



CHRONIFER® Special D 18/8 austenitic Stainless Steel

Material No.	DIN Abbreviation	AFNOR	AISI/SAE/ASTM	ISO	Euro Standard EN	Others
1.4305	X8CrNiS18-9 (X10CrNiS18-9)	X8CrNi18-9 (former Z 8 CNF 18.09) (former Z 10 CNF 10.09)	AISI 303 ASTM F899	7153-1 (H)	X8CrNiS18-9	JIS ~ SUS 303

Distinctive feature & main attribute: a rustproof, free cutting chromium-nickel-steel alloy, proving a high machinability but being inapplicable to welding.

Use & application range: this alloy's typical areas include turned parts as well as the food, colour and paper industry.

REFERENCE ANALYSIS %	C	Si	Mn	P	S	Cr	Mo	Ni	Cu	N	Fe
	max. 0.10	max. 1.00	max. 2.00	max. 0.045	max. 0.15 0.35	17.00 19.00	max. 0.70	8.00 10.00	max. 1.00	max. 0.11	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"> ∅ < 2.00 mm, cold drawn, polished; ISO h8 ∅ ≥ 2.00 mm, cold drawn, ground, polished; ISO h7; surface finish Ra 0.4 (N5) ∅ straight sizes from 2.00 – 12.00 mm, also in ISO h6 Tighter tolerances on request
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MECHANICAL PROPERTIES	At delivery status: <ul style="list-style-type: none"> Tensile strength (R_m): 750 – 1000 MPa, size depending
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HEAT TREATMENT	<ul style="list-style-type: none"> Soft annealing: 1050 °C, cooling in water Hardening and tempering by heat treatment is impossible
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CUTTING RATES	<ul style="list-style-type: none"> $v_c \sim 40 - 70$ m/min, short-chipping, value depending on the lubrication oil, cutting tools and shape of parts. Cutting oil: e.g. INOX or ORTHO NFX of Motorex
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