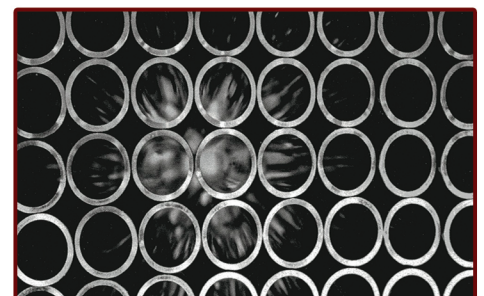


## Confirming To ASTM A53

Nominal Size NB		Outside Diameter D MM	Thickness T MM		Nominal Weight Black Tubes Plain END KG/Meter Meter / Ton	
MM	INCR		MM	SWG	KG/Meter	Meter / Ton
15	(1/2)	21.30	2.00	14	0.947	1056
			2.60	12	1.210	826
			3.20	10	1.440	694
20	(3/4)	26.90	2.30	13	1.380	725
			2.60	12	1.560	641
			3.20	10	1.870	535
25	(1)	33.70	2.60	12	1.980	505
			3.20	10	2.410	415
			4.00	08	2.930	341
32	(1/4)	42.40	2.60	12	2.540	394
			3.20	10	3.100	322
			4.00	08	3.790	264
40	(1/2)	48.30	2.90	1.1	3.230	310
			3.20	10	3.560	281
			4.00	08	4.370	229
50	(2)	60.30	2.90	11	3.230	310
			3.60	09	5.030	199
			4.50	07	6.190	162
65	(2/2)	76.10	3.20	10	5.710	175
			3.60	09	6.420	156
			4.50	07	7.930	126
80	(3)	88.90	3.20	10	6.720	149
			4.00	08	8.360	120
			4.80	06	9.990	101
100	(4)	114.30	3.60	09	9.750	102
			4.50	07	12.200	82
			5.40	05	14.500	70
110	(4)	127.00	4.50	07	13.600	74
			4.80	06	14.500	69
			5.40	05	16.200	62
125	(5)	139.70	4.50	07	15.000	66.5
			4.80	06	15.900	63
			5.80	05	17.900	56
135	(5)	152.40	4.50	07	16.400	61
			4.80	06	17.500	57
			5.40	05	19.600	51
150	(6)	165.10	4.50	07	17.800	56
			4.80	05	18.900	53
			5.40	05	21.300	47
150	(6)	168.30	4.50	07	18.200	55
			4.80	06	19.400	51.5
			5.40	05	21.700	46
175	(7)	193.70	6.30	03	25.200	40
			4.80	06	22.400	45
			5.40	05	25.100	40
200	(8)	219.10	5.90	04	27.300	37
			4.80	06	25.400	39
			5.60	05	29.500	34
			5.90	04	31.00	32

Chemical Properties			
<b>C</b>	<b>0.20% Max</b>		
<b>Mn</b>	<b>1.3%Max</b>		
<b>P</b>	<b>0.04%Max</b>		
<b>S</b>	<b>0.04%Max</b>		
Physical Properties			
<b>Grade</b>	<b>YS</b>	<b>TS</b>	<b>%age</b>
	<b>( Min. )</b>	<b>( Min. )</b>	<b>( Min. )</b>
	<b>Mpa</b>	<b>Mpa</b>	<b>Mpa</b>
<b>YST-210</b>	<b>210</b>	<b>330</b>	<b>20</b>
<b>YST-240</b>	<b>240</b>	<b>410</b>	<b>17</b>
<b>YST-310</b>	<b>310</b>	<b>450</b>	<b>14</b>
<b>Note: For Tubes Up To Siz25mm NB: Including Elongation Of 12% Shall Be Permissible</b>			
Weight			
<b>Single Tubes (Light Series)</b>	<b>+10% +08%</b>		
<b>Single Tubes (Medium &amp; Heavy Series)</b>	<b>-/+10%</b>		
Weight Truck Load			
<b>For Lot Of 10 Ton Min Light Series</b>	<b>-/+05%</b>		
<b>Medium &amp; Heavy Series</b>	<b>-/+7.5%</b>		
Tolerance			
<b>Outside Diameter</b>			
<b>Up To And Including 48.3mm</b>	<b>+0.4mm -0.8mm</b>		
<b>Over 48.3mm</b>	<b>+/- 1%</b>		
Thickness			
<b>+ Not Limited</b>	<b>-10%</b>		



