



The Master – - also called Original, Model, Plug

The original piece from which you will making the mould is called a Master or Model. Consider its size, composition, undercuts etc. This will assist in determining the mould type, mould making material and any special preparations which may be required..

The Master can be made from almost any material. Keep in mind that some materials, such as sulphur based clays and surface coatings can inhibit the curing of certain mould making materials, including silicones. This can sometimes be overcome by applying a “cover coat” or sealer to act as a barrier between the clay and silicone.

Consider also, that the Master may be damaged during the mould making process. This generally only occurs when using soft materials (i.e. clay, plasticene etc). However, if the Master has delicate thin protrusions, or “stuck on” parts, these may break or become dislodged during de-moulding. You can never be sure so be prepared, not disappointed if this does occur.

HANDLING UNDERCUTS – An undercut is an angle in the shape of your original. If the angle is small and slight, a one part mould may be sufficient. However, if the angle is large and sharp, it will not remove from a one part mould easily without tearing or damaging the mould and therefore, a two part or even a multiple part mould is a necessity.

Take the cross example (right) –

- if this cross had detail or shape on only one side (ie the back was flat and without detail), a simple “flat back mould” is all that is required.
- However, if the cross has detail or shape (eg both sides are rounded rather than flat), the undercuts will prevent the cast piece being removed from a “One Part Block Mould” and a “Two Part Block Mould” will be necessary



Imagine how your master (model) will be removed from the mould; turn the piece upside down (or to the way the moulding compound will enter the mould (this is called a sprue); are there any areas which will cause de-mould difficulty. These are undercuts which will require multi piece moulds.

THE SPRUE (pouring entry point) - Your Master (model) may require the addition of a “sprue”, an entry hole for your casting compound. If your master is flat back or has a wide “bottom” a sprue is not required, as the base becomes the entry point. Should your Master have a narrow base, you will need to add a sprue. The sprue needs to be adequate to allow easy access for the resin, but not oversized in comparison with the Master. The sprue will be removed after the cast has cured. Generally the sprue is triangular in shape, being narrow at the joining point of the master, becoming wider at the entry point. Any suitable material can be used as a sprue – clay, tubing, plastic etc. Attach the sprue securely to your master ensuring there are no gaps between them.

