



Chemical composition

Steel grade	Tube standard	Chemical composition, %											
		C	Mn	P	S	Si	Cr	Ni	Mo	N	Nb	Ti	Others
Austenitic stainless steels													
TP 304	A269, A213, A312	≤0.08	≤2.00	≤0.045	≤0.030	≤1.00	18.0 - 20.0	8.0 - 11.0					
TP 304L	A269, A213, A312	≤0.035	≤2.00	≤0.045	≤0.030	≤1.00	18.0 - 20.0	8.0 - 12.0					
TP 304H	A213, A312	0.04 - 0.10	≤2.00	≤0.045	≤0.030	≤1.00	18.0 - 20.0	8.0 - 11.0					
TP 310H	A213, A312	0.04 - 0.10	≤2.00	≤0.045	≤0.030	≤1.00	24.0 - 26.0	19.0 - 22.0					
TP316	A269, A213, A312	≤0.08	≤2.00	≤0.045	≤0.030	≤1.00	16.0 - 18.0	11.0 - 14.0	2.00 - 3.00				
TP316L	A269, A213, A312	≤0.035	≤2.00	≤0.045	≤0.030	≤1.00	16.0 - 18.0	10.0 - 14.0	2.00 - 3.00				
TP316H	A213, A312	0.04 - 0.10	≤2.00	≤0.045	≤0.030	≤1.00	16.0 - 18.0	11.0 - 14.0	2.00 - 3.00				
TP316Ti	A213, A312	≤0.08	≤2.00	≤0.045	≤0.030	≤0.75	16.0 - 18.0	10.0 - 14.0	2.00 - 3.00	≤0.10		5*(C+N) 0.70	
TP321	A269, A213, A312	≤0.08	≤2.00	≤0.045	≤0.030	≤1.00	17.0 - 19.0	9.0 - 12.0				5°C - 0.70	
TP321H	A213, A312	0.04 - 0.10	≤2.00	≤0.045	≤0.030	≤1.00	17.0 - 19.0	9.0 - 12.0				4°C - 0.60	
Duplex stainless steels													
S31803	A789	≤0.03	≤2.00	≤0.030	≤0.020	≤1.00	21.0 - 23.0	4.5 - 6.5	2.5 - 3.5	0.08 - 0.20			
S32205	A789	≤0.03	≤2.00	≤0.030	≤0.020	≤1.00	22.0 - 23.0	4.5 - 6.5	3.0 - 3.5	0.14 - 0.20			
Super duplex stainless steels													
S32750	A789	≤0.03	≤1.20	≤0.035	≤0.020	≤0.80	24.0 - 26.0	6.0 - 8.0	3.0 - 5.0	0.24 - 0.32			Cu ≤0.50
S32760	A789	≤0.05	≤1.00	≤0.030	≤0.010	≤1.00	24.0 - 26.0	6.0 - 8.0	3.0 - 4.0	0.20 - 0.30			W 0.50 - 1.00

Note : Pipe length to be specified on order. Other sizes are available upon agreement

Dimensions of seamless stainless tubes (SI metric units) A312, A790 ANSI/ASME B36.10M -1996

NPS	Outside diameter, mm.	Nominal wall thickness, mm							
		Sch.5S(1)	Sch.10S(1)	Sch.30	Sch.40S/STD	Sch.80S/XS	Sch.120	Sch.160	Sch.XXS
1/2	21.34	1.65	2.11	2.41	2.77	3.73		4.78	
3/4	26.67	1.65	2.11	2.41	2.87	3.91		5.56	7.82
1	33.40	1.65	2.77	2.90	3.38	4.55		6.35	9.09
1 1/4	42.16	1.65	2.77	2.97	3.56	4.85		6.35	9.70
1 1/2	48.26	1.65	2.77	3.18	3.68	5.08		7.14	10.15
2	60.33	1.65	2.77	3.18	3.91	5.54		8.74	11.07
2 1/2	73.00	2.11	3.05	4.78	5.16	7.01		9.53	14.02
3	88.90	2.11	3.05	4.78	5.49	7.62		11.13	15.24
3 1/2	101.60		3.05	4.78	5.47	8.08		12.70	16.15
4	114.30		3.05	4.78	6.02	8.56	11.13	13.49	17.12
5	141.30				6.55	9.53	12.70	15.88	19.05
6	168.00				7.11	10.97	14.27	18.26	21.95
8	219.08				8.18	12.70	18.26	23.01	22.23

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Dimensional tolerances EN ISO 1127, DIN 2462

Tolerance class	Outside diameter tolerances
D1	±1.50% with min ±0.75 mm
D2	±1.00% with min ±0.50mm

Tolerance class	Wall Thickness tolerances
T1	±15.0% with min ±0.60 mm
T2	±12.5% with min ±0.40 mm

Standards : EN 10216, DIN 17456, DIN 17458

Tubes assortment according to : EN 10216 , DIN 17456 , DIN 17458 , NF A49 -117

Outside diameter	Wall thickness																						
	4	4.5	5	5.4	5.6	6.3	7.1	8.0	8.8	10.0	11.0	12.5	14.2	16	17.5	20	22.2	25	28	30	32	35	
57.00																							
60.30																							
63.50																							
70.00																							
76.10																							
88.90																							
101.60																							
114.30																							
127.00																							
133.00																							
139.70																							
159.00																							
168.30																							
219.30																							
245.00																							

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