICS OF METALLIC MATERIALS

MATERIAL		IDENTIFICATION	DIN ESPECIFICATION	DIN N.	B.S.	AISA, ASTME,UNS	TEMPERATURE (ºC)	
							Min.	Max.
	Low Carbon Steel	CRS	R St 3.72	-	-	-	-40	540
	Stainless Steel 304	S304	X5 Cr Ni 18	1.4301	304S15/16/13	304	-250	540
	Stainless Steel 304 L	S304L	X2 Cr Ni 18 9	1.4306	304S11	304L	-250	540
	Stainless Steel 309	S309	X15 Cr Ni Si 20 12	1.4828	309S24	309	-100	1000
	Stainless Steel 316	S316	X5 Cr Ni Mo 18 1vz0	1.4401	316S16	316	-100	760
	Stainless Steel 316 L	S316L	X2 Cr Ni Mo18 10	1.4404	316S11/13	316L	-100	760
	Stainless Steel 316 Ti	316Ti	X10 Cr Ni Mo Ti 18 10	1.4571	320S31	316Ti	-100	760
	Stainless Steel 321	S321	X10 Cr Ni Ti 18 9	1.4541	321S12/49/87	321	-250	760
	Stainless Steel 347	S347	X10 Cr Ni Nb 18 9	1.4550	347S31	347	-250	815
	Duplex	2205	X2 Cr Ni Mo N 22 5 3	1.4462	318S13	S31803/32205	-40	300
	Aluminium	AL 1050	A1 99 5	3.0255	1B	A91050	-250	425
	Nickel 200	Ni	Ni 99 2	2.4066	3072-76 NA11	N02200	-250	760
	Monel 400	MON	Ni Cu 30 Fe	2.4360	3072-76 NA 13	N04400	-125	820
	Inconel 600	INC 600	Ni Cr 15 Fe	2.4816	3072-76 NA14	N06600	-100	1090
	Inconel 625	INC 625	Ni Cr 22 Mo 9 Mb	2.4856	3072-76NA21	N06625	-50	1090
	Incoloy 800	IN 800	X10 Ni Cr A1 Ti 3220	1.4876	3072-76NA15	N08800	-100	870
	Incoloy 825	IN 825	Ni Cr 21 Mo	2.4858	3072-76NA16	N08825	-100	870
	Hastelloy B2	HAST B	Ni Mo 28	2.4617	-	N10665	-200	1090
	Hastelloy C276	HAST C	Ni Mo 16 Cr 15 W	2.4819	-	N10276	-200	1090
	Titanium	Ti	Ti 99 8	3.7025	TA2	R50400	-250	1090

IDENTIFICATION



CHARACTERISTICS OF FILLER MATERIALS

FLEXIBLE GRAPHITE

High purity flexible graphite with no binders or fillers. This provides an excellent sealability and excellent resistance to a wide range of chemicals. Its unique combination of low permeability, inherent lubricity and compressibility makes this material be suitable for critical gas and vacuum services.

POLYTETRAFLUORETHYLENE (PTFE)

PTFE is used as a filler material in gaskets where extreme chemical inertness is required. PTFE is unaffected by any known chemicals except molten alkali metals and fluorine precursors. Because of its low permeability, PTFE is also frequently used as a filler material on CALVOSEALING gaskets in vacuum applications. Spiral wound gaskets with PTFE should be fully confined, either by fitting in a groove or providing both an external and internal ring.

CERAMIC

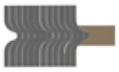
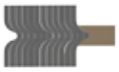
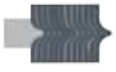
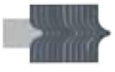
Consists of an aluminum silicate fiber with an organic binder. This material possesses a lower sealability compared to other filler materials, however it has excellent high temperature stability to 1250 °C (2300 °F). Resists attack from most corrosive agents (except hydrofluoric and phosphoric acids) as well as concentrated alkalis. Recommended only where conditions preclude the use of exfoliated vermiculite.

EXFOLIATED VERMICULITA

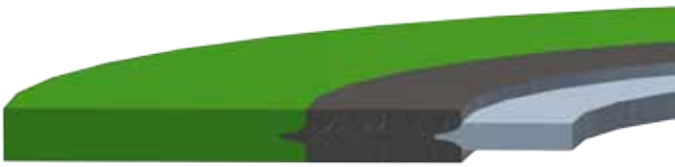
Chemically and thermally composed by exfoliated vermiculite makes it an excellent filler material for use in spiral wound gaskets. This natural mineral has an structure that simulates to exfoliated graphite, with one notable exception – it maintains sealing integrity through a wide range of extreme temperatures. It exhibits exceptional chemical resistance.
This material is versatile, fire safe and is not susceptible to oxidation.

