pulse & pulse interface

Working Successfully with Pulse Press-to-Metal®

Incomplete Pressing:

- Amount of ceramic used is too small
- Pressing temperature is too low
- Diameter of wax sprues is too small
- Holding time at final temperature is too short
- Pressing time is too short
- Pressure is too low
- Sprue placement too low on buccal/lingual

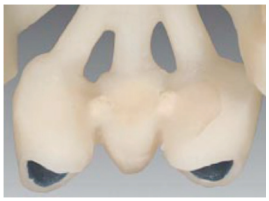
Pre-heating:

- Strictly follow stated burnout times
- Sequence rings in burnout furnace so they don't remain at high temperature too long. Danger of ring failure past 2.5 hours.
- Prolonged exposure at final temperature increases oxide formation on alloy structure.
- Pressing rings must not contact each other or the sides of the furnace.

Cracks in the pressing ring during pressing procedure:

- Check investment mixing ratio
- Sprued objects have been placed too close to the edge of the pressing ring
- Pressing temperature is too high
- Pressure is too high
- Aluminum oxide plungers are encrusted with ceramic material or out of the round (disposable plungers guarantee perfect geometry)

Cracks in the Ceramic:



- Shifting of opaque due to pressing temperature being too low/high
- Check opening speed of furnace (especially for non-precious alloys)
- Alloy used has the wrong CTE (Alloy needs to be in the CTE range of 13.8-14.6 at 25-500°C)
- Forced cooling of pressing ring
- Inappropriate processing of opaque (insufficient bond between opaque and alloy)

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Graying of the Ceramic:

- Pressing temperature is too high
- Inappropriate ingot selection
- Inappropriate opaque selection
- Pressing time is too long

Bubbles/Inclusions:

- Pressing temperature is too high (boiling pores)
- Modeling wax is contaminated or not ash free
- Wax Sprues were contaminated
- Rough edges and connections have been created during the waxing process
- Funnel shaped transition from pressing channel to object