

CASE HARDENING STEELS

Application Segments

Aerospace	Automotive
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Available Product Variants

Long Products*	Semi-Finished Products / Billet
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*) Presented data refer exclusively to long products. Please observe the detailed explanations at the end of the data sheet (pdf).

Product Description

BÖHLER E108 is a 4%-Nickel-chromium-molybdenum steel in VAR quality for applications requiring high core strength, high toughness and for bigger dimensions. Hardness in carburized layer above 58 HRC. Service temperature max. 200°C. Non corrosion resistant. Compared to Airmelt and ESR quality the content of non-metallic inclusions and segregation is lower, the toughness properties and the fatigue properties transverse to grain flow direction are better.

Process Melting

Airmelted + VAR

Applications

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

Technical data

Material designation		Standards	
S156	Market grade	S156	BS

Chemical composition (wt. %)

C	Si	Mn	P	S	Cr	Mo	Ni
0.14 to 0.18	0.1 to 0.35	0.25 to 0.55	max. 0.015	max. 0.012	1 to 1.4	0.2 to 0.3	3.8 to 4.3

Related to BS S156

Delivery condition

Annealed	
Hardness (HB)	max. 277 S156A, forging stock bars for subsequent working
Normalized, Tempered	
Hardness (HB)	max. 277 S156D, bright bars for machining
Normalized, Tempered	
Hardness (HB)	max. 277 S156B, bars for machining

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	1,300	2,866	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 11

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

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.