



2025 Mercantile Dr.
Leland, NC 28451

Tel (800) 849-3429
Fax (910) 763-1220
www.flowsciences.com

CONTAINED VENTED ENCLOSURE (CVE) ETA483024ABD TECHNICAL SPECIFICATIONS

CONTAINED VENTED BALANCE ENCLOSURE –ETA483024ABD



GENERAL DESCRIPTION

DESIGNATED USAGE

FSI contained vented enclosures provide personnel and environmental protection but no product protection. These Class I BSCs are commonly used to enclose specific equipment or procedures that potentially generate aerosols. BSCs of this class are either ducted or un-ducted.

PRIMARY ENGINEERING CONTROL (PEC) TYPE

Class I Contained Vented Enclosure.

MAIN CHAMBER CLASSIFICATION

Suitable for OEB Levels 1-3

MODEL SPECIFICATIONS

CONFIGURATION

Setup includes Bag In/Bag Out Dual HEPA Filters, Blanked Plates on both sides for optional disposal port, and 1.5" iris ports on both sides for cord management

EXTERIOR DIMENSIONS

Length:	47.75"
Depth:	30.00"
Height:	53.29"

INTERIOR DIMENSIONS

Length:	43.79
Depth:	24.82"
Height:	24.25"

MATERIALS OF CONSTRUCTION	Enclosure panels:	Clear 0.375" acrylic front and side panels. White 0.375" acrylic rear panel
	Work surface:	Black 1" base that is dished to 0.5" (Phenolic Resin Base), Routed to Fit Sidewalls for Containment
	Plenums/Baffle:	White 0.375" acrylic rear plenum. Clear 0.375" upper panel.
TECHNICAL SPECIFICATIONS	<u>LAMINAR AIR FLOW FILTRATION</u>	
	○ Fan & filter modules are mounted on the top panel of the unit ○ Fan & filter modules provide HEPA (99.995% at mpps) vertically laminar filtered air ○ Air velocity: Recommended 75 ft/minute average +/-5 when measured at face opening	
	<u>FAN CONSTRUCTION</u>	
	○ High speed balanced galvanized steel fan impeller wheel for low vibration and high energy efficiency. ○ Fan shroud fabricated from fiberglass. ○ Impeller Diameter = 9.8" ○ Overall output of 50-55 dB @ 3 feet. Entire unit affords two orders of magnitude isolation from adjacent equipment vibration and four orders of magnitude isolation from fan vibration. ○ Fan speed control unit included to properly set flow rate.	
	<u>ELECTRICAL REQUIREMENTS</u>	
	○ FAN: 110-120VAC, 50/60Hz, 1PH, 2.25AMPS, 270 WATTS at maximum flow, 5A FUSED ○ LED Light: 575ma 12 Volts DC (If purchased separately) ○ Hospital grade power cord supplied	
	<u>CONTROLS</u>	
	○ Light switch on/off button (when applicable) ○ Fan filter switch on/off ○ Integrated Alarm with Lighted Switch and Audible alarm ○ Hospital grade power cord	
	<u>WASTE & PORT</u>	
	○ Two 1.5" knock outs, one on either side of the enclosure to the rear. ○ Blank waste chute port for (optional) Disposal Port	
	<u>VELOCITY ALARM</u>	
	○ 0.2 Amps with dry contact feature provided ○ Integrated into top mount fan housing and equipped with red light which warns of low velocity; green light which indicates nominal containment velocity with proper certification	
	<u>EXHAUST SPECIFICATIONS</u>	
	○ Operating range 60-100 LFPM (0.30-0.50 m/s). Factory recommended face velocity 75 LFPM +/- 5 LFPM (0.38 m/s) ○ With Thimble, (349) Total CFM Required at House Exhaust Connections to Maintain 100 LFPM at the face opening. For recirculating into room, (303) total CFM required to maintain 100 LFPM at Face opening.	

	<u>EXHAUST RECOMMENDATIONS</u> ○ Use thimble connection (FS2081MS) for House Exhaust connections. ○ No additional equipment required for independent recirculating configuration
DESIGN FEATURES	The Contained Vented Enclosure is designed with multiple features for maximum containment, ease of use, and ensuring a stable work environment for sensitive activities:
	<u>EXHAUST PORT</u> ○ (1x) 6" exhaust port ○ Capable of being recirculated back into the lab ○ Thimble connection required to connect to house exhaust
	<u>FS1650 ALARM</u> ○ FS1650 Integrated Face Velocity Alarm Alerts the operator when airflow is compromised.
PART #: ALL483024NW	<u>OPTIONAL ADDER LED LIGHT KIT</u> ○ Natural cool white light. Comes with a three-way toggle switch that is off/high/low. ○ Amber option available
	<u>FRONT LIFT DOORS</u> ○ Hinged front doors that lift for easy loading and unloading of equipment
	<u>AIRFOILS</u> ○ Quantity: Four (4) (2 side airfoils, 1 base airfoil, 1 door airfoil) ○ Airfoils staged around the perimeter of the face opening stabilize the airflow, improve laminar airflow, and improve containment along the leading edge.
	<u>DISHED BASE</u> ○ Dished phenolic base captures accidental liquid and powder spills.
	<u>WASTE PORT</u> ○ Waste port can be placed on either and/or both sides of the enclosure and is used to safely remove waste.
	<u>PLENUMS</u> ○ Rear and Top Plenums are used to direct airflow and maintain containment at the face opening. ○ Plenums also prevent particles from possibly falling back onto the work surface during loss of power and primary HEPA filter changeout.
	<u>BAG IN/ BAG OUT</u> ○ HEPA change out system that allows for safe removal and replacement of the main 4" HEPA filter.

