

TUBE DIMENSIONS - SWG / BWG REFERENCE

DIMENSION & THEORETICAL WEIGHT PER METER

A4 LANDSCAPE ENGINEERING REFERENCE | OD & THK in mm | WT in kg/m

SWG - STANDARD WIRE GAUGE	BWG - BIRMINGHAM WIRE GAUGE	THK in mm	WT in kg/m	MBM TUBES & PIPES
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TUBE SIZE / OD / GAUGE THICKNESS (mm) / THEORETICAL WEIGHT PER METER (kg/m)																	
SIZE (inch)	OD (mm)	GAUGE 10		GAUGE 12		GAUGE 14		GAUGE 16		GAUGE 18		GAUGE 19		GAUGE 20		GAUGE 22	
		SWG	BWG	SWG	BWG	SWG	BWG	SWG	BWG	SWG	BWG	SWG	BWG	SWG	BWG	SWG	BWG
		3.251	3.404	2.642	2.769	2.032	2.1089	1.626	1.651	1.219	1.245	1.016	1.067	0.914	0.889	0.711	0.711
1/4"	6.35	-	-	-	-	0.218	0.222	0.191	0.192	0.155	0.158	0.134	0.140	0.123	0.120	0.099	0.099
5/16"	7.93	-	-	-	-	0.297	0.305	0.254	0.257	0.203	0.206	0.174	0.182	0.159	0.155	0.127	0.127
3/8"	9.52	0.506	0.517	0.451	0.464	0.377	0.388	0.318	0.322	0.251	0.256	0.214	0.224	0.195	0.190	0.155	0.155
1/2"	12.70	0.762	0.785	0.659	0.682	0.538	0.554	0.447	0.453	0.347	0.354	0.295	0.308	0.267	0.261	0.211	0.211
5/8"	15.87	1.018	1.053	0.867	0.900	0.698	0.720	0.575	0.582	0.443	0.452	0.374	0.392	0.339	0.330	0.267	0.267
3/4"	19.05	1.274	1.321	1.076	1.118	0.858	0.886	0.703	0.713	0.539	0.550	0.455	0.476	0.411	0.401	0.323	0.323
1"	25.40	1.786	1.858	1.492	1.555	1.178	1.219	0.959	0.973	0.731	0.746	0.615	0.644	0.555	0.541	0.436	0.435
1 1/4"	31.82	2.304	2.400	1.913	1.996	1.502	1.555	1.218	1.236	0.925	0.944	0.776	0.814	0.701	0.682	-	-
1 1/2"	38.10	2.811	2.930	2.324	2.427	1.818	1.883	1.471	1.493	1.115	1.138	0.935	0.980	0.843	0.821	-	-
1 3/4"	45.45	3.404	3.551	2.806	2.932	2.189	2.268	1.768	1.794	1.338	1.365	1.120	1.175	1.010	0.983	-	-
2"	50.80	3.825	4.003	3.157	3.300	2.459	2.548	1.984	2.013	1.499	1.531	1.255	1.317	1.131	1.101	-	-
2 1/4"	57.15	4.347	4.539	3.573	3.736	2.779	2.880	2.240	2.273	1.692	1.727	1.415	-	-	-	-	-
2 1/2"	63.50	4.860	5.075	3.989	4.172	3.099	3.212	2.496	2.533	1.884	1.923	1.575	-	-	-	-	-
2 3/4"	69.85	5.372	5.612	4.405	4.608	3.419	3.544	2.752	2.794	2.076	2.119	1.735	-	-	-	-	-
3"	76.20	5.884	6.148	4.822	5.045	3.739	3.877	3.008	3.054	-	-	-	-	-	-	-	-
3 1/2"	88.90	6.908	7.220	5.654	5.917	4.379	4.541	-	-	-	-	-	-	-	-	-	-
4"	101.60	7.933	8.293	6.487	6.790	5.020	5.206	-	-	-	-	-	-	-	-	-	-

TUBE DIMENSION EXPLAINED

OD = Outside Diameter

ID = Inside Diameter

t = Wall Thickness

All dimensions are in mm.

OD

ID

t

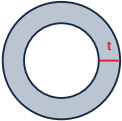


TABLE OF GAUGES

STANDARD WIRE GAUGE (SWG) AND BIRMINGHAM WIRE GAUGE (BWG)

GAUGE	UNIT	10	12	14	16	18	19	20	22
S.W.G. (Standard Wire Gauge)	Inch	0.128	0.104	0.080	0.064	0.048	0.040	0.036	0.028
	MM	3.251	2.642	2.032	1.626	1.219	1.016	0.914	0.711
B.W.G. (Birmingham Wire Gauge)	Inch	0.134	0.109	0.083	0.065	0.049	0.042	0.036	0.028
	MM	3.404	2.769	2.108	1.651	1.245	1.067	0.889	0.711

FORMULA & NOTES

Weight (kg/m) = (OD - t) x t x 0.02481

ID = OD - (2 x t)

t = (OD - ID) / 2

- WT values are shown in kg/m.
- THK values are shown in mm.
- Dash (-) follows the supplied reference.
- Values reproduced from the reference image.