

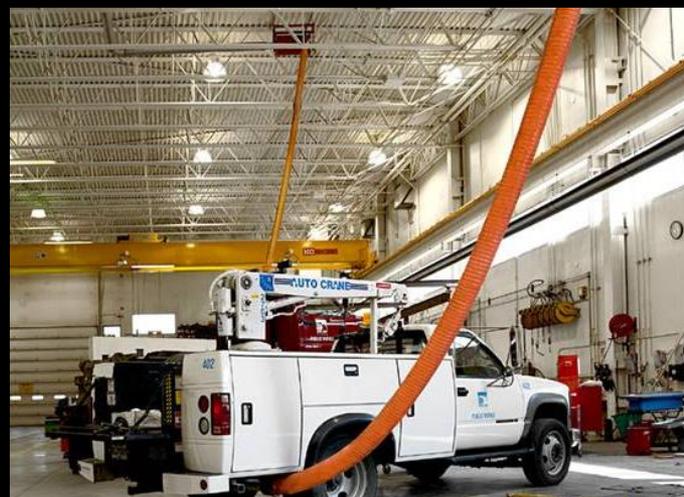


**MONOXIVENT**  
Source Capture Systems

# Monoxivent Source Capture Systems and FRP Duct Products

# EXPERIENCE YOU CAN TRUST

Protecting workplace environments from noxious fumes  
and particulates for decades



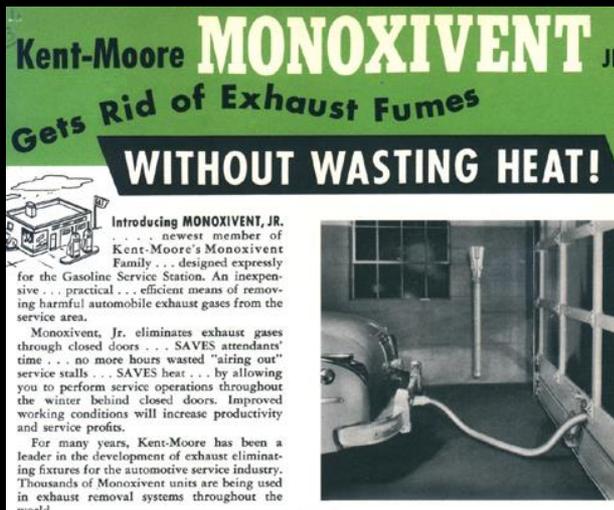


# OVER 60 YEARS

Your one-stop ventilation source for noxious fumes & particulates

## HISTORY

Monoxivent was founded in 1953. Monoxivent became a division of Crawford Co. in 2000.

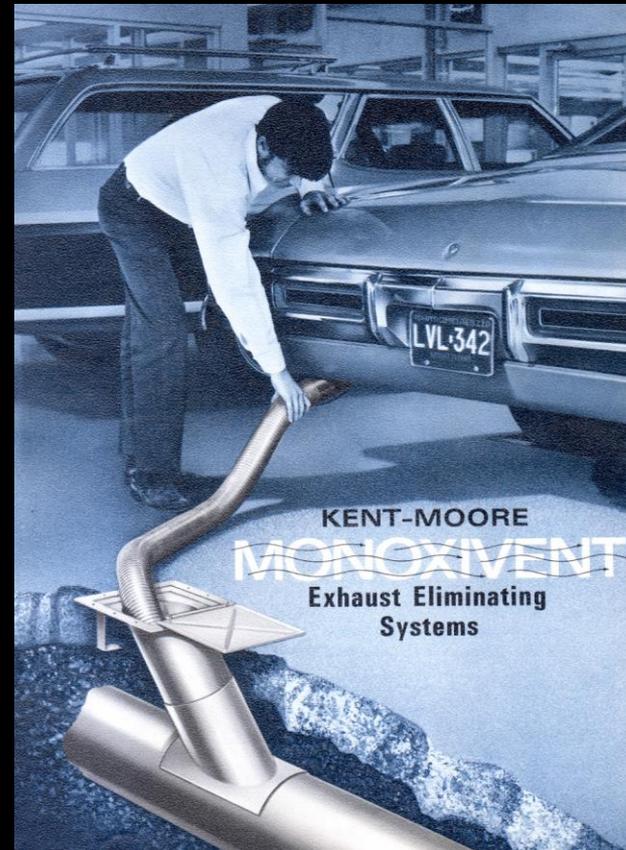


**Kent-Moore MONOXIVENT, JR.**  
Gets Rid of Exhaust Fumes  
**WITHOUT WASTING HEAT!**

Introducing **MONOXIVENT, JR.** . . . newest member of Kent-Moore's Monoxivent Family . . . designed expressly for the Gasoline Service Station. An inexpensive . . . practical . . . efficient means of removing harmful automobile exhaust gases from the service area.