Nominal Bore (B.N)		Outside Diameter		CLASS	Wall Thickness		Nominal Weight (KG8Meters)		Meters / Ton	
MM	INCH	Minimum MM	Maximum MM		MM	SWG	P.E.	S&S	P.E.	S&S
15	( 1/2 <sup>''</sup> )	21.00	21.40	L	2.00	14	0.95	0.96	1056	1046
		21.00	21.80	M	2.60	12	1.21	1.22	826	820
		21.00	21.80	H	3.20	10	1.44	1.45	694	690
20	( 3/4 <sup>''</sup> )	26.40	26.90	L	2.30	13	1.38	1.39	725	719
		26.50	27.30	M	2.60	12	1.56	1.57	641	637
		26.50	27.30	H	3.20	10	1.87	1.88	535	532
25	( 1 <sup>''</sup> )	33.20	33.80	L	2.60	12	1.98	2.00	505	500
		33.30	34.20	M	3.20	10	2.41	2.43	415	411
		33.30	34.20	H	4.00	8	2.93	2.95	341	339
32	( 1 1/4 <sup>''</sup> )	41.90	42.50	L	2.60	12	2.54	2.57	394	389
		42.00	42.90	M	3.20	10	3.10	3.13	322	319
		42.00	42.90	H	4.00	8	3.79	3.82	264	262
40	( 1 1/2 <sup>''</sup> )	47.80	48.40	L	2.90	11	3.23	3.27	310	306
		47.90	48.80	M	3.20	10	3.56	3.60	281	278
		47.90	48.80	H	4.00	8	4.37	4.41	229	227
50	( 2 <sup>''</sup> )	59.60	60.20	L	2.90	11	4.08	4.15	245	241
		59.70	60.80	M	3.60	9	5.03	5.10	199	196
		59.70	60.80	H	4.50	7	6.19	6.26	161	160
65	( 2 1/2 <sup>''</sup> )	75.20	76.00	L	3.20	10	5.71	5.83	175	171.5
		75.30	76.60	M	3.60	9	6.42	6.54	156	153
		75.30	76.60	H	4.50	7	7.93	8.05	126	124
80	( 3 <sup>''</sup> )	87.90	88.70	L	3.20	10	6.72	6.89	149	145
		88.00	89.50	M	4.00	8	8.36	8.53	120	117
		88.00	89.50	H	4.80	6	9.90	10.10	101	99
100	( 4 <sup>''</sup> )	113.00	113.90	L	3.60	9	9.75	10.00	102	100
		113.10	115.00	M	4.50	7	12.20	12.50	82	80
		113.10	115.00	H	5.40	5	14.50	14.80	69	67
125	( 5 <sup>''</sup> )	138.50	140.80	M	4.80	6	15.90	16.40	63	61
		138.50	140.80	H	5.40	5	17.90	18.40	56	54
150	( 6 <sup>''</sup> )	163.90	166.50	M	4.80	6	18.90	19.50	53	51
		138.90	166.50	H	5.40	5	21.30	21.90	47	46

## TOLERANCE

<b>Theckness</b>	For Quantities Per Load Of 10 Ton Min : +/- 7.5% ( Medium & Heavy Series )
Light Tubes : + Not Limited - 8 %	<b>Chemical Composition</b>
Medium & Heavy Tubes : + Not Limited - 10 %	
<b>Weight</b>	As Per IS : 10748 - 2004
Single Tube : + 10% ( Light Series ) - 8 %	<b>Physical Properties</b>
Single Tube : + 10% ( Medium & Heavy Series )	
For Quantities Per Load Of 10 Ton Min : +/- 7.5% ( Light Series ) - 5%	
	Tensile Strength : Min. 320 Mpa
	Elongation % Age : 20%Min. Above 25 mmNB 12%Min. Up To 25 mm NB
	Hydro Test Pressure : 5 Mpa



