



TOLERANCE ON OUTSIDE DIAMETER, WALL THICKNESS, WEIGHT AND LENGTH OF PIPE													
SPEC.	TYPE	OUTSIDE DIAMETER		WALL THICKNESS	WEIGHT	LENGTH							
		PIPE BODY	PIPE ENDS (PLAIN END)			NOMINAL		AVG(min)		MINIMUM		MAXIMUM	
						ft.	Mtr	ft.	Mtr	ft.	Mtr	ft.	Mtr
ASTM-A-53	E,S	1-1/2" NPS & under = ±0.4 mm 2" NPS and over = ±1.0%	N.A.	At any point = -12.5% (max)	±10%	20 40	6 12	35 10.67	16 22	4.88 6.71	22 -	6.71 -	
ASTM A-106	S	1/8" TO 1-1/2" = ± 0.40MM, > 1-1/2" TO 4" = ±0.8MM Above 4" to 8" = + 1.6 mm, -0.8 mm Above 8" to 18" = + 2.4 mm, - 0.8 mm	N.A.	At any point = -12.5% (max.)	Single Length of Pipe + 10%, - 3.5%	20 40	6 12	- 35	- 10.67	16 22	4.88 6.71	22 -	6.71 -
ASTM A-179 A-192 A-209 A-210 A-213  A-178 A-214 A-334	S S S S S  E E E,S	Hot finished seamless Tube (101.6 mm & under) = + 0.40 mm, -0.80mm Above 4" to 7 1/2" including = + 0.40 mm, -1.2mm (101.6 to 190.5 mm) Over 7 1/2" to 9" = + 0.40, - 1.6 mm (190.5 to 228.6 mm)  Welded and cold finishes seamless tube < 1" (25.4 mm) = ± 0.10 mm 1" (25.4) to 1-1/2" (38.1 mm) incl. = ± 0.15 mm > 1-1/2"(38.1) to 2" (50.8mm) excl. = ± 0.20 mm 2" (50.8) to 2-1/2" (63.5 mm) excl. = ± 0.25 mm 2-1/2" (63.5) to 3" (76.2mm) excl. = ± 0.30 mm 3" (76.2) to 4" (101.6 mm) incl. = ± 0.38 mm > 4" (101.6) to 7-1/2" (190.5 mm) incl. = + 0.38 mm, - 0.64 mm > 7 1/2" (190.5 mm) to 9" (228.6 mm) incl. = + 0.38, - 1.14 mm	N.A.  N.A.	Hot Finished Seamless Tubes O.D. ≤101.6mm & WT < 2.4mm =+40%,-0% WT 2.4 to 3.80mm incl. = + 35%, -0% WT 3.8 to 4.60 mm incl. =+33%, -0% WT > 4.6 mm = + 28%, - 0%  Welded Tubes (for all sizes) =+ 18%, -0% Cold Finished Seamless Tubes: < 1-1/2" O.D. = +20%, -0% > 1-1/2" OD = +22%, -0%	+16%, -0% (HFS)  Welded =+10%, -0% Cold finished Seamless Tubes : < 1-1/2" O.D. = +12%, -0% >1-1/2"O.D. = +13%, -0%	Exact Length Tolerance : H.F.S. Tubes : +5mm, -0mm  ERW & C.F.S Tubes : <2" (50.8mm) O.D. = +3mm, -0mm >2" (50.8mm) O.D. = +5mm, -0mm							
ASTM A-335	S	1/8" to 1-1/2" = ±0.4mm, > 1-1/2" to 4" = ±0.79mm >4" to 8" incl. = +1.59mm, -0.79mm 8" to 12" = + 2.38, - 0.79 Over 12" = ± 1.0% of OD	N.A.	At any point = -12.5% (max.)	Single pipe NPS 12 & under = + 10%, -3.5%	Specified Length = +6mm, -0mm							
A-333	E,S	1/8" to 1-1/2" incl. = ±0.4mm, -0.80mm >1-1/2" to 4" incl. = ± 0.80mm > 4" to 8" incl. = + 1.6mm, - 0.80mm >8" to 18" incl. = +1.6mm, -0.8m > 18" to 26" incl. = + 3.2 mm, - 0.80 mm	N.A.	1/8" to 2-1/2" incl., all I/D ratios = +20%, -12.5 % 3" to 18" incl. I/D upto 5% incl. = +22.5%, -12.5% 3" to 18" incl. I/D above 5% = + 15%, -12.5% ≥20" (welded) all I/D ratios = +17.5%, -12.5% I = Nominal wall thickness, D = Outside diameter	Single pipe NPS 12 & under = + 10%, -3.5% Single pipe over NPS 12 = + 10%, -5%	20 40	6 12	- 35	- 10.67	16 22	4.48 8.71	22 -	6.71 -
RDSO ETL / OHE/11'(5/89)	E,S	33.7mm O.D. = + 0.80mm, -1.0mm 38.0mm O.D. = + 0.32, -0.2mm 49.0mm O.D. = + 0.32, -0.2mm	28.4 (Std. ID) & 27.70 (Min ID) 29.9 (Std. ID) & 29.58 (Min ID) 40.9 (Std. ID) & 40.58 (Min ID)	-0.31 mm, + not limited -0.35mm, + not limited -0.35mm, + not limited	N.A.	Tolerance - As agreed							

E= ERW S=Seamless HFS = Hot Finished Seamless C.F.S = Cold Finished Seamless.

NOTE: 1. Refer current edition of Relevant Specifications for Dimension & Properties data.

2. Specifications are subject to change without any prior notice.