Pressure Cure Oven (PCO)

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System Overview

- Pressure Cure Oven (PCO) or Autoclave is used to minimize voiding and increase adhesion strength for bonding processes typically used in die attach and underfill applications
- PCO pressurizes air into a rigid vessel and heats & cools with forced convection
  - Heaters, heat exchangers and blowers are internal to the pressure vessel
- When the curing process is complete, the pressure oven automatically relieves its pressure to 1atm and cools

Pressure Cure Applications

Underfill Curing

Die Attach Curing

PCO

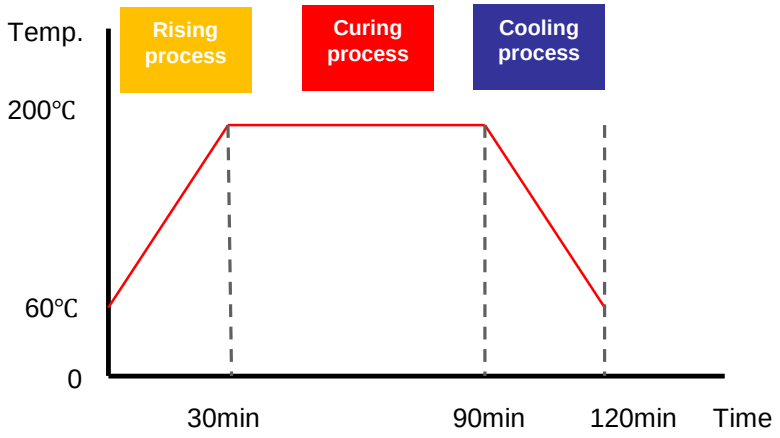
Wafer Lamination

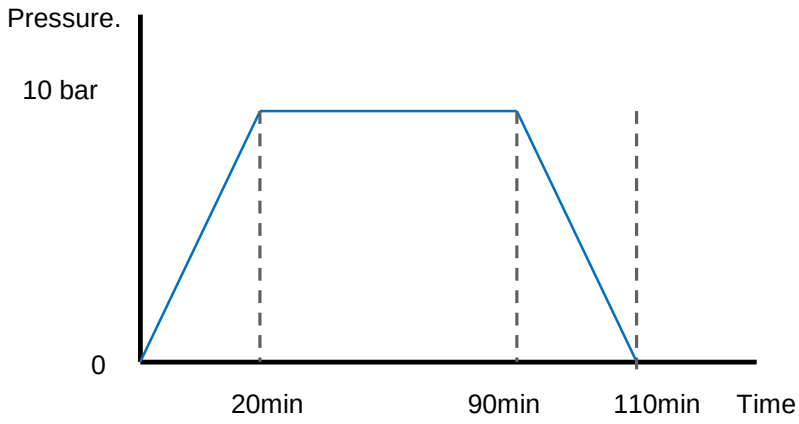
Film & Tape Bonding

Process Specification

- Process time: Generally 120 min or User's spec
- Operating temp: 60°C ~ 200°C
- Maximum temp: 220°C
- Operating pressure: 1 bar – 10 bar
- Capacity: 24 Magazines (typical)
- Cooling method: PCW (17°C - 23°C)
- Cooling water pressure: 25 – 40 psi

Representative Pressure/Temp Profiles (User Configurable)





