



Las juntas Camprofile concebidas para trabajar con presiones de trabajo elevadas están formadas por una parte metálica dentada que puede llevar incorporado un anillo de la misma calidad que hace la función de centrado de la junta. Este anillo puede estar integrado con la junta o ser móvil. La parte dentada puede estar recubierta por cada lado por una capa de grafito o PTFE, generalmente de 0,5 mm. La parte metálica la podemos fabricar en diversos materiales como AISI 304, 316L, 321, 347, INCOLOY 800, INCONEL 600, MONEL 400, etc.

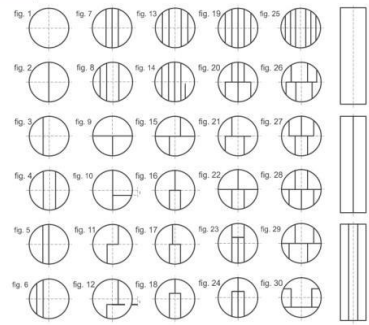
JUNTAS METÁLICAS TGCP

METALIC GASKETS

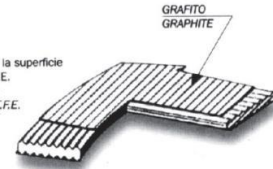
DISEÑOS STANDARD

PARA JUNTAS DE INTERCAMBIADORES
Metaloplásticas, espirometálicas, TGCP o sólidas.

FORMA SECCIÓN	DESCRIPCIÓN
	A Alma metálica corrugada con superficie plana sin anillo de centrado (para brida macho/hembra, tongue groovee grooved). Parallel root core without centering ring (for male/female, tongue/groove and grooved flanges).
	B Alma metálica corrugada con superficie plana y anillo de centrado integrado. Parallel root core with integral centering ring.
	C Alma metálica corrugada con superficie plana y anillo de centrado móvil. Parallel root core with floating centering ring, attached outside the sealing area.
	E Alma metálica corrugada con superficie convexa sin anillo de centrado. Convex root core for male/female, and grooved flanges.
	F Alma metálica corrugada con superficie convexa y anillo de centrado integrado. Convex root core with integral centering ring.
	G Alma metálica corrugada con superficie convexa y anillo de centrado móvil. Convex root core with floating centering ring, attached outside the sealing area.
	H Alma metálica con superficie plana de material cubriente (PTFE o Grafito). Metallic core flat surface.



Revestimiento de la superficie en Grafito o P.T.F.E.
Coating surfaces in Graphite or P.T.F.E.

