

Silver Steel

We keep it tight and precise with our silver steel precision ground bar

Silver steel bar stockholders and suppliers, delivering to the whole of the UK. West Yorkshire Steel are suppliers of precision ground silver steel bar and rod which finds innumerable uses in the tool room and in general engineering. The user can select a size suitable for his purpose, thereby reducing or eliminating the need for grinding or machining the finished part.

The high carbon content aids the hardenability to give considerable wear resistance. The chromium content adds to the strength and hardness characteristics of silver steel. As supplied, however, it is machineable owing to the annealing treatment given in production. Silver steel bar is spheroidised annealed for best machineability, the annealed hardness being in the region of 270 Brinell (Rockwell C 27). On hardening and tempering, a hardness up to 64 Rockwell C can be obtained. Being in the spheroidised condition, it offers maximum response to hardening and the chromium content ensures deep hardening. Silver steel bar is a popular tool room material used in a wide range of applications.

There is, of course, no silver in it, the term 'silver steel' is a traditional description. When the grade was first developed in the early 1900s the addition of chromium (which at the time was becoming increasingly popular as an alloying element in steel) gave the steel a bright 'silver' like finish.

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

Form of Supply

West Yorkshire Steel are suppliers of round bar in metric sizes from 2mm to 50mm diameter and imperial sizes from 1/16" to 2". Silver steel is stocked in lengths of 333mm, 1m, 2m and 3m.

Subject to size suitability and availability non standard silver steel sizes and tolerances can be produced in approximately 2 to 3 weeks.

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

- Diameter
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Applications

Silver steel can be used in numerous applications including screwdrivers, punches, shafts, axles, pinions, pins, die posts, instrument parts, model parts, taps and drills for mild steel, engravers' tools, and fine cutters.

Typical Analysis

Carbon	1.00%	Silicon	0.30%
Chromium	0.40%	Manganese	0.35%

Tolerances

Produced and supplied as a precision ground bar with a surface finish better than 0.6 microns silver steel round bar is supplied to the following tolerances.

Imperial Tolerances	Metric Tolerances
Up to 1" +/- 0.00025"	Up to 25mm +0/-0.015mm
Over 1" +/- 0.0005"	Over 25mm +0/-0.025mm

Hardening

Heat uniformly to 770-780°C until heated through. Quench in water. Sizes up to 5/16" dia may be oil hardened from 800-810°C.

Tempering

Temper according to the purpose for which the parts are required, generally between 150-300°C.

Heat Treatment

Silver steel bar is supplied annealed. When hardening consideration should be given to heat treatment temperatures, including rate of heating, cooling and soaking times will vary due to factors such as the shape and size of each silver steel component. Other considerations during the heat treatment process include the type of furnace, quenching medium and work piece transfer facilities. Please consult your heat treatment provider for full guidance on heat treatment of silver steel bar.

Quality Assured Supply

Silver steel bar is supplied in accordance with our ISO 9001:2015 registration.