



WELDED AUSTENITIC STAINLESS STEEL PIPES

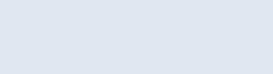


ASTM A 312 and ASTM A 778 DIMENSION AND WEIGHTS

Nominal Pipe Size (NPS) (inch)	Outside Diameter (OD) (mm)	Diameter Nominal (DN) (mm)	Schedule 10S			Schedule 40S		
			Nominal Wall Thickness (mm)	Weight (kg/m)		Nominal Wall Thickness (mm)	Weight (kg/m)	
				TP 304 / TP 304L	TP 316 / TP 316L		TP 304 / TP 304L	TP 316 / TP 316L
3/8	17.15	10	1.65	0.637	0.641	2.31	0.854	0.859
1/2	21.34	15	2.11	1.011	1.017	2.77	1.281	1.290
3/4	26.67	20	2.11	1.291	1.299	2.87	1.702	1.712
1	33.40	25	2.77	2.113	2.127	3.38	2.528	2.544
1 1/4	42.16	32	2.77	2.718	2.735	3.56	3.423	3.445
1 1/2	48.26	40	2.77	3.139	3.159	3.68	4.087	4.113
2	60.33	50	2.77	3.972	3.997	3.91	5.495	5.530
2 1/2	73.03	65	3.05	5.317	5.351	5.16	8.724	8.780
3	88.90	80	3.05	6.522	6.564	5.49	11.407	11.480
3 1/2	101.60	90	3.05	7.487	7.535	5.74	13.706	13.794
4	114.30	100	3.05	8.452	8.507	6.02	16.237	16.342
5	141.30	125	3.40	11.679	11.754	6.55	21.986	22.127
6	168.28	150	3.40	13.964	14.054	7.11	28.545	28.728
8	219.08	200	3.76	20.167	20.297	8.18	42.974	43.250
10	273.05	250	4.19	28.062	28.242	9.27	60.911	61.302
12	323.85	300	4.57	36.346	36.580	9.52	74.541	75.020

Permissible Variation In Dimension			
Dimension	NPS	Tolerance (mm)	
Outside Diameter (According To ASTM A999)	3/8" to 1 1/2"	+0.4, -0.8	
	2" to 4"	+0.8, -0.8	
	5" to 8"	+1.6, -0.8	
	10" to 12"	+2.4, -0.8	
Wall Thickness	For ASTM A312,		
	NPS Designator	Tolerance, % From Nominal	
		Over (+)	Under (-)
	1/8" to 2 1/2" incl. all t/D ratio	20.0	12.5
	3" to 18" incl. t/D up to 5%	22.5	12.5
	3" to 18" incl. t/D > 5%	15.0	12.5
Where t = Nominal Wall Thickness D = Nominal Outside Diameter Of Pipe			
For ASTM A778 Tolerance = ± 12.5% From Nominal			

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JIS G 3459 DIMENSION TOLERANCE

Nominal Pipe Size (inch)	Outside Diameter (OD) (mm)	Schedule 10S			Schedule 20S			Schedule 40S		
		Normal Wall Thickness (mm)	Weight (kg/m)		Normal Wall Thickness (mm)	Weight (kg/m)		Normal Wall Thickness (mm)	Weight (kg/m)	
			TP 304/ TP 304L	TP 316/ TP 316L		TP 304/ TP 304L	TP 316/ TP 316L		TP 304/ TP 304L	TP 316/ TP 316L
3/8	17.3	1.65	0.643	0.647	2.00	0.762	0.767	2.30	0.859	0.865
1/2	21.7	2.10	1.025	1.032	2.50	1.196	1.203	2.80	1.318	1.327
3/4	27.2	2.10	1.313	1.321	2.50	1.538	1.548	2.90	1.755	1.767
1	34.0	2.80	2.176	2.190	3.00	2.317	2.332	3.40	2.592	2.608
1 1/4	42.7	2.80	2.783	2.801	3.00	2.967	2.986	3.60	3.506	3.529
1 1/2	48.6	2.80	3.194	3.215	3.00	3.408	3.430	3.70	4.138	4.165
2	60.5	2.80	4.024	4.050	3.50	4.970	5.001	3.90	5.499	5.534
2 1/2	76.3	3.00	5.478	5.513	3.50	6.347	6.388	5.20	9.210	9.269
3	89.1	3.00	6.434	6.476	4.00	8.479	8.534	5.50	11.454	11.527
3 1/2	101.6	3.00	7.368	7.416	4.00	9.725	9.787	5.70	13.617	13.704
4	114.3	3.00	8.317	8.371	4.00	10.990	11.061	6.00	16.187	16.290
5	139.8	3.40	11.552	11.626	5.00	16.789	16.897	6.60	21.899	22.040
6	165.2	3.40	13.703	13.792	5.00	19.953	20.081	7.10	27.962	28.141
8	216.3	4.00	21.154	21.289	6.50	33.970	34.188	8.20	42.507	42.780
10	267.4	4.00	26.245	26.414	6.50	42.244	42.515	9.30	59.792	60.176
12	318.5	4.50	35.198	35.424	6.50	50.517	50.842	10.30	79.076	79.584

