Datasheet:

EN 1.4404/316L – Austenite Welded Tube - Stainless Steel

Alumeco ApS
15-08-2025

Internal alloy name:	**1.4404**
Alloy type:	**Acid-resistance Austenite**
Chemical Symbol:	**X2CrNiMo17-12-2**
EN:	**EN 1.4404**
AISI:	**316L**
UNS:	**S31603**
SS:	**2348**
JIS:	**SUS316L**
GB:	**S31603**

Main usage:

- Food processing industry
- Petrochemical equipment
- Chemical and pharmaceutical industry
- Construction sector
- Automotive and aerospace industry
- Electronical equipment

Main properties:

- Great weldability
- High corrosion resistance to non-oxidising acids and chlorine-containing materials
- Good formability, both cold and hot
- Higher thermal expansion and lower heat conductivity compared to other carbon steels

Important norms and literature:

General Standards
EN 10088-1: List of stainless Steel

Product standards:
EN 10217-7: Welded steel tubes for pressure purposes- Technical delivery conditions-Part 7: Stainless steel tubes

Geometric Tolerance:
EN 1127 D3/T3: Stainless steel tubes - Dimensions, tolerances and conventional masses per unit length

Chemical composition in %: EN 10088-1

C	Si	Mn	P	S	Cr	Mo	Ni	Remarks	Rest
≤ 0,030	≤ 1,00	≤ 2,00	≤ 0,045	≤ 0,030*	16,5 - 18,5	2,0 - 2,5	10,0 - 13,0	N ≤ 0,10	Fe

*** For machinability, a controlled sulfur content of 0,015%-0,030% is recommended & permitted. For weldability a controlled sulfur content of 0,008%- 0,030% is recommended & permitted. For polishability, a controlled sulfur content of 0,015% is recommended.**

Mechanical properties: EN 10217-7

Outer diameter (mm)	Wall thickness (mm)	R_m MPa	$R_{p0,2}$ MPa	$Rp_{1,0}$ MPa	Elongation A%	Impact energy KV_2	Hardness* HB
21,3 - 600	1,3 - 3	530 - 680	Min. 240	Min. 270	40	100	Max. 215

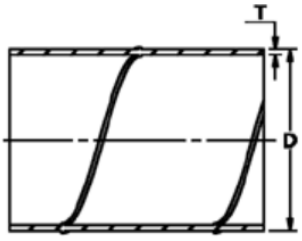
*** Information values only;**

Physical properties:

Density g/cm³	Electrical resistivity Ω mm² / m	Thermal conductivity W/m K	Thermal expansion (µm m^{-1} K^{-1})	Specific heat (J kg^{-1} K^{-1})	E - modulus (N / mm²)	Magnetizable	PREN (Min.)
8,0	0,75	15	16,0	500	200.000	No	16,5

Product Overview:

Material Nr.	DN	Diameter D (mm)	Thickness T (mm)	Length (mm)	Tolerance Norm	Weight (kg)
1361995	10	17,2	1,6	6000	D_3/T_3	0,62
1358428	15	21,3	2,00	6000	D_3/T_3	0,97
1358430	20	26,9	2,00	6000	D_3/T_3	1,25
1358532	25	33,7	2,00	6000	D_3/T_3	1,59
1358533	32	42,4	2,00	6000	D_3/T_3	2,02
1358534	40	48,3	2,00	6000	D_3/T_3	2,32
1358535	50	60,3	2,00	6000	D_3/T_3	2,92
1358537	65	76,1	2,00	6000	D_3/T_3	3,71
1358538	80	88,9	2,00	6000	D_3/T_3	4,35
1358539	100	114,3	2,00	6000	D_3/T_3	5,62
1358540	125	139,7	2,00	6000	D_3/T_3	6,90
1358541	150	168,3	2,00	6000	D_3/T_3	8,33
1358542	200	219,1	2,00	6000	D_2/T_3	10,87
1358543	250	273,0	3,00	6000	D_2/T_3	20,28
1358546	300	323,9	3,00	6000	D_2/T_3	24,11
1358547	350	355,6	3,00	6000	D_2/T_3	26,49
1358549	400	406,4	3,00	6000	D_2/T_3	30,30



Tolerances for welded steel tubes for EN 1.4404:

Tolerances on outside diameter	
Tolerance class	**Tolerance on outside diameter**
D_2	± 1% with min. ± 0,5 mm
D_3	± 0,75% with min. ± 0,3 mm

* Values are referred from Table 1 of EN 1127:1992

Tolerances on thickness	
Tolerance class	**Tolerance on thickness**
T_3	± 10% with min. ± 0,2 mm

* Values are referred from Table 2 of EN 1127:1992

Tolerances on exact lengths	
Length *L* (mm)	**Tolerance on exact length (mm)**
$L \leq 6000$	+ 5 0

* Values are referred from Table 12 of EN 10217-7:2014