

Datasheet: EN 1.4404/316L – Austenite Welded Reducer Tubes - Stainless Steel Concentric & Eccentric 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
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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 10253-4A: Butt-welding pipe fittings - Part 4: Wrought austenitic and austenitic-ferritic (duplex) stainless steels with specific inspection requirements Tolerances: EN 10253-4A: Butt-welding pipe fittings - Part 4: Wrought austenitic and austenitic-ferritic (duplex) stainless steels with specific inspection requirements
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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 10253-4A

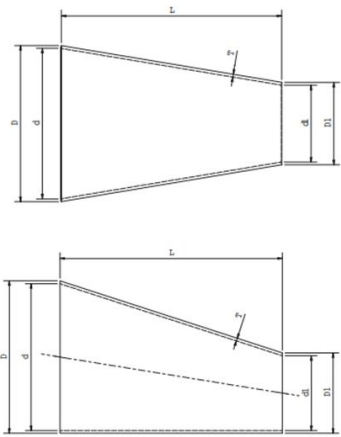
Mechanical properties: EN 10203-17								
Hardness* HB	Tensile properties at room temperature					Reference heat treatment conditions	Resistance to intergranular corrosion	Limit temp. °C
	Proof strength Min. MPa		Tensile strength R _m MPa	Elongation Min. A%		Solution temp. °C		
	R _{p0,2}	R _{p1,0}		l	t			
Max. 215	190	225	490 – 700	40	30	1020 – 1120	Yes	400

* Information values only;

Physical properties:

Density g/cm ³	Electrical resistivity Ω mm ² / m	Thermal conductivity W/m K	Thermal expansion (μm m ⁻¹ K ⁻¹)	Specific heat (J kg ⁻¹ K ⁻¹)	E - modulus (N / mm ²)	Magnetizable	PREN (Min.)
8,0	0,75	15	16,0	500	200.000	No	16,5

Product Overview:

Material nr.		DN	Diameter		Thickness T (mm)	Length L (mm)	Weight (kg)	
Concentric	Eccentric		D	D ₁				
1358544	1358527	15x10	21,3	17,2	2,00	12	0,01	
1333146	1358552	20x15	26,9	21,3	2,00	17	0,02	
1333512	1358554	25x20	33,7	26,9	2,00	20	0,03	
1333569	1358556	32x25	42,4	33,7	2,00	26	0,05	
1333597	1358558	40x42	48,3	42,4	2,00	18	0,04	
1333867	1358560	50x40	60,3	48,3	2,00	36	0,10	
1333875	1358563	65x50	76,1	60,3	2,00	47	0,16	
1358548	1358569	80x65	88,9	76,1	2,00	38	0,16	
1358551	1358570	100x80	114,3	88,9	2,00	76	0,39	
1358553	1358572	125x100	139,7	114,3	2,00	76	0,48	
1358557	1358573	150x125	168,3	139,7	2,00	85	0,66	
1358559	1358574	200x150	219,1	168,3	2,00	152	1,47	
1358561	1358575	250x200	273,0	219,1	3,00	161	2,97	
1358564	1358576	300x250	323,9	273,0	3,00	152	3,40	
1358567	1358577	350x300	355,6	323,9	3,00	95	2,41	
1358568	1358578	400x350	406,4	355,6	3,00	152	4,34	

Tolerances for welded stainless steel reducers for EN 1.4404:

Tolerances on outside diameter

The relevant outside diameters ($D-D_1$) shall be measured at the welding ends of the fittings.

The tolerance is as follows:

- $\pm 1\%$ or $\pm 0,5$ mm, whichever is the greater, but maximum ± 5 mm.

* Values are referred from Section 11.2.1 of EN 10253-4:2025

Tolerances on roundness

At the welding ends:

- $D \leq 406,4$ is included in the diameter tolerance
- $D > 406,4$ and $D/T \leq 100$, then $O_v \leq 2\%$

For fittings with a D/T ratio > 100 the values for out-of-roundness shall be agreed at the time of enquiry and order.

On the body for elbows and return bends: $\leq 4\%$.

The out of roundness shall be calculated as follows:

- $O_v = 100 * (D_{\max} - D_{\min}) / D$ (in %)

* Values are referred from Section 11.2.2 of EN 10253-4:2025

Tolerances on wall thickness

NOTE: The minus tolerances shown in below table also applies to the body of the fitting, but there is no plus tolerance for the body of the fitting defined.

Diameter D (mm)	Wall thickness T (mm)	Wall thickness tolerance	
		minus	plus
≤ 610	all	-12,5 %	+ 20 %
	seamless	-12,5 %	+ 20 %
> 610	welded		
	≤ 10	- 0,35 mm	+ 20 %
	> 10	- 0,5 mm	

* Values are referred from Section 11.2.3 of EN 10253-4:2025