MATERIAL	TEMPERATURE		MAX. OPERATIVE PRESSURE	GAS TIGHTNESS	APPLICATION
	Min.	Max.			
Flexible Graphite	-240 ºC / 400 ºF	510 ºC / 950 ºF	250 bar	Good	Aggressive media
PTFE	-200 ºC / -328 ºF	260 ºC / 500 ºF	100 bar	Good	Aggressive media
Ceramic	-101 ºC / -150 ºF	1260 ºC / 2300 ºF	100 bar	Low	High temperature
Exfoliated Vermiculita	-240 ºC / 400 ºF	1100 ºC / 2012 ºF	100 bar	Low	High temperature

SELECTION GUIDE

FLANGE FACE	Flat Face (FF)	Raised Face (RF)	Male & Female	Tongue & groove	Flat face to recess
Normal Conditions	 ICP SM04	 ICP SM04	 ICP SM01	 ICP SM01	 ICP SM01
• High pressure • High temperature • PTFE filled gasket • Corrosive conditions	 ICP SM05	 ICP SM05	 ICP SM03	 ICP SM03	 ICP SM03

Dimensions: Spiral Wound Gasket



SPIRAL WOUND GASKET DIMENSION TO EN 1514-2 / DIN 2690
(used with EN 1092 flanges) 6

SPIRAL WOUND GASKET DIMENSION TO ASME B16.20
(used with BS 1560 & ASME/ANSI B16.5 flanges) 7

SPIRAL WOUND GASKET DIMENSION TO ASME B16.20
(used with ASME/ANSI B 16.47 Series A flanges) 8

SPIRAL WOUND GASKET DIMENSION TO ASME B16.20
(used with ASME/ANSI B 16.47 Series B flanges) 9

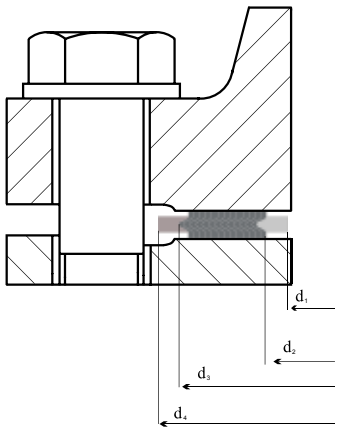
SPIRAL WOUND GASKET DIMENSION TO BS 3381
(used with BS 1560 / ASME B 16.5 flanges) 10

SPIRAL WOUND GASKET DIMENSION TO JIS
(para bridas JIS Presión Nominal 10 Kg_f/cm^2 - 20 Kg_f/cm^2) 11

SPIRAL WOUND GASKET DIMENSION TO EN 1514-2 / DIN 2690
(used with EN 1092-1 gasket)

