

SMART SOLUTIONS

WINTER 2016

Helping contractors save money and enhance productivity



Built in 1923, the T.W. Patterson Building was the first multistory U.S. building to install air conditioning. To upgrade the system, NESM chose the compact Daikin Magnitude chiller to fit the tight spaces of the historic building.

New England Sheet Metal Works Sees Daikin Chiller as Perfect Fit for Historic Building

New England Sheet Metal Works, Inc. (NESM) chose a Daikin Magnitude® chiller to upgrade the historic T.W. Patterson building in downtown Fresno, CA, because its compact design fit the tight spaces of the 93-year-old building. NESM provided temporary cooling, engineering design of the new water-cooled applied system, and services that included the installation of the Magnitude chiller, related piping, and a cooling tower.

“Both NESM and Patterson building ownership are passionate about

downtown and have long histories here in Fresno,” said Jim Boone, president of NESM. “Our firm is very familiar with Daikin and has the experience required to bring the historic Patterson building this state-of-the-art chiller technology.”

State-of-the-Art, Then and Now

The Patterson building was the first multistory building to feature air conditioning in the United States back in the 1920s. The recent HVAC upgrade was a chance to show advanced technology and problem-solving at its

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Henson Robinson Elects Carrier for Comfort at Historic Lincoln Home

Called on by the National Park Service to modernize the HVAC system of the home of Abraham Lincoln in Springfield, IL, Henson Robinson relied on its expertise with historical sites and on Carrier HVAC products to upgrade the system without disrupting visitors or disturbing the site. Despite the challenges, the project went smoothly.

The Lincoln Home National Historic Site has a mission to preserve, protect, and interpret the house where Lincoln and his family lived for 17 years prior to his election to the presidency of the United States. The Lincoln Home, which emphasizes the relevance of Lincoln’s life to people living today, provides an educational experience for more than 200,000 visitors a year, in addition to preserving numerous historical furnishings and artifacts associated with Lincoln. Historical accuracy and period-appropriate appearance are important goals for the facility, which replicates the home’s appearance in 1860, when the Lincolns moved to Washington, DC.

Because Willis Carrier did not invent modern air conditioning until 1902,

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Humphrey Satisfies “No Downspouts” Design Specs with Jay R. Smith Custom Drains

The sleek design of a new medical research facility specifically prohibited downspout nozzles, so Humphrey Company Ltd. called on Jay R. Smith Mfg. Co. for a custom drainage solution. Accommodating state-of-the-art design challenges is just part of the job for Humphrey. They believe that when you take the time to plan for unusual requests, you can always find a solution—an approach that proved valuable in the construction of one of the country’s leading cancer research and treatment facilities.

In 2011, MD Anderson received a \$150-million grant that funded, in part, the building of the new 626,000-square-foot Zayed Building for Personalized Cancer Care, which

houses the Institute for Personalized Cancer Therapy and the Center for Pancreatic Cancer Research.

Chris Humphrey, vice president of Humphrey Company, said that one of the challenges was accommodating the overflow drainage for the building. The design of the building required the overflow to be drained straight off the 12th and 13th floors of the building. The architect specified “no downspout nozzles.”

Humphrey Company turned to Jay R. Smith Mfg. Co. Sales Representative Randy Stephen to come up with a custom solution that would complement the building’s sleek design and meet the architect’s

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The sleek design of the Zayed Building for Personalized Cancer Care specified “no downspout nozzles,” so Humphrey Company Ltd. called on Jay R. Smith Mfg. Co. for a custom drainage solution to get the job done.

Herman Goldner Credits KEY2ACT Signature Software with Improving Efficiency, Cash Flow

Herman Goldner Company, Inc., took its first steps toward a paperless workplace in 1998 with KEY2ACT and cites their continued partnership as the basis for improved cash flow and increased efficiency. Goldner points to the KEY2ACT Signature solution suite as part of the reason they have become a company with annual revenue figures of over \$80 million and a staff of 250 employees.

