

SINCE 1889



Yamato Scientific
America

Yamato Chambers & Workstations

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New! Desiccators

Designed to protect, store, or assist in transporting critical materials



860 SERIES

Dust and moisture free cabinets that safeguard valuable research specimens or sensitive electronic components. The status of components can be easily observed without opening the door.



860.5-SERIES

12" x 12" x 6"
304.8 x 304.8 x 152.4 mm



860-SERIES

12" x 12" x 12"
304.8 x 304.8 x 304.8 mm



861-SERIES

12" x 12" x 24"
304.8 x 304.8 x 609.6 mm



862-SERIES

18" x 18" x 18"
457.2 x 457.2 x 457.2 mm



863-SERIES

24" x 18" x 24"
609.6 x 457.2 x 609.6 mm



PCR Workstations

PCR Workstation (UV) & PCR Workstation (UV + HEPA Filter)



PCR204/214/204H/214H

Designed to improve PCR accuracy and reduce airborne contamination



PCR Workstation (UV)

PCR204

115-120V 60Hz 12 amps

PCR214

220-240V 50Hz 6 amps

PCR Workstation (UV + HEPA Filter)

PCR204H

115-120V 60Hz 12 amps

PCR214H

220-240V 50Hz 6 amps

Includes factory installed HEPA filter system, rated at 99.9997% efficiency at 0.3μ (microns).

This is a positive pressure research chamber. The fan (blower) noise level is rated at less than 40 dBA.

Features

- "Bright Light" illumination system (40,000 hour lamp guarantee)
- U.V. germicidal system rated at 254 nm decontaminates all exposed surfaces in the interior
- Automatic timer to activate U.V. sterilization procedures
- Front panel is .500" thick (13 mm) for Beta Ray protection. **NOTE:** Not Gamma Rays
- Side and back walls are one piece formed optically clear acrylic .375" thick (9.5 mm)
- Two bright white plastic (adjustable) shelves. One is tooled to store pipettors
- Bottom tray has a formed in place "spill guard" for easy cleaning
- Removable side access doors with slip apart hinges
- Proximity sensors on doors for operator safety
- Main housing and top are removable for installation of large pieces of equipment

Specifications

Model	PCR204/214	PCR204H/214H
HEPA filter	---	"Mini HEPA" filter size 4" x 9.5" x 1" thick (101 x 240 x 25.4 mm thick) No tools required for HEPA filter change over
Inside dimension (WxDxH)	23.5" x 17" x 21" / 597 x 432 x 530 mm	23.5" x 17" x 21" / 597 x 432 x 530 mm
Outside dimension (WxDxH)	24" x 18" x 28" / 610 x 457 x 711 mm	26" x 23" x 28" / 610 x 457 x 711 mm
Approximate shipping weight	110 lbs. / 50 kilos	112 lbs. / 51 kilos

⚠ Attention

- Never use in flammable or explosive gas atmosphere
- Never use explosive or flammable material
- Caution: High temperature components

Compact Glove Boxes

Compact design with transfer chamber and flat side access door



SG828/835/848/860

A completely sealed glove box for **PRODUCT AND PERSONNEL PROTECTION**



SG-828

28" W x 23" D x 29" H
710 x 580 x 740 mm



SG-860

60" W x 29" D x 32" H
1524 x 740 x 810 mm

All models feature high visibility interior, cleanliness, safety, complete containment, portability and a draft-free atmosphere

Installed purging valves are ideal for lowering oxygen and humidity levels

All models are completed systems, nothing needs to be added except gas of choice: nitrogen, argon or other inert gases

Very useful when working with toxic substances, asbestos, fibers, sewage residue and harmful liquid vapors

■ Features

- Constructed with an optically clear material, developed for isolation and/or containment
- Transfer chamber with purging valves and vacuum gauge
- Flat side access door for easy introduction of larger equipment
- Four (4) key cock valves for purging: 2 on the main body, 2 on the transfer chamber
- Hospital grade multiple electrical outlet strip
- Pressure relief valve with small HEPA filter
- White ambidextrous hypalon gloves

