

Industrial Metals

Standard Pipe Tolerances

Nominal Pipe Size ^① In.	Schedule Number ①	Outside Diameter In.			Inside Diameter In. Nom.	Wall Thickness In.			Weight per Foot Lb.	
		Nom. ^①	Min. ^{②③}	Max. ^{②③}		Nom. ^①	Min. ^②	Max. ^②	Nom. ^③	Max. ^{②③}
1/8	40	0.405	0.374	0.420	0.269	0.068	0.060	—	0.085	0.091
	80	0.405	0.374	0.420	0.215	0.095	0.083	—	0.109	0.118
1/4	40	0.540	0.509	0.555	0.364	0.088	0.077	—	0.147	0.159
	80	0.540	0.509	0.555	0.302	0.119	0.104	—	0.185	0.200
3/8	40	0.675	0.644	0.690	0.493	0.091	0.080	—	0.196	0.212
	80	0.675	0.644	0.690	0.423	0.126	0.110	—	0.256	0.276
1/2	5	0.840	0.809	0.855	0.710	0.065	0.053	0.077	0.186	—
	10	0.840	0.809	0.855	0.674	0.083	0.071	0.095	0.232	—
	40	0.840	0.809	0.855	0.622	0.109	0.095	—	0.294	0.318
	80	0.840	0.809	0.855	0.546	0.147	0.129	—	0.376	0.406
3/4	160	0.840	0.809	0.855	0.464	0.188	0.164	—	0.453	0.489
	5	1.050	1.019	1.065	0.920	0.065	0.053	0.077	0.237	—
	10	1.050	1.019	1.065	0.884	0.083	0.071	0.095	0.297	—
	40	1.050	1.019	1.065	0.824	0.113	0.099	—	0.391	0.422
1	80	1.050	1.019	1.065	0.742	0.154	0.135	—	0.510	0.551
	160	1.050	1.019	1.065	0.612	0.219	0.192	—	0.672	0.726
	5	1.315	1.284	1.330	1.185	0.065	0.053	0.077	0.300	—
	10	1.315	1.284	1.330	1.097	0.109	0.095	0.123	0.486	—
1-1/4	40	1.315	1.284	1.330	1.049	0.133	0.116	—	0.581	0.627
	80	1.315	1.284	1.330	0.957	0.179	0.157	—	0.751	0.811
	160	1.315	1.284	1.330	0.815	0.250	0.219	—	0.984	1.062
	5	1.660	1.629	1.675	1.530	0.065	0.053	0.077	0.383	—
1-1/2	10	1.660	1.629	1.675	1.442	0.109	0.095	0.123	0.625	—
	40	1.660	1.629	1.675	1.380	0.140	0.122	—	0.786	0.849
	80	1.660	1.629	1.675	1.278	0.191	0.167	—	1.037	1.120
	160	1.660	1.629	1.675	1.160	0.250	0.219	—	1.302	1.407
1-1/2	5	1.900	1.869	1.915	1.770	0.065	0.053	0.077	0.441	—
	10	1.900	1.869	1.915	1.682	0.109	0.095	0.123	0.721	—
	40	1.900	1.869	1.915	1.610	0.145	0.127	—	0.940	1.015
	80	1.900	1.869	1.915	1.500	0.200	0.175	—	1.256	1.357
2	160	1.900	1.869	1.915	1.338	0.281	0.246	—	1.681	1.815
	5	2.375	2.344	2.406	2.245	0.065	0.053	0.077	0.555	—
	10	2.375	2.344	2.406	2.157	0.109	0.095	0.123	0.913	—
	40	2.375	2.351	2.399	2.067	0.154	0.135	—	1.264	1.365
2-1/2	80	2.375	2.351	2.399	1.939	0.218	0.191	—	1.737	1.876
	160	2.375	2.351	2.399	1.687	0.344	0.301	—	2.581	2.788
	5	2.875	2.844	2.906	2.709	0.083	0.071	0.095	0.856	—
	10	2.875	2.844	2.906	2.635	0.120	0.105	0.135	1.221	—
3	40	2.875	2.846	2.904	2.469	0.203	0.178	—	2.004	2.164
	80	2.875	2.846	2.904	2.323	0.276	0.242	—	2.650	2.862
	160	2.875	2.846	2.904	2.125	0.375	0.328	—	3.464	3.741
	5	3.500	3.469	3.531	3.334	0.083	0.071	0.095	1.048	—
3-1/2	10	3.500	3.469	3.531	3.260	0.120	0.105	0.135	1.498	—
	40	3.500	3.465	3.535	3.068	0.216	0.189	—	2.621	2.830
	80	3.500	3.465	3.535	2.900	0.300	0.262	—	3.547	3.830
	160	3.500	3.465	3.535	2.624	0.438	0.383	—	4.955	5.351
3-1/2	5	4.000	3.969	4.031	3.834	0.083	0.071	0.095	1.201	—
	10	4.000	3.969	4.031	3.760	0.120	0.105	0.135	1.720	—
	40	4.000	3.960	4.040	3.548	0.226	0.198	—	3.151	3.403
	80	4.000	3.960	4.040	3.364	0.318	0.278	—	4.326	4.672