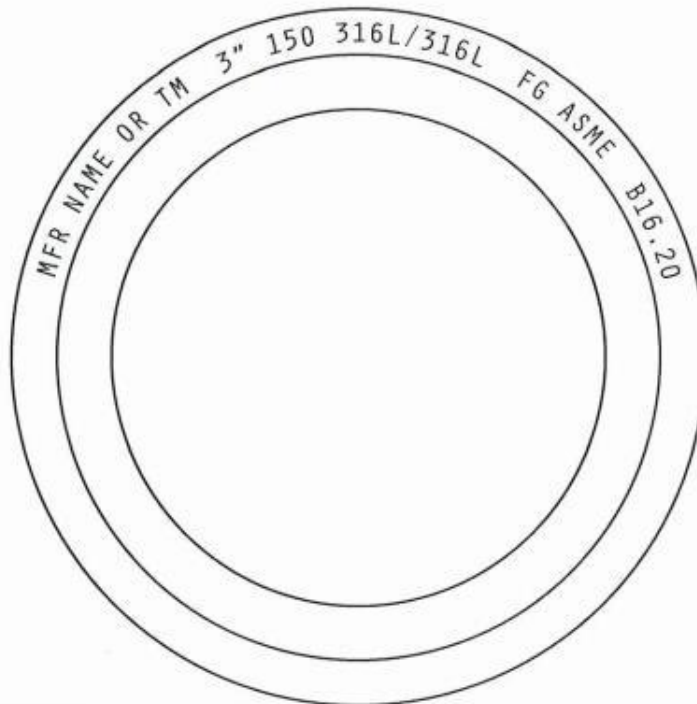


OTROS PERFILES

Tabla de clasificaciones en uso

SECCIÓN	APLICACIONES	APPLICATIONS	DIMENSIONES MAX.		
			Diametro mm.	Espesor mm.	Kg/cm ²
	Para intercambiadores, válvulas, etc...	For exchangers, covers valve, etc.	Sin limitaciones without limitations	en proceso on request	320
	Para la retención de gas, aceite, ácido para cubiertas de válvulas.	For gas, oil, acid, seals for valve covers	Sin limitaciones without limitations	0,25 - 0,8	64
	Para válvulas, compresores de aire y gas.	For valve covers air and gas compressor	Ø 1500 mm	Ø 3 - 30	160
	Para reactores químicos y autoclaves.	For chemical reactors and autoclaves	Ø 1200 mm	0,5 - 3	160
	Para válvulas de retención, intercepción a alta presión.	For check valves interception at high pressure	DIN 2696		320
	Para válvulas de retención, intercepción a alta presión.	For check valves interception at high pressure	DIN 31271		320
	Para válvulas de retención, intercepción a alta presión.	For check valves interception at high pressure	Ø 1200 mm		400
	Para válvulas de retención, intercepción a alta presión y temperatura.	For head valves and seals on impact tubings ranges (larges)	Ø 1200 mm		400

Illustration of Example Markings for Grooved Metal Gaskets With Covering Layers



GENERAL NOTE: Minimum letter height = 2.5 mm (0.1 in.).

Groove Detail

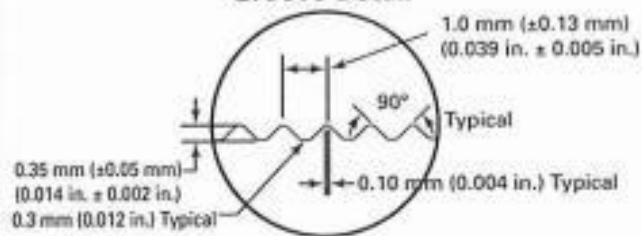


Table 26 Dimensions for Grooved Metal Gaskets With Covering Layers Used With ASME B16.5 Flanges

NPS	Grooved Metal Core (mm)		Centering Ring Outside Diameter, d3 (mm) [Note (3)]						
	Inside Diameter, d1 [Note (1)]	Outside Diameter, d2 [Note (2)]	Pressure Class						
			150	300	400	600	900	1500	2500
1/2	23.1	33.3	47.8	54.1	Note (4)	54.1	Note (5)	63.5	69.9
3/4	28.7	39.6	57.2	66.8	Note (4)	66.8	Note (5)	69.9	76.2
1	36.6	47.5	66.8	73.2	Note (4)	73.2	Note (5)	79.5	85.9
1 1/4	44.5	60.2	76.2	82.6	Note (4)	82.6	Note (5)	88.9	104.9
1 1/2	52.3	69.9	85.9	95.3	Note (4)	95.3	Note (5)	98.6	117.6
2	69.9	88.9	104.9	111.3	Note (4)	111.3	Note (5)	143.0	146.1
2 1/2	82.6	101.6	124.0	130.3	Note (4)	130.3	Note (5)	165.1	168.4
3	98.3	123.7	136.7	149.4	Note (4)	149.4	168.4	174.8	196.9
4	123.7	153.9	174.8	181.1	177.8	193.8	206.5	209.6	235.0
5	150.9	182.6	196.9	215.9	212.9	241.3	247.7	254.0	279.4
6	177.8	212.6	222.3	251.0	247.7	266.7	289.1	282.7	317.5
8	228.6	266.7	279.4	308.1	304.8	320.8	358.9	352.6	387.4
10	282.7	320.8	339.9	362.0	358.9	400.1	435.1	435.1	476.3
12	339.6	377.7	409.7	422.4	419.1	457.2	498.6	520.7	549.4
14	371.6	409.7	450.9	485.9	482.6	492.3	520.7	577.9	Note (6)
16	422.4	466.6	514.4	539.8	536.7	565.2	574.8	641.4	Note (6)
18	479.3	530.1	549.4	596.9	593.9	612.9	638.3	704.9	Note (6)
20	530.1	580.9	606.6	654.1	647.7	682.8	698.5	755.7	Note (6)
24	631.7	682.5	717.6	774.7	768.4	790.7	838.2	901.7	Note (6)

