

# CORROSIONS-RESISTANT STEELS - AUSTENITIC STEELS AND NON MAGNETIC STEELS

## Application Segments

Oil &amp; Gas/CPI

## Available Product Variants

Long Products

## Product Description

BÖHLER A220 is a low carbon, chromium-nickel-and molybdenum steel. Structure homogeneous, stable austenite. Weldable with analogous filler metal giving fully austenitic deposit. Resistant to intergranular corrosion in the temperature range up to 400°C. Does not require post-weld heat treatment. Resistance to acids having a reducing effect, like diluted sulphuric acid and hydrochloric acid is good. The steel is not susceptible to pitting, crevice and stress corrosion cracking in media containing chloride ions and possesses excellent resistance to the attack of urea. For optimum resistance, surfaces should be pickled. Cold forming properties are good. The steel is capable of taking a mirror finish.

Components for urea plants, pump heads, valve stems, condensers, reactors, strippers, scrubbers. Equipment and parts in the dyeing industry, textile, paper and leather, chemical, pharmaceutical and synthetic fibre industries.

## Process Melting

Airmelted + ESR

## Applications

- > Components for Chemical plants (incl. LNG, FGD, Urea, LDPE, etc.)  
 > Oil & Gas / CPI
 

 > Other Oil and Gas + CPI components  
 > Oil & Gas, CPI & Renewables
 

 > Chemical industry - general  
 > CPI (incl. LNG, Urea)

## Technical data

Material designation		Standards	
316L UG	Market grade	10088-3	EN ISO
1.4435	SEL	A182/A182M	ASTM
X2CrNiMo18-14-3	EN		
S31603	UNS		
F316 L	ASTM		

## Chemical composition (wt. %)

C	Si	Mn	P	S	Cr	Mo	Ni	N
max. 0.030	max. 1.00	max. 2.00	max. 0.045	max. 0.030	16.0 to 18.0	2.00 to 3.00	10.0 to 15.0	max. 0.10

Related to ASTM A182.

## Delivery condition

### Solution Annealed + Quenched

Tensile Strength (MPa)	min. 485
Yield Strength (MPa)	min. 170

### Round Bars and Wire Rod (if any)

Diameter mm		
<b>ROLLED</b>		
12.50	-	130.00
<b>FORGED</b>		
130.10	-	600.00

More information regarding MOQ, length and tolerance upon request. Flat Bars upon 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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