

HEAT TREATABLE STEELS AND PRECIPITATION HARDENING STEELS

Application Segments

Aerospace

Automotive

Available Product Variants

Long Products*

Semi-Finished Products / Billet

Open Die Forgings

*) Presented data refer exclusively to long products. Please observe the detailed explanations at the end of the data sheet (pdf).

Product Description

BÖHLER V358 in the British Standard Aerospace Series is a 3% Cr-Mo-V nitriding steel offering a tensile strength of 1,320-1,470 MPa, combined with excellent hardenability for high core strength and develops a hard wear resistant case after surface treatment. The alloy is produced by vacuum arc remelting. (VAR)

Typical applications are gear shafts and crankshafts with maximum diameter of 70mm for the aircraft industry and automotive components.

Process Melting

Airmelted + VAR

Applications

- > Other Aerospace Comps.
- > Automotive
- > Structural parts (Aerosp)
- > Automotive Racing
- > Turbine and Engine Parts (Aerosp)

Technical data

Material designation		Standards	
E40CDV12	Market grade	S132	BS
1.8523	SEL		
40CrMoV13-9	EN		

Chemical composition (wt. %)

C	Si	Mn	P	S	Cr	Mo	Ni	V	Sn
0.35 to 0.43	0.10 to 0.35	0.40 to 0.70	max. 0.020	max. 0.020	3.0 to 3.5	0.80 to 1.10	max. 0.30	0.15 to 0.25	max. 0.030

Related to BS S132

Delivery condition

Annealed

Hardness (HB)	max. 277
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Round Bars and Wire Rod (if any)

Diameter						MOQ ex mill		Length						Tolerance
mm			inch			kg	lbs	m			ft			
ROLLED														
5.01	-	12.49	0.197	-	0.492	1,100	2,425	3.00	-	4.00	9.84	-	13.12	IT h/k 11
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	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	3.00	-	5.00	9.84	-	16.40	IT h/k 14

Long Products: For additional specifications, technical requirements, and other dimensions, please contact our regional voestalpine BÖHLER sales companies.

Open Die Forgings: Product Variant may differ in terms of melting process, technical data, delivery, and surface condition as well as available product dimensions. Please contact the business unit Open Die Forgings of voestalpine BÖHLER Edelstahl GmbH & Co KG.

Semi-Finished Products: Product Variant may differ in terms of melting process, technical data, delivery, and surface condition as well as available product dimensions. Please contact the business unit Semi Finished Products of voestalpine BÖHLER Edelstahl GmbH & Co KG.

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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voestalpine
 ONE STEP AHEAD.