

CORROSION-RESISTANT STEELS - FERRITIC-AUSTENITIC (DUPLEX) 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 A930 is a stainless ferritic-austenitic steel of the 25%Cr type. Highest corrosion resistance and good strength properties. Good weldability, heat treatment after welding is not required.

Excellent resistance to general corrosion, stress corrosion cracking, vibration cracking, pitting and crevice corrosion as well as erosion corrosion.

Max. operating temperature for long-term use: 280°C (short-term exceeding up to 300°C permissible).
Required surface finish: pickled or machined.

BÖHLER A930 (UNS S32550, 1.4507, F61) is the original super duplex stainless steel. As such, it was the first alloy to be called "super duplex" and is based on a chromium content of 25 %. Compared to the later alternatives UNS S32750 and UNS S 32760, it is the only grade with an increased copper content for better pitting corrosion resistance.

Components in offshore, waste water, seawater desalination and chemical plants with aggressive chloride-containing media, e.g. heat exchangers, separator parts, compressor and pump components, turbine blades.

Process Melting

Airmelted

Applications

- > Components for Chemical plants (incl. LNG, FGD, Urea, LDPE, etc.)
- > CPI (incl. LNG, Urea)
- > Food processing industry
- > Other Oil and Gas + CPI components
- > Valves and Actuators
- > Oil & Gas, CPI & Renewables
- > Components for the recycling industry
- > Fasteners, Bolts, Nuts
- > Oil & Gas / CPI
- > Pumps and High Pressure Components
- > Well Completion Tools
- > Well Logging Tools
- > Components for food processing and animal feed
- > Flowlines & Connectors
- > Other Components
- > Tubular Products, Flanges, Fittings
- > Wellhead, X-mas trees and Manifolds (incl. Tubing hangers), BOPs

Technical data

| Material designation | | Standards | |
|----------------------|--------------|------------|--------|
| F61 | Market grade | 10088-3 | EN ISO |
| 1.4507 | SEL | A276/A276M | ASTM |
| X2CrNiMoCuN25-6-3 | EN | A182/A182M | |
| S32550 | UNS | A479/A479M | |

Chemical composition (wt. %)

| C | Si | Mn | P | S | Cr | Mo | Ni | Cu | N |
|-----------|-----------|-----------|------------|------------|--------------|------------|------------|--------------|--------------|
| max. 0.04 | max. 1.00 | max. 1.50 | max. 0.040 | max. 0.030 | 24.0 to 27.0 | 2.9 to 3.9 | 4.5 to 6.5 | 1.50 to 2.50 | 0.10 to 0.25 |

Refers to ASTM A479 - UNS32550.

Delivery condition

Solution Annealed + Quenched

| | |
|------------------------|----------|
| Hardness (HB) | max. 297 |
| Tensile Strength (MPa) | min. 760 |
| Yield Strength (MPa) | min. 550 |

Round Bars and Wire Rod (if any)

| Diameter* mm | |
|-----------------|--------|
| ROLLED | |
| 5.00 | 13.50 |
| 12.50 | 130.00 |
| FORGED | |
| 130.10 | 304.80 |

* 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.