

# BEARING STEELS

## Application Segments

Aerospace
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## Available Product Variants

Long Products
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## Product Description

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

It is used typically for parts requiring through hardening properties, usually with hardness of approximately 60 HRC in section thicknesses 0.50 inch (12.7 mm) and under. E.g. bearing rings and rolling elements, bearing balls and races.

## Process Melting

Airmelted + VAR
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## Applications

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

## Technical data

Material designation		Standards	
52100	Market grade	6444	AMS
1.2067	SEL		
102Cr6	EN		

## Chemical composition (wt. %)

C	Si	Mn	P	S	Cr	Mo	Ni	Cu	Al	O
0.93 to 1.05	0.15 to 0.35	0.25 to 0.45	max. 0.015	max. 0.015	1.35 to 1.60	max. 0.10	max. 0.25	max. 0.30	max. 0.050	max. 0.0015

Related to AMS 6444

## Delivery condition

### Annealed

Hardness (HB)	max. 248   Cold finished and annealed, above 12.7 mm diameter
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### Annealed

Hardness (HB)	max. 207   Hot finished and annealed, above 12.7 mm diameter
Tensile Strength (MPa   ksi)	max. 827   120   Cold finished and annealed, max 12.7 mm diameter

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

Diameter		MOQ ex mill		Length		Tolerance
mm	inch	kg	lbs	m	ft	
<b>ROLLED</b>						
12.50	- 55.00	0.492	- 2.165	1,100	2,425	3.00 - 4.00 9.84 - 13.12 IT h/k 11
55.01	- 120.00	2.166	- 4.724	1,200	2,646	3.00 - 4.00 9.84 - 13.12 IT h/k 11
120.01	- 140.00	4.725	- 5.512	1,200	2,646	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

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