Monoxivent, Jr. eliminates exhaust gases through closed doors . . . SAVES attendants' time . . . no more hours wasted "airing out" service stalls . . . SAVES heat . . . by allowing you to perform service operations throughout the winter behind closed doors. Improved working conditions will increase productivity and service profits.

For many years, Kent-Moore has been a leader in the development of exhaust eliminating fixtures for the automotive service industry. Thousands of Monoxivent units are being used in exhaust removal systems throughout the world.



**KENT-MOORE MONOXIVENT**  
Exhaust Eliminating Systems



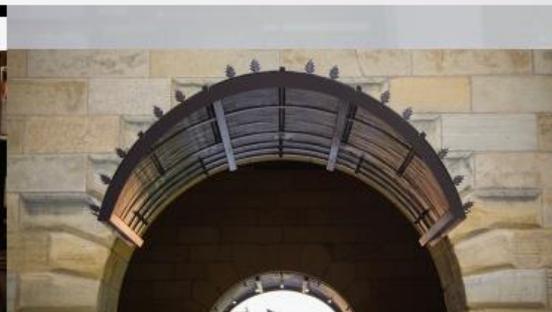
**MONOXIVENT**®  
Source Capture Systems

**Crawford Co.–MONOXIVENT**  
1306 Mill St. & 730 31<sup>st</sup> Ave.,  
Rock Island, IL  
85,000–sq. ft., 220 Employees

**FRP** *Solutions*  
*by Monoxivent*®

[crawford-company.com](http://crawford-company.com)  
[brewtanks.com](http://brewtanks.com)  
[crawfordnorth.com](http://crawfordnorth.com)  
[monoxivent.com](http://monoxivent.com)  
[fiberglass-duct.com](http://fiberglass-duct.com)

FABRICATION  
CUSTOM ARCHITECTURAL  
BREWING SYSTEMS  
MONOXIVENT



### CUSTOM ARCHITECTURAL

Crawford's Custom Architectural Products complement interior décor and exterior façade designs in a number of unique settings.

The company began specialty work in 1986. Since then, Crawford has played integral roles in commercial and residential projects. Much of the work is of copper and stainless steel design. Crawford employs a team of experienced specialty designers that work with customers from concept through completion.



UnderDuct and Corrosion Composites offer FRP (Fiberglass Reinforced Plastic) duct and products for new construction, industrial and commercial applications.

[fiberglass-duct.com](http://fiberglass-duct.com)

# MANUFACTURING

### FABRICATION

Crawford works in many industries and environments. Many of these projects are stainless steel fabrications for a number of material handling applications, control panels, work stands and many other support products for the manufacturing process. Other regularly performed services include prototype fabrication, parts production and sub-assemblies for manufactured products.



### WELDING

Crawford's Specialty Welded Fabrication Division has played an integral role in the corporate structure since 1985. The majority of this work has been implemented by Crawford's team of specialty welders.



### LASER CUTTING

Crawford provides customers with precision cuts for mild steel, stainless steel, tool steel, aluminum and plastics. Crawford offers three versatile machines to meet a variety of demands including a Balliu 3500-watt laser.



### BREWING SYSTEMS

Crawford's equipment provides micro-brewers with functional and aesthetically pleasing equipment MADE IN THE USA. Our systems tie directly into our company's hallmarks: Quality, Service, and Innovation. Our engineers, designers and highly skilled fabricators partner to form an effective and efficient process that is second to none.



### MONOXIVENT

Monoivent products provide air cleaning solutions that protect workplace environments from noxious fumes and particulate.

[monoivent.com](http://monoivent.com)

# Why Source Capture is important?

## 2015 IMC – 502.14 Motor Vehicle Operation:

In areas where motor vehicles operate, mechanical ventilation shall be provided in accordance with Section 403. Additionally, areas in which stationary motor vehicles are operated shall be provided with a source capture system that connects directly to the motor vehicle exhaust systems.