GENERAL NOTES:

- (a) All dimensions are in millimeters.
- (b) For reference, see Fig. 3.

NOTES:

- (1) The gasket inside diameter (d1) tolerance is ±0.8 mm.
- (2) The gasket outside diameter (d2) tolerance is ±0.8 mm.
- (3) The centering ring outside diameter (d3) tolerance is ±0.8 mm.
- (4) There are no Class 400 flanges in NPS 1/2 through NPS 3. (Use Class 600.)
- (5) There are no Class 900 flanges in NPS 1/2 through NPS 2 1/2. (Use Class 1500.)
- (6) There are no Class 2500 flanges NPS 14 and larger.

Table 27 Dimensions for Grooved Metal Gaskets With Covering Layers Used With ASME B16.47 Series A Flanges

NPS	Class 150						Class 300						Class 400						Class 600						Class 900											
	Grooved Core			Centering Ring			Grooved Core			Centering Ring			Grooved Core			Centering Ring			Grooved Core			Centering Ring			Grooved Core			Centering Ring			Grooved Core			Centering Ring		
	Inside Diameter, d1	Outside Diameter, d2	[Note (2)]	Outside Diameter, d3	Inside Diameter, d1	Outside Diameter, d2	[Note (2)]	Outside Diameter, d3	Inside Diameter, d1	Outside Diameter, d2	[Note (2)]	Outside Diameter, d3	Inside Diameter, d1	Outside Diameter, d2	[Note (2)]	Outside Diameter, d3	Inside Diameter, d1	Outside Diameter, d2	[Note (2)]	Outside Diameter, d3	Inside Diameter, d1	Outside Diameter, d2	[Note (2)]	Outside Diameter, d3	Inside Diameter, d1	Outside Diameter, d2	[Note (2)]	Outside Diameter, d3	Inside Diameter, d1	Outside Diameter, d2	[Note (2)]	Outside Diameter, d3				
26	673.1	704.9	[Note (3)]	774.7	685.8	736.6	835.2	685.8	736.6	831.9	685.8	736.6	831.9	685.8	736.6	831.9	685.8	736.6	831.9	685.8	736.6	831.9	685.8	736.6	831.9	685.8	736.6	831.9	685.8	736.6	831.9					
28	723.9	755.7	[Note (3)]	831.9	736.6	787.4	898.7	736.6	787.4	892.3	736.6	787.4	892.3	736.6	787.4	892.3	736.6	787.4	892.3	736.6	787.4	892.3	736.6	787.4	892.3	736.6	787.4	892.3	736.6	787.4	892.3					
30	774.7	806.5	[Note (3)]	882.7	793.8	844.6	952.5	793.8	844.6	946.2	793.8	844.6	946.2	793.8	844.6	946.2	793.8	844.6	946.2	793.8	844.6	946.2	793.8	844.6	946.2	793.8	844.6	946.2	793.8	844.6	946.2					
32	825.5	860.6	[Note (3)]	939.8	850.9	901.7	1006.6	850.9	901.7	1003.3	850.9	901.7	1003.3	850.9	901.7	1003.3	850.9	901.7	1003.3	850.9	901.7	1003.3	850.9	901.7	1003.3	850.9	901.7	1003.3	850.9	901.7	1003.3					
34	876.3	911.4	[Note (3)]	990.6	901.7	952.5	1057.4	901.7	952.5	1054.1	901.7	952.5	1054.1	901.7	952.5	1054.1	901.7	952.5	1054.1	901.7	952.5	1054.1	901.7	952.5	1054.1	901.7	952.5	1054.1	901.7	952.5	1054.1					
36	927.1	968.5	[Note (3)]	1047.8	955.8	1006.6	1117.6	955.8	1006.6	1117.6	955.8	1006.6	1117.6	955.8	1006.6	1117.6	955.8	1006.6	1117.6	955.8	1006.6	1117.6	955.8	1006.6	1117.6	955.8	1006.6	1117.6	955.8	1006.6	1117.6	955.8				
