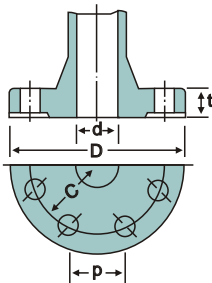
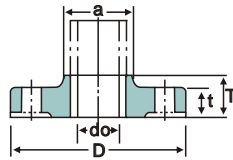


## ANSI B16.5 FORGED FLANGES TOLERANCE

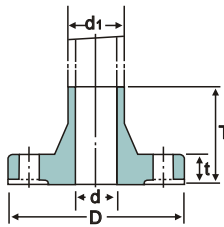
SOLID FLANGE



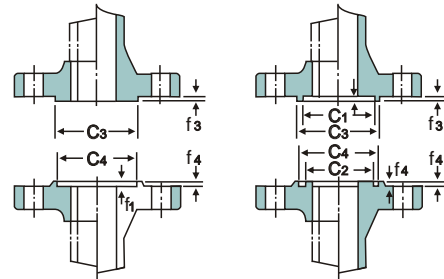
SLIP-ON FLANGE



WELDING NECK FLANGE



TYPE OF GASKET SURFACE



MALE & FEMALE TYPE

TONGUE & GROOVE TYPE

THREAD, SOCKET-WELDING, SLIP-ON, LAP JOINT AND BLIND.

WELDING NECK

Outside Diameter	When O.D. is 24" or less	$\pm 1/16"$ (1.6mm)
	When O.D. is Over 24"	$\pm 1/8"$ (3.2mm)
Inside Diameter	Threaded	Within limits on boring gauge
	Socket-Welding Slip-on and Lap joint	0" & Smaller $+1/32"$ (0.8mm) .0" 12" & Larger $+1/16"$ (1.6mm) .0"
Outside Diameter of Hub	5" and Smaller	$+3/32"$ (2.4mm) * $-1/32"$ (0.8mm)
	6" and Larger	$+5/32"$ (4.0mm) $-1/32"$ (0.8mm)
Diameter of Contact Face	1/16" Raised Face	$\pm 1/32"$ (0.8mm)
	1/4" Raised Face Tongue & Groove Male, Female	1/64" (0.4mm)
Diameter of Counterbore	Same as for Inside Diameter	
Drilling	Bolt Circle	$\pm 1/16"$ (1.6mm)
	Bolt Hole Spacing	$\pm 1/32"$ (0.8mm)
	Eccentricity of Bolt Circle with Respect to Facing	2 1/2" Smaller $1/32"$ (0.8mm) Max. 3" & Larger $1/16"$ (1.6mm) Max.
	Eccentricity of Bolt Circle with Respect to Bore	$1/32"$ (0.8mm) Max. *
	Eccentricity of Facing with Respect to Bore	$1/32"$ (0.8mm) Max. *
Thickness	18" and Smaller	$+1/8"$ (3.2mm) .0"
	20" and Larger	$+3/16"$ (4.8mm) .0"
Length Thru Hub	10" and Smaller	$\pm 1/16"$ (1.6mm)
	12" and Larger	$\pm 1/8"$ (3.2mm)

Outside Diameter	When O.D. is 24" or less	$\pm 1/16"$ (1.6mm)
	When O.D. is Over 24"	$\pm 1/18"$ (3.2mm)
Inside Diameter	10" and Smaller	$\pm 1/32"$ (0.8mm)
	20" thru 18"	$\pm 1/16"$ (1.6mm)
	20" and Larger	$\pm 1/18"$ (3.2mm) $-1/16"$ (1.6mm)
Diameter of Contact Face	1 1/16" Raised Face	$\pm 1/32"$ (0.8mm)
	1 1/4" Raised Face Tongue & Groove Male, Female	$\pm 1/64"$ (0.4mm)
Diameter of Hub at Base	When Hub Base is 24" or Smaller	$\pm 1/16"$ (1.6mm)
	When Hub Base is Over 24"	$\pm 1/8"$ (3.2mm)
Diameter of Hub at Point of welding	5" and Smaller	$\pm 3/32"$ (2.4mm) $1/32"$ (0.8mm)
	6" and Larger	$\pm 5/32"$ (4.0mm) $-1/32"$ (0.8mm)
Drilling	Bolt Circle	$\pm 1/16"$ (1.6mm)
	Bolt Hole Spacing	$\pm 1/32"$ (0.8mm)
	Eccentricity of Bolt Circle with Respect to Facing	2 1/2" Smaller $1/32"$ (0.8mm) Max. 3" & Larger $1/16"$ (1.6mm) Max.
	Eccentricity of Bolt Circle with Respect to Bore	$1/32"$ (0.8mm) Max. *
	Eccentricity of Facing with Respect to Bore	$1/32"$ (0.8mm) Max. *
Thickness	18" and Smaller	$+1/8"$ (3.2mm) .0"
	20" and Larger	$+3/16"$ (4.8mm) .0"
Length Thru Hub	10" and Smaller	$\pm 1/16"$ (1.6mm)
	12" and Larger	$\pm 1/8"$ (3.2mm)

Notes

This tolerance is not covered in ANSI B16.5 but maker's option.