

BEARING STEELS

Available Product Shapes

Long Products

Product Description

This specification covers a premium aircraft-quality, double vacuum-melted low-alloy steel in the form of bars, forgings and forging stock.

It is used typically for critical carburized parts such as bearings operating under heavy loads and high speeds at moderate temperatures. E.g. bearings and rolling elements, bearing balls and races.

Process Melting

VIM + VAR

Applications

- > Bearings
- > Turbine and Engine Parts (Aerosp)
- > Other Aerospace Comps.

Material designation		Standards	
13DCNV40	EN	6278	AMS
M50 Nil	Market grade		

Chemical composition (wt. %)

C	Si	Mn	P	S	Cr	Ni	V	W	Cu	Co
0.11 - 0.15	0.10 - 0.25	0.15 - 0.35	< 0.015	< 0.010	4.00 - 4.25	3.20 - 3.60	1.13 - 1.33	< 0.15	< 0.10	< 0.25

Related to AMS 6278

Delivery condition

Annealed

Hardness	max. 27 HRC Cold finished and annealed, max 12.7 mm diameter
Tensile Strength	max. 862 125.018 N/mm ² KSI Cold finished and annealed, max 12.7 mm diameter

Annealed

Hardness	max. 255 HB Hot finished and annealed, above 12.7 mm diameter
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Annealed

Hardness	max. 269 HB Cold finished and annealed, above 12.7 mm diameter
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Available Dimensions

Round Bars

Diameter		MOQ		Length		Tolerance*
mm	inch	kg	lbs	m	ft	
ROLLED						
12.50	- 55.00	0.492	- 2.165	1,250	2,756	3.00 - 4.00 9.84 - 13.12 IT h/k 11
55.01	- 120.00	2.166	- 4.724	1,400	3,086	3.00 - 4.00 9.84 - 13.12 IT h/k 11
120.01	- 125.00	4.725	- 4.921	1,400	3,086	3.00 - 5.00 9.84 - 16.40 IT h/k 14

* ISO 286

For more information see www.voestalpine.com/boehler-edelstahl

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.