



535A99

535A99 through hardening steel, cut and delivered in round bar.

535A99 steel stockholders and suppliers, delivering throughout the UK.

535A99 is a high carbon alloy steel which can give a high degree of hardness with compressive strength and abrasion resistance. West Yorkshire Steel are stockholders and suppliers of 535A99 steel through hardening steel in round bar.

We welcome export enquiries for [alloy steel](#). Contact our sales office and consult our shipping policy for further details.

Alternative alloy steel grades we supply

[605M36](#) | [708M40](#) | [709M40](#) | [817M40](#) | [826M40](#)
[835M30](#) | [080A15](#) | [655M13](#) | [722M24](#) | [905M39](#)

Form of Supply

West Yorkshire Steel supply 535A99 steel in round bar. Diameters can be sawn to your required lengths as one offs or multiple cut pieces. 535A99 ground alloy steel bar can be supplied, providing a quality precision ground bar to your required tolerances.

Applications

Typical applications for 535A99 steel include taps, gauges, swaging dies, ejector pins, ball and roller bearings. It is a good quality steel for wear resisting machine parts and for press tools which do not merit a more complex quality.



Contact our experienced sales team who will assist you with your enquiry.

■ Diameter

Analysis

Carbon	0.95-1.10%	Silicon	0.15-0.35%
Manganese	0.40-0.70%	Chromium	1.20-1.60%
Phosphorous	0.035% max	Sulphur	0.04% max

Forging

Heat slowly and begin forging at 1000-1050°C. Allow sufficient time at the forging temperature for the steel to be thoroughly soaked through. Re heat as necessary and do not forge below 850°C. After forging 535A99 steel, cool slowly preferably in a furnace.

Annealing

535A99 is usually supplied in the annealed and machineable condition. Re-annealing will only be necessary if the steel has been forged or hardened. To anneal, heat the 535A99 steel slowly to 800-810°C, soak well and allow to cool in the furnace.

Stress Relieving

When parts are to be heavily machined, stress relieving will be beneficial prior to hardening. Heat the 535A99 slowly and carefully to 700°C, soak well and allow to cool in air.

Hardening

Heat slowly to the hardening temperature of 800-820°C. Maintain until thoroughly soaked through. Plenty of time must be given for this soaking and then quench in oil.

Tempering

Temper according to the purpose for which the tools are required, generally between 150°C and 300°C. Soak thoroughly at the selected temperature and soak for at least one hour per 25mm of total thickness. Cool slowly in air.

Temperature °C	150	200	250	300
Hardness HRC	63-62	62-61	60-59	57-56

Heat Treatment

Heat treatment temperatures, including rate of heating, cooling and soaking times will vary due to factors such as the shape and size of each 535A99 component. Other considerations during the heat treatment process including the type of furnace, quenching medium and work piece transfer facilities. Please consult your heat treatment provider for full guidance on heat treatment of 535A99 steel.

Certification

535A99 alloy steel is available with a cast and analysis certificate or BS EN 10204 3.1 mill certificate, please request when placing any orders.

Quality Assured Supply

535A99 steel is supplied in accordance with our ISO 9001:2015 registration.



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