# Anaerobic Chambers

BACTRONEZ · BACTRON300 · BACTRON600 · BACTRON900









# About BACTRON Anaerobic/Environmental Chambers

### Glove-Free, Sample Handling

BACTRON chambers allow efficient and dexterous, glove-free handling and inspection of samples. Advanced, ergonomic arm port design ensures comfort and minimizes user fatigue during extended working sessions in the chamber.

### Variety of Models

With four model sizes available, users can choose a BACTRON unit that best fits their capacity and workspace needs. The quality and reliability for BACTRON units offer cost savings and eco-friendly solutions over the disposable-type sample handling.

### Improved Productivity

Research and clinical laboratories that are handling even small volumes of anaerobic samples may save substantial amounts of time and money by using permanent workstations rather than disposable pouches and jars. With anaerobic chambers, productivity is further improved by an up to 50% reduction in sample turnaround time.

### **Quality Construction**

BACTRON chambers are constructed with heavy-duty, stainless steel components to ensure chamber integrity and rigid acrylic glass front walls offer an unobstructed view of the interior workspace. The stainless steel airlock slide and workstation floor can withstand significant wear and tear while maintaining an aesthetically pleasing, clean finish.

### Full Third Party Safety Certification

All BACTRON chambers carry full third party safety compliance certificates. Our chambers meet EN61010, UL61010, and CAN/CSA61010 standards. These units also carry a CE marking.

# Anaerobic Conditions for Microbiology and Cell Biology

Anaerobes are organisms that can grow without oxygen. Some can live when oxygen is present (facultative) and some cannot tolerate even a trace of oxygen (strict or obligatory). Anaerobes are very prevalent, many are part of the normal human flora, and make up an estimated 50% of Earth's biota. Dozens of common infections are either exclusively anaerobic or are mixed aerobic/anaerobes. Some obligatory anaerobes may cause serious infections such as tetanus, gas gangrene, or botulism (through tainted food products). Therefore, isolation and identification of anaerobes are very important in clinical diagnoses and research, and in commercial processes such as canning, bottling (e.g. beer and other fermented beverages), and food fermentation. BACTRON anaerobic chambers have made a strong name for themselves over the past twenty years as more and more labs have realized the cost savings in moving from vacuum jars or bags to anaerobic workstations.

BACTRON anaerobic and environment chambers provide glove-free handling of samples with a consistent, oxygen-free environment that promotes faster sample turnaround. Modular equipment within the chamber facilitates the completion of basic workflow procedures from unpacking of materials to inoculation, incubation, inspection, and recovery.





### BACTRONEZ

Specifically designed for use by smaller labs, the BACTRONEZ is an ideal "starter" anaerobic chamber. The most popular BACTRON unit may also serve as an economical set up station for larger labs or as a replacement for vacuum jars and gas packs.

### BACTRON300

Compact and economical, BACTRON300 provides a 300 plate capacity incubator and delivers optimum productivity in everyday workflow. The BACTRON300 offers a larger workspace than the BACTRONEZ while maintaining the space saving capabilities.



### BACTRON600

The BACTRON600 offers a 600 plate capacity with a space saving rotating incubator design. Two rear-mounted shelves help keep your workspace organized. This unit is designed for high volume sample processing and storage but requires less bench space than expected for its size.

# BACTRON900

The BACTRON900 is similar in design to the BACTRON600 with a space saving rotating incubator design. In addition, the BACTRON900 holds 900 plate capacity with an added rear incubator which includes an independent temperature control for user flexibility.





### BACTROX

The Bactrox Hypoxia Chamber can provide microaerophilic conditions ranging from 1-20% oxygen in the chamber, with a heated incubator that can maintain tight temperature uniformity for any cell culture needs. Visit our <u>website</u> to learn more.

For more information about BACTRON units, contact a Sheldon Manufacturing representative today.



# **Features and Benefits**

Technology is constantly evolving so we kept the features that make the BACTRON an industry leader and upgraded others to maximize efficiency. Here are a few ways BACTRON is the right fit for your process:

### Low Gas Supply Alarm

- New audible and visual alarm notifies user that the AMG supply is low.
- Operators can change the cylinder while the chamber atmosphere stays anaerobic.

### Integrated Vacuum Pump

- Quieter operation.
- Eliminates vacuum pump connections during installation.

### • 60% Faster Airlock Cycle

- The biggest airlock on the market is now the fastest, getting samples into the chamber **2X** faster than before.

