

# Vulcan

## Rubber Mould Vulcanising Can



**SB-VC90 series**



Thank you for purchasing this product.

Please read this manual carefully before use.

**USER MANUAL**

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## **Thank you for purchasing our product.**

The Vulcan mould vulcanising can is a heavy duty rubber vulcaniser for vulcanising natural and silicone rubber moulds.

The Moulds and patterns or masters are placed in the can and then clamped down under force before being placed in an oven for up to 2 hours to vulcanise the natural rubber.

The vulcanised mould is then used to cast in pewter or whitemetal.

This vulcaniser can take up to 9 inch (230mm) mould halves max but with the use of an adapter available from us can also vulcanise smaller 6 inch moulds

Constructed from 10mm Mild steel plate with a 20mm clamping lid this is a heavy tool and should be used with care.



# Introduction to Mould Making

## Mould Production

### Master mould production.

Master moulds are the first step to the production of metal miniatures. they are designed to give perfect reproductions of original sculpts or patterns.

Normally master-moulds are made from industrial grade organic silicone rubber which is cut into shape to protect the original as much as is needed. Organic rubber needs to be vulcanised, this is the process of adding heat and pressure to harden the rubber to its finished state, but original sculpts need to be strong enough to resist these stresses. In conjunction with a skilled mould maker most sculpts are able to withstand these forces and should mould perfectly.

Master-moulds can vary in size. Most Master-moulds are 228mm (9") diameter which gives enough space for 8 - 12 carefully placed miniatures.

It is recommended that master-moulds are cast as little as possible. Once a mould has been heated it starts to wear. Undercuts may be lost at any time without careful mould handling, small amounts of the oils in the compound are lost and the mould starts to become dry and brittle.

Once a master-mould is damaged little can be done to restore it. Master-moulds are used to make Master-castings; these first generation castings are the best that come from your original miniature. Master-castings are used for Production moulding and as first of the run, are usually sent to painters for advertising purposes.

### Master casting & cleaning.

After master moulding a number of castings are taken.

These master-castings are the first generation castings and will be bigger than the castings that you are used to seeing if you were to buy miniatures (which are normally second generation castings.)

Some master-castings are used for painting/scanning and promotional purposes, others are needed for production moulding. Master castings should be a perfect representation of the original sculpts, but they also need to be prepared for the next stage.

Master castings are a precious commodity, after cleaning and moulding they should be saved safely away from the parent master-moulds, they will be needed whenever re-moulding becomes necessary.

### Production moulds.

Production moulds are the final step to mass production of metal miniatures. If you are going to want more than moderate numbers of your cast sculpts then a Production-mould will be necessary.

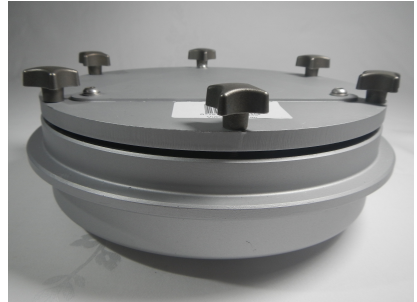
Production moulds are made from industrial grade organic silicone rubber which needs to be vulcanised, this is the process of adding heat and pressure to harden the rubber to its finished state. Master-castings need to be used to resist these stresses.

Production moulds are run to destruction, as many as possible usable minis are taken from each mould and when exhausted the mould is cut-up and discarded. Moulds with normal level of undercutting will last over 150 spins giving large quantity's of usable castings for sale. Production casting.

Production casting is carried out using a centrifugal casting machine.

# At a Glance

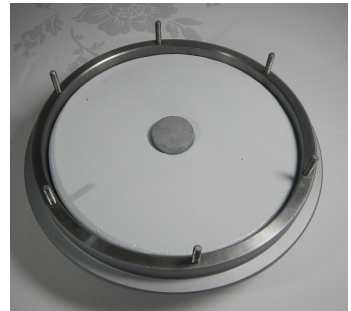
Vulcan Vulcanising Mould Can closed up and ready to place in the oven note the 2-3mm gap.



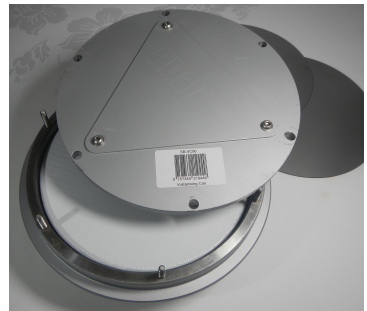
Core plug to create center of mould.



Open mould can showing mould in place with core plug located.



Closing the can ready to clamp down and heat in the oven note the shims which are advised when making a mould of small parts.



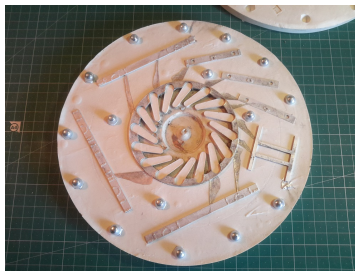
# Operation Guide

Please see our publication Vulcan step by step guide and supplied with this manual.

The casting of your mould will be detailed in the casting machine manual and not covered here.



The vulcanising process takes place in an oven 160 degrees C for organic rubber and 90 degrees C for silicone moulds.



View of mould opened and showing cast parts.



Place your mould on the plate within the 3 location pegs note the metal access hole in the top half of the mould.

# Specifications

## SPECIFICATIONS

Diameter .....275mm

Height .....95mm

Weight .....18KG

Max Mould size .....9 inch (230mm)

Material.....10mm Steel Plate and Cast Iron

As part of our ongoing product development specifications may change at any time.

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