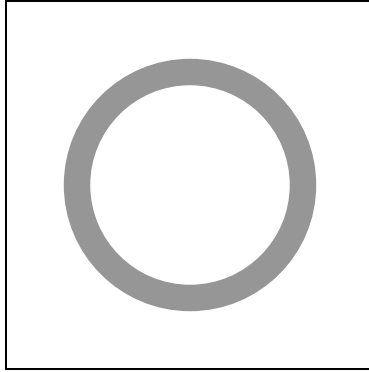


## SPIRAL WOUND GASKET

**PS 590**

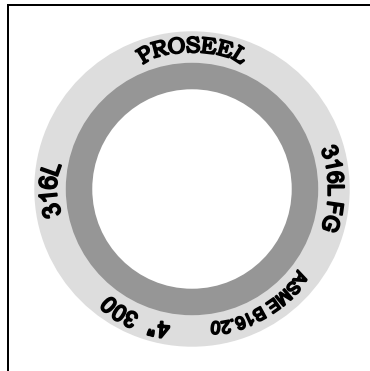


Basic construction of metal windings with filler material. There is no inclusion of inner and outer ring. The inner and outer diameters of the windings are wound without the filler to increase the stability of the gasket.

Suitable for:

- Male and female flanges
- Tongue and groove flanges
- Flat and groove flanges

**PS 591**

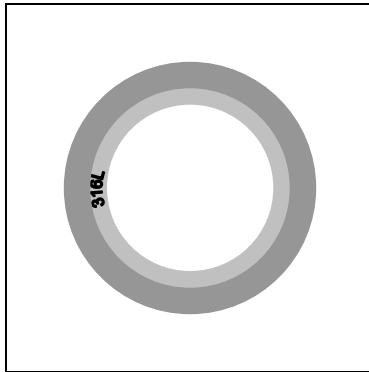


Supported by the outer ring, this style of gasket is able to provide centering on the flanges and acts as a compression stop.

Suitable for:

- Flat face flanges
- Raised face flanges

**PS 592**

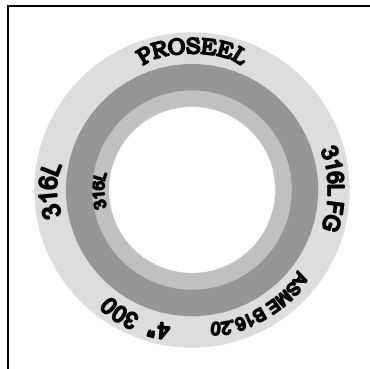


The spiral windings with the inner ring helps to fill up the annular space in the flange and prevent erosion on the flange faces. It also acts as a compression stop.

Suitable for:

- Male and female flanges
- Spigot flanges.

**PS 596**



Equipped with the inner and outer rings, this gasket is capable to provide heat and corrosion resistant, protects the windings and act as a compression stop.

Suitable for:

- Flat face flanges with high pressure / temperature service
- Raised face flanges with high pressure / temperature service