## Diesel Exhaust Fumes Can Cause:

- Chronic Respiratory Distress
- Bronchitis
- Reduced Lung Capacity
- Skin Cancer
- Lung Cancer

# VEHICLE EXHAUST REMOVAL SPRING HOSE REELS



# VEHICLE EXHAUST REMOVAL L SERIES – DUAL SPRING CASSETTES



**L**  
SERIES

**MONOXIVENT**<sup>®</sup>  
Source Capture Systems

# VEHICLE EXHAUST REMOVAL MOTOR HOSE REELS



# VEHICLE EXHAUST REMOVAL HOSE REEL XL SERIES



**XL**  
SERIES

**MONOXIVENT**<sup>®</sup>  
Source Capture Systems

# VEHICLE EXHAUST REMOVAL HOSE REEL – DIRECT MOUNT RADIAL BLADE BLOWER



# Exhaust System Design Worksheet

\* PLEASE CIRCLE THE ANSWER WHICH BEST DESCRIBES YOUR DESIGN PARAMETERS

## SECTION - #1

### PRIVATE PASSENGER VEHICLES

Please Circle the Type of Vehicle:    Cars    Vans    Pick-up Trucks    High Performance    Other \_\_\_\_\_

Make & Model of Vehicles: \_\_\_\_\_  
\_\_\_\_\_

Please Circle if Dynamometer Testing is Performed:    Yes    No  
If Yes, is it:    Engine Dyno    Chassis Dyno    Single Exhaust    Dual Exhaust  
Special Exhaust Configurations (See #4)

### COMMERCIAL & INDUSTRIAL VEHICLES

Please Circle the Type of Vehicle:    Truck    Bus    Construction Eqmt.    Military Vehicle    Other \_\_\_\_\_

Make & Or Model Number of Vehicles: \_\_\_\_\_  
\_\_\_\_\_

Please Circle if Dynamometer Testing is Performed:    Yes    No  
If Yes, is it:    Engine Dyno    Chassis Dyno

Are Natural Gas Vehicles Incorporated:    Yes    No

Type of Exhaust Pipe, Circle All That Apply:    Single Exhaust    Dual Exhaust    Horizontal Exhaust  
Raincap    Curved Stack    Straight Stack  
Special Exhaust Configurations (See #4)

## SECTION - #2

### ENGINE DATA

Please Circle, Whichever Best Describes:    Diesel    Gas    2 Cycle    4 Cycle

Engine Mfg.    \_\_\_\_\_    Model #    \_\_\_\_\_    C.I.D. or Liters    \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Are Engines Turbocharged?    Yes    No    If Yes, What is the Maximum Boost Pressure? \_\_\_\_\_ p.s.i.

Maximum Rated RPM of Engine    \_\_\_\_\_    Maximum Operating RPM of Engine    \_\_\_\_\_

Available for  
download at  
[www.monoxivent.com](http://www.monoxivent.com)

