Silver Steel

Insist on Erasteel (UK) Ltd for STUBS special accuracy at standard prices

Fine Standard Tolerances
1” and above + or - 0.0005”
Below 1” + or - 0.0003”
Over 25mm +0.00 - 0.025mm
25mm and below +0.00 - 0.012mm

Closely Controlled Analysis
Carbon 0.95% 1.20%
Chromium 0.35% 0.45%
Managanese 0.25% 0.45%
Phosphorus 0.045% max
Silicon 0.10% 0.25%
Sulphur 0.045% max

Uniform machining properties and consistent response to heat treatment.

All genuine Erasteel STUBS Silver Steel is to BS1407 Analysis with the addition of 0.35% to 0.45% Chromium for uniformity of machining and consistency of microstructure in hardening and tempering.

Exceptional Surface Finish
Eliminates grinding or polishing.
The exceptionally high surface finish of genuine Erasteel STUBS Silver Steel can be utilised without the need for further expensive grinding or polishing.

Controlled Annealing
Maximum degree of spheroidisation.
Easier, more uniform machining is possible giving greatly improved machined surface.

Heat Treatment

Hardening
For maximum hardness, (66 Rockwell “C” or 850 DPN), heat to 770ºC - 790ºC (1420ºF - 1450ºF).
Soak till uniform then quench in clean water or preferably 10% brine solution. The most satisfactory and efficient method is to heat in a salt bath and it is advisable that the temperature should be carefully controlled. If a muffle furnace is used the atmosphere should be slightly reducing to minimise scaling and to avoid soft spots.

Tempering
Minimum one hour soak, immediately after hardening.

Temperature Range	Hardness
150ºC (302ºF)	63/65 Rc
200ºC (392ºF)	60/62 Rc
250ºC (482ºF)	59/61 Rc
300ºC (572ºF)	55/57 Rc

Annealing
Heat slowly to 760ºC - 780ºC (1400ºF - 1436ºF).
Soak for one hour per inch of section and cool slowly in the furnace.

Erasteel STUBS
Erasteel STUBS is Europe's oldest manufacturer of Silver Steel and one of the oldest established. Erasteel STUBS experience in tools and with tool steels dates back 200 years, over 100 of which have been spent in the Silver Steel business. Erasteel STUBS' reputation as European brand leader, is your guarantee of the highest standard of quality and service

Technical Information
Typical properties as supplied:

Approximate hardness (Brinell)	180-285
Approximate UTS (tons/sq inch)	40-60
Approximate yield point (tons/sq inch)	35-50
Approximate torsional stress (tons/sq inch)	22-33
Approximate shear stress (tons/sq inch)	24-36
Approximate elongation % (2" GL)	35-20
Approximate reduction of area %	45-30
Approximate density (g/cc)	7.83

The above figures are for guidance only and do not form part of a specification.

Mean Co-Efficient of Expansion
Approximate 0º - 700ºC : 14.69 x 10-6
Approximate Modulus of elasticity (Youngs) E:30 x 106lb/in2
Approximate Modulus of Rigidity or Modulus of transverse 0 : 12 x 106lb/in2