





Air Handling Systems Newsletter www.airhand.com

INDUSTRIAL STRENGTH Ductwork Direct

JUNE 2013

The Doctor of Ductwork addresses your concerns

"Variable speed control for a dust collection blower"

Variable speed control for a dust collection blower is a nice idea, but difficult to achieve. Let's say we have a 20 HP blower that moves 5,000 cubic feet per minute (CFM) at 4,000 feet per minute (FPM) in a max main diameter of 15". It is the 5,000 CFM that creates the 4,000 FPM velocity in that said diameter. On some days, due to less machinery operating simultaneously, we may not need the 5,000 CFM. First thought, in order to save on electric consumption, would be to install a variable speed control. Instead of operating at 20 HP, we drop the rpm to provide 10 brake horse power. At that level, the blower will provide 3,000 CFM. Once the volumes of open branches accumulate to 3,000 CFM in main pipe, the 3,000 will eventually feed into the 15" diameter. At that point the conveying velocity will reduce to 2,500 feet per minute, the standard velocity for conveying vapors and fumes. The dust and chips will quickly drop out of air stream and plug the 15" diameter pipe.

NFPA 664 2012 states in A.8.2.2.2.1.6: "Variable speed controls, whether manual or automatic, should not be used if they can cause insufficient velocity in the main duct." This will certainly occur with a variable speed control. We just cannot reduce the air volume and avoid a major clog. If a system was designed for a certain volume, we have to make sure that volume is drawn into the main pipe even if less machinery are operating relative to the original design. Same situation can be created by closing too many blast gates, thus reducing the amount of air volume required for main transport.

Sincerely,

Air Handling Systems Products in Action

High Tech Green Manufacturing with WWII Technology.



When coal was needed to fuel the ships to serve in World War II, little was left behind to fuel power plants, so a new product was used, compressed wood logs. Today that very same technology is being used to address a new fuel crisis. With the rising costs of oil, especially here in Connecticut a new start up has been launched to provide an alternative heating fuel source, and it is so pure it can even be used as fuel for brick oven pizza.

Renewable Heat Products deliver more heat to your home because they kiln dry their wood chips. The low-moisture content of the tightly compressed wood bricks creates a longer, hotter, more efficient fire. Unlike cordwood. HOT BRICKS do not waste heat evaporating the water trapped in the wood fiber. Instead, heat is immediately available to warm your home.

They burn cleaner as HOT BRICKS, do not have any dirt, mud, mold, fungus, or bark. They do not harbor spiders, bugs, worms, or vermin. They burn with little visible smoke and do not leave creosote in your chimney or stains on your glass doors. They stack neatly in your house or garage. HOT BRICKS are cleaner and more convenient.

Using HOT BRICKS for home heating is better for the environment, more affordable than oil, and cleaner and hotter than cordwood. HOT BRICKS provide a more convenient, efficient, and responsible way to keep our homes warm in the wintertime.

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Curt Corum, Sales Manager

Air Handling Systems - World War II Green Technology

Air Handling Systems has a plethora of technical data - click here for more technical sheets and specification on our products as well as information on dust collection and other industry related data.



They are GREEN - HOT BRICKS are 100 percent natural, local, and renewable. The woodchips used to make HOT BRICKS come from within a 50-mile radius of the plant. Heating with HOT BRICKS is carbon neutral. HOT BRICKS are the environmentally smart, sustainable choice for home heating.

HOT BRICKS are manufactured on equipment all relocated from Canada to Connecticut which required an extensive design for the new manufacturing line. This is where **Air Handling Systems** came in along with **Third Millennium Global Energy** Solutions (3MGES) a Comprehensive Global Energy Conservation Consulting firm. 3MGES designed the new system ensuring not only all equipment was fully functional upon being rebuilt in Connecticut, running at full efficiency, but also ensuring all the proper safety equipment including spark detection and suppression, to explosion venting on the dust collector, to magnetic separators ensuring any foreign metal is removed from the production line were installed. Ductwork from Air Handling Systems included spiral pipe, fittings and heavy duty flexible hose (U45) for a new inbound woodchip source.

What makes Air Handling Systems the BEST Choice...

<u>CLICK HERE</u> here to download the TOP reasons Air Handling Systems is better than ALL other competitors.

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