NPS (mm)	INNER RING	SEALING ELEMENT			OUTER RING									
	d_1 (mm)	d_2 (mm)	d_3 (mm)		d_4 (mm)									
PN Class	PN 10-320	PN 10-320	PN 10-40	PN 64-320	PN 10	PN 16	PN 25	PN 40	PN 64	PN 100	PN 160	PN 250	PN 320	PN 400
10	18	24	36	36	46	46	46	46	56	56	56	67	67	67
15	22	28	40	40	51	51	51	51	61	61	61	72	72	78
20	27	33	47	47	61	61	61	61	72	72	72	77	77	
25	34	40	54	54	71	71	71	71	82	82	82	83	92	104
32	43	49	65	65	82	82	82	82	90	90	90	100		
40	48	54	70	70	92	92	92	92	103	103	103	109	119	135
50	57	66	84	84	107	107	107	107	113	119	119	124	134	150
65	73	82	102	104	127	127	127	127	137	143	143	153	170	192
80	86	95	115	119	142	142	142	142	148	154	154	170	190	207
100	108	120	140	144	162	162	168	168	174	180	180	202	229	256
125	134	146	168	172	192	192	194	194	210	217	217	242	274	301
150	162	174	196	200	217	217	224	224	247	257	257	284	311	348
175	183	195	221	227	247	247	254	265	277	287	284	316	358	402
200	213	225	251	257	272	272	284	290	309	324	324	358	398	442
250	267	279	307	315	327	328	340	352	364	391	388	442	488	-
300	318	330	358	366	377	383	400	417	424	458	458	538	-	-
350	363	375	405	413	437	443	457	474	486	512	-	-	-	-
400	414	426	458	466	488	495	514	546	543	572	-	-	-	-
450	460	478	526	551	558	567	574	578	534	-	-	-	-	-
500	518	530	566	574	593	617	624	628	657	704	-	-	-	-
600	618	630	666	674	695	734	731	747	764	813	-	-	-	-
700	718	730	770	778	810	804	833	852	879	-	-	-	-	-
800	818	830	874	882	917	911	942	974	988	-	-	-	-	-
900	910	930	974	982	1017	1011	1042	1084	1108	-	-	-	-	-
1000	1010	1030	1078	1086	1124	1128	1154	1194	1220	-	-	-	-	-
1200	1210	1230	1280	1290	1341	1342	4364	1398	1452	-	-	-	-	-
1400	1420	1450	1510	-	1548	1542	1578	1618	-	-	-	-	-	-
1600	1630	1660	1720	-	1772	1764	1798	1830	-	-	-	-	-	-
1800	1830	1860	1920	-	1972	1964	2000	-	-	-	-	-	-	-
2000	2020	2050	2120	-	2182	2168	2230	-	-	-	-	-	-	-
2200	2230	2260	2330	-	2384	2376	-	-	-	-	-	-	-	-
2400	2430	2480	2530	-	2594	-	-	-	-	-	-	-	-	-
2600	2630	2660	2730	-	2794	-	-	-	-	-	-	-	-	-
2800	2830	2860	2930	-	3014	-	-	-	-	-	-	-	-	-
3000	3030	3060	3130	-	3228	-	-	-	-	-	-	-	-	-

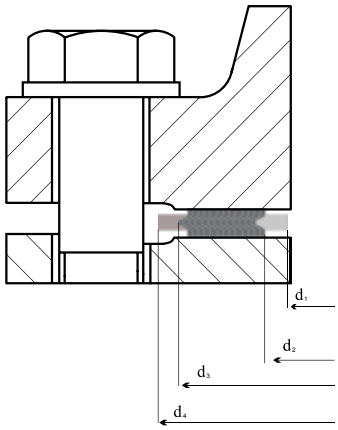
SPIRAL WOUND GASKET DIMENSION TO ASME B16.20
(used with BS 1560 & ASME/ANSI B16.5 flanges)



NPS (inch)	INNER RING				
	Inside Diameter - d_1 (mm)				
	Class 150 - 300	Class 400 - 600	Class 900	Class 1500	Class 2500
½	14.2	14.2	14.2	14.2	14.2
¾	20.6	20.6	20.6	20.6	20.6
1	26.9	26.9	26.9	26.9	26.9
1 ¼	38.1	38.1	38.1	33.3	33.3
1 ½	44.5	44.5	44.5	41.4	41.4
2	55.6	55.6	55.6	52.3	52.3
2 ½	66.5	66.5	66.5	63.5	63.5
3	81.0	78.7	78.7	78.7	78.7
4	106.4	106.4	106.4	106.4	106.4
5	131.8	131.8	131.8	131.8	131.8
6	157.2	157.2	157.2	157.2	157,2
8	215.9	209.6	196.9	196.9	196.9
10	268.2	260.4	246.1	246.1	246.1
12	317.5	317.5	292.1	292.1	292.1
14	349.3	349.3	320.8	320.8	-
16	400.1	400.1	374.7	368.3	-
18	449.3	449.3	425.5	425.5	-
20	500.1	500.1	482.6	476.3	-
24	603.3	603.3	590.6	577.9	-

