# EXTRACTION BOOTH



THE FIRST FULLY CERTIFIED CLASS I, DIVISION I MODULAR EXTRACTION ROOM

## WE HAVE THE FIRST FULLY CERTIFIED CLASS I, DIVISION 1 MODULAR EXTRACTION ROOM

Our individual components as well as our Booth as a whole carries a UL Certification expediting the approval process.

### Your Extraction Facility Is At The Heart Of The Plant Oil Manufacturing Process Critical To Your Business

Getting your extraction room or facility up and running through the design, licensing, and approval processes can take many months. The HAL Extraction Booth System was invented by a Certified Industrial Hygienist and designed by electrical, industrial, and mechanical engineers to provide leading edge technology for the plant oil extraction industry. Our Extraction Booths help speed up the regulatory approval process and production startup.

The safety of your workers and facilities are top priorities, and the HAL Extraction Booth System is the perfect solution to protect, people, facilities, and the bottom line.

### Booth

Each booth is assembled on-site at your facility with 18-guage, powder coated steel panels. The panels and components fit through a standard interior door so the booth can be assembled in many locations. Also, when your business needs change, the booth can be dis-assembled and moved to a different location. Most models can be increased in length with the incorporation of additional steel panels.

The booth structure meets NFPA 33 (2018) 5.3.2 construction requirements. In addition, the interior of the booth is Class I, Division 1, Group D explosion-proof rated for a work space that controls ignition sources and meets stringent safety standards.





### Sensors & Alarms

The best infrared sensors are used to detect and control butane, propane, ethanol, and carbon dioxide.

### Ventilation

Exhaust ventilation uses a variable speed fan to provide a base air flow rate that ensures a safe environment. When air concentrations of flammable or hazardous gases reach preset detectable levels, the explosion-proof exhaust fan shifts to high speed to quickly return the work space to safer concentration levels. Intake and exhaust can be controlled independently to maintain negative pressure in the booth. Fans and fan motors meet applicable explosion-proof requirements.

#### Door

The door and its hardware are UL listed and fire-rated. The door is equipped with a window and a panic bar for emergency exit.

### **Control Panel**

The Control Panel is the brain of the HAL Extraction Booth System. It is designed to provide a high degree of protection to workers and facilities while saving energy. Integrated controls are used to ensure coordination of fans, sensors, alarms, power and lighting. The control panel is UL Listed under Industrial Control Panels.

### Lighting

Light fixtures are ceiling mounted, and meet applicable explosion-proof requirements.

### Plenums

Airflow and Plenum design has been reviewed and optimized with computational fluid dynamics modeling by a professional engineer

### **Code Compliance**

The HAL Extraction Booth System was designed from the ground up to comply with appropriate building and fire code requirements.

### Fire Suppression (Optional)

UL Listed dry powder fire suppression systems are available as an option.

10

### HAL EXTRACTION'S SEVEN LAYERS OF SAFETY

The HAL Extraction Booth System, and every component, were designed first and foremost as an integrated safety system. Each product contains the following **Seven Layers Of Safety** and more.

### 1. Engineered To Work In The Background To Protect You

- Professionally engineered and peer reviewed
- First fully UL Certified Class I, Division 1 Extraction Facility
- System designed and invented by a Certified Industrial Hygienist

#### 2. Ventilation To Keep Flammable Gas Concentrations Low

- Make-up and exhaust flow provide cross-flow capture ventilation
- Extra floor level air flow for heavier than air gases

#### 3. Sensors To Watch Your Back

- Active monitoring LEL sensor with readout
- LEL sensor interconnection to increase ventilation
- Extra-long life of infrared sensor

### Critical Flow Series<sup>\*</sup> (C) / Classic Series (U)

Model#	Width	Length	Height	Height with Fan
85 C/U	10 ft.	10 ft. 3 in.	8 ft. 5 in.	9 ft. 8 in.
120 C/U	10 ft.	13 ft. 9 in.	8 ft. 5 in.	9 ft. 8 in.
150 C/U	10 ft.	16 ft. 11 in.	8 ft. 5 in.	9 ft. 8 in.
180 C/U	10 ft.	20 ft. 3 in.	8 ft. 5 in.	9 ft. 8 in.
215 C/U	10 ft.	23 ft. 7 in.	8 ft. 5 in.	9 ft. 8 in.

\* Critical flow series applicable in jurisdictions that require higher air flow rates.



### We want to hear from you.

Contact an extraction booth system advisor today for a quote, custom requests, or general inquiries.

info@extractionbooth.com or 720.504.4726

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#### 4. Eliminates Built-In Ignition Sources

- All electrical fixtures inside are rated as explosion-proof or intrinsically safe
- Explosion-proof fans

#### 5. Interior Space Rated Class I, Division 1 (CID1)

- Rated for work tasks expected to release flammable gases
- Code compliant system and operation

### 6. Controls Monitor Flammable Gases, Increase Ventilation, Warning Alarms

 Ventilation rate increases at 10% of the Lower Explosive Limit (LEL), alarm at 25%

### 7. If Fire Does Occur, Design Protects Personnel And Facilities

- Fire-rated door and exit hardware
- Fire suppression systems available

### **Production Series (P)**

Model#	Width	Length	Height	Height with Fan
170 P	14 ft. 3 in.	13 ft. 8 in.	9 ft. 4.5 in.	10 ft. 10 in.
265 P	14 ft. 3 in.	20 ft. 4 in.	9 ft. 4.5 in.	10 ft. 10 in.
355 P	14 ft. 3 in.	27 ft.	9 ft. 4.5 in.	10 ft. 10 in.

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