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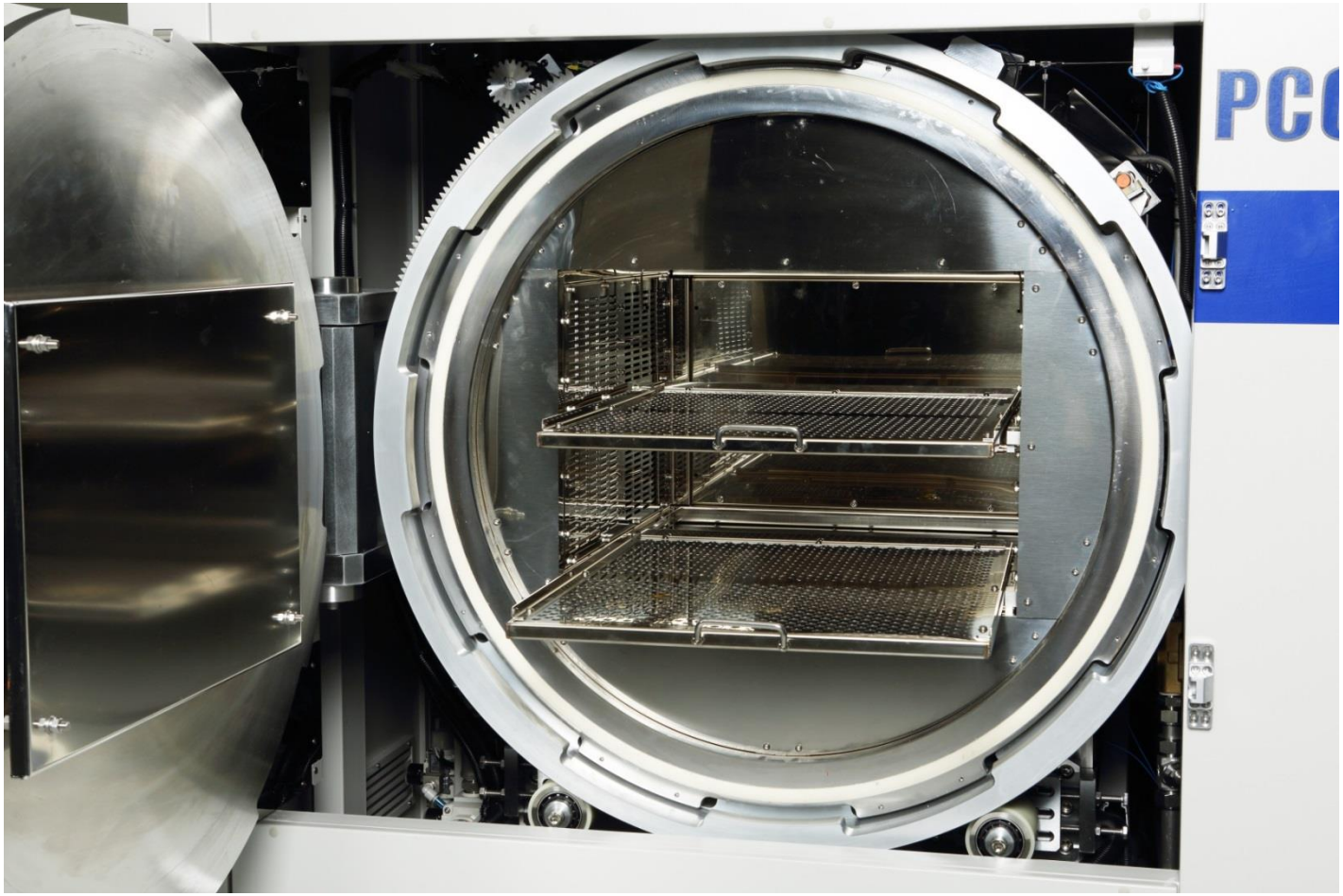
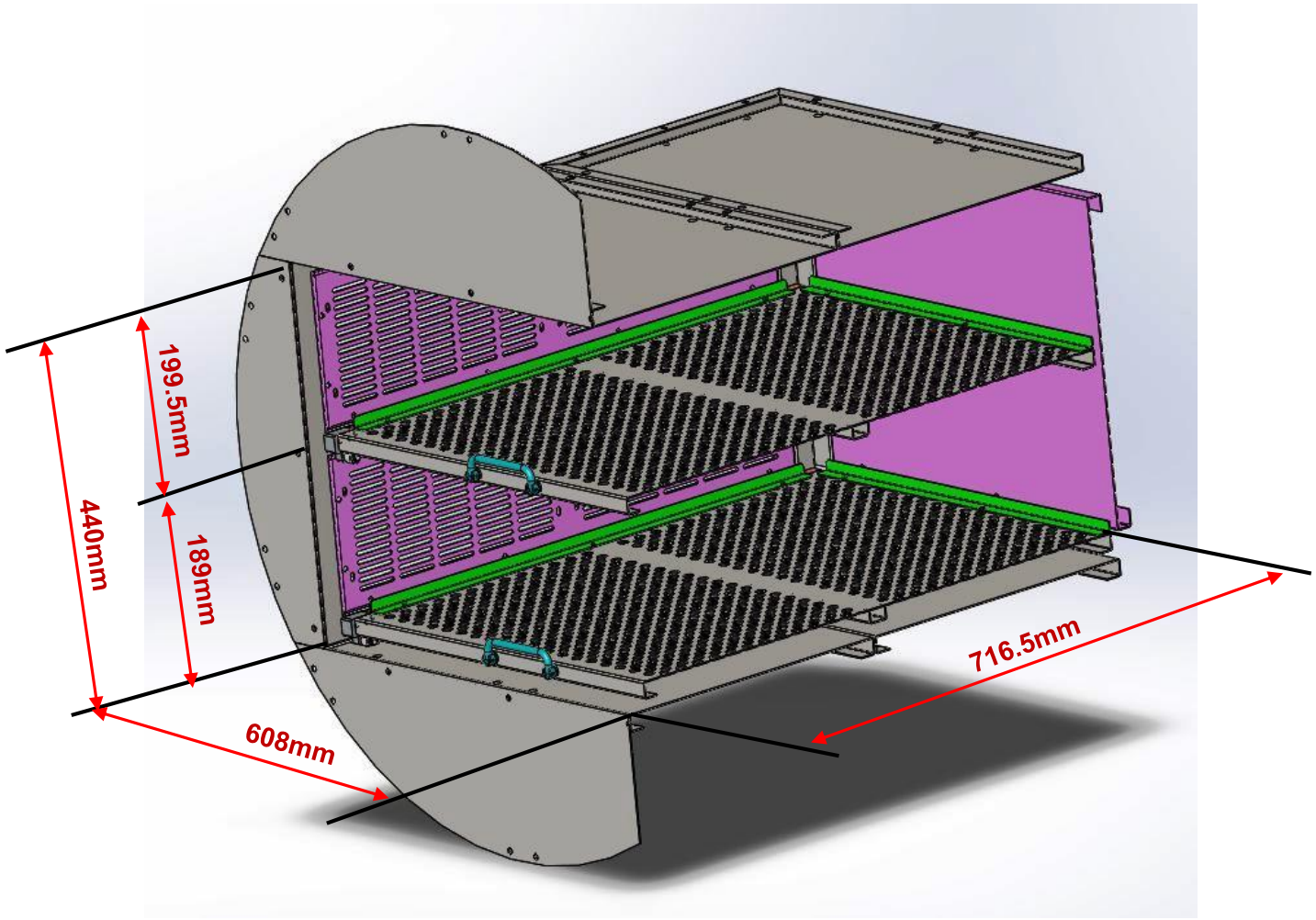
PCO System Dimensions

