

AUSTENITIC STEELS

Application Segments

Oil & Gas/CPI

Available Product Variants

Long Products

Product Description

BÖHLER A959 (Alloy 28, UNS N08028, W. Nr. 1.4563) is a nickel-iron-chromium alloy with additions of molybdenum and copper. It has excellent resistance to both reducing and oxidizing acids, to stress-corrosion cracking, and to localized attack such as pitting and crevice corrosion. The alloy is especially resistant to sulphuric and phosphoric acid. Equipment used for chemical processing, pollution control equipment, oil and gas well piping, natural gas and oil transportation, nuclear fuel reprocessing and transportation, acid production and pickling equipment and transportation. The alloy was originally developed for use in the manufacture of phosphoric acid, especially for heat exchangers in the concentration unit, where corrosive conditions are at their worst.

Process Melting

Airmelted

Applications

- > Chemical industry - general
- > Heat Exchanger
- > Paper and Pulp Industry / Printing
- > Well Logging Tools
- > Comp. for Chemical plants (incl. LNG, FGD, Urea, LDPE, etc.)
- > Oil & Gas
- > Storage technology
- > Wellhead, X-mas trees and Manifolds (incl. Tubing hangers), BOPs
- > CPI (incl. LNG, Urea)
- > Other Oil and Gas + CPI comps.
- > Well Completion Tools

Technical data

Material designation		Standards	
Alloy 28	Market grade	10088-3	EN ISO
1.4563	SEL		
X1NiCrMoCu31-27-4	EN		
N08028	UNS		

Chemical composition (wt. %)

C	Si	Mn	P	S	Cr	Mo	Ni	Cu	N
max. 0.020	max. 0.70	max. 2.00	max. 0.030	max. 0.010	26.0 to 28.0	3.0 to 4.0	30.0 to 32.0	0.70 to 1.50	max. 0.10

Refers to DIN EN 10088-3 1.4563.

Delivery condition

Solution Annealed + Quenched	
Hardness (HB)	max. 230
Tensile Strength (MPa ksi)	500 to 750 73 to 109
Yield Strength (MPa ksi)	min. 220 32

Round Bars and Wire Rod (if any)

		Diameter			
mm				inch	
ROLLED					
12.50	-	130.00	0.492	-	5.118
FORGED					
130.10	-	203.20	5.122	-	8.000

More information regarding MOQ, lengths and tolerances upon request.

For additional specifications and other sizes please contact BÖHLER Edelstahl - Special Materials Oil & Gas

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.