Innovation in developing and applying cutting-edge HVAC technology in commercial projects across the U.S., said. “Beginning with our early days as leaders in the supply of modular chillers to the U.S. market, Climacool has built on this legacy to become a provider of innovative and advanced equipment solutions like the SHC onDEMAND. With new sales up 20% to 30%, facilities in Oklahoma City that include a state-of-the-art test stand for AHRi certification along with multiple production lines of advanced manufacturing equipment, Climacool is well positioned for continuing its trajectory of success with future projects.”

According to Klige, thousands of Climacool units are currently in operation throughout North America, with a dominant and growing concentration of successful simultaneous heating and cooling unit applications.

All Climacool modular chillers are designed to deliver installation time and costs, with individual modules that can fit through standard doorways and have low centers of gravity for easy transport via pallet jacks and forklifts. Modular chillers from Climacool are additionally engineered to perform with ease on maintenance, with single-point electrical connections and self-diagnostic features that allow for the servicing of an individual module while the remaining modular chillers in the bank continue to operate. Their corresponding designs also assist contractors in the ability to service the units without proprietary parts or factory techniques.

With a focus on system efficiency, Climacool has engineered its units with a holistic view on cooling, heat recovery, heat pump operation, geothermal capabilities and simultaneous heating and cooling applications in mind.

“In all such central plant applications, the company stresses the importance of using a common heat source whenever possible, thereby leveraging the advantages of using two sources of energy by employing geothermal baselines to maximize efficiency,” Klige explained.

In addition, Climacool stresses the energy-saving advantages of variable pumping for cooling, heating and source loops, so that only the amount of water flow required by the system is provided. All Climacool modular chillers are additionally engineered to minimize variable pumping for cooling, heating and source loops, so that only the amount of water flow required by the system is provided. All Climacool modular chillers are additionally engineered to minimize the amount of water flow required by the system while the remaining modular chillers in the bank continue to operate. Their corresponding designs also assist contractors in the ability to service the units without proprietary parts or factory techniques.

Looking toward the future, Climacool is focused on developing cutting edge solutions that align with dynamic industry needs, including those associated with energy costs, heat recovery, redundancy, ease of installation, serviceability and refrigerant legislation.

SHC onDEMAND® Modular Chillers from Climacool Deliver on The Charles Machine Works’ Energy Efficiency Goals in Headquarters Renovation Project

In the late 1980s, 10-year old Ed Kubus applied a combination of knowledge from his father’s blacksmith business and his electrical technician engineering education to create a machine that would revolutionize the underground construction industry as we know it today. At the time, he imagined going the way for compact trenchers that now efficiently install water, sewer and gas lines and telecommunications, CCTV’s and fiber optics, all in one pass. Thanks to Stolhand Heating & Air Conditioning, Oklahoma City in Perry, Okla., he has made geothermal heating and cooling a more popular HVAC industry choice in recent years, particularly in relation to the exceptional comfort and long-term savings it can provide.

“The Charles Machine Works has a more than 60-year history for Perry, Okla.-based The Charles Machine Works, Inc. (CMW), as well as its leadership and utilize a micro charge of non-ozone depleting, chlorine-free refrigerant. Its modular chillers are utilized in a wide variety of commercial and industrial applications such as cooling, heat recovery, geothermal heat pump and simultaneous heating and cooling. When compared with conventional chiller and boiler systems, Climacool solutions occupy a minimal footprint and are easily manageable to create lower insulation costs and improved placement flexibility. Climacool systems are more serviceable, maximize energy efficiency, provide true redundancy, offer sustainability, have low operating noise levels, and utilize a micro-charge of non-ozone depleting, chlorine-free refrigerant.
facilitated themselves with geothermal system concepts via relationships with nearby Oklahoma State University, where the International Ground Source Heat Pump Association (IGSHPA) is headquartered.

“IGSHPA is leading the charge in creating a global awareness of geothermal’s benefits, and the organization was a great resource for us in learning how and why to incorporate these systems into our building projects and upgrades on the campus,” Guinn said.

According to Furgason, the system includes a graphical floor plan of the building that shows all zones and readings from their associated temperature sensors. It allows Guinn and others at CMW to monitor temperatures in real time, as well as easily make any necessary adjustments.

