



## BS4659 BH13 Tool Steel

Quality BH13 tool steel cut and delivered straight to your tool room.

**BS4659 BH13 tool steel stockholders and suppliers, delivering to the whole of the UK.**

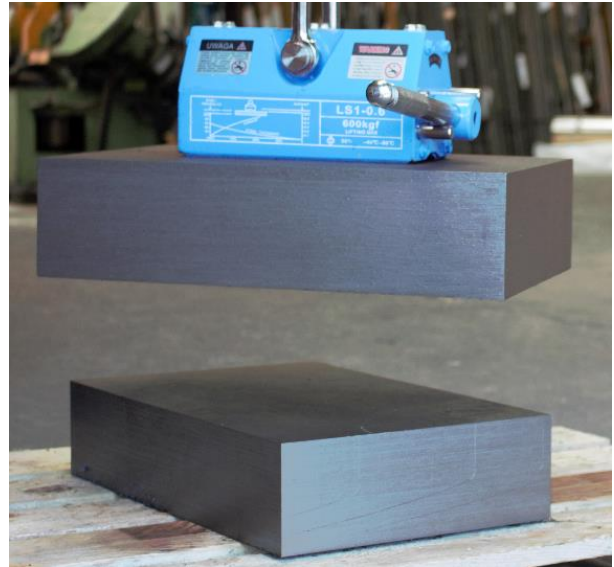
As a quality hot work tool steel BH13 is supplied in round bar, diameters and plate. Pieces can be cut to your requirements. BH13 is a hot work tool steel combining very good red hardness with toughness.

Popular [tool steel](#) grades we supply

[BO1](#) | [BD2](#) | [BD3](#) | [BO2](#) | [BA2](#) | [BS1](#) | [BH13](#) | [BP30](#) | [BP20](#) | [BM2](#) | [BM35](#) | [BM42](#)

### Form of Supply

BH13 tool steel is supplied as round bar and flat sections which can be sawn cut to your required sizes. BH13 ground steel round bar can be supplied, providing a high quality tool steel precision ground tool steel bar to tight tolerances.



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

- Sheet
- Flat
- Plate
- Diameter

## Applications

Common applications include die casting dies for aluminium, magnesium and zinc, extrusion dies for aluminium and brass, liners, mandrels, pressure pads, followers, bolsters, die cases, die holders and adaptor rings for copper and brass extrusion. BH13 is used to produce hot stamping and press forge dies, split hot heading dies, gripper dies, hot punching, piercing and trimming tools.

## Typical Analysis

Carbon	0.38%	Silicon	1.00%
Manganese	0.40%	Chromium	5.00%
Molybdenum	1.30%	Vanadium	1.00%

## Forging

Preheat slowly to 750°C then increase the temperature more rapidly to 1050-1100 °C. Do not forge below 850°C. It is essential to cool slowly after forging, either in a furnace or in vermiculite.

## Annealing

Heat to a temperature of 850-870°C and soak thoroughly before furnace cooling at a maximum rate of 20°C per hour down to 600°C followed by air cooling.

## Stress Relieving

BH13 tools which are heavily machined or ground should be stress relieved before hardening to minimise the possibility of distortion. Heat the steel carefully to 700°C, allow a soaking period of two hours per 25mm of ruling section. Cool in the furnace or in air.

## Hardening

Preheat the BH13 to 780-820°C and soak thoroughly. Increase rapidly to the final hardening temperature of 1000-1030°C.

## Tempering

Temper at the required tempering temperature, between 530-650°C allowing a soaking time of two hours per 25mm of ruling section. Cool in air. Double tempering of BH13 is recommended.

Temperature °C	400	500	550	600	650
Hardness HRc	54	56	54	49	47

## 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 tool steel BH13 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 tool steels.

## Quality Assured Supply

BS4659 BH13 tool steel is supplied in accordance with our ISO 9001:2015 registration.