

# CO-BASE ALLOYS

## Application Segments

Oil & Gas/CPI
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## Available Product Variants

Long Products
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## Product Description

BÖHLER L035 covers requirements of wrought 35cobalt-35nickel-20chromium-10molybdenum alloy (UNS R30035) in the form of bars. These bars have been used typically for applications in Oil&Gas and CPI requiring a combination of high strength, good tension-tension fatigue strength, toughness, ductility, and exceptionally good corrosion resistance after subsequent aging but usage is not limited to such applications.

BÖHLER L035 is a nickel-cobalt base multiphase alloy system that has a unique combination of properties - ultra high strength, toughness, ductility and outstanding corrosion resistance. The alloy is able to be work-strengthened and aged to obtain strength levels of above 260 ksi (1793MPa) in its full strength and stress corrosion cracking resistance (SCC) for harsh environments. BÖHLER L035 alloy resists corrosion in hydrogen sulfide, salt water and other chloride solutions, as well as the mineral acids (nitric, hydrochloric, sulphuric). In addition, it has exceptional resistance to crevice cracking in seawater and other hostile environments.

The unique capabilities of BÖHLER L035 are derived from the alloy's chemistry, premium melting technology, cold-working, and heat treatment. It is a vacuum induction melted (VIM), vacuum arc re-melted (VAR) superalloy.

## Process Melting

VIM + VAR
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## Applications

- |                    |                                  |                    |
|--------------------|----------------------------------|--------------------|
| > Oil & Gas        | > Other Oil and Gas + CPI comps. | > Other Components |
| > Medical Industry | > Medical                        |                    |

## 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
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### Round Bars and Wire Rod (if any)

		Diameter*			
mm				inch	
ROLLED					
5.00	-	13.50		0.197	-
12.50	-	31.75		0.492	-

\* 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.

For additional specifications and other sizes please contact BÖHLER Edelstahl - Special Materials Oil & Gas

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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