■ Specifications

Model	SG-828	SG-835	SG-848	SG-860
RECOMMENDED OPERATIONAL PRESSURE				
For containment purposes	-0.5" of water column (0.93 torr)			
For isolation purposes	0.5" of water column (0.93 torr)			
Main chamber				
<i>Maximum pressure</i>	+6" of water column (11.2 torr)			
<i>Maximum vacuum</i>	-6" of water column (11.2 torr)			
Transfer chamber				
<i>Maximum pressure</i>	Not engineered to support positive pressure			
<i>Maximum vacuum</i>	-26" of Hg (660 torr)			
Inside dimensions (W x D x H)	28" x 23" x 29" 710 x 580 x 740 mm	35" x 29" x 30" 890 x 740 x 760 mm	48" x 29" x 32" 1220 x 740 x 810 mm	60" x 29" x 32" 1524 x 740 x 810 mm
Outside dimensions (Includes transfer chamber 12" long)	43" x 24" x 31" 1100 x 610 x 790 mm	49" x 30" x 31" 1250 x 760 x 790 mm	63" x 31" x 35" 1600 x 790 x 860 mm	76" x 32" x 35" 1930 x 812 x 890 mm
Access door opening	15.5" x 22" h 400 x 560 mm	21.5" x 22" h 546 x 560 mm	21.5" x 24" h 546 x 610 mm	21.5" x 24" h 546 x 610 mm

Anaerobic Chambers



AC505/515/706/716/505A/515A

Designed to control atmosphere with O₂ sensitive materials. Any inert gas may be used.



Anaerobic Chamber for Single Operator

AC505

115-120V 60Hz 10 amps

AC515

220-240V 50Hz 5 amps

Anaerobic Chamber for Multiple Operators

AC706

115-120V 60Hz 10 amps

AC716

220-240V 50Hz 5 amps

Ideal for up to two (2) operators

■ Features

- Two vacuum diaphragm pumps, one each for the drying train and the transfer chamber (purging)
- All controls are illuminated
- "Bright Light" illumination system with a 40,000 hour lamp guarantee
- All clamps are adjustable to compensate for wear
- Adjustable vacuum gauge on transfer chamber
- Transfer chamber is 12' (305mm) long x 11' (280 mm) I.D.
- Four (4) ground key-cock valves for purging
- Electric outlet (socket) strip (UL, CSA, CE)
- Self-sealing quick disconnects allow changing of the drying train without disturbing the internal atmosphere

■ Applications

- Microbiology
- Biochemistry
- Plasma environment work
- Animal science studies
- Electronic sub-assembly work

■ Specifications

Model	AC505/515	AC706/716
Top and bottom sections	Top: Formed one-piece clear plastic with "Easy Clean" corners Bottom: Matched die-molded white thermoset with "Easy Clean" corners	Optically clear top and bottom sections with "Easy Clean" corners
Drying train	Includes three (3) clear plastic canisters filled with molecular sieve	Includes six (6) polycarbonate canisters filled with molecular sieve
White ambidextrous hypalon gloves	One (1) pair	Two (2) pairs
Inside dimension (WxDxH)	41" x 28" x 26" / 1040 x 710 x 660 mm	60" x 38" x 31" / 1520 x 960 x 790 mm
Outside dimension (WxDxH) (includes transfer chamber 12" long)	55" x 35" x 38" / 1400 x 890 x 970 mm	76" x 47" x 42" / 1930 x 1190 x 1070 mm
Approximate volume	17.3 cubic ft. / 489L	40.9 cubic ft. / 1157L
Approximate shipping weight (crated)	450 lbs. / 205 kilos	685 lbs. / 311 kilos

Catalyst Heater

- Reduces trace amount of O₂
- Maintains correct incubation temperature

Drying Train

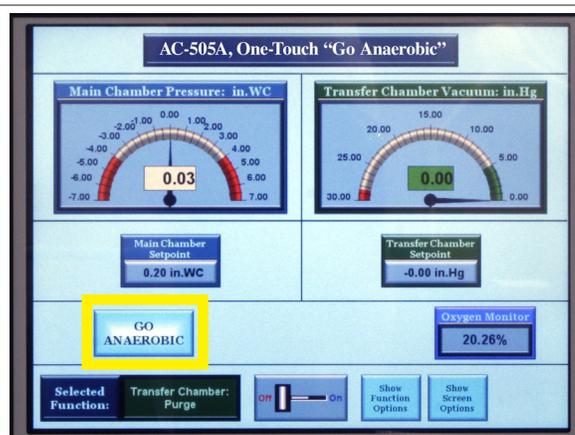
- Includes its own vacuum pressure pump and polycarbonate canisters filled with molecular sieve