38	977.9	1019.3	[Note (3)]	1111.3	977.9	1016.0	1054.1	977.9	1016.0	1054.1	977.9	1016.0	1054.1	977.9	1016.0	1054.1	977.9	1016.0	1054.1	977.9	1016.0	1054.1	977.9	1016.0	1054.1	977.9	1016.0	1054.1	977.9	1016.0	1054.1	977.9				
40	1028.7	1070.1	[Note (3)]	1162.1	1028.7	1070.1	1114.6	1028.7	1070.1	1114.6	1028.7	1070.1	1114.6	1028.7	1070.1	1114.6	1028.7	1070.1	1114.6	1028.7	1070.1	1114.6	1028.7	1070.1	1114.6	1028.7	1070.1	1114.6	1028.7	1070.1	1114.6	1028.7				
42	1079.5	1124.0	[Note (3)]	1219.2	1079.5	1124.0	1170.9	1079.5	1124.0	1170.9	1079.5	1124.0	1170.9	1079.5	1124.0	1170.9	1079.5	1124.0	1170.9	1079.5	1124.0	1170.9	1079.5	1124.0	1170.9	1079.5	1124.0	1170.9	1079.5	1124.0	1170.9	1079.5				
44	1130.3	1178.1	[Note (3)]	1276.4	1130.3	1181.1	1219.2	1130.3	1181.1	1231.9	1130.3	1181.1	1231.9	1130.3	1181.1	1231.9	1130.3	1181.1	1231.9	1130.3	1181.1	1231.9	1130.3	1181.1	1231.9	1130.3	1181.1	1231.9	1130.3	1181.1	1231.9	1130.3				
46	1181.1	1228.9	[Note (3)]	1327.2	1181.1	1228.9	1273.3	1181.1	1228.9	1273.3	1181.1	1228.9	1273.3	1181.1	1228.9	1273.3	1181.1	1228.9	1273.3	1181.1	1228.9	1273.3	1181.1	1228.9	1273.3	1181.1	1228.9	1273.3	1181.1	1228.9	1273.3	1181.1				
48	1231.9	1279.7	[Note (3)]	1384.3	1231.9	1286.0	1324.1	1231.9	1286.0	1324.1	1231.9	1286.0	1324.1	1231.9	1286.0	1324.1	1231.9	1286.0	1324.1	1231.9	1286.0	1324.1	1231.9	1286.0	1324.1	1231.9	1286.0	1324.1	1231.9	1286.0	1324.1	1231.9				
50	1282.7	1333.5	[Note (3)]	1435.1	1282.7	1333.5	1378.0	1282.7	1333.5	1378.0	1282.7	1333.5	1378.0	1282.7	1333.5	1378.0	1282.7	1333.5	1378.0	1282.7	1333.5	1378.0	1282.7	1333.5	1378.0	1282.7	1333.5	1378.0	1282.7	1333.5	1378.0	1282.7				
52	1333.5	1384.3	[Note (3)]	1492.3	1333.5	1384.3	1438.8	1333.5	1384.3	1438.8	1333.5	1384.3	1438.8	1333.5	1384.3	1438.8	1333.5	1384.3	1438.8	1333.5	1384.3	1438.8	1333.5	1384.3	1438.8	1333.5	1384.3	1438.8	1333.5	1384.3	1438.8	1333.5				
54	1384.3	1435.1	[Note (3)]	1549.4	1384.3	1435.1	1492.3	1384.3	1435.1	1492.3	1384.3	1435.1	1492.3	1384.3	1435.1	1492.3	1384.3	1435.1	1492.3	1384.3	1435.1	1492.3	1384.3	1435.1	1492.3	1384.3	1435.1	1492.3	1384.3	1435.1	1492.3	1384.3				
56	1435.1	1485.9	[Note (3)]	1606.6	1435.1	1485.9	1543.1	1435.1	1485.9	1543.1	1435.1	1485.9	1543.1	1435.1	1485.9	1543.1	1435.1	1485.9	1543.1	1435.1	1485.9	1543.1	1435.1	1485.9	1543.1	1435.1	1485.9	1543.1	1435.1	1485.9	1543.1	1435.1				
58	1485.9	1536.7	[Note (3)]	1663.7	1485.9	1536.7	1593.9	1485.9	1536.7	1593.9	1485.9	1536.7	1593.9	1485.9	1536.7	1593.9	1485.9	1536.7	1593.9	1485.9	1536.7	1593.9	1485.9	1536.7	1593.9	1485.9	1536.7	1593.9	1485.9	1536.7	1593.9	1485.9				
60	1536.7	1587.5	[Note (3)]	1714.5	1536.7	1587.5	1644.7	1536.7	1587.5	1644.7	1536.7	1587.5	1644.7	1536.7	1587.5	1644.7	1536.7	1587.5	1644.7	1536.7	1587.5	1644.7	1536.7	1587.5	1644.7	1536.7	1587.5	1644.7	1536.7	1587.5	1644.7	1536.7				