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**SPIRAL WOUND GASKET**

**Gaskets Dimensions To ASME B16.20**

NPS	Class 150#				Class 300#				Class 400#				Class 600#			
	OUTER RING	GASKET		INNER RING	OUTER RING	GASKET		INNER RING	OUTER RING	GASKET		INNER RING	OUTER RING	GASKET		INNER RING
	OD	OD	ID	ID	OD	OD	ID	ID	OD	OD	ID	ID	OD	OD	ID	ID
1/2"	47.8	31.8	19.1	14.2	54.1	31.8	19.1	14.2	54.1	31.8	19.1	14.2	54.1	31.8	19.1	14.2
3/4"	57.2	39.6	25.4	20.6	66.8	39.6	25.4	20.6	66.8	39.6	25.4	20.6	66.8	39.6	25.4	20.6
1"	66.8	47.8	31.8	26.9	73.2	47.8	31.8	26.9	73.2	47.8	31.8	26.9	73.2	47.8	31.8	26.9
1-1/4"	76.2	60.5	47.8	38.1	82.6	60.5	47.8	38.1	82.6	60.5	47.8	38.1	82.6	60.5	47.8	38.1
1-1/2"	85.9	69.9	54.1	44.5	95.3	69.9	54.1	44.5	95.3	69.9	54.1	44.5	95.3	69.9	54.1	44.5
2"	104.9	85.9	69.9	55.6	111.3	85.9	69.9	55.6	111.3	85.9	69.9	55.6	111.3	85.9	69.9	55.6
2-1/2"	124.0	98.6	82.6	66.5	130.3	98.6	82.6	66.5	130.3	98.6	82.6	66.5	130.3	98.6	82.6	66.5
3"	136.7	120.7	101.6	81.0	149.4	120.7	101.6	81.0	149.4	120.7	101.6	81.0	149.4	120.7	101.6	78.7
4"	174.8	149.4	127.0	106.4	181.1	149.4	127.0	106.4	177.8	149.4	120.7	102.6	193.8	149.4	120.7	102.6
5"	196.9	177.8	155.7	131.8	215.9	177.8	155.7	131.8	212.9	177.8	147.6	128.3	241.3	177.8	147.6	128.3
6"	222.3	209.6	182.6	157.2	251.0	209.6	182.6	157.2	247.7	209.6	174.8	154.9	266.7	209.6	174.8	154.9
8"	279.4	263.7	233.4	215.9	308.1	263.7	233.4	215.9	304.8	263.7	225.6	205.7	320.8	263.7	225.6	205.7
10"	339.9	317.5	287.3	268.2	362.0	317.5	287.3	268.2	358.9	317.5	274.6	255.3	400.1	317.5	274.6	255.3
12"	409.7	374.7	339.9	317.5	422.4	374.7	339.9	317.5	419.1	374.7	327.2	307.3	457.2	374.7	327.2	307.3
14"	450.9	406.4	371.6	349.3	485.9	406.4	371.6	349.3	482.6	406.4	362.0	342.9	492.3	406.4	362.0	342.9
