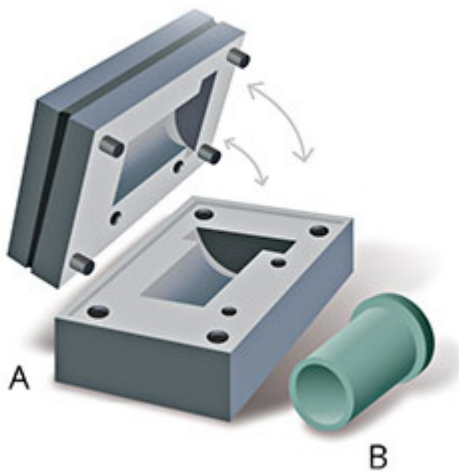


## Investment casting process steps pdf

### Step 1:

#### Tooling and Pattern Making

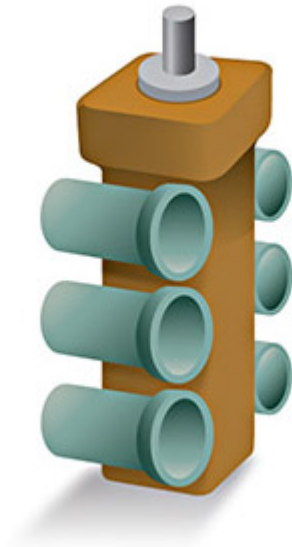
A tool is built to customer-provided specifications (A). Cold wax is then injected into the tool to create a wax pattern/prototype (B). That will hold precise dimensional requirements in final casting.



### Step 2:

#### Pattern Assembly

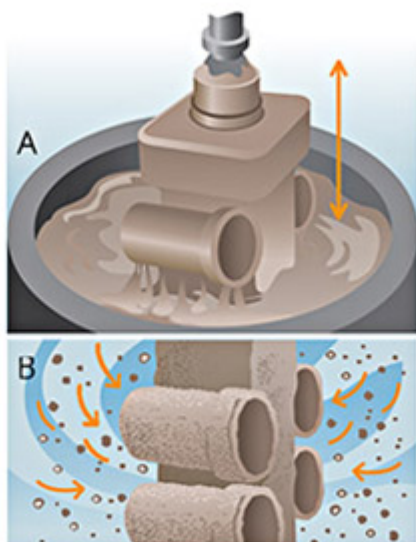
The wax patterns are assembled onto the sprue.



Step 3:

### Dipping and Coating

Successive layers of ceramic (A) and are applied to the sprue assembly to form a hard shell.



Step 4:

### De-Waxing and Firing

The molds are flash-fired to remove the wax and sprue materials and then heated to 1,800° and placed on a sand bed, ready for pouring.



Step 5:

**Casting**

Molten metal, up to 3,000°, is poured into the hollow mold and then cooled.



Step 6:

**Knockout**

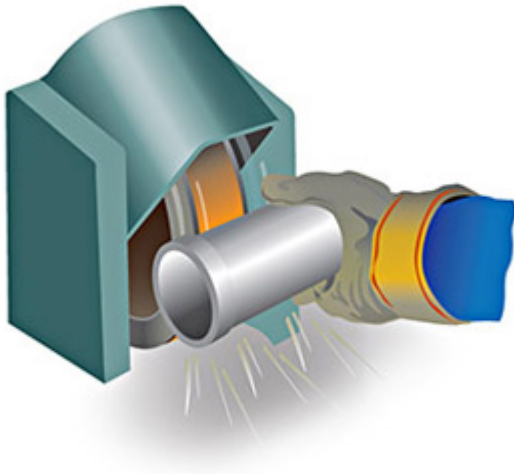
The ceramic shell is broken off, and the individual castings are cut away.



Step 7:

Finishing

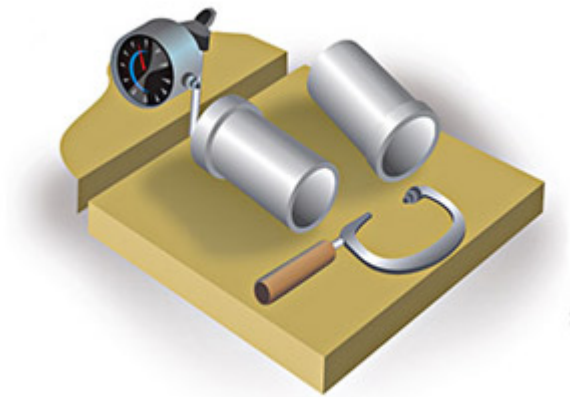
Excess metal is removed, surfaces are finished, and castings are heat treated.



Step 8:

Testing and Inspection

Casting undergo thorough testing and inspection to ensure that they meet dimensional tolerances and specifications.



Step 9:

## Packing and Shipping

Castings are securely packaged for shipping to the customer.