GENERAL NOTES:
 (a) All dimensions are in millimeters.
 (b) For reference, see Fig. 3.

NOTES:

- (1) The gasket inside diameter (d1) tolerance for NPS 26 through NPS 34 is ± 0.8 mm, and the tolerance for NPS 36 through NPS 60 is ± 1.5 mm.
- (2) The gasket outside diameter (d2) tolerance for NPS 26 through NPS 60 is ± 1.5 mm.
- (3) The centering ring outside diameter (d3) tolerance is ± 0.8 mm.
- (4) There are no Class 900 flanges NPS 50 and larger.

Table 28 Dimensions for Grooved Metal Gaskets With Covering Layers Used With ASME B16.47 Series B Flanges

NPS	Class 150						Class 300						Class 400						Class 600						Class 900							
	Grooved Core		Centering Ring		Grooved Core		Centering Ring		Grooved Core		Centering Ring		Grooved Core		Centering Ring		Grooved Core		Centering Ring		Grooved Core		Centering Ring		Grooved Core		Centering Ring		Grooved Core		Centering Ring	
	Inside Diameter, d1	Outside Diameter, d2	Outside Diameter, d3	Inside Diameter, d1	Outside Diameter, d2	Outside Diameter, d3	Outside Diameter, d3	Inside Diameter, d1	Outside Diameter, d2	Outside Diameter, d3	Outside Diameter, d3	Inside Diameter, d1	Outside Diameter, d2	Outside Diameter, d3	Outside Diameter, d3	Inside Diameter, d1	Outside Diameter, d2	Outside Diameter, d3	Outside Diameter, d3	Inside Diameter, d1	Outside Diameter, d2	Outside Diameter, d3	Outside Diameter, d3	Inside Diameter, d1	Outside Diameter, d2	Outside Diameter, d3	Outside Diameter, d3	Inside Diameter, d1	Outside Diameter, d2	Outside Diameter, d3		
26	673.1	698.5	725.4	673.1	711.2	771.7	666.8	698.5	746.3	746.3	746.3	663.7	714.5	765.3	765.3	692.2	749.3	836.2	692.2	749.3	836.2	692.2	749.3	836.2	692.2	749.3	836.2	692.2	749.3	836.2		
28	723.9	749.3	776.2	723.9	762.0	825.5	714.5	749.3	800.1	800.1	800.1	704.9	755.7	819.2	819.2	743.0	800.1	901.7	743.0	800.1	901.7	743.0	800.1	901.7	743.0	800.1	901.7	743.0	800.1			
30	774.7	800.1	827.0	774.7	812.8	886.0	765.3	806.5	857.3	857.3	857.3	778.0	828.8	879.6	879.6	806.5	857.3	958.9	806.5	857.3	958.9	806.5	857.3	958.9	806.5	857.3	958.9	806.5	857.3			
32	825.5	850.9	881.1	825.5	863.6	939.8	812.8	860.6	911.4	911.4	911.4	831.9	882.7	933.5	933.5	863.6	914.4	1016.0	863.6	914.4	1016.0	863.6	914.4	1016.0	863.6	914.4	1016.0	863.6	914.4			
34	876.3	908.1	935.0	876.3	914.4	993.9	866.9	911.4	962.2	962.2	962.2	889.0	939.8	997.0	997.0	920.8	971.6	1073.2	920.8	971.6	1073.2	920.8	971.6	1073.2	920.8	971.6	1073.2	920.8	971.6			
36	927.1	958.9	987.6	927.1	965.2	1047.8	917.7	965.2	1022.4	1022.4	1022.4	939.8	990.6	1047.8	1047.8	966.2	997.0	1124.0	966.2	997.0	1124.0	966.2	997.0	1124.0	966.2	997.0	1124.0	966.2	997.0			
