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TECHNICAL DATASHEET

[AISI 304]

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► GENERAL DESCRIPTION

AISI 304 (UNS S30400) is one of the most widely used austenitic stainless steels, offering excellent corrosion resistance, good formability, and reliable weldability. With its relatively high chromium and nickel content, this material provides stable oxidation resistance and corrosion resistance in a wide range of environments.

AISI 304 also offers good ductility and machinability, and its strength can be moderately improved through cold working. Due to its well-balanced overall performance, it is commonly used in food processing equipment, chemical equipment, architectural decoration, and other general industrial applications.

► DESIGNATIONS & STANDARDS

DIN	ASTM	UNS	EN 10088	JIS
1.4301	A240 / F899	S30400	X5CrNi18-10	SUS304

► PRODUCT FORMS & APPLICABLE STANDARDS

Product Form	Applicable Standards
Plate / Sheet	ASTM F899 Class 3; ASTM A240; ASTM A666; EN 10088-2; JIS G4305
Bar / Rod	ASTM F899 Class 3; ASTM A276; ASTM A479; AMS 5639; EN 10088-3; JIS G4303
Wire	ASTM F899 Class 3; ASTM A580; ASTM A313; AMS 5697; EN 10088-3; JIS G4309
Tube / Pipe	ASTM F899 Class 3; ASTM A312 ; ASTM A213; ASTM A269 ; JIS G3459

► CHEMICAL COMPOSITION (MASS %) *In accordance with: [ASTM A666]*

Element	C	Mn	P	S	Si	Cr	Ni	N	Fe
Content (%)	≤0.08	≤2.00	≤0.045	≤0.030	≤0.75	18.00-20.00	8.00-10.50	≤0.10	Balance

► HEAT TREATMENT

Condition	Tensile Strength (MPa)	Yield Strength (MPa)	Elongation (4D)	Reduction of Area (%)	Hardness (HRB)
Annealed	≥515	≥205	40	/	≥92
1/4 Hard	≥860	≥515	12	/	/
1/2 Hard	≥1035	≥760	7	/	/

► APPLICATIONS

Condition	Dimension
Medical	Medical trays / Instrument cabinets / Equipment housings / Sterilization baskets / Non-implant medical structural parts
Aerospace	Piping / Brackets / Cabin assembly parts / Instrument housings / Low-load structural parts
Industrial	Food processing equipment / Chemical containers / Pipelines / Flanges / Bolts / Mechanical housings
Mechanical engineering	Robot housings / Brackets / Mounting plates / Protective covers / Lightly corrosive environment structural parts

► AVAILABLE FORMS

Available Form	Size Range	Surface Finish	Length (Customizable)	Tolerance (Customizable)	Delivery Condition
Plate	T0.5-T200.0mm	Milled	L:200/250/300 W:200/300/500/1000	-0.0/+1.0mm	Solution treatment/Cold working
Bar	φ1.0-φ200.0mm	Ground / Precision Polished	3M/PCS	h6-h9	Solution treatment/Cold working
Wire	φ1.0-φ3.0mm	Ground / Precision Polished	1M/PCS	h6-h9	Solution treatment/Cold working
Tube	OD: 1.0-10.0mm ID:0.08mm-2.0mm	Ground / Precision Polished	3M/PCS	h6-h9	Solution treatment/Cold working

Materials, specifications or special requirements not shown in the table can all be customized. Please contact our sales team.

► TESTING & CERTIFICATION

TESTING CAPABILITIES	QUALITY & TRACEABILITY
- Chemical: OES · O/N/H analyzer - Mechanical: tensile · Rockwell/Vickers · impact - NDT: ultrasonic testing (UT) - Metallography: optical & electron microscope - Dimensional: straightness / roundness / coaxiality	- ERP full-process traceability · heat-number control - Batch consistency control - Third-party testing: on request, at extra cost - Standards: ASTM · ISO · EN · AMS · DIN - MTC with each shipment

CERTIFICATION: ISO 13485 · ISO 9001

THIRD-PARTY TESTING: SGS



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