

## BOD INCUBATOR (BIOCHEMICAL OXYGEN DEMAND)



### APPLICATION

- Environmental & Water Testing Labs
- Microbiology & Biotechnology Research
- Pharmaceutical & Biomedical Applications
- Food & Beverage Industry
- Agricultural & Soil Research
- Industrial Quality Control Laboratories

### KEY FEATURES

**Material Of Construction :** Inner chamber Stainless steel SS 304 /316 Inner & outer doors sealed with silicone sponge rubber gaskets Outer body is made up of Mild steel powder coated or full stainless GMP model

**Insulation:** Typical PUF or glass wool insulation (70 mm, 80 mm thick to reduce thermal loss.

**Door:** Often heavy door with magnetic seal, glass view-window or acrylic inner door allows sample observation without opening.

- **Shelves/trays:** Removable, adjustable stainless steel perforated shelves/trays.
- **Sample access/ports:** Some models have port-holes for inserting sensors/thermometers. (Optional)
- **Observation window & lighting:** Allows you to view samples without opening door— reducing disturbance.
- **Heating:** “U-shaped” tubular heaters or Nichrome wires embedded in airflow path.
- **Cooling:** Hermetically sealed compressor with CFC free refrigerant for sub-ambient operation. Refrigerant R-134 a
- **Air circulation:** Fan or blower, forced convection, duct distribution or motorized blower ensures even temperature distribution.
- **Temperature range:** 5°C to 50°C. Accuracy:  $\pm 0.2$  °C to  $\pm 1.0$  °C Uniformity: Variation across the chamber often  $\pm 2$  °C
- **Controller :** Digital display with set value (SV) and process value (PV). Sensor often PT100 type Microprocessor or PLC based HMI Controller
- **Sensor:** PT100 temperature sensor
- **Alarms:** Over-temperature, under-temperature, door open, power failure, deviation alarms. (Optional)
- **Data interface:** RS-232 or RS-485 interface, USB/data logging, printer, PC connectivity. (Optional)
- **Security:** Password protection, optional biometric/door access. optional features “GSM/Mobile alert system”

## TECHNICAL MATRIX

Model No	PTE -403 A	PTE-403 B	PTE-403 C	PTE-403 D	PTE-403 E	PTE-403 F
Inner Size in mm (WxDxH)	450x450x450	450x410x610	400x500x845	560x570x870	570x650x900	650x700x900
Capacity	3 cu. ft	4 cu. ft	6 cu. ft	10 cu. ft	12 cu. ft	15 cu. ft
Volume (Ltr)	90 ltrs	113 ltrs	173 ltrs	282 ltrs	342 ltr	421 ltrs
No. of Shelves	2	2	2	2	3	3
MOC	Outer MS /SS and inner chamber is of SS 304 grade					
Temp. Range	5°C above ambient to 50°C (Resolution 0.1°C)					
Temp. Controller	By Microprocessor Based PID Digital Temperature Indicator and Controller.					
Temp. Accuracy	±0.2°C to ± 1					
Compressor	CFC Compressor with R-134a refrigerant					
Display	LED /LCD/HMI Display for Set Value(SV) and Process Value (PV)					
Relay	Solid state electronic relay with protective heat sink.					
Air Circulation	By forced convection system					
Insulation	By High density PUF insulation					
Operations	Nearly silent operation with ultra-low vibration					
Electric Supply	220/230V AC, 50/60Hz					

## OPTIONAL ADD-ONS

- Digital Timer
- Programmable Controller having ramp and soak time
- Cyclic Day light Timer
- RS232 Port or RS485 Port for Data Logging
- Thermal Printer

