Spiral Wound Gasket Dimensions (ASME B16.20, Class 300, NPS 1/2 to NPS 24)

Dimensions for ASME B16.20 Class 300 spiral wound gaskets used with ASME B16.5 raised-face flanges: inner-ring inside diameter, sealing element (winding) inside and outside diameter, and centering (outer) ring outside diameter.

A spiral wound gasket seals between two raised-face flanges. ASME B16.20 sets its dimensions so that the gasket matches the ASME B16.5 flange it seats in. A typical Class 300 gasket has three parts: a solid metal inner ring that locates the inner edge of the winding and resists inward buckling; the spiral winding itself (alternating metal strip and filler) which does the sealing; and a solid metal centering (outer) ring that locates the gasket inside the flange bolts and acts as a compression stop. The four diameters below define those parts. The values are ASME B16.20 Class 300, cross-checked across two independent reference tables.

NPS	Inner ring ID d1 (mm)	Winding ID d2 (mm)	Winding OD d3 (mm)	Centering ring OD d4 (mm)
NPS 1/2	14.2	19.1	31.8	54.1
NPS 3/4	20.6	25.4	39.6	66.8
NPS 1	26.9	31.8	47.8	73.2
NPS 1 1/4	38.1	47.8	60.5	82.6
NPS 1 1/2	44.5	54.1	69.9	95.3
NPS 2	55.6	69.9	85.9	111.3
NPS 2 1/2	66.5	82.6	98.6	130.3
NPS 3	81.0	101.6	120.7	149.4
NPS 4	106.4	127.0	149.4	181.1
NPS 5	131.8	155.7	177.8	215.9
NPS 6	157.2	182.6	209.6	251.0
NPS 8	215.9	233.4	263.7	308.1
NPS 10	268.2	287.3	317.5	362.0
NPS 12	317.5	339.9	374.7	422.4
NPS 14	349.3	371.6	406.4	485.9
NPS 16	400.1	422.4	463.6	539.8
NPS 18	449.3	474.7	527.1	596.9
NPS 20	500.1	525.5	577.9	654.1
NPS 24	603.3	628.7	685.8	774.7

d1 is the inside diameter of the inner ring (the spiral winding begins; d3 is the outside diamet ring, which seats the gasket against the flange the matching ASME B16.5 Class 300 flange a tables agree on all four diameters for every NP the Class 150 gasket, which seats in the same

Reading the dimensions

- Inner ring ID (d1) — the inside diame bore and the winding, stops the windin the inner ring standard for Class 300 s
- Winding ID (d2) — the inside diamet column commonly listed as the gasket
- Winding OD (d3) — the outside diam d2 and d3 is the part that actually seals NPS.
- Centering ring OD (d4) — the outsid the flange bolt holes and acts as a con against the bolts, d4 is tied to the matin every NPS.

Gasket thickness, winding metal and fi
4.5 mm nominal gasket with a 316 stai
change the four diameters above. Conf
the service before ordering.

Selecting and matching

A spiral wound gasket matches a flang
confirm all four before ordering. The di
flange. The inner ring and winding (d1,
flange bore is the same, but the center
larger bolt circle. The gasket is not inte
to the flange bore and the centering rin
centering ring seats and the winding is

Reference compiled by cBallast from ASME B
checked across two independent reference ta
every NPS); the inner-ring and winding diame
identification and cross-reference; confirm aga
manufacture or procurement. All trademarks a