PCO System Chamber

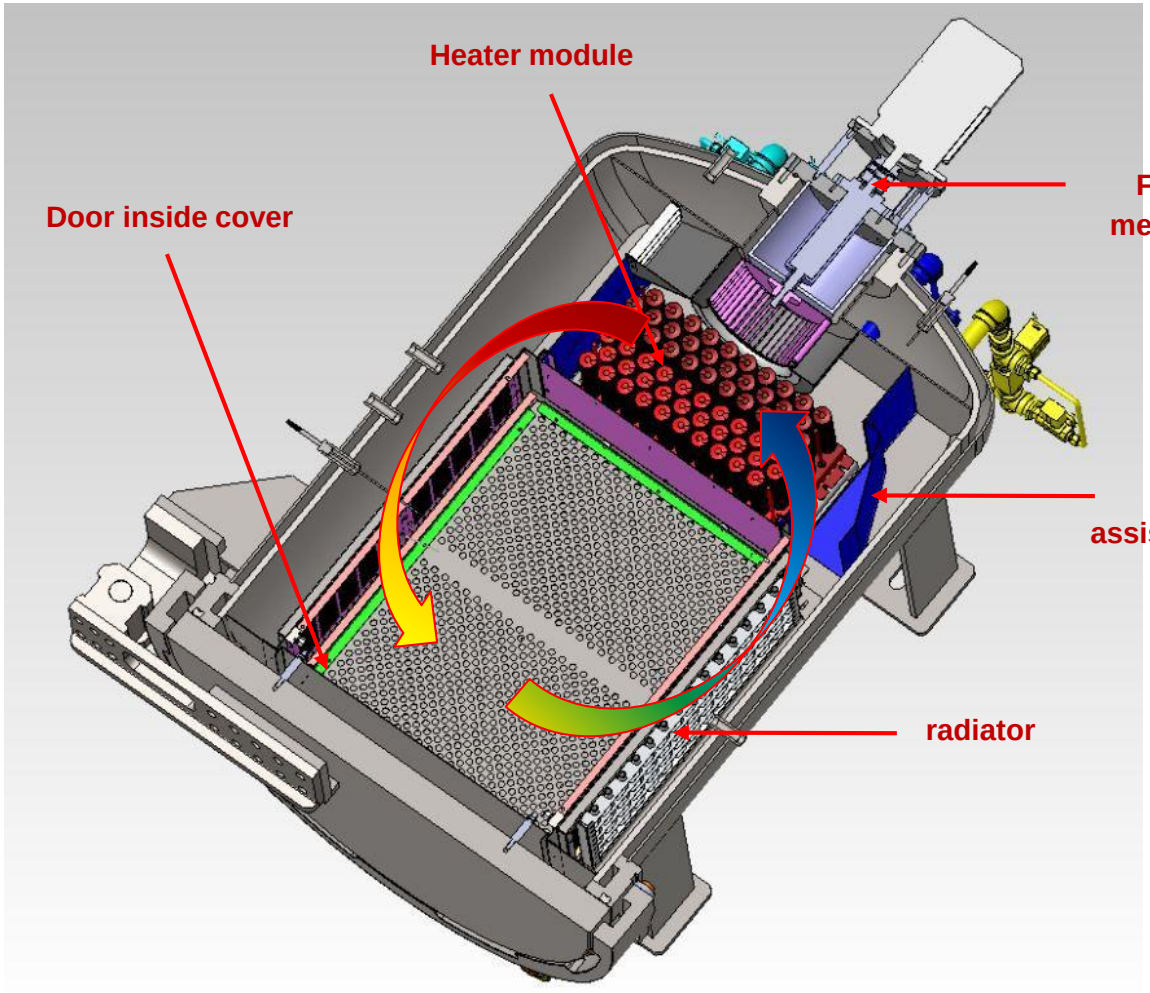


Chamber Dimensions



Chamber with Shelves Extended

System Air Flow



Vacuum Module Option

- Vacuum Module (Optional)