16"	514.4	463.6	422.4	400.1	539.8	463.6	422.4	400.1	536.7	463.6	412.8	389.9	565.2	463.6	412.8	389.9
18"	549.4	527.1	474.7	449.3	596.9	527.1	474.7	449.3	593.9	527.1	469.9	438.2	612.9	527.1	469.9	438.2
20"	606.6	577.9	525.5	500.1	654.1	577.9	525.5	500.1	647.7	577.9	520.7	489.0	682.8	577.9	520.7	489.0
24"	717.6	685.8	628.7	603.3	774.7	685.8	628.7	603.3	768.4	685.8	628.7	590.6	790.7	685.8	628.7	590.6

NPS	Class 900#				Class 1500#				Class 2500#			
	OUTER RING	GASKET		INNER RING	OUTER RING	GASKET		INNER RING	OUTER RING	GASKET		INNER RING
	OD	OD	ID	ID	OD	OD	ID	ID	OD	OD	ID	ID
1/2"	63.5	31.8	19.1	14.2	63.5	31.8	19.1	14.2	69.9	31.8	19.1	14.2
3/4"	69.9	39.6	25.4	20.6	69.9	39.6	25.4	20.6	76.2	39.6	25.4	20.6
1"	79.5	47.8	31.8	26.9	79.5	47.8	31.8	26.9	85.9	47.8	31.8	26.9
1-1/4"	88.9	60.5	39.6	38.1	88.9	60.5	39.6	33.3	104.9	60.5	39.6	33.3
1-1/2"	98.6	69.9	47.8	44.5	98.6	69.9	47.8	41.4	117.6	69.9	47.8	41.4
2"	143.0	85.9	58.7	55.6	143.0	85.9	58.7	52.3	146.0	85.9	58.7	52.3
2-1/2"	165.1	98.6	69.9	66.5	165.1	98.6	69.9	63.5	168.4	98.6	69.9	63.5
3"	168.4	120.7	95.3	78.7	174.8	120.7	92.2	78.7	196.9	120.7	92.2	78.7
4"	206.5	149.4	120.7	102.6	209.6	149.4	117.6	97.8	235.0	149.4	117.6	97.8
5"	247.7	177.8	147.6	128.3	254.0	177.8	143.0	124.5	279.4	177.8	143.0	124.5
6"	289.1	209.6	174.8	154.9	282.7	209.6	171.5	147.3	317.5	209.6	171.5	147.3
8"	358.9	257.3	222.3	196.9	352.6	257.3	215.9	196.9	387.4	257.3	215.9	196.9
10"	435.1	311.2	276.4	246.1	435.1	311.2	266.7	246.1	476.3	311.2	270.0	246.1
12"	498.6	368.3	323.9	292.1	520.7	368.3	323.9	292.1	549.4	368.3	317.5	292.1
14"	520.7	400.1	355.6	320.8	577.9	400.1	362.0	320.8				
16"	574.8	457.2	412.8	374.7	641.4	457.2	406.4	368.3				
18"	638.3	520.7	463.6	425.5	704.9	520.7	463.6	425.5				
20"	698.5	571.5	520.7	482.6	755.7	571.5	514.4	476.3				
24"	838.2	679.5	628.7	590.6	901.7	679.5	616.0	577.9				