38	974.9	1009.7	1044.7	974.9	1018.8	1098.6	971.6	1022.4	1073.2	1073.2	1073.2	990.6	1041.4	1090.9	1090.9	1035.1	1085.9	1200.2	1035.1	1085.9	1200.2	1035.1	1085.9	1200.2	1035.1	1085.9	1200.2	1035.1	1085.9			
40	1022.4	1063.8	1095.5	1022.4	1060.5	1149.4	1025.7	1076.5	1127.3	1127.3	1127.3	1047.8	1098.6	1155.7	1155.7	1098.6	1149.4	1251.0	1098.6	1149.4	1251.0	1098.6	1149.4	1251.0	1098.6	1149.4	1251.0	1098.6	1149.4			
42	1079.5	1114.6	1146.3	1079.5	1111.3	1194.4	1076.5	1127.3	1178.1	1178.1	1178.1	1104.9	1155.7	1219.2	1219.2	1149.4	1200.2	1301.8	1149.4	1200.2	1301.8	1149.4	1200.2	1301.8	1149.4	1200.2	1301.8	1149.4	1200.2			
44	1124.0	1165.4	1197.1	1124.0	1162.1	1251.0	1130.3	1181.1	1231.9	1231.9	1231.9	1162.1	1212.9	1270.0	1270.0	1206.5	1257.3	1368.6	1206.5	1257.3	1368.6	1206.5	1257.3	1368.6	1206.5	1257.3	1368.6	1206.5	1257.3			
46	1181.1	1224.0	1255.8	1181.1	1216.2	1317.8	1193.8	1244.6	1289.1	1289.1	1289.1	1212.9	1263.7	1327.2	1327.2	1270.0	1320.8	1435.1	1270.0	1320.8	1435.1	1270.0	1320.8	1435.1	1270.0	1320.8	1435.1	1270.0	1320.8			
48	1231.9	1270.0	1306.6	1231.9	1263.7	1368.6	1244.6	1295.4	1346.2	1346.2	1346.2	1270.0	1320.8	1390.7	1390.7	1320.8	1371.6	1485.9	1320.8	1371.6	1485.9	1320.8	1371.6	1485.9	1320.8	1371.6	1485.9	1320.8	1371.6			
50	1282.7	1325.6	1357.4	1282.7	1317.8	1419.4	1295.4	1346.2	1403.4	1403.4	1403.4	1320.8	1371.6	1447.8	1447.8	1371.6	1424.0	1531.8	1371.6	1424.0	1531.8	1371.6	1424.0	1531.8	1371.6	1424.0	1531.8	1371.6	1424.0			
52	1333.5	1376.4	1408.2	1333.5	1368.6	1470.2	1346.2	1397.0	1454.2	1454.2	1454.2	1371.6	1424.0	1498.6	1498.6	1424.0	1473.2	1573.2	1424.0	1473.2	1573.2	1424.0	1473.2	1573.2	1424.0	1473.2	1573.2	1424.0	1473.2			
54	1384.3	1422.4	1463.8	1384.3	1403.4	1530.4	1403.4	1454.2	1517.7	1517.7	1517.7	1428.8	1479.6	1555.8	1555.8	1479.6	1531.8	1624.8	1479.6	1531.8	1624.8	1479.6	1531.8	1624.8	1479.6	1531.8	1624.8	1479.6	1531.8			
56	1444.8	1478.0	1514.6	1444.8	1479.6	1573.2	1454.2	1505.0	1568.5	1568.5	1568.5	1479.6	1530.4	1612.9	1612.9	1530.4	1584.8	1671.2	1530.4	1584.8	1671.2	1530.4	1584.8	1671.2	1530.4	1584.8	1671.2	1530.4	1584.8			
58	1500.6	1528.8	1579.6	1500.6	1535.2	1630.4	1505.0	1555.8	1619.3	1619.3	1619.3	1536.7	1587.5	1663.7	1663.7	1587.5	1644.7	1733.6	1587.5	1644.7	1733.6	1587.5	1644.7	1733.6	1587.5	1644.7	1733.6	1587.5	1644.7			
60	1557.3	1586.0	1630.4	1557.3	1589.0	1706.6	1568.5	1619.3	1682.8	1682.8	1682.8	1593.9	1644.7	1733.6	1733.6	1644.7	1706.6	1795.1	1644.7	1706.6	1795.1	1644.7	1706.6	1795.1	1644.7	1706.6	1795.1	1644.7	1706.6			

