AUSTENITIC STEELS

Application Segments

Oil & Gas/CPI

Available Product Variants

Long Products

Product Description

Weldable, non-magnetic austenitic stainless steel with resistance to seawater and intergranular corrosion. Does not require post-weld heat treatment. It offers best galling resistance of all stainless steels and high pitting resistance.
The oxidation resistance of P513 is far superior to common Cr-Ni austenitic stainless steels (Type 304) but not quite as good as for Cr-Ni-Mo Types (316), but it offers better chloride pitting resistance, stress corrosion cracking resistance and crevice corrosion resistance than Type 316 under standard testing conditions.
P513 is a high Silicon, high Manganese, Nitrogen strengthened austenitic stainless alloy that was originally designed as a temperature alloy and therefore performs well at high temperature around 1800°F. The additions of silicon and manganese assist to inhibit wear, galling and fretting even in the annealed condition. Through cold working P513, it is possible to attain higher strengths, however it does not enhance the anti-galling properties

It is used in the Aerospace, Food and Drug, Oil Field, Petrochemical, Surgical and Chemical Processing Industries for e.g. Valve Stems, Seats and Trim, Fastening Systems, Screening, Chain-drive Systems, Pins, Bushings and Roller Bearings, Pump Components (Wear Rings and Lobes), Food-Contact applications.

Process Melting

Airmelted

Applications

- Comps. for Food processing and Animal Feed
- Fasteners, Bolts, Nuts
- Forging Applications
- Other Oil and Gas + CPI comps.
- Valves and Actuators
- Wire Lines
- Distributors for Component Applications
- Flowlines & Connectors
- Mechanical Engineering
- Steel Industry
- Well Completion Tools
- Other Components
- Distributors or producers of standard parts without knowledge of final applications
- Food processing Industry
- Oil & Gas
- Tubular Products, Flanges, Fittings
- Wellhead, X-mas trees and Manifolds (incl. Tubing hangers), BOPs
- Well Logging Tools

Technical data

Material designation	
S21800	UNS
Nitronic 60	Market grade

Standards	
A193	ASTM
A194	
A276/A276M	
A479/A479M	

Chemical composition (wt. %)

C	Si	Mn	P	S	Cr	Ni	N
max. 0.10	3.5 to 4.5	7.0 to 9.0	max. 0.060	max. 0.030	16.0 to 18.0	8.0 to 9.0	0.08 to 0.18

For more information see https://www.voestalpine.com/bohler-edelstahl/de/

The data contained in this brochure is merely for general information and therefore shall not be binding on the company. We may be bound only through a contract explicitly stipulating such data as binding. Measurement data are laboratory values and can deviate from practical analyses. The manufacture of our products does not involve the use of substances detrimental to health or to the ozone layer.

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ONE STEP AHEAD.