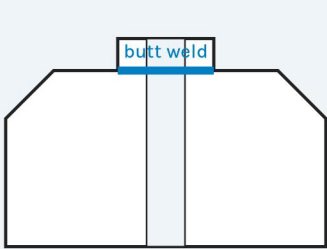


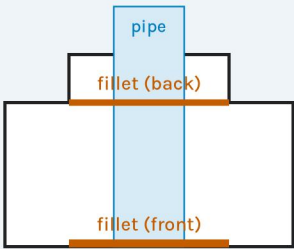
Weld neck vs slip-on vs socket weld — where the weld sits

WELD NECK



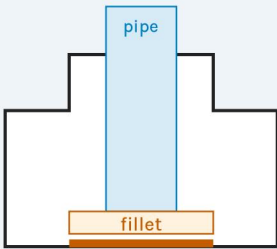
hub + bore match pipe

SLIP-ON



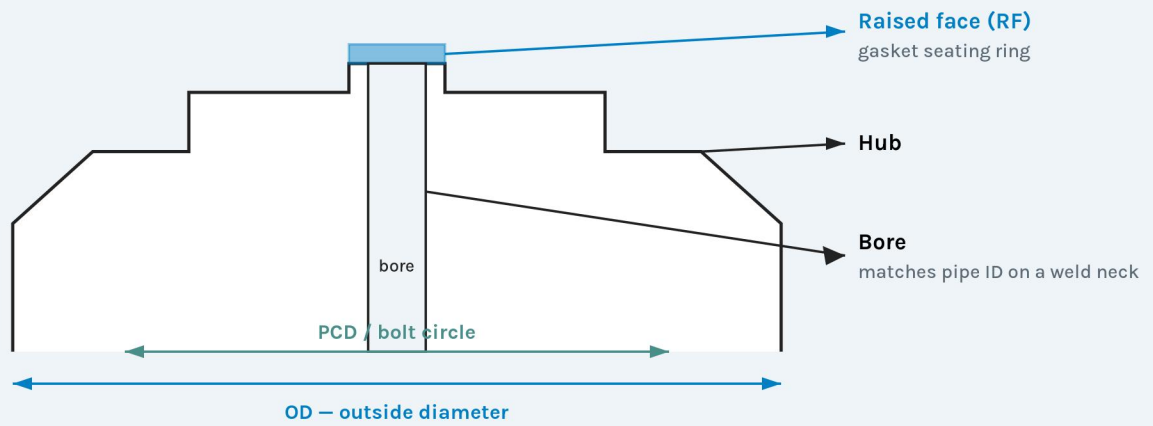
pipe slips through the bore

SOCKET WELD



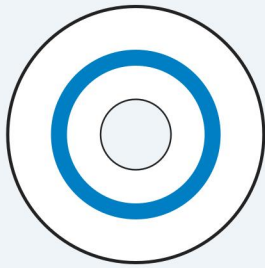
to Class 1500, small sizes

Weld-neck flange anatomy (ASME B16.5 terms)



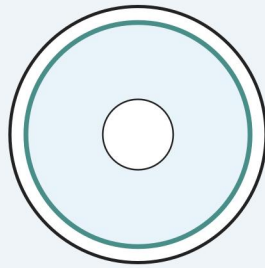
Metal Forge India · original engineering diagram · not a product photograph

Flange facing — raised face, flat face, ring-type joint



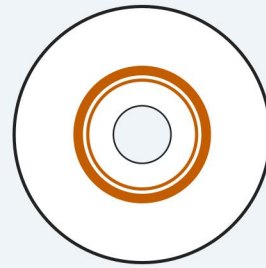
Raised face (RF)

gasket sits on the raised ring



Flat face (FF)

