NI-BASE ALLOYS

Application Segments

Aerospace | Automotive | Oil & Gas/CPI | Land Based Turbines

Available Product Variants

Long Products* | Semi-Finished Products / Billet | Plates | Open Die Forgings

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

Product Description

BÖHLER L718AMS is a corrosion and heat resistant nickel alloy - precipitation hardenable - in the form of bars, forging and forging stock. High resistance to creep and stress-rupture up to 1300°F (704°C) and oxidation resistance up to 1800°F (982°C).
High duty parts and components for oil & gas and CPI applications, components for automotive, gas turbines, aerospace engines, high-speed airframe parts such as disks, buckets, spacers and high temperature bolts and fasteners.

Process Melting

VIM + VAR

Applications

- Other Aerospace Comps.
- Blades & Shafts for Turbines and Compressors
- Comp. for Chemical plants (incl. LNG, FGD, Urea, LDPE, etc.)
- CPI (incl. LNG, Urea)
- Paper and Pulp Industry / Printing
- Other Oil and Gas + CPI comps.
- Wellhead, X-mas trees and Manifolds (incl. Tubing hangers), BOPs
- Turbine and Engine Parts (Aerosp)
- Chemical industry - general
- Comp. for Industrial Gas Compressors
- Drilling Tools and Components
- Power Generation (Gas/Steam/ Nuclear)
- Well Completion Tools
- Automotive
- Aerospace
- Civil and mechanical engineering
- Comps. for Equip. Below Ground (Boring, Shafts, etc.)
- Fasteners, Bolts, Nuts
- Other Power Generation Components
- Well Logging Tools
- Automotive Racing

Technical data

Material designation	
Alloy 718	Market grade
2.4668	SEL
NiCr19NbMo/ NiCr19Fe19Nb5Mo3	EN
NC19FCNb	
N07718	UNS

Standards	
B637	ASTM
5662	AMS
5663	

Chemical composition (wt. %)

C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Co	Ti	Al	Nb	B	Fe	Pb	Bi	Se
max. 0.08	max. 0.35	max. 0.35	max. 0.015	max. 0.015	17 to 21	2.8 to 3.3	50 to 55	max. 0.3	max. 1	0.65 to 1.15	0.2 to 0.8	4.75 to 5.5	max. 0.006	REM	max. 5ppm	max. 0.3ppm	max. 3ppm

Related to AMS5662

Delivery condition

Solution annealed

Hardness (HB)	max. 277 | bars and forging stock, max 254 mm diameter

Round Bars and Wire Rod (if any)

Diameter*						MOQ ex mill		Length						Tolerance
mm			inch			kg	lbs	m			ft			
ROLLED														
5.00	-	13.50	0.197	-	0.531				-			-		
12.50	-	55.00	0.492	-	2.165	600	1,323	3.00	-	4.00	9.84	-	13.12	IT h/k 12
55.01	-	101.60	2.166	-	4.000	2,550	5,622	3.00	-	4.00	9.84	-	13.12	IT h/k 12
FORGED														
101.61	-	254.00	4.000	-	10.000	2,200	4,850	2.00	-	6.00	6.56	-	19.69	IT h/k 12

* Diameter 5.00 - 13.50 mm available as Wire Rod.

Diameter 12.5 - 101.6 mm round bars.

More information regarding MOQ and tolerances for Wire Rod products upon 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.

Sheet & Plates: Product Variant may differ in terms of melting process, technical data, delivery, and surface condition as well as available product dimensions. Please contact voestalpine BÖHLER Bleche 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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ONE STEP AHEAD.