

BS S106 Steel

Smiths High Performance



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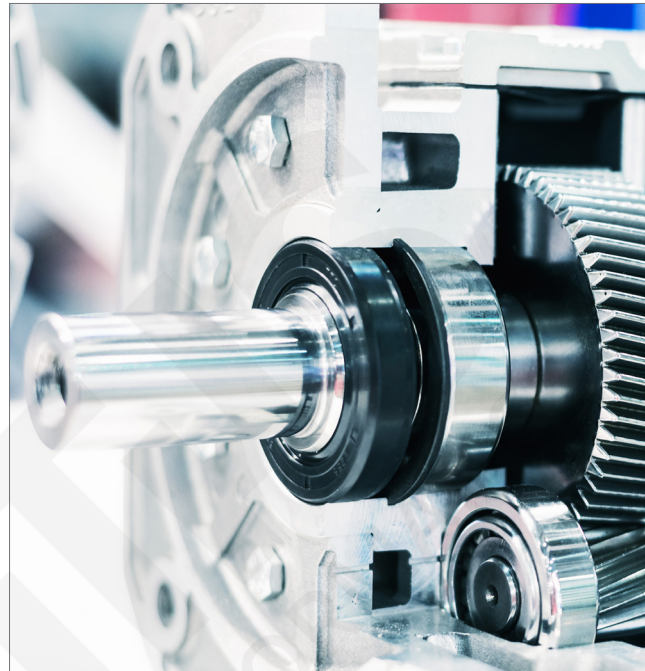
Chrome-Moly Nitriding Steel

BS S106 benefits from a hard outer casing once heat treated.

The alloy is produced by vacuum arc remelting (VAR) or air melting, resulting in a material with excellent transverse properties.

BS S106 offers excellent wear and abrasion resistance characteristics and performs well in high-temperature applications. Additional performance benefits include medium tensile strength and high fatigue strength.

We stock BS S106 chromium molybdenum bright steel bars, which we supply in the hardened, tempered and stress-relieved delivery condition. **EN40B** (744M24) engineering steel is an equivalent material grade. Motorsport applications include gearbox shafts and crankshafts. **BS S106** is ideal for applications requiring fatigue, wear and abrasion resistance with moderate strength.



*Chemical Composition (weight %)

	C	Si	Mn	P	S	Cr	Mo	Ni	Sn	Fe	
Min.	0.20	0.10	0.40			3.00	0.50			Bal	
Max.	0.28	0.35	0.70	0.020	0.020	3.50	0.70	0.30	0.030		

* Properties as per BS S106

*Mechanical Properties (typical)

Tensile Strength	0.2% Proof Strength	Elongation	Hardness (heat treated)	Hardness (soft)
930 - 1,080 MPa	740 MPa min	13%	269 - 321 HB	269 HB max

* Properties as per BS S106

Benefits:

- Case hardened
- High fatigue strength
- Excelent wear & abrasion resistance
- Medium tensile strength

Motorsport Applications:

- Gearbox shafts
- Crankshafts
- Spindles
- Gears



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