

PN6 Flange Dimensions (EN 1092-1 Type 11, DN10 to DN350)

Mounting dimensions for PN6 weld-neck flanges to EN 1092-1: flange outside diameter, bolt-circle diameter, bolt-hole size, number of bolts, bolt size and flange thickness.

PN6 is the EN 1092-1 pressure rating for a nominal 6 bar flange and the lightest common rating for low-pressure water, ventilation, gravity drainage and general low-duty service. The PN number fixes the bolt pattern, so a PN6 DN100 flange from any maker shares the same 210 mm outside diameter, 170 mm bolt circle and four 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 (mm)
DN10	75	50	11	4	M10	12
DN15	80	55	11	4	M10	12
DN20	90	65	11	4	M10	14
DN25	100	75	11	4	M10	14
DN32	120	90	14	4	M12	14
DN40	130	100	14	4	M12	14
DN50	140	110	14	4	M12	14
DN65	160	130	14	4	M12	14
DN80	190	150	18	4	M16	16
DN100	210	170	18	4	M16	16
DN125	240	200	18	8	M16	18
DN150	265	225	18	8	M16	18
DN200	320	280	18	8	M16	20
DN250	375	335	18	12	M16	22
DN300	440	395	22	12	M20	22
DN350	490	445	22	12	M20	22

Bolt holes are drilled on the bolt circle K, straddling the hole (hole = thread + clearance): 11 mm holes take M10 bolts to DN25 where the heavier PN10 and PN16 ratings use the PN16 flange of the same DN.

Reading the dimensions

- D (flange outside diameter) — the overall diameter of the gasket retainer envelope.
- K (bolt circle diameter) — the diameter of the bolt circle figure to lay out or check the drilling against.
- Bolt hole — the drilled hole diameter. The hole size varies on flanges up.
- Number of bolts — always a multiple of 4. Mating flanges share the same count.
- Bolt size — the metric thread of the bolt.
- Flange thickness — the thickness of the flange (EN 1092-1 b dimension).

Selecting and matching

Two flanges bolt together only when the dimensions match. Check the four before ordering. A PN6 flange will not mate with a PN10, though the bore is the same — the bolt circle diameter is different.

diameter and bolt circle than PN10 or PN16, so the two ratings do not interchange. EN 1092-1 (Type 11 facing) and the flange material group, which are the same as the dimensions above are for the Type 11 well as the same D, K, bolt hole, bolt count and bolt

Reference compiled by cBallast from EN 1092-1 tables (a published EN 1092-1 PN6 Type 11 table) and the nominal value; the outside diameter, bolt circle, bolt hole diameter, nominal and provided for identification and cross-reference data sheet before manufacture or procurement.