# VEHICLE EXHAUST REMOVAL OVERHEAD SYSTEMS



# VEHICLE EXHAUST REMOVAL OVERHEAD SYSTEMS



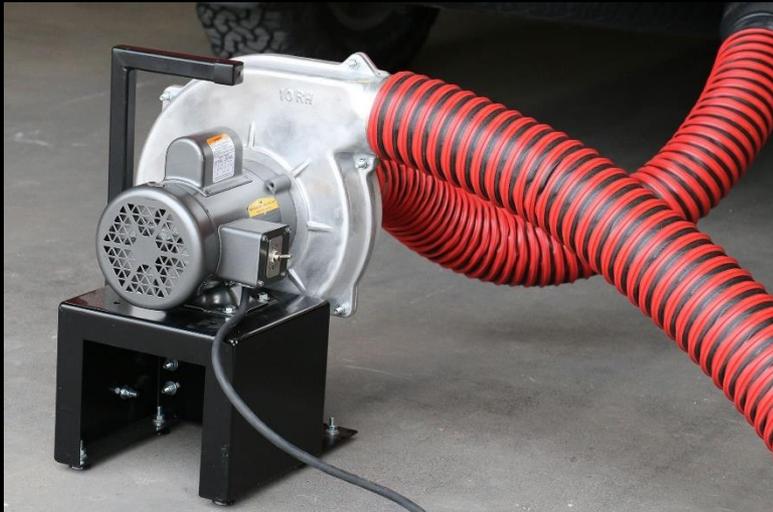
# PORTABLE VEHICLE EXHAUST REMOVAL



Portable Eliminator W/Fan and Hose Reel



Portable Eliminator W/Fan



Portable Fume Exhauster

# Product Overview

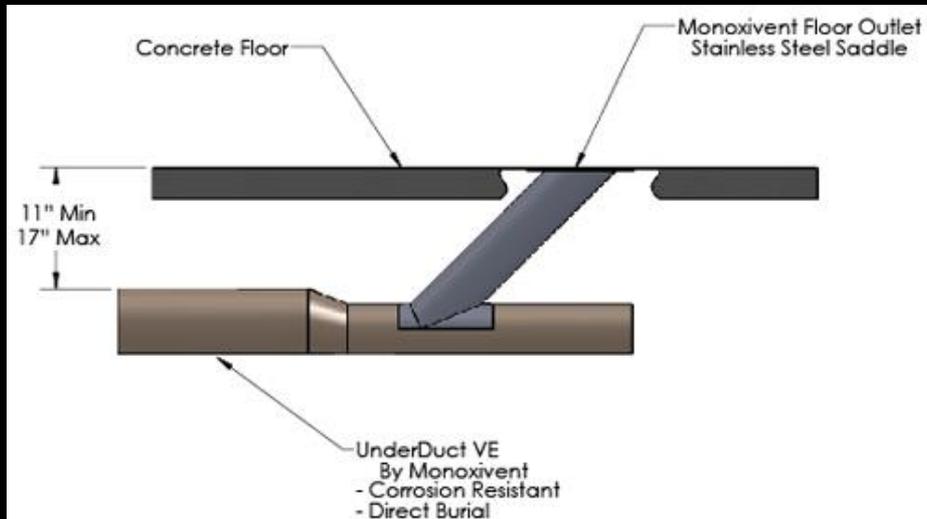
*Underground Exhaust System  
(With No Crush 3000 Series Hose)*





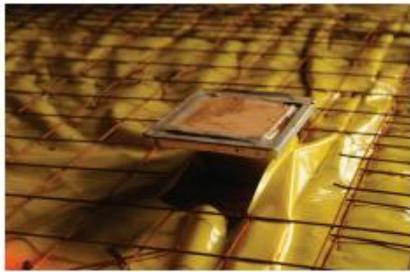
UnderDuct-VE, by Monoxivent, is a corrosion resistant underfloor exhausting duct.

- Rated to 500-degees F
- Does not need concrete encasement
- The Ducts smooth bore allows for efficient airflow and less pressure drop





UnderDuct, by Monoxivent, is pleased to announce: UnderDuct-VE. The corrosion resistant underfloor exhausting duct is rated to 325-degrees F. The duct does not need concrete encasement. The duct's smooth bore allows for more efficient airflow and less pressure drop, making it the perfect match with Monoxivent under-ground exhaust equipment for a complete Source Capture package.



### IMC 510.8, Duct Construction

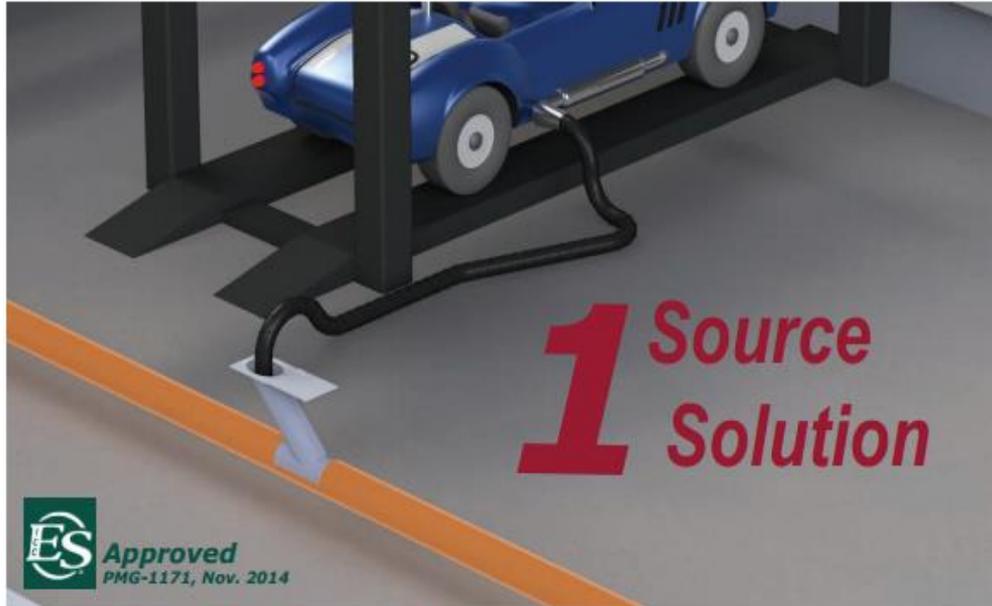
"Nonmetallic ducts utilized in systems exhausting nonflammable corrosive fumes or vapors shall be listed and labeled. Nonmetallic duct shall have a flame spread rating of 25 or less and a smoke-developed rating of 50 or less, as tested in accordance with ASTM E 84. Ducts shall be approved for installation in such an exhaust system."

