Food Grade Stainless Tube

OMEGA STEEL CO.
Istanbul · Dilovası plant

Food-grade stainless tube is hygienic tube: welded 304L or 316L with the internal weld bead removed and the bore polished to Ra ≤ 0.8 µm (or ≤ 0.5 / electropolished for pharma), bright-annealed or pickled, to the dairy and process standards DIN 11850, ISO 2037 / 1127 and ASTM A270, so that product does not lodge and CIP cleaning reaches every surface. We supply Ø 12–104 mm (DN 10–100) in 6 m with matching sanitary fittings, clamps and unions from stock at Dilovası for dairy, beverage, food, cosmetics and pharmaceutical plants.

DIN 11850 · ISO 2037 · A270 | Ra ≤ 0.8 µm inside | 304L · 316L | DN 10–100 | Fittings & clamps in stock

Milk, juice, beer, sauces, syrups — everything that flows in a food plant flows through this tube, and everything that can be cleaned in place has to be smooth inside. It is the tube our food and beverage customers in Turkey, the Gulf and Africa buy with the clamps and elbows in the same order.

WEIGHT TABLE — ROUND 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
1.4307 / 304L (DIN 11850)	≥ 200	dairy, beverage, beer, juice, oils — stock
1.4404 / 316L	≥ 200	acidic, salty, hot CIP, pharma, cosmetics
1.4435 / 316L high-Ni	≥ 200	ASME BPE pharma, electropolished
1.4301 / 304	≥ 210	non-product-contact frames and covers

Surface classes: Ra ≤ 0.8 µm (standard sanitary), ≤ 0.5 µm (high hygiene), ≤ 0.4 µm electropolished (pharma / WFI). All grades food-contact certified.

SANITARY TUBE STANDARDS AND SIZES

Standard	Sizing	Example DN 50 / 2"	Wall	Fittings	Region
DIN 11850 (series 2)	DN, metric OD	DN 50 = Ø 53 × 1.5	1.5 / 2 mm	DIN 11851 unions, DIN 32676 clamps	Europe, Turkey, Middle East
ISO 2037 / 1127	metric OD	Ø 50.8 × 1.6	1.2–2 mm	ISO clamps, SMS unions	Scandinavia, Asia
ASTM A270	inch OD	2" = Ø 50.8 × 1.65	0.065"	Tri-Clamp (ASME BPE)	US, Gulf projects with US EPC
DIN 11866 / ASME BPE	metric or inch	as above		orbital-weld ends, EP	pharma / biotech

A DN 50 DIN tube (Ø 53) does not fit a 2" Tri-Clamp ferrule (Ø 50.8) — confirm the standard before ordering fittings.

SURFACE ROUGHNESS AND CLEANING

Internal finish	Ra (µm)	How made	Specified for
Standard sanitary	≤ 0.8	bead-rolled, mechanically polished, pickled	dairy, beverage, food, CIP-cleaned lines
High hygiene	≤ 0.5	polished 240–320, passivated	baby food, sensitive products, cosmetics
Electropolished (EP)	≤ 0.4 (0.25)	electrochemical smoothing after polish	pharma, biotech, WFI, ASME BPE SF4
Bright annealed (BA)	≤ 0.8	hydrogen-atmosphere anneal, no pickling	instrument tube, orbital-welded lines

CIP compatibility depends on drainable layout and dead-leg length as much as on Ra; we supply fittings with the same finish class.

STANDARDS

DIN 11850 / DIN 11866 — hygienic tubes (metric, DN series) · ISO 2037 / ISO 1127 — stainless tubes for the food industry · ASTM A270 — sanitary tubing (inch OD) · EHEDG / 3-A guidelines; EC 1935/2004 food contact; EN 10204 3.1