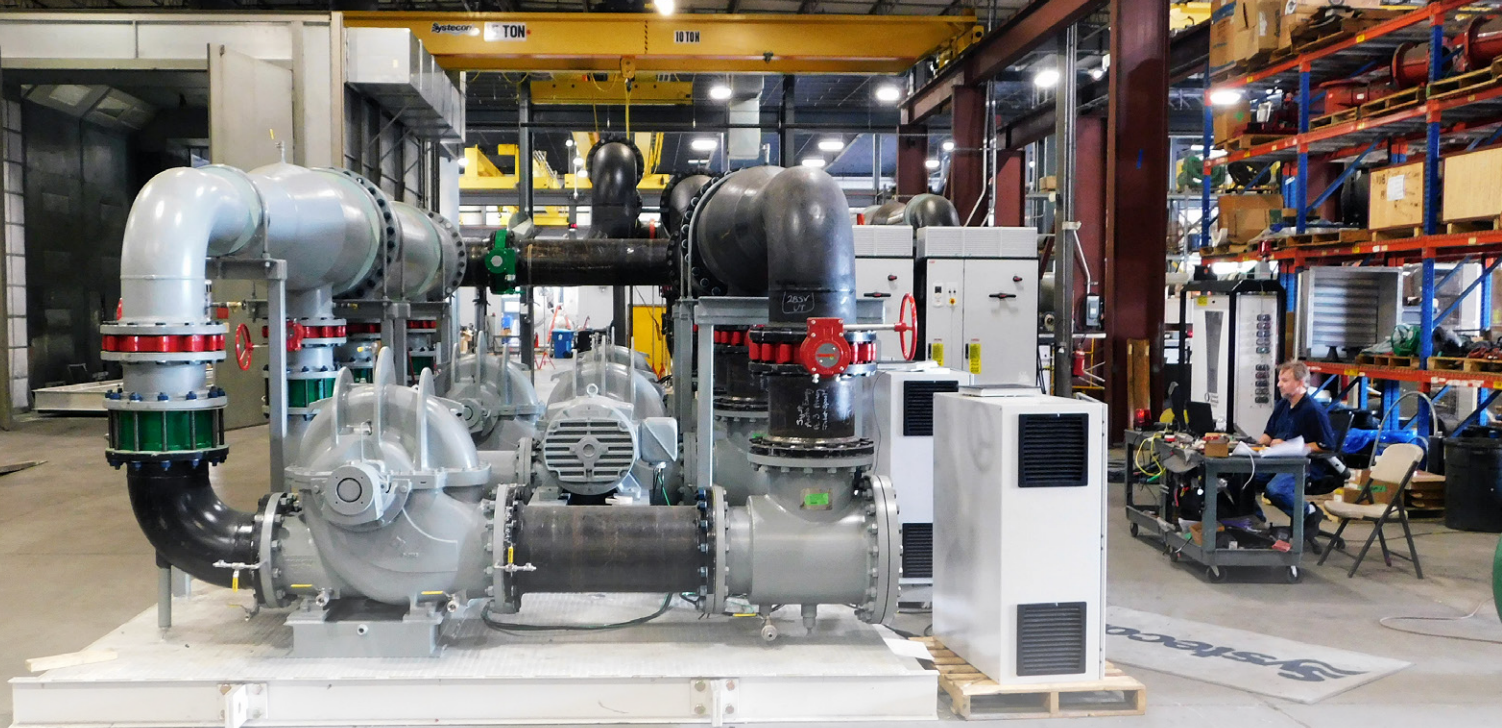






INNOVATIVE Modular Utility Systems



Written by Robert Hoshowsky

O hio-based Systecon is on the threshold of its golden anniversary. The company has grown to become one of the world's leading manufacturers of custom-made modular central plants, modular pumping systems, and more. Unlike some of its competitors, Systecon provides one-stop services and solutions, handling everything from concept development and component selection to plant design, optimization, system factory testing, shipment, re-assembly, start-up, and commissioning.

Systecon focuses on achieving the best results in every aspect of projects for its customers – including owners, general contractors, and consulting engineers – with the highest degree of service and professionalism. The company takes on work spanning the globe, with project values ranging from about \$200,000 to \$30 million in commercial, industrial, hospitals, mission-critical data centers, and other industries.

Its systems are rigorously tested in-house and hold many advantages over field-built systems including total project control, factory efficiencies, less overlap, improved security, a full single-source warranty, and peace of mind.

Systecon was founded in 1971 and is renowned not only for its quality but also for its employee loyalty, the result of excellent management, hiring the right people, and doing everything possible to keep them. In fact, one employee on the mechanical side recently retired after forty-five years with the company.

“Retention is unbelievably high,” says Regional Manager Frank Karoly. “This is my third job. When I started at Sys-tecon fourteen years ago, that’s one of the things that stood out. For a lot of people, it was the only job they’ve ever had.”

It has expanded considerably over the decades and now has approximately one hundred staff members including engineering, project management, mechanical, and electrical workers performing equipment assembly and in-house quality assurance. It also has a large service group supporting projects in the field.

The company created basic water management pumping packages for different applications in the early years, and its work still includes standard pump packages, as well as patented, custom-made modular pumping systems called VariPrime, central plant controls, and the unique CritiChill system.