### UnderDuct-VE Benefits

- 1 Source System for Vehicle Exhaust Removal and Underground FRP Duct
- Corrosion Resistant to Exhaust Gas and Condensate
- Corrosion Resistant to Ground Conditions
- Tested and certified to 500° F
- Approved for Direct Burial, no concrete encasement required
- One stop shopping for a complete ICC approved Underground Vehicle Exhaust System
- The duct is designed to withstand both high water table conditions and wash water run-off.



**Under-Duct VE is the only non-metallic vehicle exhaust duct certified to meet building codes by the ICC International Code Council) as outlined in IMC 510.8**



**1** Source  
Solution

**ES** Approved  
PMG-1171, Nov. 2014

**UnderDuct**  
by Monoxivent®  
**VE**

Corrosion Resistant Underfloor Duct for Vehicle Exhaust Removal

ONE STOP  
SHOPPING  
for a complete  
underground  
Vehicle Exhaust  
System

**UD** UnderDuct  
by Monoxivent®

# NORFI



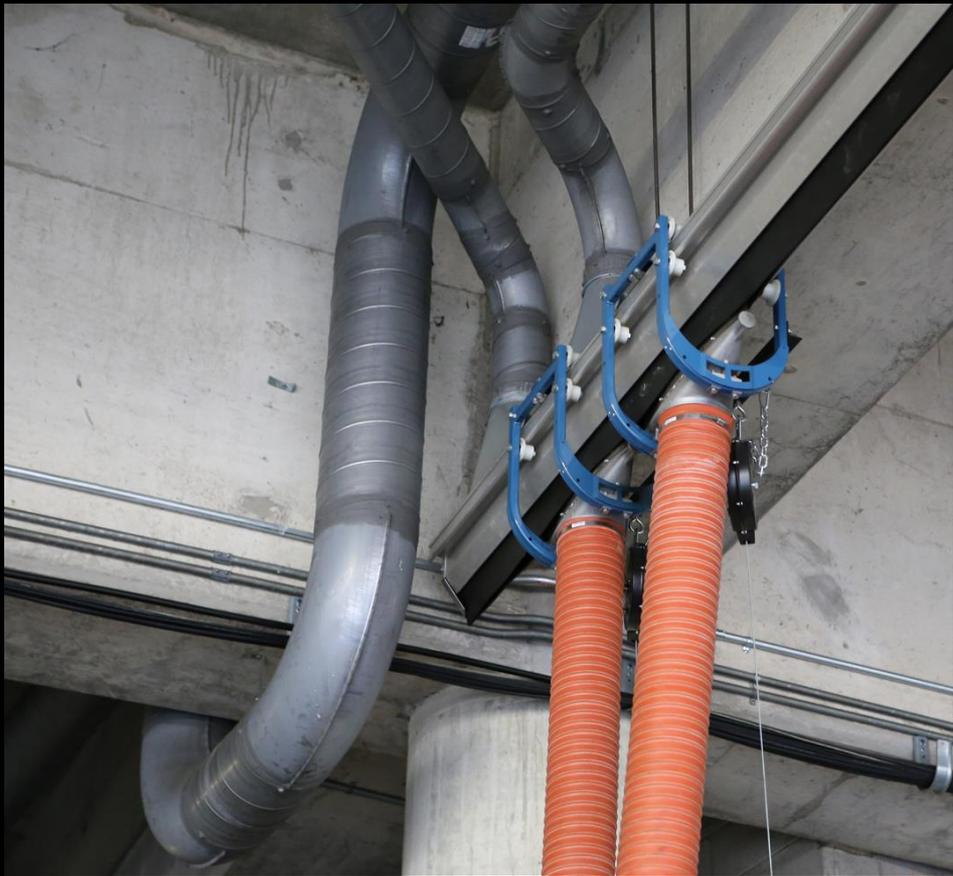
Monoxivent's latest product offering has developed from a partnership with NORFI.

NORFI is a manufacturer of extruded aluminum exhausting rail systems and related products.

The NORFI product will be divided into: MONOXIRAIL Systems and NORFI Tailpipe Adapters. The MONOXIRAIL Systems include connections for hose reels, simple drops, and welding capture arms. Each System is offered with either the Technorail or ALU configuration.

**MONOXIVENT**  
Source Capture Systems

# NORFI



# NORFI



The MONOXIRAIL connects to all standard hose reels, simple drops, and welding arms. The MONOXIRAIL is offered in two models: Technorail or the ALU (150 or 250). The Technorail models easily handle smaller air volumes and lighter weight equipment and accessories, while the ALU models are geared for higher air volumes and larger equipment.



