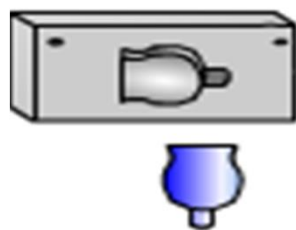


# Investment Casting Process

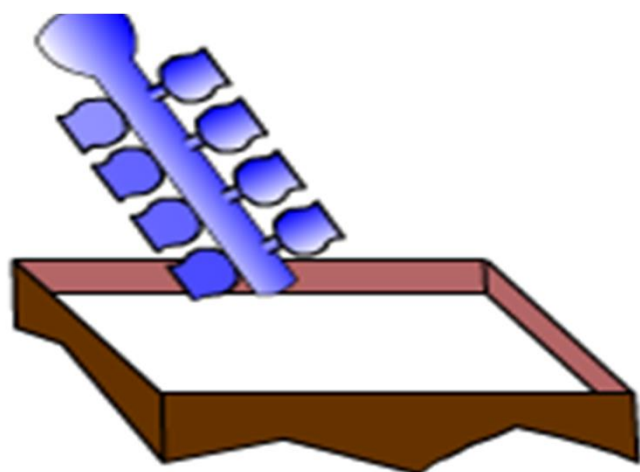
- The investment casting process also called lost wax process begins with the production of wax replicas or patterns of the desired shape of the castings.
- A pattern is needed for every casting to be produced.
- The patterns are prepared by injecting wax or polystyrene in a metal dies.
- A number of patterns are attached to a central wax sprue to form a assembly.
- The mold is prepared by surrounding the pattern with refractory slurry that can set at room temperature.
- The mold is then heated so that pattern melts and flows out, leaving a clean cavity behind.
- The mould is further hardened by heating and the molten metal is poured while it is still hot.
- When the casting is solidified, the mold is broken and the casting taken out.



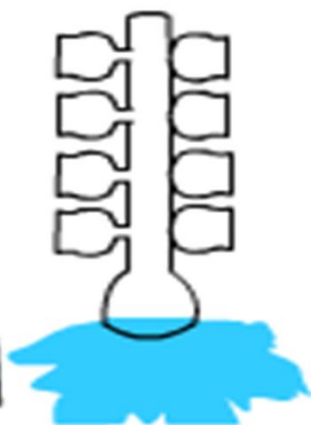
*Wax Injection*



*Assembly*



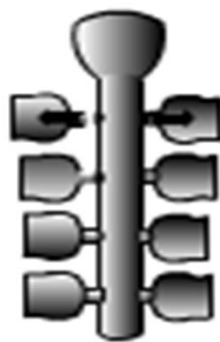
*Shell Preparation*



*Dewax*



*Pouring*



*Cut-off*



*Finished Castings*

# Advantages

- Formation of hollow interiors in cylinders without cores
- Less material required for gate
- Fine grained structure at the outer surface of the casting free of gas and shrinkage cavities and porosity