

ENGINEERING STEELS - HEAT TREATABLE AND NITRIDING STEELS

Application Segments

Aerospace

Automotive

Available Product Variants

Long Products

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 Components
- > Automotive
- > Structural parts (Aerospace)
- > Motorsport industry
- > Turbine and Engine Parts (Aerospace)
- > Aerospace

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 mm			MOQ ex mill kg	Length m			Tolerance
ROLLED							
5.01	-	12.49	1,100	3.00	-	4.00	IT h/k 11
12.50	-	55.00	1,250	3.00	-	4.00	IT h/k 11
55.01	-	120.00	2,500	3.00	-	4.00	IT h/k 11
120.01	-	140.00	2,500	3.00	-	5.00	IT h/k 14
FORGED							
140.01	-	203.20	2,200	3.00	-	5.00	IT h/k 14

If other available product variants are listed in addition to long products, please note that these may differ in terms of melting process, technical data, delivery and surface condition as well as available product dimensions. For mandatory technical specifications, other requirements and dimensions, please contact our regional voestalpine BÖHLER sales companies. 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.