

**TOLERANCES ON OUTSIDE DIAMETER , WALL THICKNESS , WEIGHT AND LENGTH OF PIPE**

SPEC.	OUT SIDE DIAMETER		WALL-THICKNESS	WEIGHT	LENGTH							
	PIPE BODY	PIPE END			NORMAL		Avg.(MIN)		MINIMUM		MAXIMUM	
					ft	mtr	ft	mtr	ft	mtr	ft	mtr
<b>API 5L</b>	< 60.3mm OD = + 0.4mm, 0.8mm ≥ 60.3mm OD to ≤ 168.3mm = ± 0.75% > 168.3mm OD to < 610mm = ± 0.75% (± 3.2mm Max.) Out of roundness - ≥ 60.3mm to ≤ 610mm 2% OD	< 60.3mm to ≤ 168.3mm - 0.4mm, + 1.6mm > 168.3mm to ≤ 610mm, ± 0.5% (± 1.6mm Max.) Out of roundness ≥ 60.3mm to ≤ 610mm 1.5% OD	≤ 5.0mm WT : ± 0.5mm > 5.0mm to < 15.0mm WT ± 10%	Single length of pipe +10% , -3.5% Carloads-40,000 lb(18,144 Kg) or more- 1.75% , less - 3.5 %	20 40	6.0 12.0	17.5 35.0	5.33 10.67	9.0 14.0	2.74 4.27	22.5 45.0	6.86 13.72
<b>IS:1978</b>	60.3 and above ± 1%	≤ 273.1 mm OD = +1.60mm - 0.40mm 323.9 mm OD & larger pipe= + 2.40 mm -0.80mm	<73mm O.D. = +20% -12.5% 88.9mm O.D. = +18% -12.5% 101.6 mm to 457.2mm OD = +15% -12.5%	Single length of pipe +10% , -3.5% Carloads :- for min 18,000 kg -1.75%	-	6.0	-	5.3	-	2.70	-	-
<b>IS:1979</b>	< 508.0 mm OD ± 0.75 %	≤ 273.1 mm OD pipe = + 1.60mm -0.40mm 323.9 mm OD & larger = + 2.40 mm -0.80mm	≤ 457.0 mm OD pipe = +15.0% - 12.5%	Single length of pipe +10% , -3.5% Carloads :- for min 18,144 kg -1.75%	-	6.0	-	5.3	-	2.70	-	-
<b>IS:1239 BS:1387</b>	As per Table.	<b>N.A.</b>	Light -8% + not limited Medium & Heavy -10%, + not limited	Carload 10 MT Light +7.5% - 5%, M & H ± 7.5% Sngle Tube Light -8% +10% Med & Heavy ± 10%	6 12					4 7		7 10
<b>IS:3589</b>	± 0.75 %	<b>N.A.</b>	± 10 %	Carload 10MT & above ± 7.5%	-	6.0	-	-	-	4.0	-	7.0
<b>IS:4270</b>	± 1.0%	<b>N.A.</b>	Upto 406.4 mm OD = +15 % - 12.5 %	+10% - 8 %	-	6.0	-	-	-	4.0	-	7.0
<b>IS:1161</b>	Upto 48.3mm OD +0.4 mm , -0.8mm Over 48.3 mm ± 1.0%	<b>N.A.</b>	-10%, + not limited	Carload 10 MT Light ± 5%, M & H ± 7.5% Sngle Tube Light -8% +10% Med & Heavy ± 10%		6.0	-	-	-	4.0	-	7.0
<b>IS:1914 Pt-IV</b>	+ 0 -1%	<b>N.A.</b>	+10%, -5%	<b>N.A.</b>	Tolerance - Upto 9mtr +3, -0mm Above 9mtr +6, -0mm							
<b>IS:2416 Pt-IV</b>	± 0.75% (± 0.30 mm min.)	<b>N.A.</b>	+10%, -5%	<b>N.A.</b>	Tolerance - Upto 9mtr +3, -0mm Above 9mtr +6, -0mm							
<b>IS:11714 Pt-III</b>	± 0.15 to ± 0.38 mm.	<b>N.A.</b>	+18%, - 0	+ 10%, -0	Tolerance - Below 50mm +3.2, -0mm 50mm & above +4.8, -0mm							
<b>BS:3059 Pt-I</b>	± 0.75% (± 0.30 mm Min.)	<b>N.A.</b>	Upto 3.20mm ± 10% Over 3.20mm ± 7.5%	<b>N.A.</b>	Tolerance - Upto 6mtr +6,-0mm							
<b>BS:3059 Pt-II</b>	± 0.75% (± 0.30 mm min.)	<b>N.A.</b>	± 10% (excluding weld area)	<b>N.A.</b>	Above 6mtr 1.5mm will increase for every 3mtr increase of length (12mm max.)							
<b>BS:6323 Pt-V</b>	± 0.15 to ± 0.90 mm.	<b>N.A.</b>	Less than 3mm ± 10% 3mm & above ± 8%	<b>N.A.</b>						3		12
<b>ASTM- A-53</b>	1-1/2" NPS ± 0.4mm 2" NPS and over ± 1%	<b>N.A.</b>	At any point - 12.5 % (max) Tm = Tn x 0.875 Tn = Nominal w.t, Tm=min. w.t.	± 10%	20 40	6.0 12.0	- 35	- 10.67	16 22	4.88 6.71	22 -	6.71 -
<b>ASTM A178 &amp; A214</b>	± 0.15 to ± 0.38 mm.	<b>N.A.</b>	+18%, - 0	+ 10%, -0	Tolerance - Under 50.8mm +3, -0mm 50.8 & above +5, -0mm							
<b>ASTM A-333 &amp; A-334</b>	± 0.15 to ± 0.38 mm.	<b>N.A.</b>	+18%, - 0	+ 10%, -0	20 40	6 12	- 35	- 10.67	16 22	4.88 6.71	22 -	6.71 -
<b>IBR</b>	± 0.75% (± 0.30mm Min.)	<b>N.A.</b>	Upto 3.20mm ±10% for WC1 Over 3.20mm ±7.5% for WC1 All thickness ± 10% for WC2 & WC3	<b>N.A.</b>	Upto 6 mtr +6, -0mm, above 6 mtr, 1.5mm will increase for every 3mtr incase of length (12mm max)							

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					ft	mtr	ft	mtr	ft	mtr	ft	mtr
<b>RDSO</b>	33.7 mm OD + 0.8, - 1.0mm	28.4 (Std. ID) & 27.70 (Min. ID)	-0.31mm, + not limited	N.A.	Tolerance - As agreed							
<b>ETI /</b>	38.0 mm OD +0.32, -0.2mm	29.9 (Std. ID) & 29.58 (Min. ID)	-0.35mm, + not limited	N.A.								
<b>OHE/11</b>	49.0 mm OD +0.32, -0.2mm	40.9 (Std. ID) & 40.58 (Min. ID)	-0.35mm, + not limited	N.A.								