

MODEL LAOP

Laboratory Automation & Robotic System Enclosures & Cabinets

for operator protection



Bigneat manufactures and installs Laop enclosures for protection of the operator from moving automated equipment and potentially hazardous fumes and particulates released from the enclosed processes.

LAOP's high performance airflow system draws air through the HEPA and/or Chemcap carbon filtration system mounted in the roof of the enclosure. The enclosure is maintained at a slightly negative pressure with air entering the enclosure through slots at low level (>0.4m/s) and this protects the operators from aerosols and/or vapours such as solvents and DMSO released from the process. Used air is exhausted via outlet/exhaust filters back to the laboratory.

Access to the enclosure interior during operation can be gained through full height sliding or hinged doors allowing for access to the robotics system inside the enclosure during use, loading and maintenance.

A control panel provides audible and visual alarm indication of low airflow. Interlocking upper and lower main access doors are locked down with 'T' handles during operation.

This enclosure's air flow is 100% pass through system, air in and air out.

BESPOKE AND CUSTOM FINISHED CABINETS

Bigneat is highly flexible and we offer enclosure options and finishing to suit your robotics system and the contained process.

IT'S YOUR CHOICE!

Specify cable/tubing connections required.
Choose the colour of your enclosure.
Consider integrating your robotic system into your enclosure.

FEATURES

- Provides operator protection with doors closed and/or with doors open.
- Excellent all-round visibility of the enclosed system.
- Audible and visual alarm indication of low airflow.
- Door open warning alarm.
- Display/lighting beacons show status of enclosed robotic system.

IMPROVE RELIABILITY, IMPROVE PRODUCTIVITY, IMPROVE SAFETY.

FILTRATION USED IN LAOP ENCLOSURES

Pre-filtration eliminates particles at 5.0µm or larger to an efficiency of 92% as defined in BS EN ISO 779.

Particulate filtration HEPA filtration (H14 Standard) eliminates particles 0.3 µm or larger to an efficiency of 99.995%.

Optional carbon filtration Chemcap OS filtration as an option. Carbon filtration removes solvent and acid vapours.

▶ PERFORMANCE

LAOP cabinets are designed to operate at a minimum face velocity of 0.4m/s with one door open.

▶ ESSENTIALS

- High quality construction
- Largest component of enclosure for on-site assembly will fit through standard laboratory doorway
- Self-levelling/lockable castors ensure full mobility

OPTIONS AND EXTRAS

- **Additional electrical sockets to suit robotics system**
- **Carbon filtration**
- **Computer shelf on flexible arm**
- **Leaded acrylic windows**
- **Storage and shelving to suit**
- **Universal control panel**
- **Variety of door options**
- **Waste tips and plates chute and ventilated container**



TECHNICAL SPECIFICATIONS

Model	External dims mm (WxDxH)	Internal dims mm (WxDxH)	Inflow air velocity min m/s
RO1500/01	1500 x 1180 x 2400	1420 x 1000 x 1144	>0.4
RO1800/01	1800 x 1180 x 2400	1720 x 1000 x 1144	>0.4
RO2200/01	2200 x 1180 x 2400	2120 x 1000 x 1144	>0.4
RO2600/01	2600 x 1180 x 2400	2520 x 1000 x 1144	>0.4
RO3200/01	3200 x 1180 x 2400	3120 x 1000 x 1144	>0.4

Cabinet supplied with lighting: 2 x 18W sealed fluorescent amps >480lux, electrical sockets: x2. Sound level: <60dBA. Cabinets available for power supply: 230V, AC, 50Hz, 13Amp, 1Ø and 110V, AC, 60Hz, 20Amp, 1Ø.

▶ QUALITY ASSURED



Bigneat is accredited to
BS EN ISO 9001: 2008



Bigneat systems
are CE marked

Bigneat manufactures from UL approved components

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