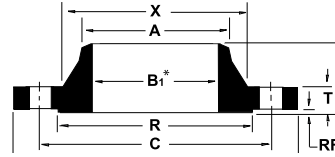
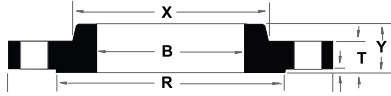


FLANGE TOLERANCES

ANSI

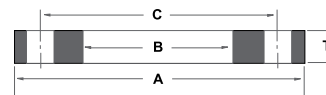
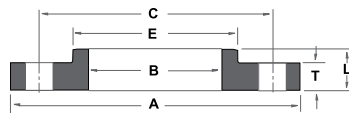


THREADED, LAP JOINT, SLIP-ON and BLIND FLANGES		
Outside Diameter (O)	When O.D. is 24" or less	± 1/16" *
	When O.D. is over 24"	± 1/8" *
Inside Diameter (B Slip-on & Lap Joint)	Threaded: Within limits on boring gauge	
	10" and smaller	+1/32", -0"
	12" and larger	+1/16", -0"
Diameter of Contact Face (R)	1/16" Raised Face	± 1/32"
	1/4" Raised Face, Tongue and Groove, or male and Female	± 1/64"
Diameter of Counterbore	Same as for Inside Diameter	
Outside Dia. of Hub (X)	12" and Smaller	+3/32"* -1/16"*
	Over 12"	± 1/8"
Drilling	Bolt Circle	± 1/16"
	Bolt hole spacing	± 1/32"
	Eccentricity of: Bolt Circle with respect to bore	1/32" Max*
	Eccentricity of: Facing with respect to bore	1/32" Max*
Overall Height (Y)	On all flanges 18" and smaller	+ 1/8" - 1/32"
	On all flanges larger than 18"	+ 3/16" - 1/16"
Thickness (T)	18" and smaller	+ 1/8" - 0"
	Over 18"	+ 3/16" - 0"
	Where allowance has been left on face for finish: All sizes	+ 1/8" - 1/16"

WELDING NECK FLANGES		
Outside Diameter (O)	When O.D. is 24" or less	± 1/16" *
	When O.D. is over 24"	± 1/8" *
Inside Diameter (O)	10" and smaller	± 1/32"
	12" to 18"	± 1/16"
	Over 18"	+ 1/8" - 1/16"
Diameter of Contact Face (R)	1/16" Raised Face	± 1/32"
	1/4" Raised Face, Tongue and Groove, or male and Female	± 1/64"
Diameter of Hub at Point of Welding (A)	5" and smaller	+ 3/32" - 1/32"
	6" and smaller	+ 5/32" - 1/32"
Diameter of Hub at Base (X)	"X" 24" and under	± 1/16"
	"X" over 24"	± 1/8"
Drilling	Bolt Circle	± 1/16"
	Bolt hole spacing	± 1/32"
	Eccentricity of: Bolt Circle with respect to bore	1/32" Max *
	Eccentricity of: Facing with respect to bore	1/32" Max *
Width of Land	All sizes	± 1/32" *
Angle of Hub Bevel	All sizes	± 2 1/2° *
Overall Height (Y)	10" and smaller	± 1/16"
	12" and larger	± 1/8"
Thickness (T)	Over 18"	+ 3/16" - 0"
	Where allowance has been left on face for finish: All sizes	+ 1/8" * - 1/16"

* This tolerance not covered by ANSI B16.5. Orifice Flanges are not covered by this standard, but all ANSI flange tolerances, where applicable, apply to all Coastal Orifice Flange dimensions except the bore.

AWWA



Sec. 3.1 Tolerances

The dimensions listed in AWWA C-207-01, Tables 1 through 6, shall apply prior to attachment and are subject to the following tolerances:

(B) Inside diameter of flange	± 1/16", -1/16"
(A) Outside diameter of flange	± 1/8"
(T) Thickness of flanges 18" and smaller	+1/8", -0"
(T) Thickness of flanges 20" and larger	+3/16", -0"
(L) Length through hub 18" and smaller	+1/8", -1/32"
(L) Length through hub 20" and larger	+3/16", -1/16"
(C) Bolt-circle diameter	± 1/16"
Bolt-hole spacing	± 1/32"