OȚELURI REZISTENTE LA COROZIUNE - OȚELURI MARTENSITICE CĂLITE (PH)

Application Segments

Inginerie

Available Product Variants

Long Products* | Semi-Finished Products / Billet

* Datele prezentate se referă exclusiv la produsele lungi. Vă rugăm să respectați explicațiile detaliate de la sfârșitul fișei tehnice (pdf).

Product Description

BÖHLER N700 is a martensitic, corrosion-resistant, precipitation-hardenable chromium-nickel-copper steel with high strength and toughness. Further increases in strength can be achieved by cold forming and subsequent precipitation hardening.
These products are typically used for parts that require higher corrosion resistance than the usual 13% or 17% chromium steels and high strength. Various remelting processes are used to improve steel purity and homogeneity. (ESR, PESR, VAR).
Certain processing methods and operating conditions can make these products susceptible to stress corrosion cracking. For applications such as bolting where stress corrosion cracking is possible, the product should be aged for at least 4 hours at the highest temperature compatible with the strength requirements, but in no case lower than 552 °C.
Typical engineering applications include surgical and dental instruments as well as aerospace components, reactor construction, highly stressed pump parts, springs and ship shafts.

Process Melting

Airmelted + ESR

Applications

- Inginerie civilă și mecanică
- Arbori
- Turnare prin injecție
- Surgery
- Shafts for Mechanical Engineering
- Inginerie mecanică
- Pompe și componente de înaltă presiune
- Components
- Turbo Chargers
- Other Industrial Components
- Matrițe de injecție și șuruburi pentru prelucrarea materialelor plastice ranforsate cu fibră de sticlă
- Elemente de fixare, șuruburi, piulițe
- Filling
- Other Automotive Components (Sealing Rings, Sensors, Steering Systems)

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BÖHLER N700

Technical data

Material designation	
17-4 PH	Market grade
1.4542	SEL
X5CrNiCuNb16-4	EN
S17400	UNS
630	AISI

Standards	
A564 F899	ASTM

Chemical composition (wt. %)

C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Nb
max. 0.07	max. 1.00	max. 1.00	max. 0.040	max. 0.030	15.00 to 17.50	max. 0.60	3.00 to 5.00	3.00 to 5.00	0.15 to 0.45

Related to ASTM A564

Delivery condition

Soluție recoaptă + călire	
Hardness (HB)	max. 363

Soluție recoaptă + călire	
Hardness (HRC)	max. 38 | Optional on sizes, smaller than 12.7mm

Round Bars and Wire Rod (if any)

Diameter* mm		
ROLLED		
5.00	-	13.50
15.00	-	65.00

* Diameter 5.00 - 13.50 mm available as Wire Rod.

Diameter 15 - 65 mm round bars.

More information regarding MOQ, lengths and tolerances 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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ONE STEP AHEAD.