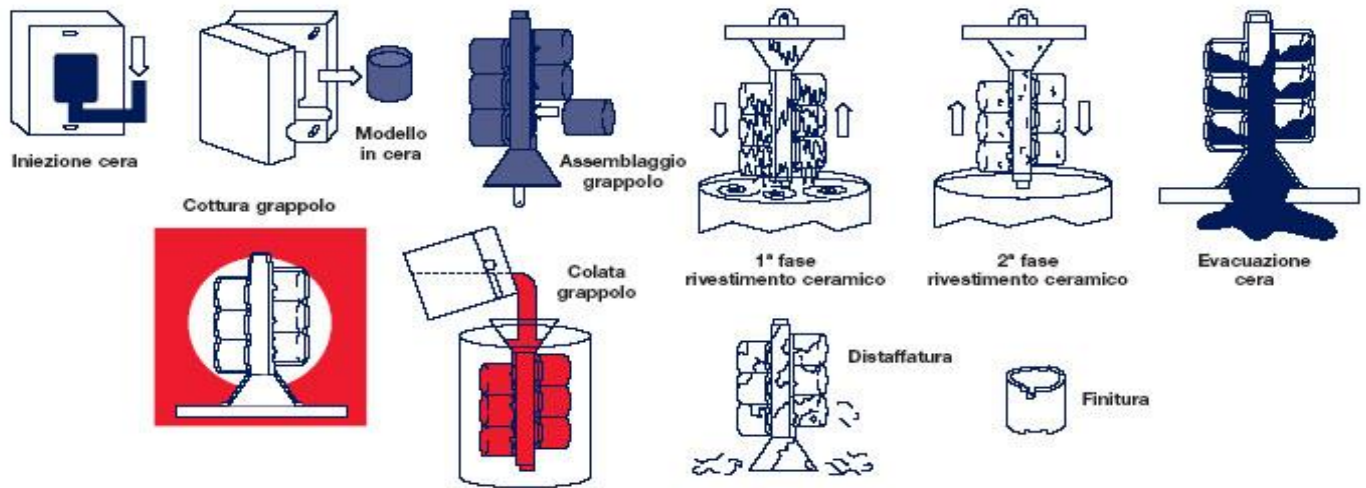


# INVESTMENT CASTINGS

- **PRODUCTION SYSTEM**
- **DIMENSIONAL TOLERANCES**

Sketch of the process for the production of castings through the Lost Wax system



**Phase 1** - injection of the liquid wax into the mold (made of steel, aluminum or tin-bismuth).

**Phase 2** - achievement of a wax pattern identical to the piece to be developed.

**Phase 3** - realization of the bunch or connection of the wax pattern to the pouring channel.

**Phases 4 and 5** - coating of the bunch in wax with liquid and powdered ceramic; these steps are repeated until the achievement of a shell with sufficient thickness to contain the pouring of the metal.

**Phase 6** - evacuation of the wax.

**Phase 7** - baking of the bunch in ceramic.

**Phase 8** - pouring of the liquid metal into the ceramic bunch and natural cooling.

**Phase 9** - disgregation of the ceramic shell and separation of the casting from the pouring channel.

**Phase 10** - sandblasting/shotblasting of the casting.

The "Lost Wax" system allows to produce castings with very tight dimensional tolerance as shown below:

**Table of Dimensional Tolerance on raw casting sizes**

DIMENSION (mm)	TOLERANCE
from 0 - to 10	± 0,12 mm.
from 10 - to 15	± 0,20 mm.
from 15 - to 20	± 0,25 mm.
from 20 - to 30	± 0,30 mm.
from 30 - to 50	± 0,40 mm.
from 50 - to 75	± 0,50 mm.
from 75 - to 100	± 0,65 mm.
from 100 - to 125	± 0,80 mm.
from 125 - to 150	± 1,00 mm.
from 150 - to 175	± 1,20 mm.
from 175 - to 200	± 1,50 mm.
from 200 - to 250	± 1,80 mm.
over 250	± 0,8%

**Usable materials**

Through the lost wax system it is possible to produce castings in all types of steel (from common steels to stainless steels) and any alloy of bronze.

**Heat Treatments\***

Upon request, on the castings we can execute all kinds of heat treatment.

**Surface Treatments\***

Upon request, on the castings we can execute the following surface treatments:

- Electropolishing of stainless steel.
- Mechanical mirror polishing of stainless steel.
- Electroalvanizing

Upon request, on the castings we can execute any finishing machining \*.

\*(Services offered with the collaboration of external suppliers)