PART #: 4175	<u>REPLACEMENT FILTER</u> ○ Replacement Primary HEPA Filter Kit.
PART #: 4145	<u>REPLACEMENT FILTER</u> Replacement HEPA Filter.
PART #: 4720A-18X36	<u>REPLACEMENT FAN</u> Top mount fan filter housing with integrated alarm.
PART #: 4720-18X36	<u>REPLACEMENT FAN</u> ○ Top mount fan filter housing.
PART #: 2070	<u>WASTE CHUTE (PORT)</u> ○ Waste chute with retaining band and bag.
PART #: 2079	<u>DOUBLE SAFE WASTE CHUTE</u> ○ Waste chute with double sleeve protection, retaining band and bag.
PART #: 2081MS	<u>THIMBLE CONNECTION, 6" TO 7" TRANSITION</u> ○ Thimble for connection to house exhaust.
PART #: 2062VK	<u>VENT KIT, (8') 6" HOSE AND (2) HOSE CLAMP</u> ○ Hose and Clamp for connection to house exhaust.
PART #: S1242	<u>8" CONTINUOUS LINER SYSTEM</u> ○ Integrated Continuous Liner System for safe waste disposal. Seal at any increment for disposal of waste in any amount.
PART #: 2077	<u>PRINTER SHELF – NO ALARM MOUNT</u> ○ Label printer shelf for above blank plate for label printing.
PART #: AFC183608A_(A/B)	<u>CARBON FILTER 18x36- ORGANIC</u> ○ Powder coated carbon steel frame containing 14 ABS plastic canisters with coconut shell activated charcoal media.
PART #: AFC183608B_(A/B)	<u>CARBON FILTER 18x36 - ACID</u> ○ Powder coated carbon steel frame containing 14 ABS plastic canisters with impregnated coconut shell activated charcoal media.
PART #: AFC183608C_(A/B)	<u>CARBON FILTER 18x36-AMINE</u> ○ Powder coated carbon steel frame containing 14 ABS plastic canisters with impregnated coconut shell activated charcoal media.
PART #: AFC183608D_(A/B)	<u>CARBON FILTER 18x36 - ALDEHYDE</u> ○ Powder coated carbon steel frame containing 14 ABS plastic canisters with impregnated coconut shell activated charcoal media.
PART #: AEC4830S	<u>ADA, 48 X30, ELECTRIC POWDER COATED TABLE</u> ○ Electric Ergonomic Lift Table, Powder coated carbon steel, on frame and feet, locking casters.

PART #: AES4830S	<u>ADA, 48 x 30, STAINLESS STEEL ERGONOMIC LIFT TABLE</u> ○ Electric Ergonomic Lift Table, 304 Stainless Steel, on frame and feet, locking casters.
PART #: ACC4830S	<u>ADA, 48 x 30, POWDER COATED STEEL CART</u> ○ Powder coated carbon steel cart, on frame and feet, locking casters.
PART #: ACS4830S	<u>ADA, 48 x 30, STAINLESS STEEL CART</u> ○ 304 Stainless steel cart, on frame and feet, locking casters.
PART #: ATC4830S	<u>POWDER COATED STEEL, 48 X 30 TABLE</u> ○ Powder coated steel table.
PART #: ATS4830S	<u>STAINLESS STEEL, 48 X30, TABLE</u> ○ 304 Stainless steel table, on frame and feet, locking casters.
INSTALLATION, START-UP AND TRAINING	<u>INSTALLATION</u> (at an additional charge) Flow Sciences will send One (1) Technician onsite to install equipment within your facility. Flow Sciences may require additional assistance on site. If additional assistance is required, Flow Sciences will request your assistance or provide additional technicians from Flow Sciences (at an additional charge) if no client staff is available. <u>START-UP AND TRAINING</u> (at an additional charge) One (1) Flow Sciences technician will demonstrate the usage of the equipment and train your personnel on the usage of the equipment after the installation is complete. Flow Sciences will provide an operating manual which will include the as built drawings and all the materials certificates. ***Please note that proposal amount for Installation, Start-up and Training is for 1 days of work for one technician. Should the labour exceed this time frame, and hourly labour rate will apply.
	<u>SURROGATE POWDER TESTS</u> (at an additional charge) Surrogate powder testing available during factory acceptance testing. <u>IQOQ – INSTALLATION OPERATION QUALIFICATION</u> (at an additional charge)