



PROBLEM SOLVING: Fins and Flash

causes:

1. Incorrect powder: water ratio on investment
2. Flask placed in oven too soon
3. Flask dried out before burn-out
4. Outdated or improperly stored investment powder
5. Investing extended past the working time
6. Flask heated too rapidly

Flashing is shown as excess metal around the outside of the cast piece. These occur more often in the higher part of the structure to be filled with metal. They can form under pressure of the molten metal or may already be present in the mould and are aggravated by the metal which may be too hot



Incorrect powder - water ratio on investment

Solution - Follow the manufactures instructions. We recommend that you follow the SRS and instructions

Flask placed in oven too soon

Solution - Leave flask for a minimum of 1 hour after investing. If the firing of the flask is begun before 1 hour the excess water is rapidly heated and can produce steam. This roughens the air investment interface inside the spaces left by the wax. It can also produce cracks or even fractures. Larger flasks require longer standing and heating times to permit steady water vapour escape.

Flask dried out before burn-out

Solution - Do not allow flasks to dry out, cover with a damp cloth if necessary. If the flask loses to much water before burn-out starts the investment walls may break, crack or weaken due to the powder drying out. Ideally the flask should be put into the oven on the same day as investing.

Outdated or improperly stored investment powder

Solution - Check date and storage area and rotate stock. Investment powder has a shelf life of about 5-6 months. You should always check the date and make sure that the stock you are using is within date. Always store in a dry, cool atmosphere and keep the drums or bags sealed when not in use.





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Investing extended past the working time

Solution - Follow the manufacturers instructions. If the investment is still being worked while setting is starting the resultant mould may be weak and therefore liable to flash.

Flask heated too rapidly

Solution - Follow recommended burn-out cycle. If the flasks are heated too rapidly the excess water that had been rapidly heated can produce steam. This roughens the air investment interface inside the spaces left by the wax. It can also lead to fractures and cracking.