Rail Options (clockwise):

- Technorail
- ALU-150
- ALU-250



**MONOXIRAIL shown with  
Welding Source Capture  
Arm, Spring Hose Reel, and  
RTS Simple Drop System**



# NORFI

NORFI Tailpipe Adapters – clockwise (from upper right):

- Mechanical Oval Round Rubber Body Adapter– Vehicle Exhaust
- Round Exhaust Funnel Floor Stand
- Custom Mechanical Oval Rubber Body Adapter
- Mechanical Round Oval Body Adapter–Truck Exhaust



# VEHICLE EXHAUST REMOVAL TAILPIPE NOZZLES & ADAPTERS



# SYSTEM SIZING GUIDELINES: Normal Tune-up, Idling Applications

300 CFM Cars and Light Trucks

450 CFM Medium Trucks and Light Buses

600 CFM Dump Trucks, Large Buses,  
Industrial Equipment

*Size ductwork for 2000–2500 FPM velocity*

# RECOMMENDED HOSE TYPES

## 5000 SERIES

Cars, Light Trucks, Tune-up Applications

## 4000 SERIES

All diesel powered vehicles

*Special consideration should be given to CNG busses  
and applications requiring elevated RPM's*

*(Hydraulic Testing, Etc.)*

# FUME DETECTION SYSTEMS CO, NO2 & CH4



# INTERNAL SUPPORT WELDING ARMS



# INTERNAL SUPPORT TELESCOPIC WELDING ARMS



# TUBE TYPE WELDING ARMS



# EXTERNAL SUPPORT WELDING ARMS



# BOOMS, PAC'S WITH WELDING ARMS



# SYSTEM SIZING GUIDELINES: Welding and Fume Applications

6" Diameter Arms  
cfm / each

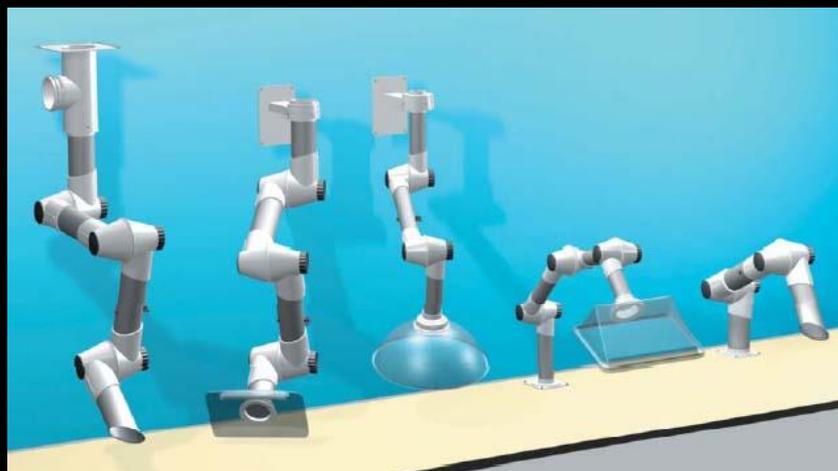
600–700

8" Diameter Arms  
cfm / each

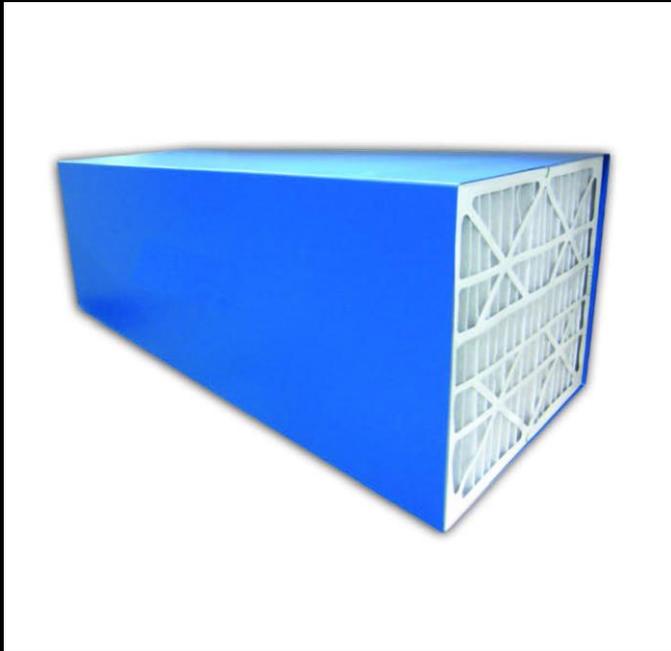
1000–1200

*Size ductwork for 2000–2500 FPM  
velocity*

# MINI/LAB ARMS



# Monoxivent Free Hanging Filter Units and Cyclone Collectors



Free Hanging Unit



Cyclone Collectors and After Filters

# PCFS PORTABLE FILTRATION, CARTRIDGE





**PHS PORTABLE FILTRATION,  
HEPA**

**MONOXIVENT**  
Source Capture Systems

# Filtoo-Portable Fume Capture System



# DOWNDRAFT TABLES



# Welding – Learning Center: Custom Adjustable Downdraft Tables, Custom Fabricated Panels, Dust Collector









Custom Overhead Canopy Hoods

### TECHNICAL INFORMATION

In the interest of continuing product improvement, we reserve the right to change models, specifications, and/or features without prejudice.