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heat pump units from neighboring Oklahoma City-based center, with innovative new simultaneous heating and cooling project, a retrofit system for its existing product development Air Products Supply, CMW designed its latest geothermal... manufacturers’ representative firm Working with Stolhand Heating & Air Conditioning and resource for us in learning how and why to incorporate these “IGSHPA is leading the charge in creating a global awareness... associations headquartered. the International Ground Source Heat Pump Association relationships with nearby Oklahoma State University, where familiarized themselves with geothermal system concepts via...envelope performance, including replacing the floor-to-ceiling Guinn. “We were doing a lot of work to improve the building...a very energy efficient, and “As part of an overall assessment of how we could make...front of the product development center more energy efficient, and “The new SHC onDEMAND...module electrical feeds and dual independent refrigeration circuits, allowing for the unit to maintain operations while individual modules are being serviced.” “This is...complain for heating or cooling regardless of its position in... Stillhand said. “The project goal was to save...more control than the previous...the new BAS provides much more control than the previous...smart phone, and can also send alerts about system operation changes or problems directly to Tony via email or text,” explained Furgason. Initial geothermal field drilling for the project began in September of 2011 simultaneously to digging for new French drains on the north side of the product development center building. “This was our first vertical field...system equipment. “With our original HVAC system, the...also incorporated two existing air handlers with replacement...the SHC onDEMAND unit was specified as part of a new system on the campus,” said Guinn. In all, the field includes...also been operating longer-term, but we expect that we’ll be...drains on the north side of the product development center building. “After the commissioning phase, the ClimaCool system has...comfortable at that temperature. “The system allows you to adjust operations either simultaneously or remotely from any web-based device, including a computer or smartphone, and can also send alerts about system operation changes or problems directly to Tony via email or text,” explained Furgason. Initial geothermal field drilling for the project began in September of 2011 simultaneously to digging for new French drains on the north side of the product development center building. “This was our first vertical field...renewable energy sources, and...be replaced with a web-based building automation system (BAS).” "The system allows you to adjust operations either simultaneously or remotely from any web-based device, including a computer or smartphone, and can also send alerts about system operation changes or problems directly to Tony via email or text," explained Furgason. Initial geothermal field drilling for the project began in September of 2011 simultaneously to digging for new French drains on the north side of the product development center building. “This was our first vertical field...familiarized themselves with geothermal system concepts via...new SHC onDEMAND units from ClimaCool for several reasons. “I’d been...Guinn. “We were doing a lot of work to improve the building...match up with the unit’s ability to generate heating and cooling simultaneously” Stillhand said. “The project goal was to save...standard chillers, particularly as it means there’s no down time in the facility when maintenance or other system adjustments are necessary,” Stillhand said. Working with Stolhand Heating & Air Conditioning and Oklahoma City-based manufacturers’ representative firm, Air Products Supply, CMW designed its latest geothermal project, a retrofit system for its existing product development center, with innovative new simultaneous heating and cooling heat pump units from neighboring Oklahoma City-based center, with innovative new simultaneous heating and cooling project, a retrofit system for its existing product development Air Products Supply, CMW designed its latest geothermal...manufacturers’ representative firm Working with Stolhand Heating & Air Conditioning and resource for us in learning how and why to incorporate these “IGSHPA is leading the charge in creating a global awareness...companies headquartered. the International Ground Source Heat Pump Association relationships with nearby Oklahoma State University, where familiarized themselves with geothermal system concepts via...envelope performance, including replacing the floor-to-ceiling Guinn. “We were doing a lot of work to improve the building...a very energy efficient, and “As part of an overall assessment of how we could make...more control than the previous...the new BAS provides much more control than the previous...smart phone, and can also send alerts about system operation changes or problems directly to Tony via email or text,” explained Furgason. Initial geothermal field drilling for the project began in September of 2011 simultaneously to digging for new French drains on the north side of the product development center building. “This was our first vertical field geothermal...
ClimaCool Corp. is pursuing the three 50-ton ClimaCool SHC onDEMAND® project, a retrofit system for its existing product development center. Working with Stolhand Heating & Air Conditioning and Oklahoma City-based manufacturers’ representative firm CMW designed its latest geothermal systems into our building projects and upgrades on the campus,” Guinn said.

