

**Safebridge
Tested!**

PRECISION CONTAINMENT FOR COMPOUNDING & POWDER WEIGHING

Vented Enclosures designed to handle Potent Compounds with toxicity level
of class 1,2, and 3

Exceeds OSHA, ANSI and all relevant international standards

FEATURES

- Proven performance by **SAFEBRIDGE CONSULTANTS***
- 'Turbulent free' airflow pattern
- Custom sizes
- Bag in-out HEPA filters

TYPICAL APPLICATIONS

- Short duration tasks/task specific workstations
- Bulk powder weighing and transfers
- Enclosing balances, microscopes, and robotic equipment
- Compounding



Toll Free/ 800.306.0656 F/ 800.306.0677

WWW.AIR-SCIENCE.COM



AIR SCIENCE USA

Weigh Stations are the best method of rendering fumes & particulates harmless, creating a safer working environment and preventing harmful emissions being exhausted into the atmosphere. Utilizing the most advanced carbon and HEPA filtration, Air Science, USA weighing stations offer flexibility of design, according to your requirements.

Ductless technology is environmentally friendly and uses carbon filtration and/or HEPA filtration to remove unwanted powders or fumes making them ideal for a range of weighing applications.

PRECISION CONTAINMENT

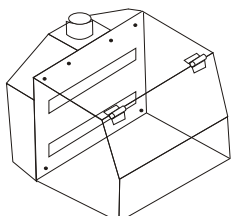
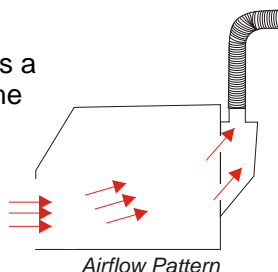
What is Precision Containment? Well it's the understanding that the containment needs associated with each application can vary so greatly that task specific (or application based) workstations are necessary to adequately protect operators.

Our research has found that even subtle modifications from one enclosure to another can result in containment factors from microgram down to nanogram range and that no single fume hood can handle all applications.

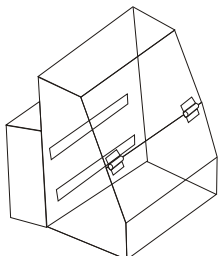
VENTED ENCLOSURES (VE)

WORKING PRINCIPLES

Our turbulent free design provides a smooth transition of airflow into the enclosure. The air is then pulled across the work surface in a horizontal and uniform airflow pattern and drawn into the rear slotted plenum. This design reduces the 'rolling' affect found in conventional fume hoods and keeps balances stable even when weighing in the microgram accuracy.



Standard Enclosure



Tall Enclosure

FLEXIBLE DESIGN

The hose that attaches to this plenum can either be connected to our fume extractor or directly to your in-house exhaust ventilation system.

HOSE

Each unit is provided with an 8 ft PVC heavy walled flex hose that contains a steel wire helix. The smooth inner surface insures minimal pressure drop and friction loss.

FILTERS

An extended life HEPA filter is available with a bag-out system that totally protects personnel during change out. In addition, 14 types of carbon filters are available for your specific filtration needs. Both HEPA and carbon filters can be installed 'in-line' for almost limitless combinations to suit your requirements.

FUME EXTRACTOR (FE)

WORKING PRINCIPLES

The vented enclosure can be attached to our fume extractor and is totally separate to prevent vibrations. The fume extractor can be located up to 8 feet away. The unit is light weight and its compact size allows for easy positioning either on or below your work surface.



The remote control allows operator to pause airflow



Fume Extractor available in polypropylene, stainless steel or metal

FEATURES

- Variable speed fan to adjust airflow from 0-100%
- Remote controls for ease of use
- Wheels & handle for easy movement
- Polypropylene, stainless steel or metal construction
- Low airflow alarm

PERFORMANCE & VALIDATION

INDEPENDENT TESTING BY **SAFEBRIDGE CONSULTANTS*** HAS SHOWN INCREDIBLE RESULTS!

SAFEBRIDGE CONSULTANTS* was requested to conduct performance verification and assess our ability to contain and control airborne concentrations of particulate powder generated during bench-scale operations.

A 'challenge' concentration of Naproxin Sodium (an active non-toxic pharmaceutical ingredient, or 'API'), was used to act as the surrogate powder to identify the 'range' of potential exposures and respective containment during powder handling operations.

