

PN10 Flange Dimensions (EN 1092-1 Type 11, DN10 to DN350)

Mounting dimensions for PN10 weld-neck flanges to EN 1092-1: flange outside diameter, bolt-circle diameter, bolt-hole size, number of bolts, bolt size and flange thickness.

PN10 is the EN 1092-1 pressure rating for a nominal 10 bar flange and the common rating for low-pressure water, HVAC, pump and general process service. The PN number fixes the bolt pattern, so a PN10 DN100 flange from any maker shares the same 220 mm outside diameter, 180 mm bolt circle and eight M16 bolts. The values below are the EN 1092-1 nominal dimensions for the Type 11 raised-face weld-neck flange across the common DN10 to DN350 range, cross-checked across two independent reference tables.

DN	Flange OD D (mm)	Bolt circle K (mm)	Bolt hole (mm)	No. of bolts	Bolt size	Flange thick C (mm)
DN10	90	60	14	4	M12	16
DN15	95	65	14	4	M12	16
DN20	105	75	14	4	M12	18
DN25	115	85	14	4	M12	18
DN32	140	100	18	4	M16	18
DN40	150	110	18	4	M16	18
DN50	165	125	18	4	M16	18
DN65	185	145	18	8	M16	18
DN80	200	160	18	8	M16	20
DN100	220	180	18	8	M16	20
DN125	250	210	18	8	M16	22
DN150	285	240	22	8	M20	22
DN200	340	295	22	8	M20	24
DN250	395	350	22	12	M20	26
DN300	445	400	22	12	M20	26
DN350	505	460	22	16	M20	26

Bolt holes are drilled on the bolt circle K, straddling the hole diameter (hole = thread + clearance): 14 mm holes take M12 bolts, stepping up to M20 from DN150 to DN350.

Reading the dimensions

- D (flange outside diameter) — the overall diameter of the gasket retainer envelope.
- K (bolt circle diameter) — the diameter of the circle of bolt holes to lay out or check the drilling against.
- Bolt hole — the drilled hole diameter. The hole diameter for flanges up to DN150 is 14 mm, stepping up to 22 mm for flanges above DN150.
- Number of bolts — always a multiple of 4. Flanges of the same rating and size share the same count.
- Bolt size — the metric thread of the bolts used.
- C (flange thickness) — the thickness of the flange.

Selecting and matching

Two flanges bolt together only when the dimensions match. For four before ordering. A PN10 flange will match a PN10 flange if the bore is the same — the bolt circle and number of bolts. From DN10 through DN150, so DN15 to DN100 share the same outside diameter, bolt circle and number of bolts. And above DN200 the two ratings diverge.

is the common PN10 facing) and the flange temperature and pressure. The dimensions of the flanges to EN 1092-1 share the same D,

Reference compiled by cBallast from EN 1092-1 tables (a published EN 1092-1 PN10 table and a table for DN10 to DN200 dimensions are additionally consulted and cross-referenced; confirm against the control drawing for procurement. All trademarks are the property of