

250M CONTINUOUS CAST

AND ROLL REDUCTION INSTRUCTIONS

Title : Sterling silver .925

Melting/ Casting : We recommend pre-graining silver and alloy under cover gas in the melting machine at the temperature around 1040 °C–1050 °C. When the metal melts, hold the liquid inside the chamber for 3 minutes to make sure it is well mixed before graining or pouring.

Continuous casting:

Crucible temperature: 980 °C – 1040 °C

Die temperature: 750 °C – 820 °C Speed: 350 mm/minute

50% new alloy and silver reuse with 50% well cleaned old scrap may be used.

Fabrication: The rod should be rolled or drawn to a 35% reduction before annealing. After annealing then continue reduction at 35% before annealing again. It is recommended to clean the ingot or rod after each annealing as well as to keep the rolls and dies clean to keep the product out of possible defects. Pay attention to clean dies for quality products.

Annealing: After each reduction work, anneal the piece at 650 °C for 20-30 minutes. Quench the piece in water and then pickle. Boric acid coat should be applied before annealing in the open atmosphere environment in order to avoid oxidation developed on the piece. Do not over anneal as this can cause orange peel effect on the surface.

Hardening: 250M may also be heat treat hardened at 325 °C for 1-2 hours then air cool for additional surface hardening.

Pickle: 10% Sparex solution (Sodium bi sulphate) is recommended for pickling the pieces. Use safety glass protections and rubber gloves when working.

Finishing : Treat as standard sterling – final polish- Fabulustre on muslins buff.