GENERAL NOTES:

- (a) All dimensions are in millimeters.
- (b) For reference, see Fig. 3.

NOTES:

- (1) The gasket inside diameter (d1) tolerance for NPS 26 through NPS 34 is ± 0.8 mm, and the tolerance for NPS 36 through NPS 60 is ± 1.5 mm.
- (2) The gasket outside diameter (d2) tolerance for NPS 26 through NPS 60 is ± 1.5 mm.
- (3) The centering ring outside diameter (d3) tolerance is ± 0.8 mm.
- (4) There are no Class 900 flanges NPS 50 and larger.

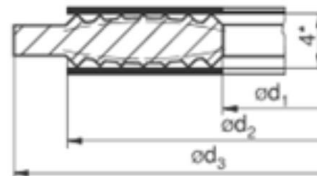
Table 29 Color Coding and Abbreviations for Grooved Metal Gaskets With Covering Layers Materials

Material	Abbreviation	Color Code
Grooved Metal Core Materials		
Carbon steel	CRS	Silver
304 SS	304	Yellow
304 L SS	304 L	No color
309 SS	309	No color
310 SS	310	No color
316 L SS	316 L	Green
317 L SS	317 L	Maroon
347 SS	347	Blue
321 SS	321	Turquoise
430 SS	430	No color
Ni-Cu	...	...
Monel 400	MON	Orange
Grade 400	...	...
Nickel 200	NI	Red
Titanium	TI	Purple
20Cb-3 alloy	A-20	Black
Ni-Mo	...	...
Hastelloy B	HAST B	Brown
Grade B2	...	...
Grade B3	...	...
Ni-Mo-Cr	...	...
Hastelloy C	HAST C	Beige
Grade C-276	...	...
Ni-Cr-Fe	...	...
Inconel 600	INC 600	Gold
Grade 600	...	...
Ni-Cr-Fe-Cb	...	...
Inconel 625	INC 625	Gold
Grade 625	...	...
Ni-Cr-Fe-Ti	...	...
Inconel X-750	INX	No color
Grade X-750	...	...
Ni-Fe-Cr	...	...
Incoloy 800	IN 800	White
Grade 800	...	...
Ni-Fe-Cr-Mo-Cu	...	...
Incoloy 825	IN 825	White
Grade 825	...	...
Zirconium	ZIRC	No color
All Other Materials	Manufacturer's standard	No color
Nonmetallic Covering Materials		
Polytetrafluoroethylene	PTFE	White stripe
Flexible graphite	FG	Gray stripe
Vermiculite	...	Light blue stripe
Phlogopite (magnesium mica)	...	Light blue stripe