NPS (inch)	SEALING ELEMENT							OUTER RING						
	Inside Diameter - d_2 (mm)					d_3 (mm)		Outside Diameter - d_4 (mm)						
	Class 150-300	Class 400-600	Class 900	Class 1500	Class 2500	Class 150-600	Class 900-2500	Class 150	Class 300	Class 400	Class 600	Class 900	Class 1500	Class 2500
½	19.1	19.1	19.1	19.1	19.1	31.8	31.8	47.8	54.1	54.1	54.1	63.5	63.5	63.5
¾	25.4	25.4	25.4	25.4	25.4	39.6	39.6	57.2	66.8	66.8	66.8	69.9	69.9	76.2
1	31.8	31.8	31.8	31.8	31.8	47.8	47.8	66.8	73.2	73.2	73.2	79.5	79.5	85.9
1 ¼	47.8	47.8	39.6	39.6	39.6	60.5	60.5	76.2	82.6	82.6	82.6	88.9	88.9	104.9
1 ½	54.1	54.1	47.8	47.8	47.8	69.9	69.9	85.9	95.3	95.3	95.3	98.6	98.6	114.6
2	69.6	69.6	58.7	58.7	58.7	85.9	85.9	104.9	111.3	111.3	111.3	143	143	146.1
2 ½	82.6	82.6	69.9	69.9	69.9	98.6	98.6	124	130.3	130.3	130.3	165.1	165.1	168.4
3	101.6	101.6	95.36	92.2	92.2	120.7	120.7	136.7	149.4	149.4	149.4	168.4	174.8	196.9
4	127	120.7	120.7	117.6	117.6	149.4	149.4	174.8	181.1	177.8	193.8	206.5	209.6	235
5	155.7	147.6	147.6	143	143	177.8	177.8	196.9	215.9	212.9	241.3	247.7	254	279.4
6	182.6	174.8	174.8	171.5	171.5	209.6	209.6	222.3	251	247.7	266.7	289.1	282.7	317.5
8	233.4	225.6	222.3	215.9	215.9	263.7	263.7	279.4	308	304.8	320.8	359.9	352.6	387.4
10	287.3	274.6	276.4	266.7	270	317.5	317.5	339.9	362	358.9	400.1	435.1	435.1	476.3
12	339.9	327.2	323.9	323.9	317.5	374.7	374.7	409.7	422.4	419.1	457.2	498.6	520.7	549.4
14	371.6	362	356.6	362	-	406.4	406.4	450.9	485.9	482.6	492.3	520.7	577.9	-
16	422.4	412.8	412.8	406.7	-	463.6	463.6	514.4	539.8	536.7	565.2	574.8	641.4	-
18	474.7	469.9	463.6	463.6	-	527.1	527.1	549.4	596.9	593.9	612.9	638.3	704.9	-
20	525.5	520.7	520.7	514.4	-	577.9	577.9	606.6	654.1	647.7	682.8	698.5	755.7	-
24	628.7	628.7	628.7	616	-	685.8	685.9	717.6	774.7	768.4	790.7	838.2	901.7	-

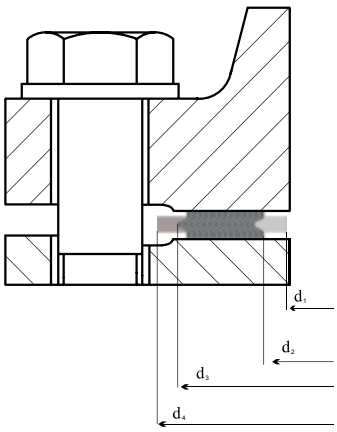
SPIRAL WOUND GASKET DIMENSION TO ASME B16.20
(used with ASME/ANSI B 16.47 Series A flanges)



NPS (inch)	INNER RING				
	Inside Diameter - d_1 (mm)				
	Class 150	Class 300	Class 400	Class 600	Class 900
26	654.1	654.1	660.4	647.7	660.4
28	704.9	704.9	711.2	698.5	711.2
30	755.7	755.7	755.7	755.7	762.0
32	806.5	806.5	812.8	812.8	812.8
34	857.3	857.3	863.6	863.6	863.6
36	908.1	908.1	917.7	917.7	920.8
38	958.9	952.5	952.5	952.5	1009.7
40	1009.7	1003.3	1000.3	1009.7	1060.5
42	1060.5	1054.1	1051.1	1066.8	1111.3
44	1111.3	1104.9	1104.9	1111.3	1155.7
46	1162,1	1152,7	1168,4	1162,1	1219,2
48	1212.9	1209.8	1206.5	1219.2	1270.0
50	1263.7	1244.6	1257.3	1270.0	-
52	1314.5	1320.8	1308.1	1320.8	-
54	1358.9	1352.6	1352.6	1378.0	-
56	1409.7	1403.4	1403.4	1428.8	-
58	1460.5	1447.8	1454.2	1473.2	-
60	1511.3	1524.0	1517.7	1530.4	-

