MULTISTACK®
Originators. Innovators. Never the Imitators.

February 2011 • Number 2 • Volume 1

Las Vegas—Home of 63rd AHR Expo!

The 2011 AHR Expo in Las Vegas was the biggest west coast version of the show in its 63 year history. Attendees and exhibit personnel totaled 54,000 and the exhibit floor covered 379,360 square feet. To give you a comparison, in 2004 the show was in Anaheim, California, and saw 33,000 total attendees and had 318,662 feet of exhibit space. Las Vegas seems to have been a hit.

Overall the show was busy, but at the Multistack booth we were extra busy. Not only did we unveil three new chiller designs at the show, we gave the HVAC world its first look at our new building control system, OPTIX. While Multistack personnel and reps from around the country were busy talking about the new products, there was still more going on in the booth with technical presentations on FlexSys and VME II taking place all three days of the show. If that wasn't enough activity, we had an opportunity to coordinate some off-site tours of Valley High School where we have two MS500F Flooded Chillers and OPTIX running the chilled water system.

Our Multistack party was a huge hit, with close to 700 of our friends joining us for an evening of fun, food and some amazing sights from the 108th floor of the Stratosphere tower. It was a night to remember as more than a few of our guests chose to do the controlled Sky Jump off the side of the building—if you are in Vegas anytime, it is well worth checking out.

The 64th AHR Expo will be held in Chicago January 23-25, 2012. We hope you will be there to spend time in the booth and enjoy the excitement of a new year with the Multistack family.

Virtual Moveable Endcap™ (VME) II

Multistack®, the world leader in modular chillers, has created the ultimate solution to simultaneous heating and cooling needs with our patent pending Virtual Moveable End Cap™ II system. Utilizing a combination of 10-, 15-, 20-, 30-, 50-, 70- and 85-ton Dedicated Heat Recovery Chillers™ (DHRC), Multistack can create systems from 20-600 tons that produce simultaneous cooling and heating.

No reversing valves are used in the modules and the engineering design is based on a single refrigerant lift and counter-flow in the heat exchangers for maximum energy efficiencies. Packaged as a four-pipe heat pump system, VME II is the next generation of simultaneous heating and cooling solutions.

Multistack modules use dual independent compressors to assure redundancy while focusing on energy savings and efficiency. The significance of the VME II is based on Multistack DHRC units that allow you to produce hot and cold water simultaneously while tying into closed or ground loop water sources. This design dramatically reduces piping and electrical costs as well as reducing the footprint needed to meet architectural limitations. Set up and installation costs are reduced because the VME II valve units are factory assembled and are powered by the Multistack buss bar system, the same as standard Multistack modules. Since the Multistack VME™II system is modular, it can be expanded to meet additional building needs in the future—eliminating the waste of discarding an undersized system as a company grows. Couple these features with ultra-quiet sound signature, low maintenance, and the innovation behind Multistack and you have the best water-to-water heat pump solution around.

ASP Modules– New for 2011

ASP 75T

ASP 60X

Airstack ASP-75T Flooded

Applying MagLev™ technology in an air-cooled chiller is nothing new. Applying it to a flooded unit that offers the best possible efficiency for an air-cooled product along with a modular design that allows for easy array assembly is pure Multistack engineering. The Airstack ASP-75T Flooded unit incorporates air-cooled condensing coils combined with a flooded evaporator and the revolutionary Multistack FlexSys Controller. This configuration brings you water-cooled performance in an air-cooled package.

The FlexSys Controller allows MagLev compressors to run at their optimum efficiency all the way through their operating range. Additionally, when built into multiple module arrays, the controller looks at each compressor individually to assure it is operating in its best part-load efficiency range to contribute to the overall performance of the chiller array. Trending, remote internet access for reconfiguration and so much more make this the most advanced air-cooled flooded chiller on the market.

The ASP 75T features single point water and power connections, rugged outdoor construction quality and has a Low Sound Option providing just 60dB at 30-feet.

ASP 60X Air-to-Water Heat Pump

Multistack produces the Airstack ASP Air-to-Water heat pump product line to address those times when an electric air-to-water system makes sense. With extreme redundancy, dual scroll compressor sets, environmentally conscious refrigerant, an extremely small footprint and easy integration into a two-or-four-pipe system (with optional VME valves module can produce simultaneous hot and cold water), the modular ASP line (available in 10-, 15-, 20-, 30- and now 60-ton units) is a well thought out design that allows you to set up a building now and expand the system as cooling and heating demands increase.

In studies done that compare costs, the ASP Heat Pump unit came out offering a three times cost savings in compared to natural gas for creating hot water and additional study shows a tremendous savings compared to multiple well-drilling and the ongoing water-side maintenance over the years.

Additionally, the ASP Heat Pump line can integrate the Multistack Virtual Moveable End Cap™ (VME) technology so that you can establish a chiller array that provides both heating and cooling simultaneously.

OPTIX–Central Plant Controller

OPTIX by Multistack

In 2009 we released FlexSys, our proprietary Magnetic Levitation compressor controller. FlexSys changed the entire industry's views on how a Turbocor compressor could be controlled and the efficiencies that could still be found in them. The problem was, no matter how efficient we made the Multistack MagLev Chiller line, an inefficient building created poor numbers for the whole system. It became obvious that the next step in controls would be optimizing the building.

We call it taking a common sense approach to looking at the big picture for chilled water distribution. We also say it is as simple as one hand knowing what the other is doing. So if it is this obvious, why have others not done it? Probably because no one can control a MagLev compressor like we can.

OPTIX can control:

- Four Multistack MagLev Chillers
- Four Variable Speed Condenser Water Pumps
- Four Variable Speed Chilled Water Pumps
- Chilled Water Bypass Valve
- Condenser Water Bypass Valve
- Four Variable Speed Cooling Tower Fans
- Optional Hartman Loop Logic
- Future Feature—Other Manufactured Variable Speed Chillers

By bringing all of this into an intelligent thought package, finding the proper energy balance is easy. OPTIX is designed to help the industry get past the idea that just because something has a variable drive, it is efficient. A system with variable drives can be efficient, if it is communicating with all of the other components in the system. Leave one component out and it can all go terribly inefficient quickly.

OPTIX leads the industry in design, visual graphics, communications, speed, reliability, ease of installation and custom solutions. This is a system you definitely want to learn more about by talking with your Regional Sales Manager and downloading the literature on the www.multistack.com website.

MULTISTACK®

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