**General Notes**

1. Inner rings are required on all PTFE gaskets and for all Class 900# and above.
2. The gasket outside diameter tolerance for NPS 1/2 through NPS 8 is +/-0.8mm; for NPS 10 through NPS 24, +1.5mm to -0.8mm.
3. The gasket inside diameter tolerance for NPS 1/2 through NPS 8 is +/-0.4mm; for NPS 10 through NPS 24, +/-0.8mm.
4. The outer ring outside diameter is +/-0.8mm
5. The above dimensions for inner ring ID have been extracted from ASME B16.20a-2000 ADDENDA and converted from inches to millimetres.
6. The above dimensions for outer ring OD & gasket OD and ID have been extracted from ASME B16.20-1998 and converted from inches to millimetres.



A Quality Product Of Tat Lee Engineering

# SPIRAL WOUND GASKET

## Gaskets Dimensions To ASME B16.47 SERIES A Flanges

NPS	Class 150#				Class 300#				Class 400#				Class 600#				Class 900#							
	OUTER RING		GASKET		INNER RING		OUTER RING		GASKET		INNER RING		OUTER RING		GASKET		INNER RING		OUTER RING		GASKET		INNER RING	
	OD	ID	OD	ID	OD	ID	OD	ID	OD	ID	OD	ID	OD	ID	OD	ID	OD	ID	OD	ID	OD	ID	OD	ID
26"	774.7	704.9	673.1	654.1	835.2	736.6	685.8	654.1	831.9	736.6	685.8	660.4	866.9	736.6	685.8	647.7	882.7	736.6	685.8	660.4				
28"	831.9	755.7	723.9	704.9	898.7	787.4	736.6	704.9	892.3	787.4	736.6	711.2	914.4	787.4	736.6	698.5	946.2	787.4	736.6	711.2				
30"	882.7	806.5	774.7	755.7	952.5	844.6	793.8	755.7	946.2	844.6	793.8	755.7	971.6	844.6	793.8	755.7	1009.7	844.6	793.8	768.4				
32"	939.8	860.6	825.5	806.5	1006.6	901.7	850.9	806.5	1003.3	901.7	850.9	812.8	1022.4	901.7	850.9	812.8	1073.2	901.7	850.9	812.8				
34"	990.6	911.4	876.3	857.3	1057.4	952.5	901.7	857.3	1054.1	952.5	901.7	863.6	1073.2	952.5	901.7	863.6	1136.7	952.5	901.7	863.6				
36"	1047.8	968.5	927.1	908.1	1117.6	1006.6	955.8	908.1	1117.6	1006.6	955.8	917.7	1130.3	1006.6	955.8	917.7	1200.2	1009.7	958.9	920.8				
38"	1111.3	1019.3	977.9	958.9	1054.1	1016.0	977.9	952.5	1073.2	1022.4	971.6	952.5	1104.9	1041.4	990.6	952.5	1200.2	1085.9	1035.1	1009.7				
40"	1162.1	1070.1	1028.7	1009.7	1114.6	1070.1	1022.4	1003.3	1127.3	1076.5	1025.7	1000.3	1155.7	1098.6	1047.8	1009.7	1251.0	1149.4	1098.6	1060.5				
42"	1219.2	1124.0	1079.5	1060.5	1165.4	1120.9	1073.2	1054.1	1178.1	1127.3	1076.5	1051.1	1219.2	1155.7	1104.9	1066.8	1301.8	1200.2	1149.4	1111.3				
44"	1276.4	1178.1	1130.3	1111.3	1219.2	1181.1	1130.3	1104.9	1231.9	1181.1	1130.3	1104.9	1270.0	1212.9	1162.1	1111.3	1368.6	1257.3	1206.5	1155.7				
46"	1327.2	1228.9	1181.1	1162.1	1273.3	1228.9	1178.1	1152.6	1289.1	1244.6	1193.8	1168.4	1327.2	1263.7	1212.9	1162.1	1435.1	1320.8	1270.0	1219.2				
48"	1384.3	1279.7	1231.9	1212.9	1324.1	1286.0	1235.2	1209.8	1346.2	1295.4	1244.6	1206.5	1390.7	1320.8	1270.0	1219.2	1485.9	1371.6	1320.8	1270.0				
50"	1435.1	1333.5	1282.7	1263.7	1378.0	1346.2	1295.4	1244.6	1403.4	1346.2	1295.4	1257.3	1447.8	1371.6	1320.8	1270.0	-	-	-	-				
52"	1492.3	1384.3	1333.5	1314.5	1428.8	1397.0	1346.2	1320.8	1454.2	1397.0	1346.2	1308.1	1498.6	1422.4	1371.6	1320.8	-	-	-	-				
54"	1549.4	1435.1	1384.3	1358.9	1492.3	1454.2	1403.4	1352.6	1517.7	1454.2	1403.4	1352.6	1555.8	1479.6	1428.8	1378.0	-	-	-	-				
56"	1606.6	1485.9	1435.1	1409.7	1543.1	1505.0	1454.2	1403.4	1568.5	1505.0	1454.2	1403.4	1612.9	1530.4	1479.6	1428.8	-	-	-	-				
58"	1663.7	1536.7	1485.9	1460.5	1593.9	1562.1	1511.3	1447.8	1619.3	1555.8	1505.0	1454.2	1663.7	1587.5	1536.7	1473.2	-	-	-	-				
60"	1714.5	1587.5	1536.7	1511.3	1644.7	1612.9	1562.1	1524.0	1682.8	1619.3	1568.5	1517.7	1733.6	1644.7	1593.9	1530.4	-	-	-	-				