NPS (inch)	SEALING ELEMENT										OUTER DIAMETER				
	Inside Diameter - d_2 (mm) / Outside Diameter - d_3 (mm)										Outside Diameter - d_4 (mm)				
	Class 150		Class 300		Class 400		Class 600		Class 900						
	ID	OD	ID	OD	ID	OD	ID	OD	ID	OD	Class 150	Class 300	Class 400	Class 600	Class 900
26	673.1	704.9	685.8	736.6	685.8	736.6	685.8	736.6	685.8	736.6	774.7	835.0	831.9	866.8	882.7
28	723.9	755.7	736.6	787.4	736.6	787.4	736.6	787.4	736.6	787.4	831.9	898.5	892.2	914.4	946.2
30	774.7	806.5	793.8	844.6	793.8	844.6	793.8	844.6	793.8	844.6	882.7	952.5	946.2	971.6	1009.7
32	825.5	860.4	850.9	901.7	850.9	901.7	850.9	901.7	850.9	901.7	939.8	1006.5	1003.3	1022.4	1073.2
34	876.3	911.2	901.7	952.5	901.7	952.5	901.7	952.5	901.7	952.5	990.6	1057.3	1054.1	1073.2	1136.7
36	927.1	968.4	955.7	1006.5	955.7	1006.5	955.7	1006.5	958.9	1009.7	1047.8	1117.6	1117.6	1130.3	1200.2
38	977.9	1019.2	977.9	1016.0	971.6	1022.4	990.6	1041.4	1035.1	1085.9	1111.3	1054.1	1073.2	1104.9	1200.2
40	1028.7	1070.0	1022.4	1070.0	1025.5	1076.3	1047.8	1098.6	1098.6	1149.4	1162.1	1114.4	1127.1	1155.7	1251.0
42	1079.5	1124.0	1073.2	1120.8	1076.3	1127.1	1104.9	1155.7	1149.4	1200.2	1219.2	1165.2	1177.9	1219.2	1301.8
44	1130.3	1177.9	1130.3	1181.1	1130.3	1181.1	1162.1	1212.9	1206.5	1257.3	1276.4	1219.2	1231.9	1270.0	1368.4
46	1181.1	1228.7	1177.9	1228.7	1193.8	1244.6	1212.9	1263.7	1270.0	1320.8	1327.2	1273.2	1289.1	1327.2	1435.1
48	1231.9	1279.5	1235.1	1285.9	1244.6	1295.4	1270.0	1320.8	1320.8	1371.6	1384.3	1324.0	1346.2	1390.7	1485.9
50	1282.7	1333.5	1295.4	1346.2	1295.4	1346.2	1320.8	1371.6	-	-	1435.1	1378.0	1403.4	1447.8	-
52	1333.5	1384.3	1346.2	1397.0	1346.2	1397.0	1371.6	1422.4	-	-	1492.3	1428.8	1454.2	1498.6	-
54	1384.3	1435.1	1403.4	1454.2	1403.4	1454.2	1428.8	1479.6	-	-	1549.4	1492.3	1517.7	1555.8	-
56	1435.1	1485.9	1454.2	1505.0	1454.2	1505.0	1479.6	1555.8	-	-	1606.6	1543.1	1568.5	1612.9	-
58	1485.9	1536.7	1511.1	1562.1	1505.0	1555.8	1536.7	1587.5	-	-	1663.7	1593.9	1619.3	1663.7	-
60	1536.7	1587.5	1562.1	1612.9	1568.5	1619.3	1593.9	1644.7	--	--	1714.5	1644.7	1682.8	1733.6	--

SPIRAL WOUND GASKET DIMENSION TO ASME B16.20
(used with ASME/ANSI B 16.47 Series B flanges)



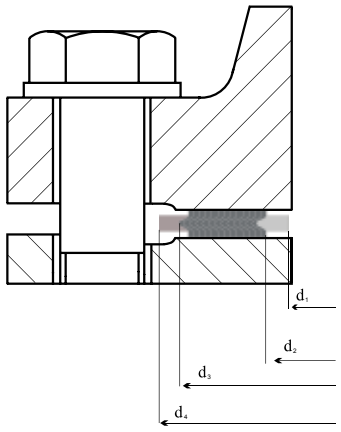
NPS (inch)	INNER RING				
	Inside Diameter - d_1 (mm)				
	Class 150	Class 300	Class 400	Class 600	Class 900
26	654.1	654.1	654.1	644.7	666.8
28	704.9	704.9	701.8	685.8	717.6
30	755.7	755.7	752.6	752.6	781.1
32	806.5	806.5	800.1	793.8	838.2
34	857.3	857.3	850.9	850.9	895.4
36	908.1	908.1	898.7	901.7	920.8
38	958.9	971.6	952.5	952.5	1009.7
40	1009.7	1022.4	1000.3	1009.7	1060.5
42	1060.5	1085.9	1051.1	1066.8	1111.3
44	1111.3	1124.0	1104.9	1111.3	1155.7
46	1162.1	1178.1	1168.4	1162.1	1219.2
48	1212.9	1231.9	1206.5	1219.2	1270.0
50	1263.7	1267.0	1257.3	1270.0	-
52	1314.5	1317.8	1308.1	1320.8	-
54	1365.3	1365.3	1352.6	1378.0	-
56	1422.4	1428.8	1403.4	1428.8	-
58	1478.0	1484.4	1454.2	1473.2	-
60	1535.2	1557.3	1517.7	1530.4	-