Molecular Sieve

- Absorbs moisture
- Easily rejuvenated in an oven



"Go Anaerobic" Control Panel



Automatic "One Touch" Anaerobic Chamber

AC505A

110-120V 50/60Hz 5 amps

AC515A

220 50/60Hz 3 amps

Simply press the "Go Anaerobic" button to automatically create an anaerobic atmosphere

Features

- One-Touch, "Go Anaerobic" button to initiate purging sequence
- One-Touch, on-screen data-logging with USB port for long term studies
- Larger, easy to use operator touch screen display, 24 hr. data logging
- Automatic pressure hold function. Pressure control maintains user selected pressure levels
- Automatic purging cycles for main chamber and transfer chamber
- Larger, easy to use operator touch screen
- Continual display of atmospheric oxygen conditions in percentage (%) and parts-per-million (ppm)
- Oxygen display automatically switches to ppm when O₂ levels is <0.5%
- User selectable gas: Nitrogen or Anaerobic gas mixture
- High and low level alarms with alarm history log
- Password protected administration window
- Optional Rh monitoring and control

Specifications

Model	AC505A/515A
Oxygen sensor accuracy (%)	0-100.0% ±1.0%
Oxygen sensor accuracy (ppm)	0-10,000 ±1.0% FS
Temperature range	Ambient to 41°C Accuracy: (±0.5°)
Gas consumption for anaerobic achievement	300L
Pressure range	-3" WC to +3" WC (-1500 Pa to +1500 Pa)
Optional Rh control	Rh range: 5-90% Rh Control accuracy: ±1.0%
Inside dimension (WxDxH)	41" x 28" x 26" / 1041 x 711 x 660 mm
Outside dimension (WxDxH)	55" x 35" x 38" / 1397 x 889 x 965 mm
Approximate shipping weight (crated)	450 lbs. / 205 kilos

**The units are shipped as complete systems.
Nothing needs to be added except your gas
of choice and work samples.**

⚠ Attention

- Never use in flammable or explosive gas atmosphere
 - Never use explosive or flammable material
- Caution: High temperature components

Vented Balance Enclosures



VBE204/214/306/316/408/418/600/610

Self-contained units ideal for fine powders, chemicals and biological products



VBE306
115-120V

VBE316
220-240V

VBE408
115-120V

VBE418
220-240V

■ Features

- Includes top mounted HEPA/Blower filtration which are set-up to circulate the internal chamber atmosphere, through the HEPA filter and into the lab.
- The smooth curved, or rounded ABS™ airfoils provide gentle, unobstructed air flow through rear, and side, baffles and through top mounted HEPA filter.
- Constructed with optically clear 3/8" jeweled acrylic plastic
- Front viewing sash with multiple air foils for higher containment and draft deflection
- Includes phenolic base with superior chemical resistance and provides higher analytical balance stabilization
- Low vibrations. The black base allows for easy powder detection.
- Electrical cord outlet port
- Air flow alarm system
- Adjustable front draft protection
- Side blank plate for optional Bag-In / Bag-Out port
- Includes face velocity alarm

HEPA Filters

Aluminum frame with upstream/downstream polyurethane gasket. 100mm thick pleat requires fewer filter change outs and increased longevity. Rate 99.9997% @ 0.3 microns (H14). Easy HEPA filter replacement.

Blowers

High efficiency backward curved impeller. Variable speed controller. IP44 protection as per EN60034-5. Ecodesign Directive 2009/125/EC.

Exhaust Duct

6" OD port can be hard-ducted, thimble conneted, exhausted back into the room, or exhausted out of a mobile laboratory.

