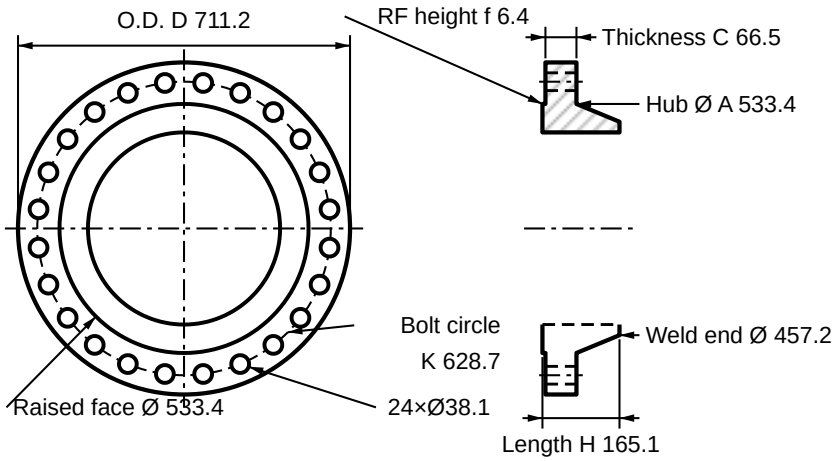
ASME B16.5 · ASME B16.5-2025

B16.5 Class 400 18″ Weld Neck

DN450 · Weld Neck · Dimensions mm · Weight kg

ASME B16.5 · 18″ (DN450) · Class 400 · Weld Neck Flange



Both views share one scale (1:11); schematic only

Unit: mm

Symbol	Item	Value
D	Outside diameter	711.2 mm
C	Flange thickness / blind thickness	66.5 mm
D2	Raised face diameter	533.4 mm
f	Raised face height	6.4 mm
K	Bolt circle diameter	628.7 mm
n	Number of bolt holes	24 pcs
d	Bolt hole diameter	38.1 mm
A	Hub diameter	533.4 mm
H	Hub length / overall length	165.1 mm
B	Welding-end diameter	457.2 mm
—	Approximate weight	159 kg

PRESSURE–TEMPERATURE RATINGS · CLASS 400 · GROUP 1.1

≤ 38 °C **68.0 bar**	50 °C **66.4 bar**	100 °C **62.3 bar**	150 °C **60.1 bar**
200 °C **58.4 bar**	250 °C **56.0 bar**	300 °C **53.2 bar**	325 °C **51.6 bar**
350 °C **50.2 bar**	375 °C **48.5 bar**	400 °C **46.2 bar**	425 °C **38.3 bar**
450 °C **30.6 bar**	475 °C **23.3 bar**	500 °C **15.4 bar**	538 °C **7.7 bar**

Source: Table 2-1.1 (printed p. 25) — pressure–temperature ratings for Group 1.1 materials, SI units; Group 1.1.

MATERIAL AND NOTES

Base material: ASTM A105 (North America, Middle East, South-East Asia)

Rating: ASME classes are not fixed pressures. For ASTM A105 (material group 1.1) the ASME B16.5-2025 ambient rating is 285 psi (19.6 bar) at Class 150, 740 psi (51.0 bar) at Class 300, 985 psi (68.0 bar) at Class 400, 1,480 psi (102.0 bar) at Class 600, 2,2…

Tolerances / marking: Tolerances, facing finish, material and marking requirements: ASME B16.5-2025 Sections 6 and 7.

NOTES / SPECIAL REQUIREMENTS

Work order _____ Inspector _____ Date _____ Travels with the part; file after inspection

Source: ASME B16.5-2025; dimensions transcribed from ASME B16.5-2025, verified 2026-11-04. Sheet #396.

This sheet is a factual compilation of published standards tables and is not a substitute for the standard itself. Verify dimensions and ratings against the edition named in your purchase specification before quoting, manufacturing or inspecting a critical part.

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