### Auto-Sleeve Cycle with Integrated HEPA Filter

- No more guesswork or operator variation; automated ultra-efficient sleeve cycles with one press of the foot switch.

### Integrated Internal Regulators

- Protect all the internal components from incorrect cylinder settings.
- Ensure consistent and reproducible gas delivery to all chamber processes.

### Inner Door Lock

- "Smart" lock prevents airlock opening during aerobic conditions.
- Prevents operator error and introduction of oxygen to critical samples.

### 40% Faster Sleeve Cycle

- Reduce operator waiting time.

### Faster Installation

- BACTRON installation in as little as 30 minutes.
- "Plug and Play" installation with integrated connections.

### User Adjustable Airlock Cycling

- Customize your airlock cycle to fit your time and budget.
- Do you need precision or are you just in a hurry? Pick from 3, 4 or 5 auto cycle iterations.

### Auto-Commissioning Cycle

- The single button auto-commissioning cycle automatically creates an anaerobic atmosphere; press the button and walk away while the chamber becomes anaerobic.

### Easy-to-Access, Replaceable HEPA Filters

 Protect your internal atmosphere with HEPA filters on incoming gas supplies.

### **BACTRON Applications:**

- Clinical Microbiology 
   Microbiome Studies
- Susceptibility Assays Fermentation and Spoilage Studies
- Food Microbiology
   Bio-Energy Research
- Environmental Microbiology 
   Anaerobic Bacteriology

### Sleeve Cuffs

 Comfortable, sleeve cuff seals around operators arm to permit barehanded manipulation of specimens in the chamber. Elimination of bulky gloves makes work comfortable and efficient.

### Arm Port Doors

- Unique ergonomic design reduces fatigue for the user. Sealed, access doors are removed when entering the working anaerobic chamber. The doors are kept on holders inside the chamber while the user's arms are inserted into the sleeves. Operator replaces and seals the doors when leaving the chamber, thus closing the system and maintaining a strict anaerobic environment.

### Sliding Shelves

- Shelf inside the airlock module slides into the chamber and makes loading of materials and samples easier.

### Oxygen Catalyst and Humidity Controls

- .The anaerobic chamber atmosphere circulates through a condensate removal system and then through a catalyst that eliminates any trace amounts of oxygen.

### Pressure Controls

 The chamber is equipped with an automatic pressure control that provides positive pressure at approximately 0.5 inches of water column pressure. The internal manometer provides a clear view of the pressure level.

### <u>Revolving Shelves</u>

- BACTRON600 and 900's large incubator contains revolving shelves for efficient and convenient use of storage space.

### External Lights

- Ultra-bright LED light fixture illuminates chamber interior. (Sold separately for BACTRONEZ).



