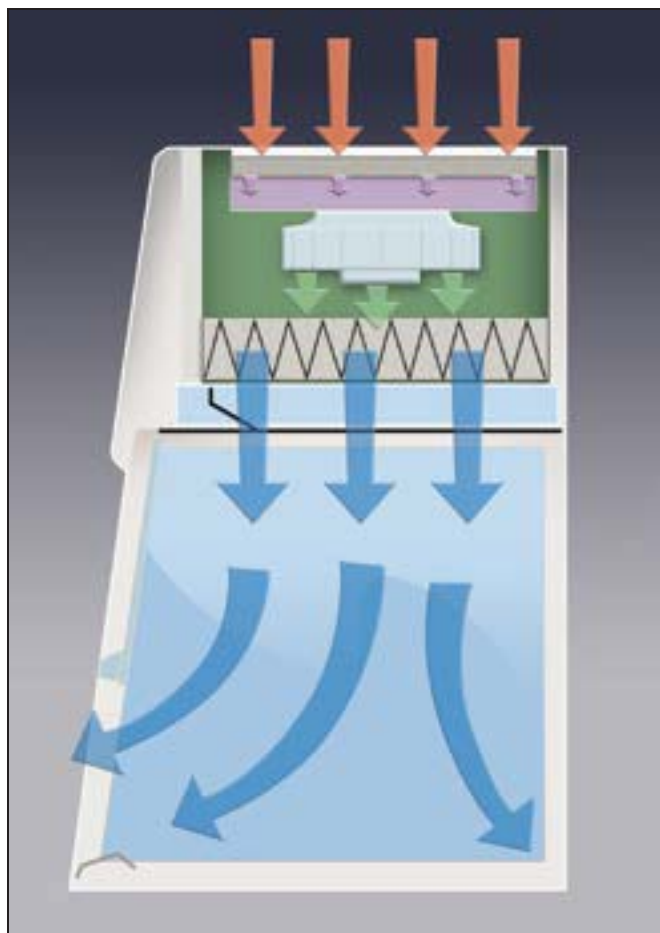**Purifier Vertical Clean Benches protect your work from particulate contamination.** Using a 99.99% efficient supply HEPA filter, Purifier Vertical Clean Benches maintain ISO Class 5 conditions (formerly Class 100) in the work area. Appropriate applications for Clean Benches include plant tissue culture, media plate preparation, electronics inspection, medical device assembly and IV solution preparation.

Because Purifier Vertical Clean Benches do not provide protection to the user, they should not be used in conjunction with biohazardous material, toxins or radionuclides. You and your safety officer must carefully assess the risk associated with any operation performed in a clean bench.
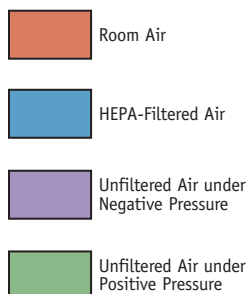
Purifier Vertical Clean Benches are offered in 2', 3' and 4' widths. Built-in options include a UV light with timer for secondary decontamination and a Guardian Airflow Monitor to monitor downflow velocity and HEPA filter loading.

Purifier Vertical Clean Bench 3970200 on Solid Epoxy Dished Work Surface 3909900 and Telescoping Base Stand 3746710 with Ergonomic Chair 3744000 and Adjustable Footrest 3746000.

During operation, room air is drawn through a prefilter in the top of the cabinet to trap large particles. Then, the air flows through a 99.99% efficient HEPA filter and is projected vertically over the work area. This HEPA-filtered air prevents contaminants from entering the work area and provides a particulate-free work environment that minimizes cross contamination.

Room Air

HEPA-Filtered Air

Unfiltered Air under Negative Pressure

Unfiltered Air under Positive Pressure

FEATURES & BENEFITS

HEPA filter is rated to remove 99.99% of all particles 0.3 micron in size. It is industry standard size for economical replacement.

Disposable prefilter traps large particles to extend the life of the HEPA filter.

Front-mounted differential pressure gauge indicates the total system pressure across the HEPA filter and pressurized plenum to help determine HEPA filter loading.