## Gaskets Dimensions To ASME B16.47 SERIES B Flanges

NPS	Class 150#				Class 300#				Class 400#				Class 600#				Class 900#							
	OUTER RING		GASKET		INNER RING		OUTER RING		GASKET		INNER RING		OUTER RING		GASKET		INNER RING		OUTER RING		GASKET		INNER RING	
	OD	ID	OD	ID	OD	ID	OD	ID	OD	ID	OD	ID	OD	ID	OD	ID	OD	ID	OD	ID	OD	ID	OD	ID
26"	725.4	698.5	673.1	654.1	771.7	711.2	673.1	654.1	746.3	698.5	666.8	654.1	765.3	714.5	663.7	644.7	838.2	749.3	692.2	666.8				
28"	776.2	749.3	723.9	704.9	825.5	762.0	723.9	704.9	800.1	749.3	714.5	701.8	819.2	755.7	704.9	692.2	901.7	800.1	743.0	717.6				
30"	827.0	800.1	774.7	755.7	886.0	812.8	774.7	755.7	857.3	806.5	765.3	752.6	879.6	828.8	778.0	752.6	958.9	857.3	806.5	781.1				
32"	881.1	850.9	825.5	806.5	939.8	863.6	825.5	806.5	911.4	860.6	812.8	800.1	933.5	882.7	831.9	793.8	1016.0	914.4	863.6	838.2				
34"	935.0	908.1	876.3	857.3	993.9	914.4	876.3	857.3	962.2	911.4	866.9	850.9	997.0	939.8	889.0	850.9	1073.2	971.6	920.8	895.4				
36"	987.6	958.9	927.1	908.1	1047.8	965.2	927.1	908.1	1022.4	965.2	917.7	898.7	1047.8	990.6	939.8	901.7	1124.0	997.0	946.2	920.8				
38"	1044.7	1009.7	974.6	958.9	1098.6	1047.8	1009.7	971.6	1073.2	1022.4	971.6	952.5	1104.9	1041.4	990.6	952.5	1200.2	1085.9	1035.1	1009.7				
40"	1095.5	1063.8	1022.4	1009.7	1149.4	1098.6	1060.5	1022.4	1127.3	1076.5	1025.7	1000.3	1155.7	1098.6	1047.8	1009.7	1251.0	1149.4	1098.6	1060.5				
42"	1146.3	1114.6	1079.5	1060.5	1200.2	1149.4	1111.3	1085.9	1178.1	1127.3	1076.5	1051.1	1219.2	1155.7	1104.9	1066.8	1301.8	1200.2	1149.4	1111.3				
44"	1197.1	1165.4	1124.0	1111.3	1251.0	1200.2	1162.1	1124.0	1231.9	1181.1	1130.3	1104.9	1270.0	1212.9	1162.1	1111.3	1368.6	1257.3	1206.5	1155.7				
46"	1255.8	1224.0	1181.1	1162.1	1317.8	1254.3	1216.2	1178.1	1289.1	1244.6	1193.8	1168.4	1327.2	1263.7	1212.9	1162.1	1435.1	1320.8	1270.0	1219.2				
48"	1306.6	1270.0	1231.9	1212.9	1368.6	1270.0	1231.7	1200.2	1346.2	1295.4	1244.6	1206.5	1390.7	1320.8	1270.0	1219.2	1485.9	1371.6	1320.8	1270.0				
50"	1357.4	1325.6	1282.7	1263.7	1419.4	1355.9	1317.8	1267.0	1403.4	1346.2	1295.4	1257.3	1447.8	1371.6	1320.8	1270.0	-	-	-	-				
52"	1408.2	1376.4	1333.5	1314.5	1470.2	1406.7	1368.6	1317.8	1454.2	1397.0	1346.2	1308.1	1498.6	1422.4	1371.6	1320.8	-	-	-	-				
54"	1463.8	1422.4	1384.3	1365.3	1530.4	1422.4	1384.3	1365.3	1517.7	1454.2	1403.4	1352.6	1555.8	1479.6	1428.8	1378.0	-	-	-	-				
56"	1514.6	1472.2	1435.1	1422.4	1593.9	1524.0	1479.6	1428.8	1568.5	1505.0	1454.2	1403.4	1612.9	1530.4	1479.6	1428.8	-	-	-	-				
58"	1579.6	1528.8	1500.3	1478.0	1655.8	1573.3	1535.2	1484.4	1619.3	1555.8	1505.0	1454.2	1663.7	1587.5	1536.7	1473.2	-	-	-	-				
60"	1630.4	1586.0	1557.3	1535.2	1706.6	1630.4	1589.0	1557.3	1682.8	1619.3	1568.5	1517.7	1706.6	1630.4	1589.0	1557.3	-	-	-	-				

**GENERAL NOTES**

- ▶ (1) The gasket thickness tolerance is +/- 0.127 mm measured across the metallic portion of the gasket not including the filler.
- ▶ (2) The gasket inside diameter tolerance for NPS 26 through NPS 38 is +/- 0.76 mm; for NPS 36 through NPS 60, +/- 1.27 mm.
- ▶ (3) The gasket outside diameter tolerance for NPS 26 through NPS 60 is +/- 1.52 mm.
- ▶ (4) Inner rings are required for all the PTFE gaskets and Class 900 gaskets, NPS 26 to NPS 48.
- ▶ (5) The inner ring inside diameter tolerance is +/- 3.0 mm.

