

ASME B16.47 Large Diameter Flanges

ASME B16.47 covers welding neck and blind flanges NPS 26 through NPS 60, Classes 150, 300, 400, 600 and 900 in Series A, and Classes 75 through 900 in Series B. Series A dimensions- flanges for general use- are based on MSS SP-44, while Series B flanges are more compact and conform to the dimensions of API Standard 605.

Classes 75, 150 and 300 flanges are normally furnished with a 0.06 (1/16) in. raised face. Classes 400, 600 and 900 are normally furnished with a 0.25 (1/4) in. raised face. The required serrated face-finish is 125-250 Ra. Additionally, ring joint faces are available in Series A flanges in Classes 300 and higher.

Ring joint dimensions and tolerances for Series A flanges can be found on page 32. For pressure- temperature ratings for ASME B16.47 flanges, please refer to Page 69.

<u>Tolerances</u>	
Outside Diameter of Raised Face (R):	+/- 0.08"
Height of Raised Face:	+/- 0.02" (1/16" Raised Face)
	+/- 0.08" (1/4" Raised Face)
Flange Thickness (t_f):	+ 0.12, - 0.0" (to 1.0" thickness)
	+ 0.19, - 0.0" (1.0-2.0" thickness)
	+ 0.31, - 0.0" (2.0-3.0" thickness)
	+ 0.38, - 0.0" (over 3.0" thickness)
Outside Diameter at Welding End (A):	+ 0.19, - 0.06"
Inside Diameter:	+ 0.12, - 0.06"
Wall Thickness at Welding End:	not less than 87.5% of the nominal pipe thickness.
Length Through Hub (W/N Flange) (Y):	+ 0.12, - 0.19"
Bolt Circle Diameter (W):	+/- 0.06"
Spacing of adjacent bolt holes (centre-to-centre):	+/- 0.03"
Concentricity between Bolt Circle Diameter and machined facing diameter:	0.06" max.