



CIRCULAR HOLLOW SECTION FOR STRUCTURAL PURPOSE CONFORMING TO IS 1161:2014

NB	OD	Thk	Mass	Area of Cross-Section	Internal Volume	Surface		Moment of Inertia	Modulus of section	radius of Gyration	Square of Radius of Gyration
mm	mm	mm	kg/m	cm ²	cm ³ /m	External cm ³ /m	Internal cm ³ /m	cm ⁴ /m	cm ³	cm	cm ²
15	21.3	2.0	0.952	1.21	235	669	543	0.57	0.54	0.69	0.47
		2.6	1.20	1.53	204	669	506	0.68	0.64	0.67	0.45
		3.2	1.43	1.82	174	669	468	0.77	0.72	0.65	0.42
20	26.9	2.3	1.40	1.78	391	845	701	1.36	1.01	0.87	0.76
		2.6	1.56	1.98	370	845	682	1.48	1.10	0.86	0.75
		3.2	1.87	2.38	330	845	644	1.70	1.27	0.85	0.71
25	33.7	2.6	1.99	2.54	638	1059	895	3.09	1.84	1.10	1.22
		3.2	2.41	3.07	585	1059	858	3.60	2.14	1.08	1.18
		4.0	2.93	3.73	519	1059	807	4.19	2.49	1.06	1.12
32	42.4	2.6	2.55	3.25	1087	1332	1169	4.46	3.05	1.41	1.99
		3.2	3.09	3.94	1018	1332	1131	7.62	3.59	1.39	1.93
		4.0	3.79	4.83	929	1332	1081	8.99	4.24	1.36	1.86
40	48.3	2.9	3.25	4.14	1419	1517	1335	10.70	4.43	1.61	2.59
		3.2	3.56	4.53	1379	1517	1316	11.59	4.80	1.60	2.56
		4.0	4.37	5.57	1276	1517	1266	13.77	5.70	1.57	2.47
50	60.3	2.9	4.11	5.23	2333	1894	1712	21.59	7.16	2.03	4.13
		3.6	5.03	6.41	2215	1894	1668	25.87	8.58	2.01	4.03
		4.5	6.19	7.89	2067	1894	1612	30.90	10.25	1.98	3.92
65	76.1	2.9	5.24	6.67	3882	2391	2209	44.74	11.76	2.59	6.71
		3.6	6.44	8.20	3728	2391	2165	54.01	14.19	2.57	6.59
		4.5	7.95	10.12	3536	2391	2108	65.12	17.11	2.54	6.43
80	88.9	3.2	6.76	8.62	5346	2793	2592	79.21	17.82	3.03	9.19
		4.0	8.38	10.67	5140	2793	2542	96.34	21.67	3.00	9.03
		4.8	9.96	12.68	4939	2793	2491	112.49	25.31	2.98	8.87
90	101.6	3.6	8.70	11.08	6999	3192	2966	133.24	26.23	3.47	12.02
		4.0	9.63	12.26	6881	3192	2941	146.28	28.80	3.54	11.93
		4.8	11.46	14.60	6648	3192	2890	171.39	33.74	3.43	11.74
100	114.3	3.6	9.83	12.52	9009	3591	2265	191.98	33.59	3.92	15.33
		4.5	12.19	15.52	8709	3591	3308	234.32	41.00	3.89	15.10
		5.4	14.50	18.47	8413	3591	3252	274.54	48.04	3.85	14.86
110	127	4.5	13.59	17.32	10936	3990	3707	325.29	51.23	4.33	18.78
		4.8	14.47	18.43	10825	3990	3688	344.50	54.25	4.32	18.69
		5.4	16.19	20.63	10605	3990	3651	382.04	60.16	4.30	18.52
125	139.7	4.5	15.00	19.11	13417	4389	4106	437.20	62.59	4.78	22.87
		4.8	15.97	20.34	13295	4389	4087	463.33	66.33	4.77	22.78
		5.4	17.89	22.78	13050	4389	4050	514.50	73.66	4.75	22.58
		8.0	25.98	33.10	12018	4389	3902	720.29	103.12	4.66	21.76
135	152.4	4.5	16.41	20.91	16151	4788	4505	572.24	75.10	5.23	27.37
		4.8	17.47	22.26	16016	4788	4486	606.76	79.63	5.22	27.26
		5.4	19.58	24.94	15748	4788	4448	674.51	88.52	5.20	27.05
		8.0	28.49	34.19	14542	4788	4277	696.76	116.13	4.51	26.11
150	165.1	4.5	17.82	22.70	19138	5187	4904	732.59	88.74	5.68	32.27
		4.8	18.98	24.17	18991	5187	4885	777.13	94.14	5.67	32.15
		5.4	21.27	27.09	18699	5187	4847	864.70	104.75	5.65	31.92
		5.9	23.20	29.50	18465	5187	4818	970.00	113.40	5.63	31.72
		6.3	24.67	31.43	18265	5187	4791	992.28	120.20	5.62	31.75
		8.0	30.99	39.48	17460	5187	4684	1221.25	147.94	5.56	30.93
150	168.3	4.5	18.18	23.16	19931	5287	5005	777.22	92.36	5.79	33.56
		4.8	19.35	24.66	19781	5287	4986	824.57	97.99	5.78	33.44
		5.4	21.69	27.64	19483	5287	4948	917.69	109.05	5.76	33.21
		6.3	25.17	32.06	19040	5287	4891	1053.42	125.18	5.73	32.85