PROJECT: \_\_\_\_\_  
 LOCATION: \_\_\_\_\_  
 ARCHITECT: \_\_\_\_\_  
 ENGINEER: \_\_\_\_\_  
 CONTRACTOR: \_\_\_\_\_  
 DATE: \_\_\_\_\_ SALES ENGINEER: \_\_\_\_\_

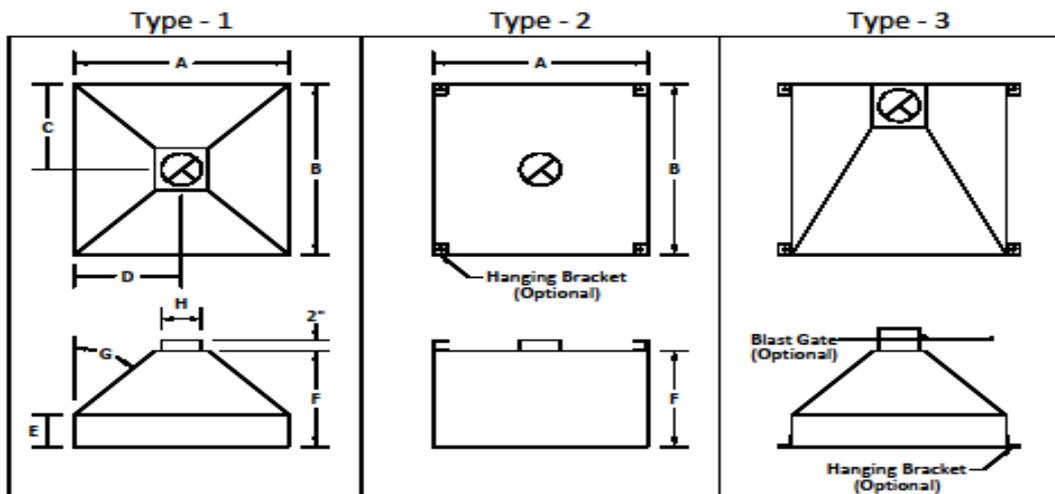
www.monoxivent.com

info@monoxivent.com

309-794-1000

Page: WSC-30

## Overhead Canopy Hood



Qty.	Type	Material	Gauge	A	B	C	D

E	F	G	H	Finish	Optional Bracket Size L x W	Tag

#### Finishes:

- Mill Finish
- Painted
- Powder Coated
- Primer Only
- Custom Colors

#### Standard Construction:

- 18-gauge Welded Galvannealed

#### Available Materials:

- Steel
- Stainless Steel
- Aluminum
- Galvanized
- Corrosion Resistant FRP
- \* Thickness 26 ga. to 10 ga.

#### Options (Check Applicable):

- Hanging Brackets
- Blast Gate
- Curtain Strips
- Internal Baffles

#### Notes:

- Reference 28th Edition - Industrial Ventilation Guidelines for design assistance.



Custom Slotted Barrel Hood

### TECHNICAL INFORMATION

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PROJECT: \_\_\_\_\_  
 LOCATION: \_\_\_\_\_  
 ARCHITECT: \_\_\_\_\_  
 ENGINEER: \_\_\_\_\_  
 CONTRACTOR: \_\_\_\_\_  
 DATE: \_\_\_\_\_ SALES ENGINEER: \_\_\_\_\_