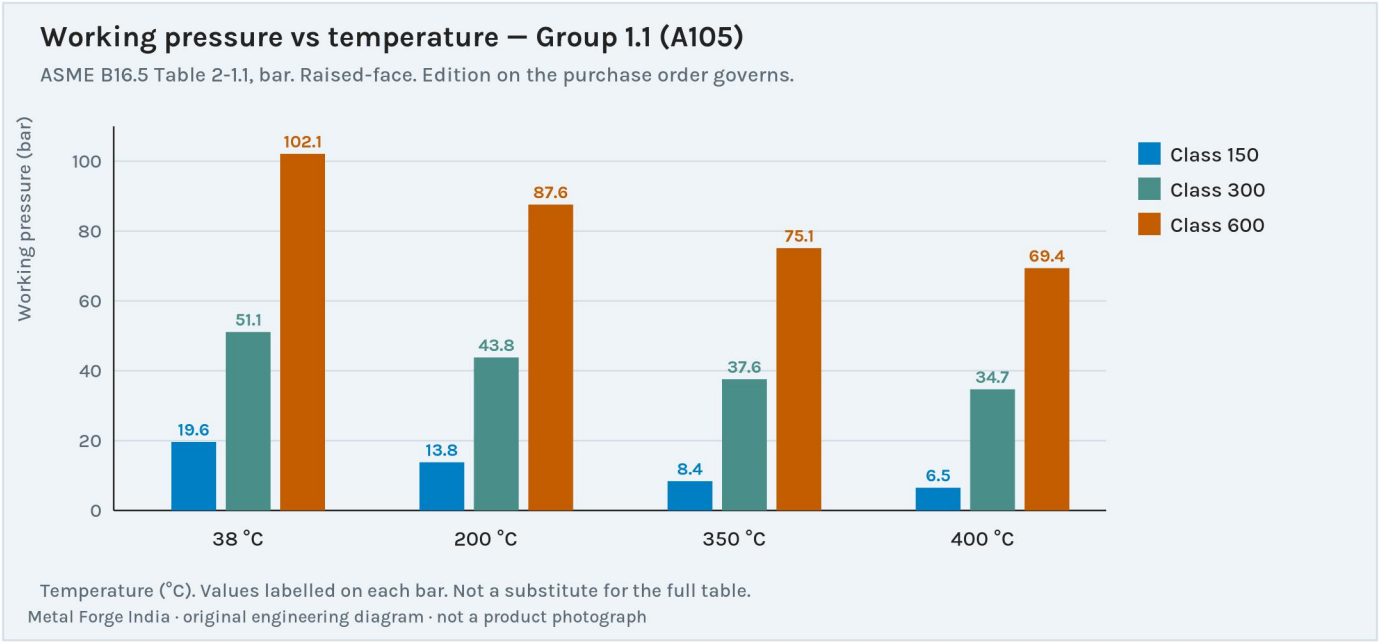
full-face gasket, often CI or bronze



Ring-type joint (RTJ)

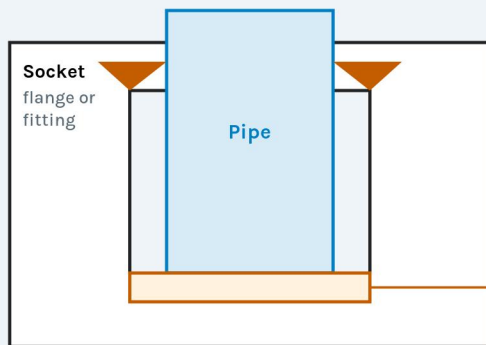
metal ring in a grooved face

Metal Forge India · original engineering diagram · not a product photograph



Socket-weld expansion gap – 1.6 mm (1/16 in)

ASME B31.1 / B31.3: insert the pipe, then pull back ~1.6 mm before welding.



Fillet weld after the gap is set

Do not bottom the pipe and weld.
Heat would lock the pipe against the
shoulder and crack the fillet.

1.6 mm gap
at the socket bottom

Metal Forge India · original engineering diagram · not a product photograph