		8.0	31.63	40.29	18218	5287	4785	1297.27	154.16	5.67	32.20
175	193.7	4.8	22.36	28.49	26619	6085	5784	1271.39	131.27	6.68	44.63
		5.4	25.08	31.94	26273	6085	5746	1416.97	146.31	6.66	44.36
		5.9	27.33	34.81	25987	6085	5715	1536.13	158.61	6.64	44.13
		6.3	29.12	37.09	25759	6085	5689	1630.05	168.31	6.63	43.95
		8.0	36.64	46.67	24801	6085	5583	2015.54	208.11	6.57	43.19
		10.0	45.30	57.71	23697	6085	5457	2441.59	252.10	6.50	42.31
200	219.1	4.8	25.37	32.32	34471	6883	6582	1856.03	169.42	7.58	56.43
		5.6	29.49	37.56	33947	6883	6531	2141.61	195.49	7.55	57.02
		5.9	31.02	39.52	33751	6883	6513	2247.01	205.11	7.54	56.86
		6.3	33.06	42.12	33491	6883	6487	2386.14	217.81	7.53	56.65
		8.0	41.65	53.06	32397	6883	6381	2959.63	270.16	7.47	55.78
		10.0	51.57	63.69	31134	6883	6255	3598.44	328.47	7.40	54.78
250	273	12.0	61.29	78.06	29895	6883	6129	4199.88	383.38	7.33	53.79
		5.9	38.86	49.51	53584	8577	8206	4417.18	323.60	9.45	89.22
		6.3	41.44	52.79	53256	8577	8181	4695.82	344.02	9.43	88.96
		8.0	52.28	66.60	51875	8577	8074	5851.71	428.70	9.37	87.86
		10.0	64.86	82.62	50273	8577	7948	7154.09	524.11	9.31	86.59
		12.0	77.24	98.39	48695	8577	7823	8396.14	615.10	9.24	85.33
300	323.9	6.3	49.34	62.86	76111	10176	9780	7928.90	489.59	11.23	126.14
		8.0	62.32	79.39	74458	10176	9673	9910.08	611.92	11.17	124.82
		10.0	77.41	98.61	72536	10176	9547	12158.34	750.75	11.10	123.29
		12.0	92.30	117.58	70639	10176	9422	14319.56	884.20	11.04	121.78