Phoenix Foundry manufactures Cast Bronze Memorial Plaques and markets these across Australia and overseas. The plaques range in size from 30mm to 800mm and each contains a unique inscription and a variety of design features. Some 1500 to 2000 plaques are produced each month. There are 8 stages within the production process:

1. **Plaque Design**
The layout of the inscription, motifs and other design features are keyed up in computer programs from information provided by the customer.

2. **Negative Production**
The plaque designs are transferred to a photographic negative in an image setter.

3. **Moulding**
The patterns are placed in a mould box and covered with a thin layer of a blend of selected virgin sands. The remainder of the box is filled with a mix of silica sand and binder which hardens the sand after a short time interval. This mould is stripped from the box and assembled with other sections ready to receive the molten bronze.

4. **Pouring**
Bronze ingots are melted in a gas fired or induction crucible furnace to a temperature of around 1200°C. The molten bronze is poured into the mould and solidifies in the form of the finished plaque. On cooling the mould is broken and the casting recovered.

5. **Fettling**
This stage of the process involves cutting off excess bronze from around the plaque, water and sand blasting and edge linishing to prepare the plaque for further processing.

6. **Detailing**
Within this stage fittings are attached and any irregularities are eliminated.

7. **Linishing & Painting**
The plaque is painted with background colour in a spray booth. The surface of the plaque containing the inscription is then ground with a belt linishing machine to bring up the bronze metallic colour on the raised inscription and other design features. A clear protective layer of paint is then sprayed on and the plaque baked in an oven to harden this protective layer.

8. **Inspection and Packing**
The plaques then undergo a final quality inspection and are packed ready for dispatch.

For more information about Phoenix Foundry and our products visit www.phoenixfoundry.com.au