“Before using Signature we had a 10-day waiting period before we could close out the month,” said Tony Le, Goldner’s system administrator. “It slowed everything down and affected the overall cash flow. Now we can close right on the last day of the month and we know

“Before using Signature we had a 10-day waiting period before we could close out the month. It slowed everything down and affected the overall cash flow. Now we can close right on the last day of the month and we know what our numbers are before we close.”

—Tony Le, System Administrator, Herman Goldner

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Based in Philadelphia, Goldner has been serving customers for more than 125 years, providing mechanical construction services and maintenance to commercial, industrial, pharmaceutical, and health care companies. The company wanted a system that would

help them keep up with the times in a very competitive environment, so they partnered with KEY2ACT.

“Historically, we have grown and adapted with the times,” said Le. “There was a time when we did most everything by hand. Now, we have migrated in the past 15 years to being almost a paperless

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TRIMBLE

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Once the racks, pods, and walls were complete, the prefabricated items were delivered to the tower construction site for installation.

While Savko doesn't know exactly how much time was saved on the project, he is very aware of the advantages created by prefabricating the bathroom pods and corridor racks. He added, "We were installing bathroom pods and corridor racks before exterior walls were going up. We were in the building doing install right after the floors were poured with concrete. Normally, we would have just started putting hangers and piping up. On this project, we had full corridor main systems and bathroom groups completed."

Looking Ahead

Prout recently used the combination of AutoBid Mechanical and PipeDesigner 3D to bid a hospital heat exchanger project. In this case,

the mechanical room was jam-packed.

Savko said, "With our laser tools, we were able to get measurements in a couple hours, draw it in PipeDesigner 3D, and then draw in a new heat exchanger along with details about how we'd do the replacement, including labor hours and materials. We refined our material-based drawings and won the job and the subsequent fabrication, and, as an added bonus, we had installation drawings ready for our field guys."

The benefits of estimating and detailing solutions are also playing a big role in the company's strategic growth, which includes expanding its industrial pipe fabrication and commercial prefabrication services. Prout detailers are looking forward to using Trimble's Quick Link integrator tool that will allow take-off in AutoBid Mechanical and define route lines in

PipeDesigner 3D to automatically draw pipe and fittings, which would expedite the drawing process.

Savko said, "Much like the Salem tower project, the owners want the project completed faster so they can start generating revenue earlier than conventional construction. We'd like to expand our fabrication shop to meet growing demand—the success of this endeavor will depend on our detailers and PipeDesigner 3D."

Savko concluded, "Thanks to 3D technology, we keep finding efficient ways to expedite the whole piping process from layout to design to fabrication and enhance our multi-trade coordination capabilities. I went for training on PipeDesigner 3D in 2007. Since implementation in our company, it's paid for itself tenfold."

For more information, visit www.trimble.com. MCAA thanks Trimble for being a supporter of MCAA 2016.

JAY R. SMITH

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requirements. The engineers at Smith's Montgomery, AL, manufacturing facility created modified brass scupper boxes that would meet the overflow requirements and blend in with the building's exterior.

Stephen explained that even with the special requirement, there were no setbacks in the timing of the job. "Humphrey Company's jobs always run smoothly because they can spot a problem early and take the time to think through the best solution instead of having to come up with a quick fix."

Jerry McDanal, vice president of engineering at Smith, said, "It's not unusual for us to create custom

solutions and modify standard parts as needed by contractors. We prefer working closely with the contractor to design the right solution, so they don't have to make do with a less-than-desirable quick fix."

In a way, custom solutions are exactly what MD Anderson is looking to provide when it comes to personalized cancer therapy and advances in pancreatic cancer research. The new Zayed Building was designed to facilitate collaboration among researchers. Built into the design is the ability to accommodate changes in occupancy as needed. An office wing can be quickly transformed into a laboratory if research needs call for it.

To accommodate those transformations, all spaces had to be fitted with the appropriate drainage and plumbing required for a laboratory. The majority of the drains installed by Humphrey were Smith Acid Resistant Coated drains.

The Zayed Building for Personalized Cancer Care opened in early 2015, just over three years after breaking ground. For their part, Humphrey said, "This one went very smoothly for us."

For more information, visit www.jrsmith.com. MCAA thanks Jay R. Smith Mfg. Co. for being a supporter of MCAA 2016.