

DAIRY TUBE, METRIC & IMPERIAL D.O.M

Material

Chrome-nickel-steel 18/8, material no. 1.4301 (AISI 304).
For an additional price the tubing is also available in
chrome-nickel molybdenum steel 18/10/2, material no. 1.4571
(AISI 316 Ti) with the same finish and dimensions.

Finish

All tubing is longitudinally welded and calibrated. DN 10 – DN 50 is
heat treated, as standard. DN 65 – DN 150 is not heat treated (can
be heat treated, if required, at extra cost).

Interior of tubing

Bright annealed, or roll polished; welded seams smoothed.
Excluding the welded seam the average roughness value R_a
(arithmetic mean value) = 0.25–0.35 μm
(0,00025–0,00035 mm). On the inside welded seam, measured
in a longitudinal direction, $R_a = 0,25\text{--}1,5 \mu\text{m}$ (corresponding
to a peak-to-valley height of $R_t = 2\text{--}15 \mu\text{m}$). With normal cleaning
in place/CIP (flushing with detergents) the smooth interior of the
tubes easily meets the high hygienic requirements of the food
industry.

Exterior of tubing

Quenched annealed (type BVG), or polished (type SG).
Glass-blast exterior on demand.

Dimensions of tubing acc. to DIN 11850

nominal width outside- \emptyset X wall-thickness	DN 10	15	20	25	32
	12 X 1	18 X 1	22 X 1	28 X 1	34 X 1
nominal width outside- \emptyset X wall-thickness	DN 40	50	65	80	90
	40 X 1	52 X 1	70 X 2	85 X 2	93 X 2
nominal width outside- \emptyset X wall-thickness	DN 100	125	150		
	104 X 2 ¹⁾	129 X 2	154 X 2		

Standard stock length: 6m \pm 10mm, exact lengths and overlengths
(up to 12 m) can be supplied by special arrangement.

Admissible working pressures

(Mannesmann Tubes, material no. 1.4301)

nominal width DN	outside- \emptyset of tubing X wall- thickness	admissible service pressure in bar at constant load and room temperature without test certificate ²⁾		with test certificate ³⁾
10	12X1	161	229	
15	18X1	107	152	
20	22X1	87	124	
25	28X1	69	98	
32	34X1	57	81	
40	40X1	48	68	
50	52X1	37	52	
65	70X2	55	78	
80	85X2	45	64	
100	104X2 ¹⁾	37	52	
125	129X2	30	42	
150	154X2	25	35	

¹⁾ Acc. to DIN 11850 pattern 9.73, replacement for 106 X 2,75.

²⁾ If test certificate is required DIN 50049-3.1 B, but without test certificate
of the welded seam valence.

³⁾ With test certificate (welded seam valence $V_N = 1,0$).

The above admissible working pressures do not refer to the unions,
formed parts, shut-off valves, etc.

Special tubes

i. e. with a wall-thickness of 1,5–2 mm.

Material no. 1.4301, or, if desired, 1.4571.
Finish: BVG and SG, as described under DIN 11850.

nominal width outside- \emptyset X wall-thickness	DN 10	15	20		
	14 X 2	20 X 2	24 X 2		
nominal width outside- \emptyset X wall-thickness	DN 25	32	40	50	
	28 X 1,5	34 X 1,5	41 X 1,5	53 X 1,5	

Thick-walled tubes

For supporting pipe-work systems, scaffolds, tank connections, etc.
we supply tubes from material no. 1.4301 and material no. 1.4571
in various wall-thicknesses. Please inform us of your specific needs.

Tubes in inch-dimensions

Material no. 1.4301 (AISI 304), or, if desired, 1.4571 (AISI 316 Ti).
Finish: BVG and SG, as described under DIN 11850.

nominal width outside- \emptyset X wall-thickness	DN 1"	1 1/4"	1 1/2"		
	25,4 X 1,25	31,8 X 1,25	38,1 X 1,5		
nominal width outside- \emptyset X wall-thickness	DN 2"	2 1/2"	3"		
	50,8 X 1,5	63,5 X 1,5	76,2 X 1,5		
nominal width outside- \emptyset X wall-thickness	DN	4"			
		101,4 X 1,5			