ESCO Healthcare "Discovery to Delivery"

Robust and Modular; Esco GB ships VBE to a Major Company in Ireland

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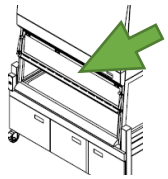
Ventilated Balance Enclosure (VBE): Key Features

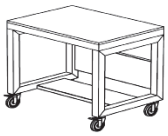
- ✓ Modular design for easy configuration
- ✓ For contained powder handling of non-sterile hazardous drugs

Multiple sizes available
(2, 3, 4, 5, 6, 8 ft)

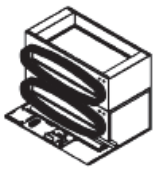
Ducted / Ductless



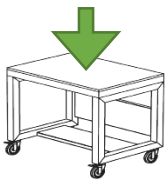
Polycarbonate vertical sliding sash



Multiple base options
(Standard Support, Base Cabinet, & Drum Access)



Single/ Dual filtration module
(Bag-In, Bag-Out)



Multiple worktop options
(Granite, SS 316L, Epoxy)

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Ventilated Balance Enclosure (VBE) Models

This ductless VBE model is designed for small-scale powder handling of non-sterile and non-volatile hazardous drugs.

For handling volatile powders, a ducted VBE is essential. This prevents risk for personnel exposure.

The VBE is a modular unit designed to meet industrial demands.

Each component has numerous options for users to work around.

Guide to Ventilated Balance Enclosure (VBE) Models

VBE-2 A 8-03 SA

Model	Internal Width (mm)	Size	Configuration	Electrical Code	Enclosure Module	Filter Module	Exhaust Type
VBE	610	2	A - Standard B - Tall C - Tall and Deep	7 - 100V 50/60Hz 8 - 230V 50/60Hz 9 - 115V 50/60Hz	01 - without filter and blower 02 - with filter 03 - with filter and blower	S - Single Filtration D - Double Filtration	A - Ducted B - Ductless C - Portable Duct
	915	3					
	1220	4					
	1525	5					
	1830	6					
	2135	7					
	2440	8					

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The Project

Esco GB Ltd recently engineered a 4ft Ventilated Barrier Enclosure (VBE) unit for an international company in Ireland.

Customizations were necessary as the unit was intended as the base for the company's process equipment.

Client Requirements

The client's current process involves the use of a spectrophotometer to measure the light absorption rate of their liquid products. Although not inherently hazardous, in the event of accidental spills, these liquid substances can dry into powder form and cause adverse health effects to the operators.

As such, the company calls for equipment that will protect operators from spillages and guarantee their safety.

Esco manufactured and customized a VBE unit to address this safety concern.

The main chamber of the VBE is designed to house the spectrophotometer and its computer system; the latter is located at the base of the main chamber.

A monitor was also added outside the VBE unit via a strong arm.

Design Solution

The VBE was configured to house a spectrophotometer. This type of technology comes with a number of cables connecting it to the other parts of the system so the VBE has been equipped with cable ports and trunking for a clean overall look.

Electrical sockets were also installed in the unit's main chamber and base cabinet to accommodate additional process devices i.e. the instrument's computer. An adjustable shelf was added in the cabinet to support the current computer and to provide flexibility for future changes. To guarantee the protection of all devices inside this base cabinet, a door was also installed.

The main chamber's work top has a hollow-dip, designed to allow easy cleaning and containment of accidental spills.

Moreover, this unit comes with a hydraulic height-adjustable stand so users can achieve ergonomic comfort during operation.

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The unit's final customization involved attaching a mounting plate and a swing arm, supplied by the client, on the VBE to support an external monitor.

All necessary specifications (i.e. weight) of the arm and plate were considered to guarantee that all design calculations meet high quality standards in line with all Esco equipment.

Below is a labelled diagram of the unit.

For more information please visit **www.escopharma.com**

Figure 1. *An illustration of the client's VBE unit with their process equipment.*

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