



PPORTUNITY



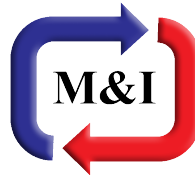
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Focused On The Engineered Environment

September 2008

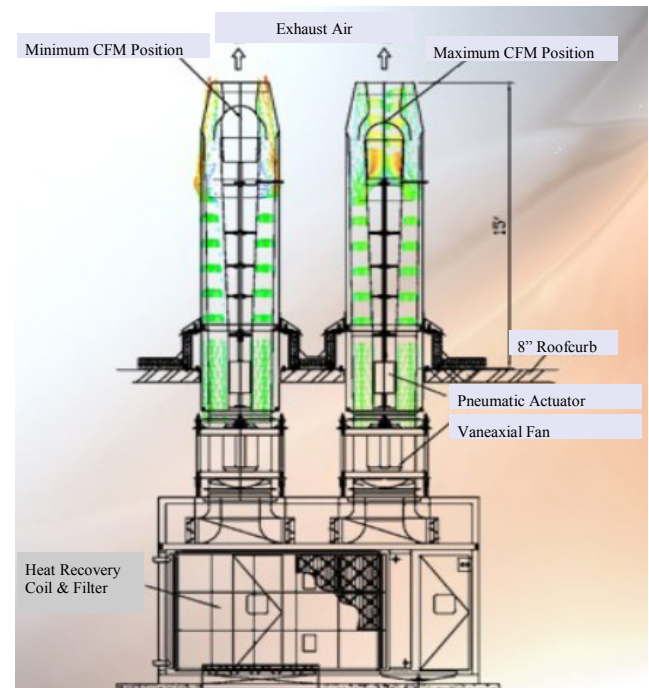
Welcome to PPORTUNITY, a monthly newsletter provided by Jacco & Associates. Jacco's focus on engineering and design concepts will improve your HVAC system while significantly reducing design time, making you more productive for your clients.

September Feature:



Stack Exhaust Fans

Existing conventional stacks are of constant geometry. The stack size is selected to maintain approximately 4,000fpm at the discharge in order to diffuse the exhaust air into the atmosphere. The stack is designed for this velocity at full exhaust cfm. At times the stack may not have to exhaust as much cfm as the design intended. This could be because a lab or kitchen is not in full use and all of the fume hoods are not in operation. Since the discharge area of the stack remains the same, the velocity of the air will decrease as the need for exhaust cfm decreases. In typical systems outside air is introduced into the stack to maintain a constant discharge velocity. This is a very inefficient process. You are introducing unnecessary air in order to maintain a specific discharge velocity. Why not vary the airflow while maintaining the velocity required and pocket the energy savings? The M&I stack design integrates a venturi shaped discharge section with a cone mechanism operating in the center that varies the net opening area of the stack to maintain a constant velocity at all exhaust airflow rates. The cone can be activated using a pneumatic or electric operator and a flow sensor located at the stack discharge to maintain constant velocity at all airflow rates. A silencer is also incorporated into the stack which is aerodynamically designed, is suitable for outdoor installation, and has minimal pressure drop. All of these items are factory installed and no external controls are required.



Be sure to mark your calendars for Jacco's Hospital and Healthcare Seminar on October 20th! Details to follow.

September Question & Answer:

Question: According to ASHRAE Standard 170-2008, what are the minimum distances required from the exhaust discharge and the roof/ closest outdoor air intake?

- a.) 5'/10' b.) 10'/10' c.) 15'/10' d.) 15'/15'

Prize: Sanyo GPS!

Respond by October 3rd with the correct answer to be entered in the raffle for this month's prize!

Last Month's Question & Answer Winner!

Question: To provide 70° air at 50% RH in a reheat system, what is the required coil discharge temperature (DB/WB)?

Answer: 50/50. Congratulation to Brian Rice for winning a Ping Putter!

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Questions or comments? E-mail us at opportunity@jacco.com



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