NPS (inch)	SEALING ELEMENT										OUTER DIAMETER				
	Inside Diameter - d_2 (mm) / Outside Diameter - d_3 (mm)										Outside Diameter - d4 (mm)				
	Class 150		Class 300		Class 400		Class 600		Class 900						
	ID	OD	ID	OD	ID	OD	ID	OD	ID	OD	Class 150	Class 300	Class 400	Class 600	Class 900
26	673.1	698.5	673.1	711.2	666.8	698.5	663.7	714.5	692.2	749.3	725.4	771.7	746.3	765.3	838.2
28	723.9	749.3	723.9	762.0	714.5	749.3	704.9	755.7	743.0	800.1	776.2	825.5	800.1	819.2	901.7
30	774.7	800.1	774.7	812.8	765.3	806.5	778.0	828.8	806.5	857.3	827.0	886.0	857.3	879.6	958.9
32	825.5	850.9	825.5	863.6	812.8	860.6	831.9	882.7	863.6	914.4	881.1	939.8	911.4	933.5	1016.0
34	876.3	908.1	876.3	914.4	866.9	911.4	889.0	939.8	920.8	971.6	935.0	993.9	962.2	997.0	1073.2
36	927.1	958.9	927.1	965.2	917.7	965.2	939.8	990.6	946.2	997.0	987.6	1047.8	1022.4	1047.8	1124.0
38	974.6	1009.7	1009.7	1047.8	971.6	1022.4	990.6	1041.4	1035.1	1085.9	1044.7	1098.6	1073.2	1104.9	1200.2
40	1022.4	1063.8	1060.5	1098.6	1025.7	1076.5	1047.8	1098.6	1098.6	1149.4	1095.5	1149.4	1127.3	1155.7	1251.0
42	1079.5	1114.6	1111.3	1149.4	1076.5	1127.3	1104.9	1155.7	1149.4	1200.2	1146.3	1200.2	1178.1	1219.2	1301.8
44	1124.0	1165.4	1162.1	1200.2	1130.3	1181.1	1162.1	1212.9	1206.5	1257.3	1197.1	1251.0	1231.9	1270.0	1368.6
46	1181.1	1224.0	1216.2	1254.3	1193.8	1244.6	1212.9	1263.7	1270.0	1320.8	1255.8	1317.8	1289.1	1327.2	1435.1
48	1231.9	1270.0	1263.7	1311.4	1244.6	1295.4	1270.0	1320.8	1320.8	1371.6	1306.6	1368.6	1346.2	1390.7	1485.9
50	1282.7	1325.6	1317.8	1355.9	1295.4	1346.2	1320.8	1371.6	-	-	1357.4	1419.4	1403.4	1447.8	-
52	1333.5	1376.4	1368.6	1406.7	1346.2	1397.0	1371.6	1422.4	-	-	1408.2	1470.2	1454.2	1498.6	-
54	1384.3	1422.4	1403.4	1454.2	1403.4	1454.2	1428.8	1479.6	-	-	1463.8	1530.4	1517.7	1555.8	-
56	1444.8	1477.8	1479.6	1524.0	1454.2	1505.0	1479.6	1530.4	-	-	1514.6	1593.9	1568.5	1612.9	-
58	1500.4	1528.8	1535.2	1573.3	1505.0	1555.8	1536.7	1587.5	-	-	1579.6	1655.8	1619.3	1663.7	-
60	1557.3	1586.0	1589.0	1630.4	1568.5	1619.3	1593.9	1644.7	-	-	1630.4	1706.6	1682.8	1733.6	-

SPIRAL WOUND GASKET DIMENSION TO BS 3381
(used with BS 1560 / ASME B 16.5 flanges)

