



SPECIFICATION

LIGO Air Bake Oven

APPROVALS	DATE	REV	DCN NO.	BY	CHECK	DCC	DATE
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APPROVED:							
DCC RELEASE							

Requirements

General

- The oven shall be a front loading machine (not top loading).
- Maximum overall dimensions: 12'x12' by 10' in height
- The exterior of the oven shall be insulated to limit thermal hazards and radiation loss.
- The oven will be installed on an existing concrete floor.
- An 8" port shall be provided for possible exhaust provisions
- Unit shall be powered with 480 volt, 3-phase.
- Oven shall be compatible with Class 100 clean room conditions.
- The oven shall meet applicable safety and electrical codes.
- The oven shall fail safe in the event of loss of utilities.

Air bake Chamber

- Minimum chamber load capacity: 8.5'x8.5' by 36" in height and 3000 lbs in weight (maximum load).
- The bake chamber shall be fabricated of 304SS.
- All materials used in the assembly, such as gaskets, shall be selected to limit particulate.
- No lubrication is permitted within the bake chamber.
- A cart shall be provided to allow loading of 3 plates (1000 lbs each) at a time.

Oven Controls

- Oven shall have controls for ramp, soak and temp control, and display for internal temperature.
- Soak temp shall be adjustable from 100 deg C to 200 deg C.
- Cycle durations shall be adjustable from a few hours to 7 days.

Heaters and Blower

- The heater shall be sized to allow ramping to 200 deg. C in 8 hours with maximum load.
- There shall be plumbing to allow injection of a Nitrogen purge of 0-200 CFH.
- The recirculation blower shall be of sufficient size to ensure uniform temperature through out bake load.
- The blower lubrication shall be isolated from air flow