

# HEAT TREATABLE STEELS AND PRECIPITATION HARDENING STEELS

## Application Segments

Aerospace

## Available Product Variants

Long Products

## Product Description

BÖHLER V145 is a Cr-Ni-Mo- steel for applications requiring high tensile and toughness values, in particular in large cross sections in the quenched and tempered condition. The molybdenum addition prevents the steel from being susceptible to temper embrittlement.

Highly stressed components with large cross sections for aircraft, such as gear shafts and landing gear components.

## Process Melting

Airmelted

## Applications

- > Structural parts (Aerosp)
- > Other Aerospace Comps.

## Technical data

Material designation	
1.6604	Market grade SEL
30CND8 30CrNiMo8	EN

## Chemical composition (wt. %)

C	Si	Mn	P	S	Cr	Mo	Ni
0.26 to 0.34	0.15 to 0.40	0.30 to 0.60	max. 0.025	max. 0.025	1.80 to 2.30	0.30 to 0.50	1.80 to 2.30

Related to WL 1.6604

## Delivery condition

Annealed	
Hardness (HB)	max. 248   Bars from 5 to 250 mm diameter
Hardened and Tempered	
Tensile Strength (MPa   ksi)	900 to 1,100   131 to 160   Bars from 5 to 250 mm diameter
Yield Strength (MPa   ksi)	min. 700   102
Hardened and Tempered	
Tensile Strength (MPa   ksi)	1,100 to 1,300   160 to 189   Bars from 5 to 100 mm diameter
Yield Strength (MPa   ksi)	min. 900   131
Hardened and Tempered	
Tensile Strength (MPa   ksi)	1,250 to 1,450   182 to 211   Bars from 5 to 40 mm diameter
Yield Strength (MPa   ksi)	min. 1,050   153

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

Diameter		MOQ ex mill		Length		Tolerance
mm	inch	kg	lbs	m	ft	
<b>ROLLED</b>						
5.01	- 12.49	0.197	- 0.492	850	1,874	3.00 - 4.00   9.84 - 13.12   IT h/k 11
12.50	- 55.00	0.492	- 2.165	1,000	2,205	3.00 - 4.00   9.84 - 13.12   IT h/k 11
55.01	- 69.00	2.166	- 2.717	1,200	2,646	3.00 - 4.00   9.84 - 13.12   IT h/k 11
69.01	- 72.00	2.717	- 2.835	1,000	2,205	3.00 - 4.00   9.84 - 13.12   IT h/k 11
72.01	- 82.00	2.835	- 3.228	1,150	2,535	3.00 - 4.00   9.84 - 13.12   IT h/k 11
82.01	- 120.00	3.229	- 4.724	1,400	3,086	3.00 - 4.00   9.84 - 13.12   IT h/k 11
120.01	- 150.00	4.725	- 5.906	1,400	3,086	3.00 - 5.00   9.84 - 16.40   IT h/k 14

For additional specifications and other sizes please contact BÖHLER Edelstahl - Special Materials Aerospace & Land Based Turbine

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.