

CORROSIONS-RESISTANT STEELS - AUSTENITIC STEELS AND NON MAGNETIC STEELS

Application Segments

Oil & Gas/CPI

Available Product Variants

Long Products*

Semi-Finished Products / Billet

* Presented data refer exclusively to long products. Please observe the detailed explanations at the end of the data sheet (pdf).

Product Description

BÖHLER A962RC (Alloy 904L, UNS N08904) is a super-austenitic stainless steel designed for a medium to high level of corrosion resistance. The alloy contains high levels of chromium and nickel with additions of molybdenum and copper to provide higher corrosion resistance in certain media.

The alloy is produced to low carbon levels for use in the welded condition as in welded vessels and other large and complex fabrications. No post-weld heat treatment required. The high nickel (25%) and molybdenum (4.5%) contents of BÖHLER A962RC provide good resistance to chloride stress corrosion cracking. The Chromium, molybdenum and nickel levels provide general corrosion resistance and resistance to chloride pitting corrosion above the level of Types 316 and 317 in many media. The copper addition provides added resistance to reducing media such as hot phosphoric acid and dilute sulfuric acid.

Process Melting

Airmelted

Applications

- > Components for Chemical plants (incl. LNG, FGD, Urea, LDPE, etc.)
- > Flowlines & Connectors
- > Tubular Products, Flanges, Fittings
- > Wellhead, X-mas trees and Manifolds (incl. Tubing hangers), BOPs
- > Mechanical Engineering
- > CPI (incl. LNG, Urea)
- > Other Oil and Gas + CPI components
- > Well Completion Tools
- > Components for food processing and animal feed
- > Drilling tools and components
- > Shafts
- > Well Logging Tools
- > Shafts for Mechanical Engineering

Technical data

Material designation		Standards	
904L	Market grade	10088-3	EN ISO
1.4539	SEL	A182/A182M	ASTM
X1NiCrMoCu25-20-5	EN	A479/A479M	
N08904	UNS		

Chemical composition (wt. %)

C	Si	Mn	P	S	Cr	Mo	Ni	Cu	N
max. 0.020	max. 1.00	max. 2.00	max. 0.045	max. 0.035	19.0 to 23.0	4.0 to 5.0	23.0 to 28.0	1.0 to 2.0	max. 0.10

Refers to ASTM A479 - 904L.

Delivery condition

Solution Annealed + Quenched

Tensile Strength (MPa)	min. 490
Yield Strength (MPa)	min. 220

Round Bars and Wire Rod (if any)

Diameter*			
mm			
ROLLED			
5.00	-	13.50	
12.50	-	130.00	
FORGED			
130.10	-	254.00	

* Diameter 5.00 - 13.50 mm available as Wire Rod.

Diameter 12.5 - 130 mm round bars.

More information regarding MOQ, lengths and tolerances upon request. Flat bars on request.

If other available product variants are listed in addition to long products, please note that these may differ in terms of melting process, technical data, delivery and surface condition as well as available product dimensions. For mandatory technical specifications, other requirements and dimensions, please contact our regional voestalpine BÖHLER sales companies. 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.