

# CO-BASE ALLOYS

## Application Segments

Oil &amp; Gas / CPI

## Available Product Variants

Long Products

## Product Description

BÖHLER L035 is a 35-cobalt-35-nickel-20-chromium-10-molybdenum wrought alloy (UNS R30035) in the form of bar material.

It is a vacuum induction melted (VIM) and vacuum arc remelted (VAR) superalloy.

This alloy is typically used in the oil and gas and chemical industries where a combination of high strength, good fatigue resistance, toughness, ductility and exceptionally good corrosion resistance after subsequent ageing is required. However, its use is not limited to such applications.

BÖHLER L035 is a nickel-cobalt based multiphase alloy system with a unique combination of properties e.g. extremely high strength, toughness, ductility and excellent corrosion resistance. The alloy can be strengthened and aged in the factory to achieve strength values of over 260 ksi (1793 MPa) and stress corrosion cracking (SCC) resistance even in hydrogen sulphide. The BÖHLER L035 alloy resists pitting and crevice corrosion caused by seawater, chloride solutions and other corrosive environments, e.g. mineral acids (nitric, hydrochloric, sulphuric acid).

## Process Melting

VIM + VAR

## Applications

- > Oil & Gas / CPI
- > Medical Industry
- > Other Oil and Gas + CPI components
- > Medical
- > Other Components

## Technical data

Material designation		Standards	
MP35N	Market grade	5844	AMS
2.4999	SEL		

## Chemical composition (wt. %)

C	Si	Mn	P	S	Cr	Mo	Ni	Co	Ti	Fe
max. 0.025	max. 0.15	max. 0.15	max. 0.015	max. 0.010	19.00 to 21.00	9.00 to 10.50	33.00 to 37.00	REM	max. 1.00	max. 1.00

Refers to AMS 5844.

## Delivery condition

Solution annealed + cold worked	
Hardness (HRC)	min. 38

## Round Bars and Wire Rod (if any)

Diameter* mm	
ROLLED	
5.00	- 13.50
12.50	- 31.75

\* Diameter 5.00 - 13.50 mm available as Wire Rod.

Diameter 12.5 - 31.75 mm round bars.

Further information on MOQ, lengths and tolerances 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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