Table 30 Example Markings for Grooved Metal Gaskets With Covering Layers

Description	Marking
NPS 3, Class 300 and 600 ASME B16.5 gaskets having a 304 core and a flexible graphite facing material	3-300/600-FG (Manufacturer's trademark) ASME B16.20
NPS 12, Class 1500 ASME B16.5 gasket having an Inconel core and PTFE facing material	12-1500 INC 600-PTFE (Manufacturer's trademark) ASME B16.20

DN	d ₁	d ₂	d ₃									
			PN 10	PN 16	PN 25	PN 40	PN 63	PN 100	PN 160	PN 250	PN 320	PN 400
10	22	36	46	46	46	46	56	56	56	67	67	67
15	26	42	51	51	51	51	61	61	61	72	72	78
20	31	47	61	61	61	61	-	-	-	-	-	-
25	36	52	71	71	71	71	82	82	82	83	92	104
32	46	66	82	82	82	82	-	-	-	-	-	-
40	53	73	92	92	92	92	103	103	103	109	119	135
50	65	87	107	107	107	107	113	119	119	124	134	150
65	81	103	127	127	127	127	137	143	143	153	170	192
80	95	121	142	142	142	142	148	154	154	170	190	207
100	118	144	162	162	168	168	174	180	180	202	229	256
125	142	176	192	192	194	194	210	217	217	242	274	301
150	170	204	217	217	224	224	247	257	257	284	311	348
175	195	229	247	247	254	265	277	287	284	316	358	402
200	224	258	272	272	284	290	309	324	324	358	398	442
250	275	315	327	328	340	352	364	391	388	442	488	-
300	325	365	377	383	400	417	424	458	458	536	-	-
350	375	420	437	443	457	474	486	512	-	-	-	-
400	426	474	489	495	514	546	543	572	-	-	-	-
450	480	528	539	555	-	571	-	-	-	-	-	-
500	530	578	594	617	624	628	657	704	-	-	-	-
600	630	680	695	734	731	747	764	813	-	-	-	-
700	730	780	810	804	833	852	879	950	-	-	-	-
800	830	880	917	911	942	974	988	-	-	-	-	-
900	930	980	1017	1011	1042	1084	1108	-	-	-	-	-
1000	1040	1090	1124	1128	1154	1194	1220	-	-	-	-	-
1200	1250	1310	1341	1342	1364	1398	1452	-	-	-	-	-
1400	1440	1510	1548	1542	1578	1618	-	-	-	-	-	-
1600	1650	1730	1772	1764	1798	1830	-	-	-	-	-	-
1800	1850	1930	1972	1964	2000	-	-	-	-	-	-	-
2000	2050	2130	2182	2168	2230	-	-	-	-	-	-	-
2200	2250	2340	2384	2378	-	-	-	-	-	-	-	-
2400	2460	2550	2594	-	-	-	-	-	-	-	-	-
2600	2670	2760	2794	-	-	-	-	-	-	-	-	-
2800	2890	2980	3014	-	-	-	-	-	-	-	-	-
3000	3100	3190	3228	-	-	-	-	-	-	-	-	-



* thickness of metal core
3,8^{+0.2} mm for nominal thickness
4 mm.