Seamless Stainless Steel Pipe

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Seamless stainless pipe is hot-extruded or pierced and cold-drawn from a solid billet — no weld — and is the pipe specified for high pressure, high temperature, hydraulic and instrumentation lines, heat-exchanger and boiler tubes, and any code that says "seamless". We supply 304L, 316L and 321 in ½"–12" (Ø 21.3–323.9 mm), schedules 10S to 160, and small-bore instrumentation tube 6–50 mm, to ASTM A312 / A213 and EN 10216-5, from EU and Asian mills with 3.1 or 3.2 certificates.

A312 / EN 10216-5 | ½"–12" · sch 10S–160 | 304L · 316L · 321 | No weld seam | 3.1 / 3.2 / PED

When the P&ID says seamless, welded pipe is not an option however good the weld. We source seamless stainless in the schedules and grades that refineries, power plants, fertiliser and food-process projects in the region specify, and hold the common sizes for quick despatch.

WEIGHT TABLE — ROUND STAINLESS TUBE BY OD AND WALL (KG/M AND PER 6 M)

OD (mm)	Wall (mm)	kg/m	kg per 6 m
20	1	0.473	2.84
20	1.2	0.562	3.37
20	1.5	0.691	4.15
20	2	0.897	5.38
20	2.5	1.09	6.54
20	3	1.271	7.63
21.3	1	0.506	3.04
21.3	1.2	0.601	3.61
21.3	1.5	0.74	4.44
21.3	2	0.962	5.77
21.3	2.5	1.171	7.03
21.3	3	1.368	8.21
22	1	0.523	3.14
22	1.2	0.622	3.73

First 14 of 156 rows — the full table is on the product page.

Welded EN 10217-7 / ASTM A554 (ornamental) and A312 (pressure); density 7.93 kg/dm³; 6 m lengths.

GRADES, STANDARDS AND TOLERANCES

Grade / standard	Yield (MPa)	Note
TP304L / 1.4307	≥ 170 (A312) / 200 (EN)	general seamless, welded fabrications
TP316L / 1.4404	≥ 170 / 200	chloride and chemical service
TP321 / 1.4541	≥ 205 / 200	stabilised, 400–800 °C, boiler tubes
TP347 / 1.4550	≥ 205	high temperature, welded assemblies
TP310S / 1.4845	≥ 205	furnaces, 1 000 °C
UNS S31803 / 1.4462 duplex	≥ 450	seawater, brine, high strength

A312 and EN 10216-5 minimums differ slightly; dual-certified pipe meets both.

SEAMLESS VS WELDED STAINLESS PIPE

Aspect	Seamless (A312 SMLS, EN 10216-5)	Welded (A312 WLD, EN 10217-7)
Manufacture	pierced / extruded billet, cold-drawn	strip formed and TIG / laser / HF welded, annealed
Joint efficiency (ASME B31.3)	1.0	0.85 (1.0 with 100 % RT)
Wall tolerance	±12.5 % (A312), ±10 % (EN)	±10 %; more uniform
Surface	pickled, slight drawing marks	smooth 2B-derived
Sizes	⅛"–24", sch 5S–XXS	½"–48", sch 5S–40S mainly
Price	base + 30–60 %	base
Lead time	stock ½"–4" common; else 4–8 weeks	stock to 8"
Typical spec	high pressure, boiler, heat-exchanger, hydraulic, instrumentation	process, water, food, structural

Eddy-current or ultrasonic testing is standard on both; hydrostatic test on all pressure pipe.

SCHEDULE AND PRESSURE GUIDE

NPS	OD (mm)	Sch 10S	Sch 40S	Sch 80	Sch 160
½"	21.3	2.11 mm · 240 bar	2.77 · 320	3.73 · 450	4.78 · 600
1"	33.4	2.77 · 200	3.38 · 245	4.55 · 340	6.35 · 490
2"	60.3	2.77 · 110	3.91 · 155	5.54 · 225	8.74 · 370
3"	88.9	3.05 · 80	5.49 · 150	7.62 · 210	11.13 · 320
4"	114.3	3.05 · 60	6.02 · 125	8.56 · 185	13.49 · 300
6"	168.3	3.40 · 45	7.11 · 100	10.97 · 160	18.26 · 275
8"	219.1	3.76 · 40	8.18 · 90	12.70 · 140	23.01 · 265

Design pressures must be calculated for the actual temperature, corrosion allowance and code; values here are for orientation only.

STANDARDS

ASTM A312 / A312M — seamless and welded austenitic pipe · ASTM A213 — seamless boiler and heat-exchanger tubes · EN 10216-5 — seamless stainless tubes for pressure purposes · ASME B36.19M; EN 10204 3.1 / 3.2; PED