



AISI 316L

Decolletage

austenitic
Stainless Steel

Material No.	DIN Abbreviation	AFNOR	AISI/SAE/ASTM	ISO	Euro Standard EN	Others
1.4598 (1.4404+S+Cu)	X2CrNiMo17-10-2+S+Cu	Z 3 CND18.12.2+S+Cu	AISI 316L (S+Cu)			JIS ~ SUS 316F

Distinctive feature & main attribute: a rust- and acid-proof, free cutting chromium-nickel-molybdenum steel alloy, widely used to meet the requirement of higher resistance to corrosion than the qualities of 1.4301/06, 1.4310, 1.4305. Its ease of machinability is due to the sulphur and copper content, but it is inapplicable to welding.

Use & application range: this alloy is required for the apparatus engineering of chemical industry as well as applied in defecators and the paper industry.

REFERENCE ANALYSIS %	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	N	Fe
	max. 0.03	max. 1.00	max. 2.00	max. 0.045	max. 0.10 0.20	16.50 18.50	2.00 2.50	10.00	1.30 1.80	max. 0.10	balance

EXECUTION DELIVERY FORM STANDARD SIZES AVAILABILITY	<ul style="list-style-type: none"> • Execution in 3 m (2 m) round or square & hexagonal bars as well as in coils for Escomatic • Standard size in stock: see Product range • Other sizes on request
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TOLERANCES	<ul style="list-style-type: none"> • $\varnothing < 2.00$ mm, cold drawn, polished; ISO h8 • $\varnothing \geq 2.00$ mm, cold drawn, ground, polished; ISO h7; surface finish Ra 0.4 (N5-N6) • Tighter tolerances on request
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MECHANICAL PROPERTIES	<p>At delivery status:</p> <ul style="list-style-type: none"> • Tensile strength (R_m): 600 – 980 MPa, size depending
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HEAT TREATMENT	<ul style="list-style-type: none"> • Soft annealing: 1010 – 1120 °C, cooling in water • Hardening and tempering by heat treatment is impossible
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CUTTING RATES	<p>$v_c \sim 40 - 60$ m/min, value depending on the lubrication oil, cutting tools and shape of parts.</p> <ul style="list-style-type: none"> • Cutting oil: e.g. INOX or ORTHO NFX of Motorex
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