NPS (inch)	INNER RING		SEALING ELEMENT				OUTER RING					
	d_1 (mm)		d_2 (mm)			d_3 (mm)	d_4 (mm)					
	Class 150 - 1500	Class 2500	Class 150	Class 300-1500	Class 2500	Class 150-600	Class 150	Class 300	Class 600	Class 900	Class 1500	Class 2500
½	14.3	14.3	18.7	18.7	18.7	32.2	47.6	54.0	54.0	63.5	63.5	69.9
¾	20.6	20.6	26,6	25.0	25.0	40.1	57.2	66.7	66.7	69.9	69.9	76.2
1	27.0	27.0	32.9	31.4	31.4	48.0	66.7	73.0	73.0	79.4	79.4	85.9
1 ¼	34.9	34.9	45.6	44.1	39.3	60.7	76.2	82.6	82.6	88.9	88.9	104.8
1 ½	41.3	41.3	53.6	50.4	47.2	70.3	85.7	95.3	95.3	98.4	98.4	117.5
2	52.4	52.4	69.5	66.3	58.3	86.1	104.8	111.1	111.1	142.9	142.9	146.1
2 ½	63.5	63.5	82.2	79.0	69.5	98.8	123.8	130.2	130.2	165.1	165.1	168.3
3	77.8	77.8	101.2	94.9	91.7	121.1	136.5	149.2	149.2	168.3	174.6	196.9
4	103.2	103.2	126.6	120.3	117.1	149.6	174.6	181.0	193.7	206.4	209.6	235.0
5	128.5	128.5	153.6	147.2	142.5	178.2	196.9	215.9	241.3	247.7	254.0	279.4
6	154.0	154.0	180.6	174.2	171.1	210.0	222.3	250.8	266.7	288.9	282.6	317.5
8	203.2	203.2	231.4	225.0	215.5	263.9	279.4	308.0	320.7	358.8	352.4	387.4
10	254.0	254.0	286.9	280.6	269.5	317.9	339.7	362.0	400.1	435.0	435.0	476.3
12	303.2	303.2	339.3	333.0	323.5	375.1	409.6	422.3	457.2	498.5	520.7	549.6
14	342.9	-	371.1	364.7	-	406.8	450.9	485.8	492.1	520.7	577.9	-
16	393.7	-	421.9	415.6	-	464.0	514.4	539.8	565.2	574.7	641.4	-
18	444.5	-	475.9	469.5	-	527.5	549.3	596.9	612.8	638.2	704.9	-
20	495.3	-	526.7	520.3	-	578.3	606.4	654,1	682.6	698.5	755.7	-
24	596.9	-	631.4	625.1	-	686.2	717.6	774.7	790.6	838.2	901.7	-

TOLERANCES (mm)			
Inner Ring	Sealing Element		Outer Ring
+ 0	+ 0.4	+ 0	+ 0.4
- 0.8	- 0	- 0.8	- 0

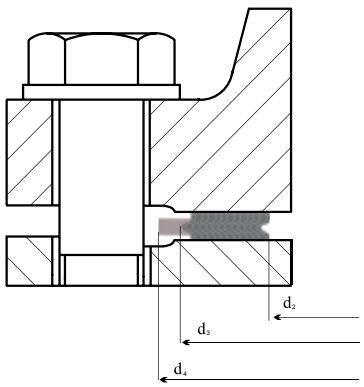


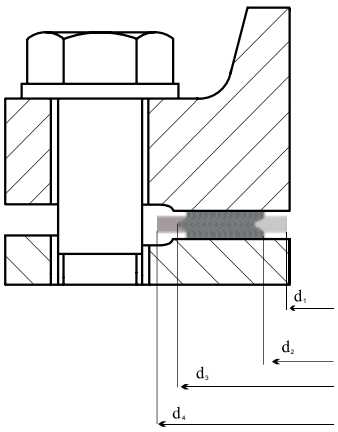
SPIRAL WOUND GASKET DIMENSION TO JIS

(used with JIS - Nominal Pressure10 Kg_f/cm^2 - 20 Kg_f/cm^2 flanges)

NOMINAL PRESSURE 10 Kg_f/cm^2				
NPS (inch)	INNER RING	SEALING ELEMENT		OUTER RING
	d_1 (mm)	d_2 (mm)	d_3 (mm)	d_4 (mm)
10	-	24	37	52
15	-	28	41	57
20	-	34	47	62
25	-	40	53	74
32	-	51	67	84
40	-	57	73	89
50	-	69	89	104
65	-	87	107	124
80	-	98	118	134
90	-	110	130	144
100	-	123	143	159
125	-	148	173	190
150	-	174	199	220
175	-	201	226	245
200	-	227	252	270
225	-	252	277	290
250	-	278	310	332
300	-	329	361	377
350	-	366	406	422
400	-	417	457	484
450	-	468	518	539
500	-	518	568	594
550	-	569	619	650
600	-	620	670	700

