

ALLIAGES À BASE DE NICKEL

Segment d'application

Oil & Gas/CPI

Variantes de produits disponibles

Produit long*

Produit semi-fini

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

Description du produit

BÖHLER L725 (UNS N07725) is a nickel chromium-molybdenum-niobium alloy that is highly resistant to corrosion and is age hardenable for extremely high strength. It has essentially the same corrosion resistance as alloy 625, which is widely used in a broad range of severely corrosive environments in the oil & gas sector. The strength of age-hardened BÖHLER L725 is of the order of twice that of annealed Alloy 625 and comparable alloy 718.

High levels of nickel and chromium provide corrosion resistance in reducing and oxidizing environments. The substantial molybdenum content enhances resistance to reducing media and provides a high degree of resistance to pitting and crevice corrosion. Additionally, the combination of elements makes the alloy resistant to hydrogen embrittlement and stress corrosion cracking.

The properties of BÖHLER L725 are useful for a range of applications that require outstanding corrosion resistance along with high strength high ductility and toughness. Originally developed for Oil Patch applications such as well head and subsurface completions, it has been used as pressure containing, flow wetted components in subsurface safety valves and other down hole components. BÖHLER L725 is approved under NACE MR0175 for use in sour gas wells.

The alloy is used for hangers, landing nipples, side pocket mandrels and polished bore receptacles in sour gas service, where it resists the effects of hydrogen sulfide, chlorides and carbon dioxide. The alloy is also attractive for Pumps and propeller shafts and for high strength fasteners, Hydraulic couplings in marine applications, where it resists corrosion, pitting and crevice attack in sea water.

Procédé d'élaboration

VIM + VAR

Applications

- > Composants pour l'industrie chimique (LNG, FGD, Urée, LDPE...)
- > Conduites et raccords
- > Autres composants pour l'industrie pétrolière, gazière et chimique
- > Outils pour carottage
- > Chimie et pétrochimie (dont LNG, urée)
- > Industrie pétrolière et gazière
- > Tubes, brides et raccords
- > Tête de forage / BOPs / bloc collecteur
- > Outils de perçage et composants
- > Autres composants
- > Outils pour la réalisation de puits

Données techniques

Désignation normalisée		Normes	
Alloy 725	Market grade	B637	ASTM
N07725	UNS	B805	
		NACE MR0103 / ISO 17945	Others
		NACE MR0175 / ISO 15156	
		API 6A CRA	

Composition chimique

C	Si	Mn	P	S	Cr	Mo	Ni	Ti	Al	Nb	Fe
max. 0,030	max. 0,20	max. 0,35	max. 0,015	max. 0,010	19,0 jusqu'à 22,5	7,00 jusqu'à 9,50	55,0 jusqu'à 59,0	1,00 jusqu'à 1,70	max. 0,35	2,75 jusqu'à 4,00	REM

Refers to API Standard 6A CRA N07725

Condition de livraison

Solution annealed + precipitation hardened

Dureté (HRC)	32 jusqu'à 43
Résistance à la traction (MPa)	min. 1 034
Yield Strength (MPa)	827 jusqu'à 1 034

Barres rondes et fil machine (le cas échéant)

Diamètre mm	
CERCLE	
12,50	101,60
FORMÉ	
101,70	254,00

More information regarding MOQ, lengths and tolerances upon request.

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

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.

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.