

### Silver Steel

BS 1407 - Latest Edition

#### Chemical Composition

	Analysis Range (%)	Typical Analysis (%)
C	.95/1.25	1.13
Si	.40 max.	.22
Mn	.25/.45	.37
P	.045 max.	.014
S	.045 max	.018
Cr.	.35/.45	.43

#### Size Range

Sophisticated computer stock forecasting techniques ensure that 1 metre lengths in most diameters are available ex stock.

	Imperial	Metric
Diameter Range:	1/16"-2"	2-50mm

Supplied in: Multiples of 1 metre lengths

#### Tolerance/Surface Finish

< 1"	± 0.00025"
1" ≤ 2"	± 0.0005"
< 25mm	+ 0/-0.015mm
25mm ≤ 50mm	+ 0/-0.025mm

The surface finish is better than 25 $\mu$  inch (0.6 microns) cla.

#### Packaging

All Silver Steel pieces are sprayed in a lanolin solution to guard against corrosion.

The 1 metre lengths are packaged in a cardboard tube to prevent any damage in transit.

### Heat Treatment

#### Hardening

Heat slowly to 760-800°C using the upper end of the temperature range for lower carbon contents and lower end of temperature range for higher carbon contents. Austenitize until the temperature is uniform. Quench into well agitated water.

The approximate quench hardness is 65 to 68 Rc.

#### Tempering

Temper immediately after hardening preferably before the tool reaches room temperature. Temper for a minimum of 1 hour at temperatures between 180-350°C, dependent upon the final hardness required.

See detail below.

#### Tempering Temperature/ Hardness Graph

