

Using a source capture arm, a 9175W fume extractor filters both particles and gases that are produced while welding. Activated carbon is used to absorb gaseous chemicals. The effectiveness of activated carbon's is based on two elements: the amount of carbon and the dwell time. A bigger (heavier) carbon filter has more chemical adsorption capacity, and the longer the air spends passing through the filter (the "dwell time"), the more chemicals will be removed. A HEPA filter traps metal fume particles, such as manganese or lead, with 99.97% efficiency at 0.3 microns.

### The smallest footprint in the industry for the efficiency

Clients Include: Lockheed Martin, Boeing, Canadian Armed, Forces, The Mayo Clinic, NASA, Ames Research, General Mills, IBM, Xerox, Duke University Medical Center, The US EPA, Verizon, NATO, Johns Hopkins University, UCLA Medical Center, Texas Tech University, Los Alamos National Laboratory, US Air Force, Us Army, US EPA.

Further information: BERRIMAN ASSOCIATES 1-800-480-3630 www.berriman.com



# This is what welders face every day:

**Click for Manual** 

Manganese, Chromium-VI, Ozone, Formaldehyde, Hydrogen chloride, Hydrogen fluoride, Phosgene, Arsenic, Cadmium, Antimony, Beryllium, Copper, Molybdenum, Titanium, Fluoride and many more...

# Model 9175W

## **Fume Extractor**

source capture of partculates & gases

For many welders, installing a full-scale ventilation system is an overwhelming cost. Yet, welders do not have the choice to ignore the need for clean air; simply ignoring the toxic fumes presents clear and significant health dangers. 9175W provides a more cost-effective option. These innovative fume extractors capture toxic particles and gases at the source, recirculating the filtered air back into the indoor environment. For many welders this eliminates the need for a high-priced ventilation system.

#### **Fume Extractor**

Uses activated carbon to absorb gases and a HEPA filter to trap fume particles.



Dimensions: 16"x 20" x 24" Shipping weight: 160 lbs

Filtration system: Spark Arrestor & Furne Arm, En-ACT Carbon, HEPA, Pre-filter

Carbon filter: 40 lbs, 105"depth, holds about 28 lbs carbon

**Dust Collector Included** 

Rated CFM: 735 CFM, Variable speed, 400 CFM delivered Options: Custom carbon blend, choice of arms, choice of CFM

Available colors: Black, Polished Galvanized Steel

Price: From \$2299.98

## **Activated Carbon**

What is "Activated" Carbon?

Activated carbon is the substance that is found in military gas masks. Carbon that is 'activated' undergoes a process which opens up millions of tiny pores and fissures to enhance the material's adsorbent properties. The process creates a very large internal surface area, which is key to the power of activated carbon - the more surface area - the more the carbon can adsorb. One pound of activated carbon typically has a surface area of 125 acres!

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How Does Activated Carbon Work?

When gases, chemicals and odors pass slowly through a thick filter packed with activated carbon these substances get permanently trapped in the million of pores opened by the activation process. Due to the large internal surface area of activated carbons it can actually adsorb up to 60% of its weight. Good carbon filters, depending on the environment in which they are used, can last up to 5 years before all of the pores are full.

#### **HEPA**

The HEPA filter (high efficiency particulate arresting filter) was developed by the Department of Energy; it's initial use was the filtration of radioactive particles. It is made from a glass-like compound called borosilicate. A HEPA filter is composed of tiny fibers that trap particulates as air is blown by. By definition a HEPA filter is rated at 99.97% effective at removing particles of 0.3 microns in size.

