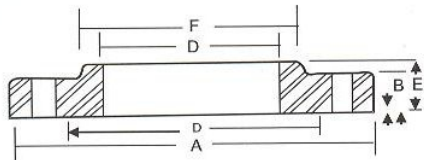


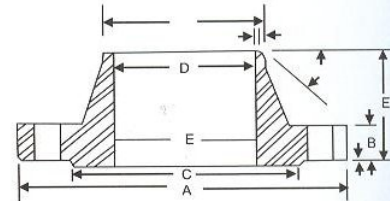
Dimensional Tolerances For Forged Steel Flanges

Threaded, lap joint, slip-on and Blind Flanges
ANSI B 16.5



Welding neck flanges
ANSI B 16.5

This tolerance not covered by ANSI B 16.5



Outside Diameter (A)	When O.D. is 24" or less	$\pm 1/16^{**}$	Outside Dia. of Hub (F)	12" and smaller	$+3/32^{**}-1/16^{**}$
	When O. D is over 24"	$\pm 1/8^{**}$		Over 12"	$\pm 1/8^{**}$
Inside Diameter (D)	Threaded	Within limits on Boring gauge	Drilling	Bolt Circle	$\pm 1/16^{*}$
	Slip on and Lap Joint	10" and smaller $+ 1/32", -0"$ 12" and larger $+ 1/16"-0"$		Bolt hole spacing	$\pm 1/32^{*}$
Diameter of Contact Face (C)	1/16 Raised Face	$\pm 1/32"$	Overall Height (E)	Eccentricity between 2 1/2" and smaller bolt circle diameter and machined facing	1/32" Max.
	1/4 Raised Face, Tongue and Groove of male and Female	$\pm 1/64"$		Thickness (E)	3" and larger Diameter
Diameter of Counter bore	Same as for inside diameter			On flanges 18" and smaller	$+1/8^{**}-1/32^{**}$
				On flanges larger than 13" and smaller	$+3/15^{**}-1/16^{**}$
				Over 18"	$4/8"-0"$ $+ 3/16"-0"$
				Where allowance has been left On face for finish: All sizes $+ 1/8^{**}-1/16^{**}$	

Outside Diameter (A)	When O. D. is 24: or less	$\pm 1/16^{**}$	Drilling	Bolt Circle	$\pm 1/16"$
	When O. D. is over 24"	$\pm 1/8^{**}$		Bolt hole spacing	$\pm 1/32"$
smaller inside Diameter (D)	10" and smaller	$\pm 1/32"$	Width of Land	Eccentricity between 1/2" and smaller 2 1/2" and bolt circle diameter and machined facing	1/32" max 3" and larger diameter
	12" to 18"	$\pm 1/16$		All sizes	1/16" max
Diameter of Contact Face (C)	Over 18"	$+ 1/8-1/16"$	Angle of Hub Bevel	All Sizes	$\pm 2 1/2"$
	1/16" Raised Face	$\pm 1/32"$		18" and smaller	$\pm 1/16$
Diameter of Hub at Point of Welding (G)	1/4" Raised face, Tongue and Groove, or Male and Female	$\pm 1/64"$	Overall Height (E)	12" and larger \pm	$\pm 1/8"$
	5" and smaller	$+3/32"-1/32"$		10" and smaller	$+ 1/8"-0"$
Diameter of Hub at Base (F)	5" and larger	$+5/32"-1/32$	Thickness (E)	Over 18"	$+ 3/16"-0"$
	When "F" is 24" and smaller	$\pm 1/8^{**}$		Where allowance has been left on face for Finish, All size $+1/8^{**}-1/16^{**}$	
	When "F" is over 24"	$\pm 1/8$			