Energy and Sound

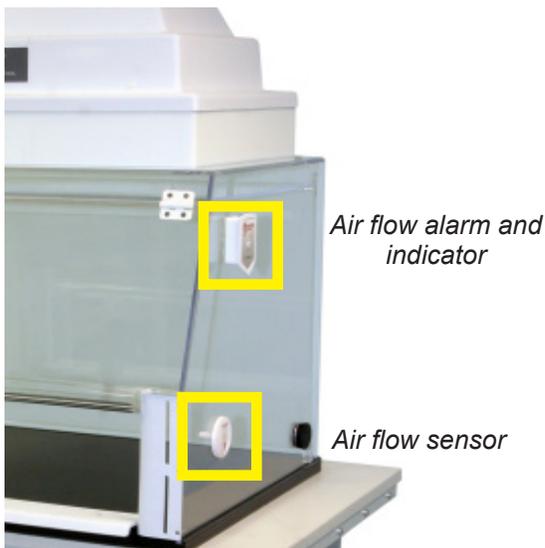
Blower current 0.53 amps. <55 dBA @ 80 FPM

Airflow

Target face velocity: 80 FPM. Non-turbulent, gentle airflow sweeps particulates into the rear baffle.

■ Specifications

Model	Inner Dimensions <i>width x depth x height</i>	Outside Dimensions <i>width x depth x height</i>
VBE204/214	24" x 23" x 21.50" 609 x 584 x 546 mm	26" x 26.75" x 41" 660 x 679 x 1041 mm
VBE306/316	35.25" x 23" x 21.50" 895 x 584 x 546 mm	36.50" x 26.75" x 41" 927 x 679 x 1041 mm
VBE408/418	47.25" x 23" x 21.50" 1200 x 584 x 546 mm	48.50" x 26.75" x 41" 1232 x 679 x 1041 mm
VBE600/610	59.25" x 23" x 21.50" 1505 x 584 x 546 mm	60.50" x 26.75" x 41" 1537 x 679 x 1041 mm



Air flow alarm and indicator

Air flow sensor

AIR FLOW ALARM

- Adds additional security needed for laboratory researchers
- Continuous tracking of air velocities within the balance enclosure
- Includes next generation airflow alarm technology
- Audible and visual alarm functions
- Includes 110V adapter

Specifications	Details
Airflow velocity range	40 -2000 fpm
Response time	< 1 second
Alarm indicators	LED light & audible Piezo
Turbulence warning	Flashing yellow LED rest switch
System failure	Red flashing LED
System Healthy	Green solid LED

Recommended Accessories

PLA-800BIBO/PORT



Bag-In / Bag-Out port includes a long ArmorFlex™ polypropylene bag (48" long) for safe removal of trash and unwanted debris.

Unwanted debris and trash are always contained and are never exposed outside of the containment isolator.

Bag port is 6" OD clear acrylic with two machined grooves for bag placement.

PLA-800BIBO/CRIMPER

Allows safe and secure removal of unwanted debris from inside the balance enclosure.

Trash is removed from the inside of the balance enclosure, through the 6" waste port, and into the bag.

Adjustable Lift Tables



Adjustable height lift tables with locking casters.

Height range: 25" to 45"
635mm x 1143 mm

Maximum weight: 330 lbs.
149 kilos

Product code	VBE
PLA-900CARTLIFT/24	204/214
PLA-900CARTLIFT/36	306/316
PLA-900CARTLIFT/48	408/418
PLA-900-CARTLIFT/60	600/610

Extraction Units



PLA-900EXTRACT

Extraction unit is a variable speed suction housing that includes your choice of filters such as HEPA or Impregnated Carbon. Suction speeds can be adjusted from "0" up to 250 CFM face velocity.

Filter options:

Product code	Model
PLA-900LVFH/HEPA	HEPA filter
PLA-900LVFH/HEPA/CARB	Combination. HEPA / Non-Impregnated Carbon Filter
PLA-900LVFH/CARB(N)(A)	Alkaline type fumes
PLA-900-LVFH/CARB(N)(B)	Ammonia or amines
PLA-900LVFH/CARB(N)(C)	Aromatic hydrocarbons, organic vapors, keytones, alcohols, organic acids, and odors

⚠ Attention

- Never use in flammable or explosive gas atmosphere
- Never use explosive or flammable material
- Caution: High temperature components