HEAT TREATABLE STEELS AND PRECIPITATION HARDENING STEELS

Application Segments

Aerospace | Automotive

Available Product Variants

Long Products

Product Description

BÖHLER V132 is a premium aircraft-quality, low-alloy Ni-Cr-Mo steel in the form of bars, forgings and forging stock requiring high tensile and toughness values, particular in large cross sections in the hardened and tempered condition.

These products have been used typically for parts requiring a through-hardening capability up to 3.5 inches (89 mm) in nominal thickness at time of heat treatment but usage is not limited to such applications. E.g. highly stressed components and parts for the aircraft industry, Tracks, helicopter shafts, bolts and screws.

Process Melting

Airmelted + VAR

Applications

- Structural parts (Aerosp)
- Automotive
- Other Aerospace Comps.
- Automotive Racing

Technical data

Material designation	
300M	Market grade
K44220	UNS

Standards	
6417	AMS

Chemical composition (wt. %)

C	Si	Mn	P	S	Cr	Mo	Ni	V	Cu
0.38 to 0.43	1.45 to 1.80	0.60 to 0.90	max. 0.010	max. 0.010	0.70 to 0.95	0.30 to 0.50	1.65 to 2.00	0.05 to 0.10	max. 0.35

Refers to AMS 6417

Delivery condition

Annealed

Hardness (HB)	max. 311 | Hot finished and annealed, above 12.7 mm diameter

Annealed

Tensile Strength (MPa | ksi)	max. 1,027 | 149 | 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			
ROLLED														
12.50	-	55.00	0.492	-	2.165	1,200	2,646	3.00	-	4.00	9.84	-	13.12	IT h/k 11
55.01	-	120.00	2.166	-	4.724	2,500	5,512	3.00	-	4.00	9.84	-	13.12	IT h/k 11
120.01	-	140.00	4.725	-	5.512	2,500	5,512	3.00	-	5.00	9.84	-	16.40	IT h/k 14
FORGED														
140.01	-	203.20	5.512	-	8.000	2,200	4,850	2.00	-	5.00	6.56	-	16.40	IT h/k 14
203.21	-	254.00	8.000	-	10.000	3,500	7,716	2.00	-	5.00	6.56	-	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 bebound only through a contract explicitly stipulating such data as binding. Measurement data are laboratory values and can deviate frompractical 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.