



## HYPOXYLAB™

### A bench-top incubator and workstation for cell culture under physiological oxygen

- Maintains physiological oxygen, CO<sub>2</sub>, humidity, and temperature
- Regulated using oxygen partial pressure (pO<sub>2</sub>) for true 'physoxia'
- Compact form-factor / rapid equilibration / economical gas consumption
- Ergonomic design / simple to operate and maintain
- HEPA filtration built-in
- Intuitive touch-screen operation
- OxyLite™ ready

### Rationale

Standard incubators expose cells to oxygen that is between 2 and 40-fold above that encountered physiologically, with potentially unwanted biochemical and metabolic side-effects. To reproduce the *in vivo* state, cells and tissues in culture must be maintained at below atmospheric oxygen, under controlled conditions of 'physoxia'.



### True physiological oxygen

HypoxyLab regulates its oxygen environment using the partial pressure of oxygen (in mmHg or kPa), a scientifically rigorous approach which eliminates variability due to atmospheric pressure changes and laboratory altitude. HypoxyLab thereby sets the benchmark for the most faithfully accurate hypoxia workstation available.

### OxyLite™ ready

A dedicated through-gland in the chamber wall supports our gold standard OxyLite™ oxygen sensors. These support highly accurate oxygen measurements directly from within cell cultures or culture media (OxyLite™ monitor required).



### Performance

A considered design and digital gas flow controllers come together to allow HypoxyLab to respond rapidly to set-point changes, while minimizing gas consumption. A fully humidified, temperature and CO<sub>2</sub> controlled hypoxia environment is achieved in less than 30 minutes from switch-on.

### Contamination control

A user replaceable HEPA filter continually scrubs the chamber atmosphere, minimizing contamination risk, while the humidification system features a built-in UV source.

### Easy-entry system

A simple letter box hatch permits quick and convenient transfer of plates, media, and accessories without the need for a dedicated air lock. Sensors automatically detect operation of the hatch, responding in real time to maintain steady-state conditions, even under extreme hypoxia.



### Touchscreen control

Chamber oxygen, CO<sub>2</sub>, humidity, and temperature are all set and controlled from the intuitively designed, integrated touchscreen, which simultaneously displays the current levels of these parameters in both digital and trace formats.

### Automated oxygen profiles

The touchscreen provides a fully programmable oxygen profile feature with which the HypoxyLab can be set to automatically subject cells to up to 8 sequentially defined oxygen concentrations.



### Other design features

Relaxed operation via a simple cuff and sleeve system. Angled vision panel and adjustable LED illumination for excellent visibility. Adjustable internal shelf units for sample storage. Removable, lightweight cover for pre-loading of large consumables and routine cleaning or disinfection. Continuous logging of environmental parameters to memory, exportable to USB. Vacuum pass-thru waste port built-in.