

HEAT TREATABLE STEELS AND PRECIPITATION HARDENING STEELS

Available Product Shapes

[Long Products](#)
[Open Die Forgings](#)
[Semi-Finished Products / Billet](#)

Product Description

V361 is a 3% Cr-Mo-V nitriding grade of premium aircraft-quality, low-alloy steel offering a tensile strength of up to over 1350MPa in the form of bars, forgings, and forging stock. Due to the optimized production route via VIM-melting and VAR-remelting, the steel offers high impact strength and fatigue limit. It may be nitrided in the heat treated condition to obtain a wear resistant surface.

It is used typically for nitrided parts such as bearings, operating under heavy loads and high speeds at moderate temperatures, and requiring highest surface hardness, high core toughness, and less distortion than parts made from case hardening steel, but usage is not limited to such applications.

Process Melting

[VIM + VAR](#)

Applications

- [> Bearings](#)
- [> Other Aerospace Comps.](#)
- [> Structural parts \(Aerosp\)](#)
- [> Turbine and Engine Parts \(Aerosp\)](#)

Material designation		Standards	
1.7765	SEL	6481	AMS
E32CDV13	Market grade		

Chemical composition (wt. %)

C	Si	Mn	P	S	Cr	Mo	Ni	V	Cu
0.29 - 0.36	0.10 - 0.40	0.40 - 0.70	< 0.015	< 0.005	2.80 - 3.30	0.70 - 1.20	< 0.30	0.15 - 0.35	< 0.10

Related to AMS 6481

Delivery condition

Annealed

Tensile Strength | max. 862 | 125.018 N/mm² | KSI | max 12.7 mm diameter, cold finished

Annealed

Hardness | max. 255 HB | above 12.7 mm diameter, hot finished

Annealed

Hardness | max. 269 HB | above 12.7 mm diameter, cold finished

Available Dimensions

Round Bars

Diameter		MOQ		Length				Tolerance*						
									mm	inch	kg	lbs	m	ft
ROLLED														
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

* ISO 286

For more information see www.voestalpine.com/boehler-edelstahl

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 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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ONE STEP AHEAD.