*The above dimensions for inner ring ID have been extracted from ASME B16.20a-2000 ADDENDA to ASME B16.20-1998 and converted from inches to millimetres.*

*The above dimensions for outer ring OD & gasket OD and ID have been extracted from ASME B16.20-1998 and converted from inches to millimetres.*

## AVAILABLE GASKET MATERIALS

### Metallic Winding Strip

#### Standard

Stainless Steel  
316L

#### Others

Stainless Steel	Alloy 20	Monel 400
304	Hastelloy B2	Nickel 200
317	Hastelloy C276	SMO 254
321	Inconel 600	Titanium
347	Incoloy 800	

### Filler Materials

#### Standard

Flexible Graphite  
with min. 99%  
purity to SGL  
Grade E or  
equivalent

#### Others

Mica & Aramid fibre base  
with NBR binder  
  
PTFE  
Ceramic



#### Filler Material Code

6 - Flexible Graphite  
7 - PTFE  
8 - Non-Asbestos

#### Examples

PS 6590 - Spiral Wound Gasket With Flexible  
Graphite Filler Material  
PS 7590 - Spiral Wound Gasket With PTFE  
Filler Material

### Guide Ring Materials

#### Standard

Outer Rings  
Carbon Steel  
  
Inner Rings  
Stainless Steel  
316L

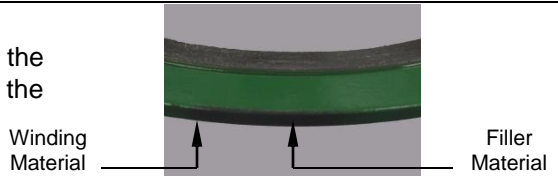
#### Others

Stainless Steel	Alloy 20	Monel 400
304	Hastelloy B2	Nickel 200
317	Hastelloy C276	SMO 254
321	Inconel 600	Titanium
347	Incoloy 800	



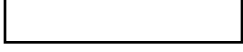


**COLOUR CODE CHART**

**ASME B16.20 SPIRAL WOUND GASKETS  
METALLIC WINDINGS & NON - METALLIC FILLERS**

Our spiral wound gaskets are colour coded at the outer edge of the centering ring for identifying the winding and filler materials



<b>METAL</b>	<b>COLOUR</b>	
304 STAINLESS STEEL	YELLOW	
316L STAINLESS STEEL	GREEN	
317L STAINLESS STEEL	MAROON	
321 STAINLESS STEEL	TURQUOISE	
347 STAINLESS STEEL	BLUE	
ALLOY 20	BLACK	
HASTELLOY B2	BROWN	
HASTELLOY C276	BEIGE	
INCONEL 600	GOLD	
INCOLOY 800	WHITE	
MONEL	ORANGE	
NICKEL 200	RED	
TITANIUM	PURPLE	

<b>NON-METALLIC FILLERS</b>	<b>COLOUR</b>	
ASBESTOS	NO COLOUR	
FLEXIBLE GRAPHITE	GRAY	
PTFE	WHITE	
CERAMIC	LIGHT GREEN	
MICA ARAMID FIBRE WITH NBR	PINK	



*A Quality Product Of Tat Lee Engineering*

## MATERIALS TEMPERATURE LIMITS

### Temperature Limits for Common Metals

Material	Minimum		Maximum		Abbreviation	Guide Ring Colour 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
Alloy 20 (20Cb-3)	-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 Colour
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
	°F	°C	°F	°C	
Flexible Graphite	-350	-212	950	510	F.G.
PTFE	-400	-240	500	260	PTFE
Mica Graphite	-350	-212	550	288	MICA
Ceramic	-350	-212	2000	1090	CER

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