

WELDING NECK FLANGES

Outside Diameter (1)	When OD is 24" or less	±1.5 mm
	When OD is over 24"	±3.0 mm
Diameter of Contact Face	2 mm raised face	±1.0 mm
	7 mm raised face	±0.5 mm
	Tongue & Groove	
	Male, Female	
Diameter of Hub at Point of Welding	NPS ≤ 5	+2.0 mm, -1.0 mm
	NPS ≥ 6	+4.0 mm, -1.0 mm
Inside Diameter	NPS ≤ 10	±1.0 mm
	12 ≤ NPS ≤ 18	±1.5 mm
	NPS ≥ 20	+3.0 mm, -1.5 mm
Diameter of Hub at Base (1)	When Hub Base is 24" or less	±1.5 mm
	When Hub Base is over 24"	±3.0 mm
Thickness	NPS ≤ 18	+3.0 mm, -0.0 mm
	NPS ≥ 20	+5.0 mm, -0.0 mm
Drilling	Bolt Circle Diameter	±1.5 mm
	Bolt Hole Spacing	±0.8 mm
Eccentricity of Bolt Circle and Facing with Respect to Bore	NPS ≤ 2 1/2	±0.8 mm
	NPS ≥ 3	±1.5 mm
Length Through Hub	NPS ≤ 2 1/2	±1.5 mm
	5 ≤ NPS ≤ 10	+1.5 mm, -3.0 mm
	NPS ≥ 12	+3.0 mm, -5.0 mm

SLIP-ON, LAP JOINT, SOCKET WELDING, THREADED and BLIND FLANGES

Outside Diameter (1)	When OD is 24" or less	±1.5 mm
	When OD is over 24"	±3.0 mm
Diameter of Contact Face	2 mm raised face	±1.0 mm
	7 mm raised face	±0.5 mm
	Tongue & Groove	
	Male, Female	
Inside Diameter of Slip-On and Lap Joint Flanges	NPS ≤ 10	+1.0 mm, -0.0 mm
	NPS ≥ 12	+1.5 mm, -0.0 mm
Counter bores, Threaded Flanges	NPS ≤ 10	+1.0 mm, -0.0 mm
	NPS ≥ 12	+1.5 mm, -0.0 mm
Counter bores, Socket Welding Flanges	1/2 ≤ NPS ≤ 3	±0.25 mm
Diameter of Hub at Base (1)	NPS ≤ 12	+2.0 mm, -1.5 mm
	NPS ≥ 14	±3.0 mm
Thickness	NPS ≤ 18	+3.0 mm, -0.0 mm
	NPS ≥ 20	+5.0 mm, -0.0 mm
Drilling	Bolt Circle Diameter	±1.5 mm
	Bolt Hole Spacing	±0.8 mm
Eccentricity of Bolt Circle and Facing with Respect to Bore	NPS ≤ 2 1/2	±0.8 mm
	NPS ≥ 3	±1.5 mm
Overall Length Through Hub (1)	NPS ≤ 18	+3.0 mm, -1.0 mm
	NPS ≥ 20	+5.0 mm, -1.5 mm

(1) Tolerances not listed in B16.5