

STEEL



(E)32CDV13 (AIR9160C)

A structural steel with good
hardening properties for nitriding

Ideal for components that require good impact
and fatigue resistance, and ductility

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Features and benefits

- Tensile Strength (1080MPa)
- Excellent hardenability for high core strength
- Develops hard wear resistant case after surface treatment
- Excellent transverse properties in remelted material

Related specifications

- AMS6481
- AIR0819
- BLFF192101
- NCT 15-124-13
- CCT00310

Typical applications

- Gearbox shafts
- Crankshafts
- Camshafts
- Ring gears

Chemical Analysis

	C	Si	Mn	P	S	Cr	Mo	Ni	Sn	V
Min	0.29	0.10	0.40			2.80	0.70			0.15
Max	0.36	0.40	0.70	0.025	0.020	3.30	1.20	0.30	0.035	0.35

Mechanical properties of typical specifications

Mechanical properties are (E)32CDV13 (AIR9160C) limits

	Min	Max
0.2 % Proof stress (MP)	880	
Rm (N/mm ²)	1080	1280
Elongation %	12	
Hardness HB	377	341
Impact J/cm ² ISO KCU	100	
Hardness HRC	18	22
Hardness HBW	217	235

Supply condition and availability

- Supplied as softened bright bar
- Stock sizes in range 130mm-180mm diameter
- Other sizes available on request

Heat treatment

Oil quench from 950°C
and tempered in range 570°C - 640°C

Technical support

We have a comprehensive technical support team available to advise on grade selection and product range to achieve the maximum benefit. Customer Technical support provide specialist advice and help with day-to-day problem solving.

Works based metallurgists and the full resources of our Steel Research and Development Laboratories are available to assist with longer-term developments.

For further information, enquiries or any technical guidance on our range of Aerospace products please contact our experts using the details below.

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