NOMINAL PRESSURE De 16 a 20 Kg_f/cm^2				
NPS (inch)	INNER RING	SEALING ELEMENT		OUTER RING
	d_1 (mm)	d_2 (mm)	d_3 (mm)	d_4 (mm)
10	18	24	37	52
15	22	28	41	57
20	28	34	47	62
25	34	40	53	74
32	43	51	67	84
40	49	57	73	89
50	61	69	89	104
65	77	87	107	124
80	89	99	119	140
90	102	114	139	150
100	115	127	152	165
125	140	152	177	202
150	166	182	214	237
175	-	-	-	-
200	217	233	265	282
225	-	-	-	-
250	268	288	328	354
300	319	339	379	404
350	356	376	416	450
400	407	432	482	508
450	458	483	533	573
500	508	533	583	628
550	559	584	634	684
600	610	635	685	734





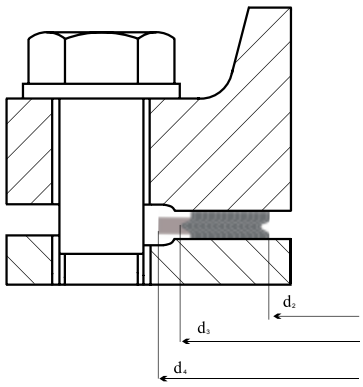
SPIRAL WOUND GASKET DIMENSION TO JIS

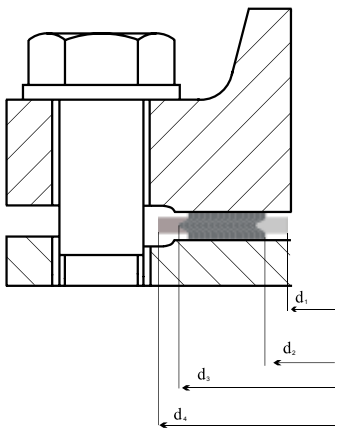
(used with JIS - Presión Nominal 30 Kg_f/cm^2 - 64 Kg_f/cm^2 flanges)

NOMINAL PRESSURE 30 Kg_f/cm^2				
NPS (inch)	INNER RING	SEALING ELEMENT		OUTER RING
	d_1 (mm)	d_2 (mm)	d_3 (mm)	d_4 (mm)
10	18	24	37	52
15	22	28	41	57
20	28	34	47	62
25	34	40	53	74
32	43	51	67	84
40	49	57	73	89
50	61	69	89	104
65	68	87	107	124
80	80	98	118	134
90	92	110	130	144
100	104	123	143	159
125	128	148	173	190
150	153	174	199	220
200	202	227	252	270
250	251	278	310	332
300	300	329	361	377
350	336	366	406	422
400	383	417	457	484

NOMINAL PRESSURE 40 Kg_f/cm^2				
NPS (inch)	INNER RING	SEALING ELEMENT		OUTER RING
	d_1 (mm)	d_2 (mm)	d_3 (mm)	d_4 (mm)
10	15	21	34	59
15	18	24	37	64
20	23	29	42	69
25	29	35	48	79
32	38	44	60	89
40	43	51	67	100
50	55	63	79	114
65	68	78	98	140
80	80	90	110	150
90	92	102	127	162
100	104	116	141	182
125	128	140	165	224
150	153	165	197	265
200	202	218	250	315
250	251	271	311	378
300	300	320	360	434
350	336	356	396	479
400	383	403	453	531

NOMINAL PRESSURE 63 Kg_f/cm^2				
NPS (inch)	INNER RING	SEALING ELEMENT		OUTER RING
	d_1 (mm)	d_2 (mm)	d_3 (mm)	d_4 (mm)
10	15	21	34	64
15	18	24	37	69
20	23	29	42	75
25	29	35	48	80
32	38	44	60	90
40	43	51	67	107
50	55	63	79	125
65	68	78	98	152
80	80	90	110	162
90	92	102	127	179
100	104	116	141	194
125	128	140	165	235
150	153	165	197	275
200	202	218	250	328
250	251	271	311	394
300	300	320	360	446
350	336	356	396	488
400	383	403	453	545





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