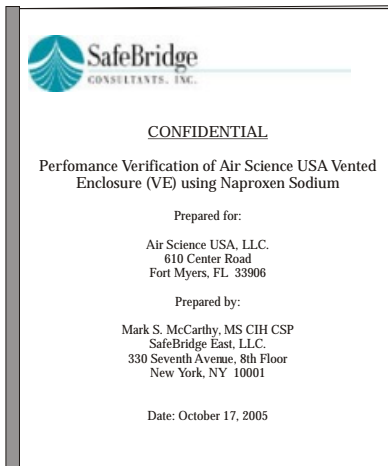
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Three different operators were used in an attempt to estimate the likely range of exposure variability among persons of differing skills and/or experience levels. The operations consisted of distinct, small-scale manipulations of the API. An air sampling strategy was developed to measure airborne concentrations of surrogate at the operator breathing zone and at representative locations inside the Air Sciences testing room during six consecutive rounds of weighing/dispensing operations. Operator exposure measurements were collected at the collar of

each of the operators (e.g., in the personal breathing zone) during respective rounds of the weighing/dispensing activity. Contemporaneously, proximate area air samples were collected at fixed locations around the VE. For more information, a copy of this report is available upon request.

From this test data, a Potent Compound Characterization Scheme (see chart below) was developed which shows the appropriate use of a ventilated enclosure dependant upon toxicity level of the compounds being used.



CUSTOM ENCLOSURES

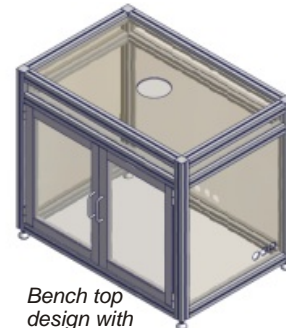
For robotic and process equipment, we offer custom enclosures to protect either the process or operator from particulate, fume, and vapors. Each unit is designed to maximize operator safety and accessibility. In fact, many commonly used robotic equipment from most leading manufacturers have already been designed. Each unit is tested and certified to factory specifications.

FEATURES

- Bench-top or free standing designs
- Leveling feet or locking castors
- Swing out or sliding doors
- Access ports
- Constructed from aluminum, polypropylene, or stainless steel



Enclosure on a base with sliding doors



Bench top design with swing doors

FEATURES & OPTIONS

BASE STAND
Available with wheels or leveling feet.



HINGED REAR PLENUM
For easy cleaning



AIR FLOW METER
Continuous display of FPM



CABLE PORTS
Allows cords to enter the work zone



POTENT COMPOUND CHARACTERIZATION SCHEME**

What is your level?

TOXICITY LEVEL	OEL'S (8 HOUR TWA)	PROTECTION REQUIRED
1 Low Toxicity	>0.5 mg/m ³	open bench or VE
2 Intermediate Toxicity	0.5 mg/m ³ → 10 mg/m ³	fume hood or VE
3 Potent	10 mg/m ³ → 30 ng/m ³	VE
4 Highly Potent	< 30 ng/m ³	isolator

OEL = operator exposure limit TWA = time weighted average

*Note: The SAFE BRIDGE CONSULTANTS™ name is used for informational purposes only. Endorsement of their testing services by Air Science USA LLC or their endorsement of Air Science is neither given nor implied.

**The POTENT COMPOUND CHARACTERIZATION SCHEME is used by Air Science USA LLC may not represent the protocol in use at your organization. The POTENT COMPOUND CHARACTERIZATION SCHEME should be reviewed and understood by your industrial hygienist for suitability before using a containment device for operator safety.

Air Science USA has always been at the forefront of contamination, chemical hazards and pollution control. We are leaders in High Efficiency Particulate Air (HEPA) filters and Activated Carbon Filtration for the containment of hazardous substances thus protecting both the environment and the operator. Utilizing advanced filtration techniques, Air Science USA's products not only achieve but generally surpass legal requirements.

1.



Vented Enclosure (VE)

SPECIFICATIONS

Construction All units are PVC & Acrylic, many colors available

Work Surface Epoxy Resin

DIMENSIONS (WXDXH)"

VE 24S ■ VE 24T ■ VE34S ■ VE34T ■ V48S ■ V48T
24x23x19.5 24x23x30 34x23x19.5 34x23x30 48x23x19.5 48x23x30

IMPORTANT: rear plenum adds 5" to depth on all units. Other sizes available

2.



Side Pictures

1. VE34S - Shown with optional waste chutes
2. VE34T - Extra tall clear enclosure with blue plenum
3. VE48S - Shown with red plenum & Mettler Toledo™ microbalance (not included)

3.



For advice on filter selection call
Air Science USA 800.306.0656.

We offer a complete range of laminar flow cabinets, biohazard safety cabinets, and ductless fume hoods. Should you have any questions or need more information, please contact us at 1-800-306-0656, or visit our website at www.Air-Science.com.



AIR SCIENCE USA

Fume Extractor (FE)

SPECIFICATIONS

Construction Polypropylene, metal or stainless steel

Air Flow 220 cfm

Noise Level < 52 dBa

Dimension(wxdxh)" 16.5 x 24 x 18

Fan Centrifugal

Supply 110V 60Hz, other voltages available

Prefilter Electrostatic

Main HEPA and/or Carbon Bag -out version available

Controls Remote

Monitoring Airflow Alarm

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