



PROBLEM SOLVING: Bubbles & Nodules on Casting

Causes:

1. Investment not mixed, vacuumed or vibrated 2.enough
3. Vacuum pump faulty
4. Wax patterns greasy
5. Removing and then returning cans to the furnace while at 750°C



As the title suggests this is where the pieces are not completely filled with metal during the casting process.

Investment not mixed, vacuumed or vibrated enough

Solution - Follow the manufactures instructions.

There are several causes of bubbles as follows:-

Investment too thick. If the investment is too thick the air bubbles cannot escape from the mixture. It is important to use the correct powder:water ratio.

Work cycle too long. The investment is probably starting to thicken while it is still being vacuumed. Again the bubbles cannot escape from the mix.

Vacuum pump faulty

Solution - Check the pump and all seals/connection. If the vacuum pump or seals are faulty then insufficient vacuum is applied to the mixture in order to remove the bubbles. Ensure that all seals are intact, have the pump serviced and change the oil at regular intervals.

Wax patterns greasy

Solution - Use de-greaser or wetting agent. Grease can cause surface tension on the surface of the wax. This causes the bubbles to stick to the wax. It is recommended to use a wax wash to clean the wax before investing.

Removing and returning cans to furnace

Solution - Once the recommended burnout cycle has been started, do not remove cans from the furnace