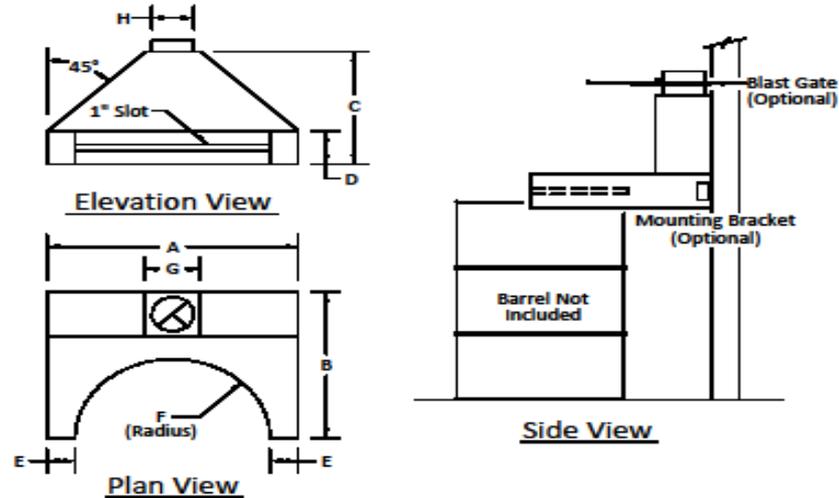
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Page: WSC-31

### Slotted Barrel Hood



Qty.	Type	Material	Gauge	A	B	C	D

E	F (Diameter)	G	H	Finish	Optional Bracket Size L x W	Tag

**Finishes:**

- Mill Finish
- Painted
- Powder Coated
- Primer Only
- Custom Colors

**Standard Construction:**

- 18-gauge Welded Galvannealed

**Available Materials:**

- Steel
- Stainless Steel
- Aluminum
- Galvanized
- Corrosion Resistant FRP
- \* Thickness 26 ga. to 10 ga.

**Options (Check Applicable):**

- Hanging Brackets
- Blast Gate

**Notes:**

- Reference 28th Edition - Industrial Ventilation Guidelines for design assistance.

# FANS, BACKWARD INCLINE – RADIAL BLADE



# VFD's



- Available in Single Phase to 3hp & 3-Phase to 30hp.
- NEMA 4x Enclosure.
- Protects fan motors with slow ramp up.
- Provides the ability to slow the fan speed down when using dampers and keep constant velocity.
- Also can increase the speed to reach higher capture velocities.
- Can connect to multiple building operation systems.

# 1000/2000 SERIES HOSE



# 3000 SERIES HOSE



# 4000 SERIES HOSE



# 5000 SERIES HOSE



# 6000 SERIES HOSE



# 7000 SERIES HOSE



Monoxivent is proud to work with the Military



## FORT STEWART STACKS

Monoxivent provided six custom exhaust stacks made of 11-gauge 304 stainless steel for Fort Stewart (GA).

The 24" diameter stacks are used to remove harmful exhaust fumes from the facility. Special adapters were fabricated to attach to M-1 Tanks. 1000 Series Stainless Steel flex hose tied the tank adapters to special wall receptors attached to the vertical stacks.

Monoxivent is proud to work with the Military



## FORT LEE XL HOSE REELS & STACK BASES

Monoxivent provided 82 High Temperature XL Hose Reels for a project at Ft. Lee.

The project also included insulated stack bases for M1 Tank exhaust.

# Monoxivent is proud to work with the Military



## PENN. AIR NATIONAL GUARD

Monoxivent's 9000-MTR Hose Reel was used to remove toxic exhaust fumes from military vehicles at the Pennsylvania Air National Guard. At this facility, Monoxivent used a combination of its' 4000 and 5000 Series hose. The high-temperature silicone nomex (orange hose) was used closest to the exhaust pipe, while the medium-temperature polyester coated (red hose) was used for the remainder of the exhaust hose.



# CUSTOM PRODUCTS



# CUSTOM PRODUCTS



# ELIMINATE: NOXIOUS FUMES AND PARTICULATES AT THE SOURCE.

## VEHICLE EXHAUST REMOVAL

Monoxivent offers a wide variety of vehicle exhaust removal systems including spring hose reels, motorized hose reels, simple drops, portable units, underfloor and rail systems.

[LEARN MORE](#)



## FUME & DUST REMOVAL

Monoxivent is your one stop source for welding fume and dust capture. Source capture arms, custom fume hoods, downdraft tables, portable filtration, cartridge and cyclone collectors.

[LEARN MORE](#)



[www.monoxivent.com](http://www.monoxivent.com)

Eliminate Toxic Fumes with Monoxivent

**MONOXIVENT**<sup>®</sup>

Source Capture Systems

877-608-4383 monoxivent.com

**NORFI**



# Monoxivent Source Capture Systems and FRP Duct Products

## CONTACT INFO:

**Web: [www.monoxivent.com](http://www.monoxivent.com)**

**[www.fiberglass-duct.com](http://www.fiberglass-duct.com)**

**Email: [info@monoxivent.com](mailto:info@monoxivent.com)**

**Phone: TF 877-608-4383, 309-794-1000**

**Fax: 309-794-1020**