Permissible Variation In Dimensions According To JIS G 3459		
Dimension	Normal	Tolerance (mm)
Outside Diameter	< 30 mm	± 0.3 mm
	≥ 30 mm	± 1.0%
Wall Thickness	< 2 mm	± 0.2 mm
	≥ 2 mm	± 10%

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DIN 17457 DIMENSION AND WEIGHTS

Nominal Pipe Size (inch)	Outside Diameter (OD) (mm)	Weight (kg/m)									
		W. Nr. 1.4301/1.4306									
		Nominal Wall Thickness (mm)									
		1.50	1.60	2.00	2.30	2.60	2.90	3.05	3.20	3.60	4.00
3/8	17.2	0.587	0.622	0.757	0.854	0.946	1.033	1.075	1.116	1.220	1.315
1/2	21.3	0.740	0.785	0.962	1.089	1.211	1.329	1.387	1.443	1.587	1.724
3/4	26.9	0.949	1.008	1.241	1.409	1.574	1.734	1.812	1.889	2.089	2.282
1	33.7	1.203	1.279	1.579	1.799	2.014	2.225	2.329	2.431	2.699	2.959
1 1/4	42.4	1.528	1.626	2.013	2.297	2.578	2.853	2.990	3.125	3.479	3.826
1 1/2	48.3	1.749	1.861	2.307	2.635	2.960	3.280	3.438	3.595	4.009	4.414
2	60.3	2.197	2.340	2.905	3.323	3.737	4.147	4.350	4.552	5.085	5.610
1 1/2	76.1	2.787	2.969	3.692	4.228	4.760	5.288	5.550	5.811	6.502	7.184
3	88.9	3.266	3.479	4.329	4.962	5.589	6.213	6.522	6.831	7.649	8.459
4	114.3	4.215	4.492	5.595	6.417	7.234	8.047	8.452	8.856	9.927	10.990

Nominal Pipe Size (inch)	Outside Diameter (OD) (mm)	Weight (kg/m)									
		W. Nr. 1.4401/1.4404									
		Nominal Wall Thickness (mm)									
		1.50	1.60	2.00	2.30	2.60	2.90	3.05	3.20	3.60	4.00
3/8	17.2	0.590	0.626	0.762	0.859	0.952	1.040	1.082	1.123	1.227	1.324
1/2	21.3	0.745	0.790	0.968	1.096	1.219	1.338	1.395	1.452	1.597	1.735
3/4	26.9	0.955	1.015	1.248	1.418	1.584	1.745	1.824	1.901	2.103	2.296
1	33.7	1.211	1.288	1.589	1.811	2.024	2.239	2.344	2.447	2.717	2.978
1 1/4	42.4	1.538	1.637	2.026	2.312	2.594	2.872	3.009	3.145	3.502	3.851
1 1/2	48.3	1.760	1.873	2.321	2.652	2.979	3.301	3.460	3.618	4.034	4.442
2	60.3	2.211	2.355	2.923	3.344	3.761	4.173	4.378	4.581	5.117	5.646
1 1/2	76.1	2.805	2.988	3.715	4.255	4.791	5.322	5.586	5.848	6.543	7.230
3	88.9	3.287	3.502	4.357	4.993	5.625	6.252	6.564	6.875	7.698	8.514
4	114.3	4.242	4.521	5.631	6.458	7.281	8.099	8.507	8.913	9.991	11.061

Permissible Variation in Dimensions according to DIN 2463	
Outside Diameter Tolerance	D1 = ±1.50%, with minimum of ±0.75mm D2 = ±1.00%, with minimum of ±0.50mm D3 = ±0.75%, with minimum of ±0.30mm
Wall Thickness Tolerance	T1 = ±15.0% T2 = ±12.5% T3 = ±10.0%