# HOLLOW STEEL SECTION FOR STRUCTURAL USE RECTANGULAR HOLLOW SECTION ( RHS )

## Confirming To ASTM A53

RHS MM	THICKNESS MM	UNIT WEIGHT	
		KG/Meter	KG/TON
40×20	2.00	1.68	595
	2.60	2.10	476
	3.20	2.49	402
40×25	1.60	1.57	640
	2.00	1.94	518
	2.50	2.39	419
50×25	2.00	2.15	465
	2.60	2.71	369
	3.20	3.24	309
50×30	4.00	3.88	258
	2.00	2.41	418
	2.50	2.98	337
50×40	2.90	3.43	293
	2.00	2.88	370
	3.20	3.56	297
60×40	4.50	4.11	260
	2.60	3.73	268
	3.20	4.50	222
66×33	4.50	6.02	166
	2.60	3.69	271
	3.20	4.45	225
75×25	4.50	5.95	168
	2.60	3.73	268
	3.20	4.50	222
80×40	4.50	6.02	166
	2.90	5.03	199
	3.50	5.96	168
96×48	4.50	7.43	135
	3.20	6.71	149
	4.00	8.22	122
90×60	5.00	10.01	100
	3.20	7.01	143
	4.00	8.59	116
100×50	5.00	10.48	95
	3.20	7.01	143
	4.00	8.59	116
120×60	5.40	11.21	89
	6.00	12.27	81
	3.60	9.50	105
122×61	4.50	11.67	86
	5.40	13.76	73
	3.60	9.67	103
125×75	4.50	11.88	84
	5.40	14.01	71
	4.00	12.16	83
125×100	5.00	15.08	67
	6.00	17.95	56
	4.00	13.71	73
145×82	5.00	17.02	59
	6.00	20.27	49
	3.60	12.16	82
150×75	4.50	14.99	67
	5.40	17.74	56
	3.60	12.05	83
150×75	4.50	14.85	67
	5.40	17.57	57

RHS	Thickness	Unit Weight	
150×100	3.60	13.46	74
	4.50	16.62	60
	5.40	19.69	51
172×92	3.60	14.25	70
	4.50	17.61	57
	5.40	20.88	48
200×100	4.50	20.15	50
	6.00	26.40	38
	7.00	30.44	33
200×150	4.50	20.15	50
	6.00	31.11	32
	8.00	40.66	25



General Technical Specification And Tolerances	
Spec	IS:4923:1997
Length	6.0mtrs +/- 6.0mm Customized Length Ranging From 4mtrs To 8 mtrs My Be Supplied
Thickness	For All Sizes: +/- -10.0%
Outer Dimensions	1%With A Main. Of 0.5mm
Comer Squareness	90°-/+ 2°
Comer Radii	Max 3x( Thickness Of The Section )
Weight	On Individual Length: + 10% - 8% On Lots Of MT : +/- 7.5%
Straightness	Min 1:600 <sup>th</sup> Of Any Length measured Along The Center Line (Mill Straightened Condition ) Unless Otherwise Specifically Arranged
Twist Tolerance	Max 2mm : + 0.5mm/ 1m Length, The Measured Relative Shift Of Any Adjacent Comer Of The Measured By Keeping One Side On Flat Sureface
End Finish	Plain Ended - Mechanically Sheared, Mill - Cut Finish Without Further Machining
Surface Finish	Black Without Any Surface Treatment Of Oiling Or Varnishing
Raw Material	Sulphur Content 0.05% Max Phosphorus Content 2.25 Max