Variable digital timer provides timed UV light exposure on models with UV lamp. From the front-mounted control panel, the operator may select from eight settings in minutes of 5, 10, 15, 30, 60, 120, 240 and continuous. When the UV light switch is activated, the previously selected time setting is automatically initiated or the user may select a different setting. An amber LED indicator blinks for the duration of the setting.

Air diffuser protects the HEPA filter from possible damage from direct contact with the operator and apparatus inside the enclosure. It distributes air evenly across the work area to optimize airflow.

Support hooks (on models with UV lamp) allow the UV protection panel to be stowed above the work area while the enclosure is in use.

Light and blower switches are located within easy reach of the operator. On models with UV light, a single 3-way switch powers the fluorescent and UV light, but only one at a time, helping to protect the operator from inadvertent UV exposure.

Tempered safety glass sash is sloped 10° for less glare and closer, more comfortable viewing than vertical sashes offer. The glass is UV opaque and resistant to UV irradiation. Wiping seals ensure ISO Class 5 conditions inside the enclosure. The sash has a spring-loaded latch so that it may be pivoted upward and locked open for loading and cleaning.

Glare-free fluorescent lighting. The lamp is located above the work area, out of contact with the filtered air.

CE mark. All 230 volt, 50 Hz models conform to the CE (European Community) requirements for electrical safety and electromagnetic compatibility.

ETL listed. All 115 volt, 60 Hz models carry the ETL mark signifying that they are certified to UL Standard 3101-1/61010-1 and CAN/CSA C22.2 No. 1010.1.

Two convenient utility ports with iris openings allow passage of tubing and electrical cords from equipment inside the enclosure through the back for connection to services. Plugs are provided to seal the ports when not in use.

Variable speed blower with solid state control may be accessed by a certified technician to validate and adjust downflow velocity.

Ultraviolet lamp, 254 nm, with interlocked protection panel (on models with UV lamp) provides secondary decontamination while the bench is not in use. The UV light does not penetrate the plane of the sash and air foil.

Particulate-free ISO Class 5 air. Particle counts in the work area conform to ISO 14644-1 and 2, providing ISO Class 5 conditions (formerly Class 100 per Federal Standard 209E), ensuring fewer than 3520 particles 0.5 µm or larger per cubic meter of air.

Accessory Solid Epoxy Dished Work Surface. See page 23 for ordering information.

Optional built-in Guardian™ Airflow Monitor alerts the user to downflow velocities outside of preset range and HEPA filter conditions.

Exclusive feature

Standard Features

- Vertical laminar flow
- Nominal downflow velocity of 40-55 fpm
- Supply HEPA filter, 99.99% efficient on particles 0.3 micron
- ISO Class 5 air (formerly Class 100 per Federal Standard 209E)
- Disposable prefilter
- Variable speed built-in blower with motorized impeller and solid state control rated for 5 amps
- Differential pressure gauge
- Air diffuser
- ▦ UV-resistant, glacier white and gray powder-coated aluminum and steel construction
- ▦ UV-opaque and resistant 1/4" thick tempered safety glass sash and sides
- Fluorescent lamp
- Light and blower switches
- ▦ 9.4" high sash opening
- Ergonomic 10° angled and hinged sash that pivots upward, locks to a loading height of 20" and has wiping seals to promote ISO Class 5 conditions
- Two utility ports with iris openings and plugs
- ETL listing, UL 3101-1/61010-1 and CAN/CSA C22.2 No. 1010.1 conformity (115 volt models)
- CE Conformity Marking (230 volt models)
- One year warranty on parts and labor

Standard Options

- ▦ Guardian Airflow Monitor that continuously monitors downflow airflow and has two LED lights to indicate when airflow is within or outside set point range. Set point is factory calibrated for 25-35 fpm downflow velocity. The "Safe" green LED glows when airflow is within set point range. The "Alert" red LED glows and an audible alarm sounds when airflow is outside set point range. The audible alarm may be muted by pressing the "Silence Alarm" switch.
- ▦ 254 nm UV lamp with 3-way switch (fluorescent, UV and off), interlocked protection panel that closes the sash opening to guard inadvertent exposure to UV rays; variable digital timer with eight settings in minutes of 5, 10, 15, 30, 60, 120, 240 and continuous; and two support hooks located atop the bench for stowing the panel.

