

PCR WORK STATION



APPLICATIONS

- PCR reaction setup and reagent preparation.
- DNA/RNA amplification and genetic analysis.
- Molecular biology and biotechnology laboratories.
- Forensic DNA profiling and sequencing.
- Clinical diagnostics and research institutions.
- Prevention of sample cross-contamination in sensitive assays.

KEY FEATURES

Construction and Durability

- Made from powder-coated mild steel or stainless steel (SS 304). Smooth, cleanable surfaces to minimize accumulation of contaminants.

HEPA Filtration System

- Equipped with a high-efficiency HEPA filter (99.97% efficiency at 0.3 μm).
- Provides a vertical laminar airflow ensuring a particle-free workspace.

UV Germicidal Sterilization

- Programmable UV timer for pre- and post operation sterilization cycles.
- UV interlock ensures the lamp switches off automatically when the front sash is opened, ensuring operator safety.

Laminar Airflow

- Ensures a consistent flow of clean, filtered air across the workspace.
- Minimizes the risk of airborne contamination during reagent preparation.

Ergonomic and Transparent Design

- Acrylic or polycarbonate front and side panels allow full visibility.
- Spacious, ergonomic workspace for pipettes, microtubes, racks, and reagents.

Efficient Illumination

- Bright, shadow-free fluorescent or LED white light provides excellent visibility inside the chamber.

Blower and Air Handling System

- Dynamically balanced, low-noise blower assembly.
- Adjustable airflow speed to maintain consistent laminar conditions.

Safety Interlocks

- UV light automatically turns off when the sash is open.
- Optional interlocks for blower and illumination control.

Control System

- Microprocessor-based control panel with digital display for UV, blower, and illumination.
- Programmable UV exposure timer with countdown feature

Mobility and Maintenance

- Compact, lightweight design with optional castor wheels for easy movement.
- Front-access filters for convenient replacement and maintenance.

TECHNICAL MATRIX

Model	PTE-PCR 804 A	PTE-PCR804 B	PTE-PCR804 C	PTE-PCR804 D
Inner Size WxDxH	2 ft × 2 ft x 2ft	3 ft × 2 ft x 2ft	4 ft × 2 ft x 2ft	6 ft × 2 ft x2ft
Airflow type	Vertical airflow			
Filtration efficiency	99.97% at 0.3 μm (HEPA filter)			
Pre-filter	Washable synthetic fiber pre-filter			
UV lamp	15–30 W germicidal UV-C lamp (254 nm)			
Fluorescent/LED light	20–40 W for workspace illumination			
Noise level	< 65 dB			
Vibration level	< 2.5 μm			
Work surface material	Stainless steel (SS 304) or powder-coated mild steel			
Side panels	Transparent acrylic/polycarbonate			
Front door	Manual lift-up or sliding sash			
Air velocity	0.3 – 0.5 m/s			
Power supply	230 V ±10%, 50 Hz, single phase			
Control panel	Microprocessor control with LED indicators and timer			
Operation mode	Continuous airflow with UV sterilization mode			

OPTIONAL ADD ONS

- Digital UV timer with auto cut-off.
- UV interlock with front sash for safety.
- Adjustable speed blower.
- Without Filter
- LCD Display with Sensor
- LCD Display without Sensor