# FERRITIK VE MARTENSITIK ÇELIKLER, ÇÖKELME SERTLEŞEBILEN ÇELIKLER

## Application Segments

Oil & Gas/CPI | Land Based Turbines

## Mevcut Ürün Şekilleri

Uzun Ürünler* | Yarı Mamül Ürünler / Kütük | Açık Kalıpta Dövme

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

## Ürün Tanımı

BÖHLER N400 is a stainless soft martensitic Cr steel with 4% nickel with molybdenum addition and medium corrosion resistance in media with only a low chloride content. To achieve the best possible corrosion resistance with BÖHLER N400, it is essential to polish the surfaces concerned. Good mechanical properties in the quenched and tempered condition. This makes this material very suitable for use in turbine and power plant construction. Very good low-temperature properties. Recommended temperature of use: - 60 to 350°C.
Use for valves, pumps, compressors, centrifuges, hydroelectric machines, turbines, reactor technology, shipbuilding, chemicals.
Special heat treatment to max. 23 HRC is required for sour gas enviroment in petroleum engineering.

## Erime rotası

Airmelted

## Uygulamalar

- Blades & Shafts for Turbines and Compressors
- Gıda İşleme ve Hayvan Yemi Endüstrileri için Parçalar
- Makine Mühendisliği için Genel Parçalar
- Diğer Parçalar
- Power Generation (Gas/Steam/ Nuclear)
- Steam Valves
- Water Power
- Kimya Tesisleri için Parçalar (LNG, FGD, Üre, LDPE tesisleri vs. dahil)
- Gıda İşleme Endüstrisi
- Makine Mühendisliği / Makine İmalatı, Genel
- Diğer Petrol ve Gaz + Kimya Tesisi Parçaları
- Pompalar ve Yüksek Basınç Parçaları
- Borusal Ürünler, Flanşlar, Fitingler
- Kuyubaşı, Noel Ağaçları ve Manifoldlar (Boru askıları dahil), Kaçak Önleyiciler
- Endüstriyel Gaz Kompresörleri için Parçalar
- Dövme Uygulamaları
- Petrol ve Gaz
- Diğer Enerji Üretimi Parçaları
- Miller
- Vanalar ve Aktüatörler
- Kimya Endüstrisi (LNG, Üre dahil)

## Teknik veriler

| Malzeme Tanımı | |
|---|---|
| F6NM | Market grade |
| 1.4313 | SEL |
| X3CrNiMo13-4 | EN |
| S41500 | UNS |

| Standartlar | |
|---|---|
| 10088-3 | EN ISO |
| A182/A182M | ASTM |

## Kimyasal Bileşim

| C | Si | Mn | P | S | Cr | Mo | Ni | N |
|---|---|---|---|---|---|---|---|---|
| maks. 0,05 | maks. 0,70 | maks. 1,50 | maks. 0,040 | maks. 0,015 | 12,0 kadar 14,0 | 0,30 kadar 0,70 | 3,5 kadar 4,5 | min. 0,020 |

Refers to EN ISO 10088-3 1.4313

## Teslimat durumu

### Annealed

| | |
|---|---|
| Sertlik (HB) | maks. 320 |
| Çekme mukavemeti (MPa) | maks. 1.100 |

### Hardened and Tempered | QT700

| | |
|---|---|
| Çekme mukavemeti (MPa) | 700 kadar 850 |
| Akma dayanımı (MPa) | min. 520 |

### Hardened and Tempered | QT780

| | |
|---|---|
| Çekme mukavemeti (MPa) | 780 kadar 980 |
| Akma dayanımı (MPa) | min. 620 |

### Hardened and Tempered | QT900

| | |
|---|---|
| Çekme mukavemeti (MPa) | 900 kadar 1.100 |
| Akma dayanımı (MPa) | min. 800 |

### Yuvarlak çubuklar

| Çap mm | | |
|---|---|---|
| **Haddelenmiş** | | |
| 12,50 | - | 130,00 |
| **DÖVÜLMÜŞ** | | |
| 130,10 | - | 1.040,00 |

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

**Long Products**: For additional specifications, technical requirements, and other dimensions, please contact our regional voestalpine BÖHLER sales companies.

**Open Die Forgings**: Product Variant may differ in terms of melting process, technical data, delivery, and surface condition as well as available product dimensions. Please contact the business unit Open Die Forgings of voestalpine BÖHLER Edelstahl GmbH & Co KG.

**Semi-Finished Products**: Product Variant may differ in terms of melting process, technical data, delivery, and surface condition as well as available product dimensions. Please contact the business unit Semi Finished Products of voestalpine BÖHLER Edelstahl GmbH & Co KG.



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voestalpine
ONE STEP AHEAD.