Required Accessories

- Supporting work surface. Place on existing casework or see page 23.
- Supporting base. Place on existing casework or see pages 28-31.

See page 23 for dimensional drawings.

▦ Exclusive feature

Purifier Vertical Clean Bench 3970200 on Solid Epoxy Dished Work Surface 3909900 and Telescoping Base Stand 3746710.

Catalog #	Nominal Width	Electrical Requirements	UV Lamp/ Panel/Timer	Airflow Monitor	Power Cord & Plug	Shipping Weight
3970200	2 feet	115 volts, 50/60 Hz, 5 amps			115 volts, 15 amps	165 lbs. (75 kg)
3970201	2 feet	115 volts, 50/60 Hz, 5 amps	●		115 volts, 15 amps	165 lbs. (75 kg)
3970203	2 feet	115 volts, 50/60 Hz, 5 amps		●	115 volts, 15 amps	165 lbs. (75 kg)
3970204	2 feet	115 volts, 50/60 Hz, 5 amps	●	●	115 volts, 15 amps	165 lbs. (75 kg)
3970220*	2 feet	230 volts, 50/60 Hz, 3 amps			230 volts, 10 amps, no plug	165 lbs. (75 kg)
3970221*	2 feet	230 volts, 50/60 Hz, 3 amps	●		230 volts, 10 amps, no plug	165 lbs. (75 kg)
3970223*	2 feet	230 volts, 50/60 Hz, 3 amps		●	230 volts, 10 amps, no plug	165 lbs. (75 kg)
3970224*	2 feet	230 volts, 50/60 Hz, 3 amps	●	●	230 volts, 10 amps, no plug	165 lbs. (75 kg)
3970300	3 feet	115 volts, 50/60 Hz, 5 amps			115 volts, 15 amps	205 lbs. (93 kg)
3970301	3 feet	115 volts, 50/60 Hz, 5 amps	●		115 volts, 15 amps	205 lbs. (93 kg)
3970303	3 feet	115 volts, 50/60 Hz, 5 amps		●	115 volts, 15 amps	205 lbs. (93 kg)
3970304	3 feet	115 volts, 50/60 Hz, 5 amps	●	●	115 volts, 15 amps	205 lbs. (93 kg)
3970320*	3 feet	230 volts, 50/60 Hz, 3 amps			230 volts, 10 amps, no plug	205 lbs. (93 kg)
3970321*	3 feet	230 volts, 50/60 Hz, 3 amps	●		230 volts, 10 amps, no plug	205 lbs. (93 kg)
3970323*	3 feet	230 volts, 50/60 Hz, 3 amps		●	230 volts, 10 amps, no plug	205 lbs. (93 kg)
3970324*	3 feet	230 volts, 50/60 Hz, 3 amps	●	●	230 volts, 10 amps, no plug	205 lbs. (93 kg)
3970400	4 feet	115 volts, 50/60 Hz, 5 amps			115 volts, 15 amps	245 lbs. (111 kg)
3970401	4 feet	115 volts, 50/60 Hz, 5 amps	●		115 volts, 15 amps	245 lbs. (111 kg)
3970403	4 feet	115 volts, 50/60 Hz, 5 amps		●	115 volts, 15 amps	245 lbs. (111 kg)
3970404	4 feet	115 volts, 50/60 Hz, 5 amps	●	●	115 volts, 15 amps	245 lbs. (111 kg)
3970420*	4 feet	230 volts, 50/60 Hz, 3 amps			230 volts, 10 amps, no plug	245 lbs. (111 kg)
3970421*	4 feet	230 volts, 50/60 Hz, 3 amps	●		230 volts, 10 amps, no plug	245 lbs. (111 kg)
3970423*	4 feet	230 volts, 50/60 Hz, 3 amps		●	230 volts, 10 amps, no plug	245 lbs. (111 kg)
3970424*	4 feet	230 volts, 50/60 Hz, 3 amps	●	●	230 volts, 10 amps, no plug	245 lbs. (111 kg)

*International electrical configuration