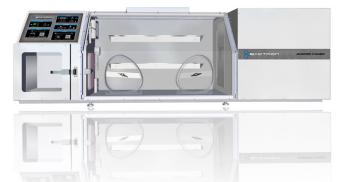
# **BACTRON Specifications**



<b>BACTRON Model</b> Part ID [Part ID - 220V]	BACTRONEZ BAAEZ22 BAAEZ22-E	<b>BACTRON300</b> BAA30022 BAA30022-E	<b>BACTRON600</b> BAA60022 BAA60022-E	<b>BACTRON900</b> BAA90022 BAA90022-E
Exterior Dimensions (w x d x h)	49.0 x 32.0 x 27.6 in 1245 x 813 x 701 mm	62.3 x 32.0 x 27.6 in 1583 x 813 x 701 mm	88.5 x 32.5 x 27.6 in 2248 x 826 x 701 mm	88.5 x 32.5 x 33.6 in 2248 x 826 x 854 mm
Workspace Chamber Dimensions (w x d x h)	<b>33.0 x 28.9 x 25.0 in</b> 838 x 734 x 635 mm	<b>42.5 x 28.9 x 25.0 in</b> 1059 x 734 x 635 mm	<b>42.5 x 28.9 x 25.0 in</b> 1059 x 734 x 635 mm	<b>42.5 x 28.9 x 25.0 in</b> 1059 x 734 x 635 mm
Workspace Chamber Volume	12.5 cu. ft / 354 L	16.0 cu. ft / 453 L	16.0 cu. ft / 453 L	16.0 cu. ft / 453 L
Airlock (w x d x diagonal)	9.0 x 10.7 x 9.0 in 229 x 272 x 229 mm	<b>16.0 x 10.0 x 11.5 in</b> 406 x 254 x 292 mm	<b>16.0 x 10.0 x 11.5 in</b> 406 x 254 x 292 mm	<b>16.0 x 10.0 x 11.5 in</b> 406 x 254 x 292 mm
Airlock Volume	<b>0.74</b> cu. ft / 20.9 L	1.29 cu. ft / 36.5 L	1.29 cu. ft / 36.5 L	1.29 cu. ft / 36.5 L
Incubator Dimensions (w x d x h)	<b>27.5 x 8.5 x 13.5 in</b> 699 x 216 x 340 mm	<b>27.5 x 8.5 x 13.5 in</b> 699 x 216 x 340 mm	23.5 diameter x 18.5 in 597 diameter x 470 mm	Workspace Incubator Chamber: 27.5 x 8.5 x 13.5 in 699 x 216 x 343 mm Side Incubator: 23.5 x 18.5 in / 597 x 470 mm
Incubator Volume	1.4 cu. ft / 39.6 L	1.4 cu. ft / 39.6 L	4.6 cu. ft / 130 L	Workspace Chamber Incubator: 1.4 cu. ft / 39.6 L Side Incubator: 4.6 cu. ft / 130 L
Unit Weight	255lbs / 116kg	304lbs / 138kg	<b>412lbs</b> / 187kg	473lbs / 215kg
Incubator Performance				
Temperature Range	Ambient + 5°C to 70°C	Ambient + 5°C to 70°C	Ambient + 5°C to 70°C	Ambient + 5°C to 70°C
Temperature Uniformity	(+/-) 1.0°C @ 37°C	(+/-) 1.0°C @ 37°C	(+/-) 1.0°C @ 37°C	Workspace: (+/-) 1.0°C @ 37°C Side: (+/-) 1.0°C @ 37°C
Electrical				
AC Voltage	110-120/220-240	<b>110-120</b> /220-240	110-120/220-240	<b>110-120</b> /220-240
Amperage	9/6	11/8	11/8	<b>14</b> /10
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Misc.				
Incubator Capacity	300 Plates	300 Plates	600 Plates	900 Plates
Airlock Capacity Specifications are subject to change at any tin	78 Plates	216 Plates	216 Plates	216 Plates







# **BACTRON** Kits

Essential Accessories Kit, 110V*	917-995-0008	
LED Light Unit, 110V	9730519	
AMG Regulator	9740560	
Ergonomic Grip Catalyst Holder	9990759	
Petri Plate Racks (2 x 11)	5110729	
Essential Accessories Kit, 220V*	917-995-0009	
LED Light Unit, 220V	9730520	
AMG Regulator	9740560	
Ergonomic Grip Catalyst Holder	9990759	
Petri Plate Racks (2 x 11)	5110729	
Anaerobic Chamber Start-Up Kit	9490512	
Latex Cuffs	3600500(S) 3600502(L)	
Benzalkonium Chloride Chamber Cleaner	1060501	
Anaerobic Indicator Strips	1060553	
Activated Charcoal Media	1060500	
Airlock Gasket	3450506 (9 x 9) 3450507 (12 x 12)	
Acrylic Glass Cleaner	1060503	
Acrylic Glass Scratch Remover	1060504	
O-Ring For Sleeve Cuff	6000504	
These kits are specialized for the BACTRONEZ u	nit	

# Accessories

Item Description	Part Number	
Handheld Oxygen Meter	9902223	
Activated Carbon Media (2lbs/0.9kgs)	1060500	
Petri Plate Racks (2 x 11)	5110729	
BACTRONEZ Rolling Stand (W x D x H) 49.0" x 30" x 30"/1240 x 762 x 762 mm	BACSTAND-SM22	
BACTRON300 Rolling Stand (W x D x H) 61.5" x 30" x 30"/1560 x 762 x 762 mm	BACSTAND-MD22	
BACTRON600/900 Rolling Stand (W x D x H) 88.5" x 30.0 x 29.0"/2250 x 762 x 740 cm	BACSTAND-LG22	
Leak Detector	4600501	
UV Viewing Lamp	9490507	
Anaerobic Indicator Strips (100 Count)	9900706	
Nitrogen Regulator Kit	9740567	
Activated Carbon, Volatile Compounds Scrubber Fan	<b>9490578 (110V)</b> 9490581 (220V)	
Nitrile Cuffs	3600525(S) 3600526(M) 3600527(L)	
Stereo Microscope w/ Accessories	Contact a rep. for details.	

## IQ OQs Available for BACTRON Units

Please contact our sales department for more information.

\*These kits are specialized for the BACTRONEZ unit



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