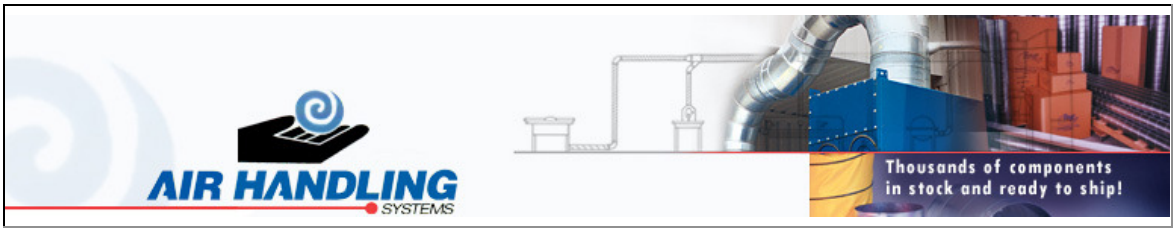

Air Handling Systems Newsletter

INDUSTRIAL STRENGTH
Ductwork Direct
SEPTEMBER 2012

"*Combustible Dust*" and "*Wood Shop Dust Collection*" seminar links

Missed our seminars at IWF? Click links below to view useful information.

"***Combustible Dust - An Explosive Issue***" What is Combustible Dust? Who's in Charge? Can it Happen in My Facility? and Prevention!.

"***Wood Shop Dust Collection - How much air do I need?***" How much CFM (cubic feet per minute) is required for a hood outlet diameter? Additionally, manifold sizing for multi port moulders and multi port wide belt sanders.

NEW Products

At IWF we debuted our newest products at the New Products Showcase.

4" Floor Sweep - We find many customers have a 4" branch they want to use for a floor sweep. They order a 05SR04 Spun Reducer and 5" Floor Sweep which will not work well. To solve this issue we have added a 4" Floor Sweep, part # 04FSWEEP.

360QFD -Our new 360 degree AHS Quick Flexhose Disconnect (QFD) creates an easier way of connecting flexible hose to hood collar or duct run. Now you can clamp at any point saving time in connecting. Just unsnap to remove quickly. Simply installs to flexible hose

THE PROPER THREE ARE THE KEY Hooding, Piping, Dust or Fume Collector

There are 3 important aspects to a proper dust or fume control system. Number one is the **hooding**. It is very critical that a hood encompasses the area where the contaminant is being discharged without interfering with the operation. The hood shall be created as small as possible. The larger the hood, the more air volume that will be required. Once the size of the hood opening is determined, the necessary velocity is then applied which will designate the amount of airflow. Please refer to Chapter 3 of the Industrial Ventilation Manual (www.acgih.org) which will give you all of the information on hood design. We must create a proper hood first. This is our starting point as we pursue a safe and operational system.

Number two is the **piping**. Dust and fume control piping is available in many different materials and thickness. The contaminant being collected shall determine the piping design. Is the material abrasive, corrosive, hot, cold, sticky, light, heavy, volatile, explosive, or stringy? One size does not fit all. Hooding material will normally reflect the piping. Once the piping material and thickness is determined it is now time to pursue proper piping design. What is the angle of entry at a junction? What is the required radius of elbows? What is the size of the main duct and branches? What is the transport velocity? All of the questions must be answered as we pursue proper piping

with hose clamp.

Additional NEW products include:

Flexright (bottom of page) - Kinked flexible hose and ducts cause restricted airflow and excessive pressure drop, wasting millions of dollars every year. Flexright durable elbow support is a radius forming brace designed to form flexible duct into highly efficient 90º elbows. Install on new or retrofit on existing flexible ducts. SAVE ENERGY - Install Flex Right!

Long Radius Elbows - We also have added heavier 18 gauge galvanized fully welded elbows. Center Line Radius (CLR) is 2.5 x diameter. These are found on the Long Radius Welded Elbows page.

Air Tight Blast Gates (scroll down page) - Our Air-Tight Blast Gates are used in industrial dust extraction and kept in the closed position until the vacuum source is needed. These blast gates increase the efficiency of the vacuum system by closing off inactive segments thus increasing the vacuum pressure at other active areas. Click here for more info on Air Tight Blast Gates.

design. Please refer to Chapter 5 of the Industrial Ventilation Manual, Exhaust System Design Procedures.

Number three is the **collection device**. Do I need a dust collector? What type of dust collector is required? What should filter material be made of? Do I need a fume scrubber? Can I just use a blower and emit to the atmosphere? Collection devices come in many different types and sizes. Each device is designed for a specific amount of airflow and the contaminant being collected. Again, one size does not fit all. Please refer to Chapter 4 of the Industrial Ventilation Manual, Air cleaning devices, or consult with dust or fume control equipment manufacturer. They will help you determine the proper piece of equipment. A supplementary device called a make up air unit may be necessary. If we emit exhaust air to the outside, we are depleting air from the plant, which must be replaced. A make up air unit will take outside air and replace the amount being exhausted. In cold weather climates, the make up air can be heated.

For more information on dust collection system tips **click here.**

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