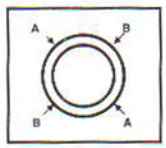
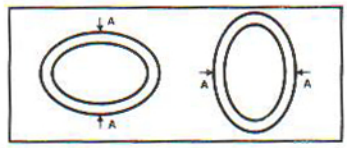
TABLE - 11
Round Tubes : Diameter Tolerance





Specified Diameter Outside or Inside mm	Allowable Deviation of Mean Diameter 1/2 (AA+BB) from Specified Diameter (Dia. Tolerance) mm ±	Allowable Deviation of Diameter at any point From Specified Diameter (Ovalness Tolerance) mm ±
From 9 upto 18	0.25	0.50
Over 18 upto 30	0.30	0.60
Over 30 upto 40	0.36	0.80
Over 40 upto 50	0.45	0.90
Over 50 upto 60	0.54	1.00
Over 60 upto 80	0.60	1.30
Over 80	1% of dia	2.5% of dia

Notes :
1. When outside diameter, inside diameter and wall thickness are all specified, standard tolerances are applicable to any two of these dimensions, but not to all three.
2. Mean diameter is the average of two diameter measurement taken at right angles to each other at any point along the length. In other words, mean diameter is ½ (AA + BB).
3. Ovalness tolerance is not applicable for annealed temper or if the wall thickness is less than 2.5% of the outside diameter.

TABLE 12
Hollow Sections: Wall Thickness Tolerance (±)

Wall Thickness mm		Width or overall dimensions (mm)													
		Over 10.0	20.0	30.0	40.0	50.0	60.0	80.0	100.0	120.0	140.0	160.0	180.0	200.0	225.0
		Upto 20.0	33.0	40.0	50.0	60.0	80.0	100.0	120.0	140.0	160.0	180.0	200.0	225.0	250.0
Class B															
Over	**Upto**														
1.0	1.5	0.28	0.28	0.28	0.30	-	-	-	-	-	-	-	-	-	-
1.5	2.0	0.30	0.33	0.33	0.36	-	-	-	-	-	-	-	-	-	-
2.0	2.5	0.33	0.33	0.36	0.38	0.43	0.46	-	-	-	-	-	-	-	-
2.5	3.0	0.41	0.43	0.46	0.48	0.51	0.53	0.56	-	-	-	-	-	-	-
3.0	4.0	0.53	0.56	0.58	0.61	0.64	0.66	0.69	0.71	0.74	-	-	-	-	-
4.0	5.0	-	0.71	0.74	0.76	0.79	0.81	0.84	0.86	0.89	0.91	0.94	1.02	-	-
5.0	6.0	-	-	0.97	0.99	1.02	1.04	1.07	1.09	1.12	1.14	1.17	1.19	1.22	1.24
6.0	8.0	-	-	-	1.22	1.24	1.27	1.30	1.32	1.35	1.37	1.40	1.42	1.45	1.47
8.0	10.0	-	-	-	-	1.47	1.50	1.52	1.55	1.57	1.60	1.63	1.65	1.68	1.70
10.0	12.0	-	-	-	-	1.73	1.75	1.78	1.8	1.83	1.85	1.88	1.90	1.93	1.96
12.0	16.0	-	-	-	-	-	1.98	2.00	2.03	2.06	2.08	2.11	2.13	2.16	2.18
16.0	20.0	-	-	-	-	-	-	2.24	2.26	2.29	2.31	2.34	2.36	2.39	2.41
20.0	25.0	-	-	-	-	-	-	2.49	2.51	2.54	2.57	2.59	2.62	2.64	2.67
Class A															
1.5	2.0	0.28	0.30	0.30	0.33	-	-	-	-	-	-	-	-	-	-
2.0	2.5	0.30	0.30	0.33	0.36	0.41	0.43	-	-	-	-	-	-	-	-
2.5	3.0	0.30	0.30	0.36	0.38	0.43	0.46	0.51	-	-	-	-	-	-	-
3.0	4.0	0.33	0.36	0.38	0.41	0.46	0.51	0.56	0.61	0.69	-	-	-	-	-
4.0	5.0	-	0.41	0.43	0.46	0.51	0.56	0.61	0.69	0.76	0.84	0.91	0.99	-	-
5.0	6.0	-	-	0.46	0.51	0.56	0.61	0.69	0.76	0.84	0.91	0.99	1.07	-	-
6.0	8.0	-	-	-	0.56	0.61	0.69	0.76	0.84	0.91	0.99	1.07	1.14	-	-
8.0	10.0	-	-	-		0.69	0.76	0.84	0.91	0.99	1.07	1.14	1.22	-	-
10.0	12.0	-	-	-	-	0.76	0.84	0.91	0.99	1.07	1.14	1.22	1.30	-	-
12.0	16.0	-	-	-	-	-	0.91	0.99	1.07	1.14	1.22	1.30	1.37	-	-
16.0	20.0	-	-	-	-	-	-	1.07	1.14	1.22	1.30	1.37	1.45	-	-
20.0	25.0	-	-	-	-	-	-	1.14	1.22	1.30	1.37	1.45	1.52	-	-

Notes:
1. These tolerances are applicable to hollow sections other than round tubes.
2. For non-heat-treatable alloys, these tolerances are applicable when wall thickness of the section is at least 1.5 mm or 1/32 of overall width, whichever is greater. For heat-treated alloys , these tolerances are applicable when wall thickness is at least 1.5 mm or 1/24 of overall width, whichever is greater.
3. Unless otherwise specified, class B tolerances will be applicable.
4. For high- magnesium non-heat-treatable alloys (5052, 5056, 5083, 5086), an extra tolerance of 50% shall be allowed.