“Darrell Stohland was keen on specifying the new SHC SHC onDEMAND® modular chiller units offer dramatic energy saving benefits – potentially more than 50 percent when compared to traditional boiler/ chiller systems,” said Ross Miglio, ClimaCool president. “It also features a patent-pending technology that eliminates the need between the source and heat pumps, allowing for the unit to maintain temperatures, building loads and compressor run time equalization for ultimate operational efficiency.”

“Each of the three, six-pipe ClimaCool SHC onDEMAND units also feature a unique modular design with balanced refrigeration circuits, allowing for the unit to maintain operation while individual modules are undergoing service. "This is such an advantage compared to standard chillers, particularly as it means there’s no down time in the facility when maintenance or other system adjustments are necessary," Stohland said.

"The new SHC onDEMAND heat pump units are an exceptional piece of equipment when it comes to reducing energy consumption," Beller said. "Features such as the Cooling Logic System and intelligent motorized valves for variable pumping convert it into a highly efficient system, saving up to 55% using variable speed technology.

According to Darrin Beller, president of Air Products Supply, this ClimaCool configuration incorporates several notable features that maintain precise chilled and hot water temperatures, building loads and compressor run time equalization for ultimate operational efficiency. "The SHC SHC onDEMAND heat pump units are an exceptional piece of equipment when it comes to reducing energy consumption," Beller said. "Features such as the Cooling Logic System and intelligent motorized valves for variable pumping convert it into a highly efficient system, saving up to 55% using variable speed technology.

"The SHC onDEMAND heat pump units are an exceptional piece of equipment when it comes to reducing energy consumption," Beller said. "Features such as the Cooling Logic System and intelligent motorized valves for variable speed technology. The SHC onDEMAND unit was specified as part of a new system on the campus," said Ross Miglio, ClimaCool president. “It also features a patent-pending technology that eliminates the need between the source and heat pumps, allowing for the unit to maintain temperatures, building loads and compressor run time equalization for ultimate operational efficiency.”

"This allows us to adjust operations either similar or remotely from any web-based device, including a computer or smartphone, and we can also send alerts about system operation changes or problems directly to Troy via email or text," explained Furgason. Initial geothermal field drilling for the project began in September of 2013 simultaneously to digging for new French drains on the north side of the product development center building. "This was our first vertical loop field geothermal project on the campus," said Guinn. "And the field includes 60,000 foot deep boreholes with HOPE double u-bend pipe installed through the distribution system. The drilling was conducted in tandem with the construction of a separate four-foot-insulated steel by soft mechanical building that would house the new ClimaCool units and another equipment system. With our original HVAC system, the chiller was external to the building, and the boiler, which was removed, had been installed in the drop," Guinn said. “We really needed a separate space for the new equipment, and..."
saying about a $50,000 annual savings in operating costs,” Miglio continued. “This is much due to the highly energy efficient operation of the geothermal system, as well as how the ClimaCool units ideally capitalize on this type of energy.”

“According to Miglio, thousands of ClimaCool units are currently in operation throughout the country, with a dominant and growing concentration of successful simultaneous heating and cooling unit applications.

All ClimaCool modular chillers are designed to reduce installation time and costs, with individual modules that can fit through standard doorways and have low centers of gravity for easy transport via pallet jacks and forklifts. Modular chillers from ClimaCool are additionally engineered to incorporate maintenance, with single-point electrical connections and water isolation valves that allow for the servicing of an individual module while the remaining modular chillers in the bank continue to operate. Their corresponding designs also afford contractors the ability to service the units without proprietary parts or factory technicians.

With a focus on system efficiency, ClimaCool has engineered its units with a holistic view of cooling, heat recovery, heat pump operation, geothermal capabilities and simultaneous heating and cooling applications in mind.

“With a focus on system efficiency, ClimaCool has engineered its units with a holistic view of cooling, heat recovery, heat pump operation, geothermal capabilities and simultaneous heating and cooling applications in mind. For this type of variable pumping system.

Looking toward the future, ClimaCool is focused on developing cutting edge comfort solutions in alignment with dynamic industry needs, including those associated with energy costs, climate control, redundancy, ease of installation, durability, serviceability and refrigerant regulations.
The Charles Machine Works
Perry, OK

Machine Works' Energy Efficiency Goals
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Middle-Chiller Projects Worldwide.

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