Standard Pipe Tolerances *continued . . .*

Nominal Pipe Size ^① In.	Schedule Number ①	Outside Diameter In.			Inside Diameter In.	Wall Thickness In.			Weight per Foot Lb.	
		Nom. ^①	Min. ^{②③}	Max. ^{②③}	Nom.	Nom. ^①	Min. ^②	Max. ^②	Nom. ^③	Max. ^{②③}
4	5	4.500	4.469	4.531	4.334	0.083	0.071	0.095	1.354	—
	10	4.500	4.469	4.531	4.260	0.120	0.105	0.135	1.942	—
	40	4.500	4.455	4.545	4.026	0.237	0.207	—	3.733	4.031
	80	4.500	4.455	4.545	3.826	0.337	0.295	—	5.183	5.598
	120	4.500	4.455	4.545	3.624	0.438	0.383	—	6.573	7.099
5	160	4.500	4.455	4.545	3.438	0.531	0.465	—	7.786	8.409
	5	5.563	5.532	5.625	5.345	0.109	0.095	0.123	2.196	—
	10	5.563	5.532	5.625	5.295	0.134	0.117	0.151	2.688	—
	40	5.563	5.507	5.619	5.047	0.258	0.226	—	5.057	5.461
	80	5.563	5.507	5.619	4.813	0.375	0.328	—	7.188	7.763
6	120	5.563	5.507	5.619	4.563	0.500	0.438	—	9.353	10.10
	160	5.563	5.507	5.619	4.313	0.625	0.547	—	11.40	12.31
	5	6.625	6.594	6.687	6.407	0.109	0.095	0.123	2.624	—
	10	6.625	6.594	6.687	6.357	0.134	0.117	0.151	3.213	—
	40	6.625	6.559	6.691	6.065	0.280	0.245	—	6.564	7.089
8	80	6.625	6.559	6.691	5.761	0.432	0.378	—	9.884	10.67
	120	6.625	6.559	6.691	5.501	0.562	0.492	—	12.59	13.60
	160	6.625	6.559	6.691	5.187	0.719	0.629	—	15.69	16.94
	5	8.625	8.594	8.718	8.407	0.109	0.095	0.123	3.429	—
	10	8.625	8.594	8.718	8.329	0.148	0.130	0.166	4.635	—
10	20	8.625	8.539	8.711	8.125	0.250	0.219	—	7.735	8.354
	30	8.625	8.539	8.711	8.071	0.277	0.242	—	8.543	9.227
	40	8.625	8.539	8.711	7.981	0.322	0.282	—	9.878	10.67
	60	8.625	8.539	8.711	7.813	0.406	0.355	—	12.33	13.31
	80	8.625	8.539	8.711	7.625	0.500	0.438	—	15.01	16.21
	100	8.625	8.539	8.711	7.437	0.594	0.520	—	17.52	19.03
	120	8.625	8.539	8.711	7.187	0.719	0.629	—	21.00	22.68
	140	8.625	8.539	8.711	7.001	0.812	0.710	—	23.44	25.31
	160	8.625	8.539	8.711	6.813	0.906	0.793	—	25.84	27.90
12	5	10.750	10.719	10.843	10.482	0.134	0.117	0.151	5.256	—
	10	10.750	10.719	10.843	10.420	0.165	0.144	0.186	6.453	—
	20	10.750	10.642	10.858	10.250	0.250	0.219	—	9.698	10.47
	30	10.750	10.642	10.858	10.136	0.307	0.269	—	11.84	12.79
	40	10.750	10.642	10.858	10.020	0.365	0.319	—	14.00	15.12
	60	10.750	10.642	10.858	9.750	0.500	0.438	—	18.93	20.45
	80	10.750	10.642	10.858	9.562	0.594	0.520	—	22.29	24.07
	100	10.750	10.642	10.858	9.312	0.719	0.629	—	26.65	28.78
	5	12.750	12.719	12.843	12.438	0.156	0.136	0.176	7.258	—
12	10	12.750	12.719	12.843	12.390	0.180	0.158	0.202	8.359	—
	20	12.750	12.622	12.878	12.250	0.250	0.219	—	11.55	12.47
	30	12.750	12.622	12.878	12.090	0.330	0.289	—	15.14	16.35
	40	12.750	12.622	12.878	11.938	0.406	0.355	—	18.52	20.00
	60	12.750	12.622	12.878	11.626	0.562	0.492	—	25.31	27.33
80	12.750	12.622	12.878	11.374	0.688	0.602	—	30.66	33.11	

① In accordance with ANSI Standards B36.10 and B36.19

② Based on nominal dimensions, plain ends, and a density of 0.098 lb. per cu. in., the density of 6061 alloy. For alloy 6063 multiply by 0.99 and for alloy 3003 multiply by 1.01.

③ For schedules 5 and 10 these values apply to mean outside diameters.