

YORLAB® BIO SAFETY CABINET CLASS-II-TYPE-A2 **Model No.: YSL / YSI-190**

Specifications:

Bio-Safety Cabinets are of international quality & are considered top-of-the-line by its very large number of regular users. A few unique features of these Cabinets are as follows:

- Microprocessor controller with LCD display, with menu controlled following features.
- Password(Programmable) for Authorized operation.
- Initial Self Cleaning Cycle with programmable time.
- Real Time Clock . UV Timer . Total UV used Timer.
- Total HEPA Filter run time.
- HEPA Filter Alarm after programmed hours with ON/OFF.
- HEPA Filter last change date
- Audio Visual Door Unsafe Alarm, if door is at incorrect operating height.
- UV/Door/Fluorescent Light Inter Lock i.e. UV switches ON only when door is closed, and automatically switches OFF fluorescent lights.
- Continuous monitoring of cabinet airflow is displayed on a bright, easy-to-read LCD panel.
- Two integrated, MEMS technology-based Air velocity sensor, true airflow velocity sensors provides an accurate airflow reading despite room temperature fluctuation.
- All electronic parts are contained inside a plug-and-play module that permits easy exchange if required.
- Touch pad data entry access.
- Automatic start-up sequence will prepare the cabinet for normal operation and advise when safe conditions are established.
- An administrator-controlled PIN (Personal Identification Number) can be set to restrict access to main menu.
- The airflow alarm can be activated or deactivated depending on user preference and nature of the work.
- Power Socket with external control.
- Half speed idling prevents contaminants entering work zone during idle periods, increases HEPA Filter life, avoids re-cleaning, saves energy.
- Door Safe Position Alarm sounds if door is raised above correct operating height.
- U.V. Light in work chamber Inter Locked with Door & Fluorescent Lights i.e. it switches ON only when door is closed , and automatically switches OFF fluorescent lights. 30 minutes Auto Off Timer is optional.
- 2-Stage Exhaust Protection :
 - i) HEPA Filters
 - ii) UV Burn out, with View window in work chamber to monitor its working.
- **Sliding Sash** : Counter Balanced Door for effortless operation. Motorized Door is optional.
- **Air Curtain on Table Front Edge** : for preventing contaminants from entering into or escaping from the work chamber from table front edge.
- **Spillage Drain System** : Collection Channels with Drain outlet provided under the work table.
- **Manometer** : To monitor supply filters. Magnahelic Gauge is optional. Front Arm Rest is provided to prevent operator's arms from the blocking air flow, and for user comfort, along with Foot Rest.
- **Electric Outlet**: Provided in the work chamber for connecting any appliance.
- **Sloped Front** : Ergonomically design ensures better operator comfort and more reach into the Work Area.
- Work Zone Made of Stainless Steel 304 grade. Single



piece sides & back wall with rounded corners to prevent trapping of contaminants in crevices and allow proper cleaning.

- Ease of Maintenance - HEPA & Pre Filters replaceable from front.
- Factory pre-installed for instant commissioning Only ducting needs to be connected at site.

Electronic Filter Choke Alarm (optional) :

- An electronic Different Pressure monitor gives Audio Visual Indication of Filter choking.
- Standard Construction Body of Cold Rolled Mild Steel, Powder Coated after 7-Tank pre-treatment. Chamber & work Table of SS 304.

Control Panel Provided with:

- Intelligent micro-controller-based monitors airflow in real-time via temperature compensated sensors and conserves UV lamp life with unique timer function.
- Closed loop microcontroller-based speed controller maintains constant, stable airflow despite building supply voltage fluctuations.
- Built-in RFI and electrical noise filters eliminate interference with adjacent instrumentation.
- Intelligent micro-controller Control, Alarm, Monitoring System
- Micro-controller-based control system supervises operation of all cabinet functions.
- The control panel is located on the center of the cabinet and angled down for easy access by the operator.

Optional :

- Virus Burn Out Unit at Exhaust.
- Motorized Door.
- Electrically Operated, for best operator comfort.
- UV Hour Meter, to keep track of total UV used time.
- Exhaust System, for ducting length above 6 feet.
- Full Body.
- Chamber and work Table of heavy S. Steel 304.

Continued on.....

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Model No.: YSL / YSI-190

Specifications :

| | | |
|---------------------------------|---|---|
| Micro-Controller based | : | Menu Controlled with LCD Display with Menu Functions as explained above. |
| Laminar Airflow Velocity | : | Average of 0.45 m/s or 90 fpm measured 150mm/6" filter face for 45 air charges / minute work zone |
| Re-circulation | : | 70% |
| Exhaust | : | 30% |
| Air Cleanliness in Working Area | : | meets or exceeds US Federal Standard 209E Class 100 |
| Main & Exhaust Filters | : | HEPA (Minipleat Optional) |
| HEPA Filters | : | Rated for min. 99.99% efficiency at 0.3 micron particle size |
| Pre-Filters | : | Low pressure drop. High efficiency, 10 microns |
| UV Sterilization | : | In work chamber & Exhaust Plenum. Emission in the germicidal band UV -Cm 254mm. |
| Alarm | : | Door unsafe position |
| Half Speed Control | : | For idling periods |
| Noise Level | : | <58dBA at operator level |
| Gas ON/OFF | : | Electrical, Flame Auto Off with power failure. |
| Inter Lock | : | UV/ Fluorescent Lights/ Door |
| Exhaust | : | Double protection with HEPA & UV |
| Motors / Blowers | : | Double shaft, Balanced, low vibration |
| Power | : | 220-240VAC / 50 Hz 1 Ph |

| Internal & External Dimensions | YBS-22(A) | YBS-32(A) | YBS-42(A) | YBS-62(A) |
|--------------------------------|-----------------|------------------|-----------------|-----------------|
| Internal Work Zone LxWxH (in) | 24" x 24" x 24" | 36"x24"x24" | 48" x 24" x 24" | 72" x 24" x 24" |
| (approx) (mm) | 610 x 610 x 685 | 915 x610x685 | 1220x610x 685 | 1828 x610x685 |
| External Dimensions Lx W x H | 28" x 35" x 74" | 42" x 35"x 74" | 52" x35" x 74" | 76" x 35"x 74" |
| in (mm) | 710 x 890 x1880 | 1070 x 890x 1880 | 1320x890 x 1880 | 1930x890x 1880 |

Preferred Class most widely used, as described in following Text. Cleanliness level in the Work Chamber meets or exceeds Class 100 level of US Fed Std 209E. These cabinets are available in the following Class varieties.

| Type | Airflow Pattern | Personal, Product & Environmental Protection. |
|-------------------|---|---|
| Class-I | Front suction, exhaust through HEPA Filter | Personal, Product & Environmental Protection. |
| Class-II, Type A2 | 70% re-circulated through HEPA 30% Exhaust through HEPA w/o Ducted | Personal, Product & Environmental Protection. |
| Class-II, Type B | 100% re-circulated through HEPA | Personal, Product Protection. |
| Class-II, Type B1 | 30% re-circulated through HEPA 100% Exhaust through HEPA Ducted | Personal, Product & Environmental Protection. |
| Class-II, Type B2 | No-re-circulated 100% Exhaust via HEPA & Ducted | Yes |
| Class-II, Type B3 | Same as ClassII TypeB1 but plenum under Negative Pressure w.r.t. Room | Yes |
| Class-III | Same as ClassII TypeB2 but with work area Access Through Glove Pots for Absolute Safety | Yes |