Systecon was acquired a year ago by ENGIE North America Inc., which manages energy businesses in North America including energy storage, clean power generation, and retail energy sales. “It was a strategic purchase for ENGIE for North America, and we have already integrated well with other ENGIE corporations in North America, mainly contractors,” says Karoly of the move, which came on the heels of three other acquisitions of well-known American electrical and mechanical service providers.

“Systecon is ready for the next chapter of our company’s success story,” stated company Chief Executive Officer and President Marty Tierney in a media release. “By leveraging the interconnected network of other successful ENGIE teams, we can expand on our unique approach to delivering modular HVAC and mechanical contracting solutions – creating a seamless, sustainable energy services model for our valued customers. The resources that ENGIE can provide as we continue to grow together make this transition a very exciting, positive opportunity for Systecon.”

Tierney said that the acquisition is an opportunity for the company to “expand on our unique approach to delivering modular HVAC and mechanical contracting solutions – creating a seamless, sustainable energy services model for our valued customers.”

The move has been mutually beneficial. Systecon now has more available resources and staff, including a new human resources person. An expansion of about 26,000 square feet that was in the works before the acquisition will now be completed sooner than expected.

The company has been entrusted with many unique works over the years, including ‘McLaren,’ a confidential three-phase



project for a data center client. The project was codenamed by the owners who are aficionados of the high-end British supercar manufacturer.

The first phase was completed in September 2018 and the second two phases were operational in 2019. Among the many unique aspects of the \$11.2 million ‘McLaren’ project was that it became the first to use Systecon’s current version of CritiChill.

“Systecon was founded in 1971 and is renowned not only for its quality but also for its employee loyalty.”

The patented CritiChill system was developed entirely in-house using modular indirect evaporative cooling and is unlike any other on the market. For years, customers had to choose between highly-efficient, water-cooled chiller plants or air-cooled chiller plants that required less water and no chemical treatments. However, the CritiChill system packages the best of both systems.

Since it uses less water, the system is well-suited for clients with green initiatives ►



► focused on water conservation. In states like California, Arizona, or Texas, water supply can be unpredictable, and expensive.

CritiChill was introduced to the market about eight years ago and modernized two years ago as an alternative to traditional open power systems.

The system is thirty percent more efficient compared to a regular air-cooled chiller plant operating at full load, and this high efficiency is achieved by using centrifugal chillers versus a helirotor screw compressor.

"The main benefit is, it is using highly efficient centrifugal chillers but with adiabatic coolers on the condenser side, so we are achieving high efficiency, but not using open towers," says Karoly. The result is a system that uses just twenty percent of the water usually needed by traditional cooling towers and without harmful chemicals.

Another recent landmark project for the company is the Austin District Cooling Plant #3. Systecon shipped the system to the site in Texas in September 2019. It was built in many phases because of a tight footprint on the site, and Systecon was

involved earlier than normal so that client Austin Energy could build around the equipment.

As Austin continues growing, more buildings are using chilled water in their air conditioning systems. "A district cooling system provides an efficient and environmentally-friendly way to cool multiple buildings," states Austin Energy on a webpage dedi-

cated to DCP#3. "District cooling systems are common in major cities in this country and throughout the world, particularly in cities that boast a dense urban core."

Testing the primary and secondary pump system before shipping

proved to be challenging, says Application Engineer and Project Manager Greg Borzone, a twenty nine year company veteran.

"Each pumping skid was rated for a total flow of 15,000 gallons per minute (GPM). Besides the high flow rate, the challenge was to be able to test the primary pump system that did not have enough head pressure to be able to circulate through our test stand. We had to basically get a brain trust together and figure out a special pumping arrangement, using the secondary pump skid to boost the pressure through the primary pump

"The company has been entrusted with many unique works over the years, including 'McLaren,' a confidential three-phase project for a data center client."



Danfoss is a **trusted partner** of Sysstecon

Danfoss offers heat transfer solutions that are designed with tomorrow in mind. Keep your data cool and safe with our energy efficient and system-optimized plate heat exchangers.

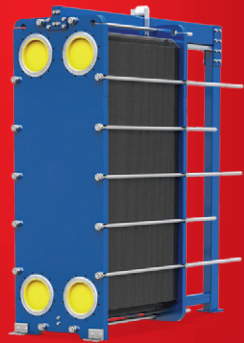
SONDEX® brand plate heat exchangers from Danfoss are installed in many data centers around the world and we offer long thermal lengths and large heat transfer areas to ensure the ultimate in performance.

AHRI-certified

Each of our plate heat exchangers for use in cooling applications can be designed and certified according to the AHRI Standard 400.

For more information contact us today

Tel.: + 1 502-933-9991
sondexsales@danfoss.com



Visit our website to learn more about our products
heatexchangers.danfoss.com

SONDEX®

ENGINEERING
TOMORROW

Danfoss

skid. We think this type of ingenuity and our test stand capacity give us distinct advantages over our competition, because there are not many others who could have met these special testing requirements," says Borzone.

Systecon has an industry-wide reputation for quality and service, so clients find the company mainly through word-of-mouth, social media, and well-informed representatives in every major city in the United States. Building relationships with both new and existing customers or with suppliers like ABB and Patterson Pump is important.

"One of the nice things about Systecon is that we are equipment-agnostic," says Karoly, "so companies, engineers, and owners work with us and are not shoehorned into working

with one manufacturer because of Systecon – so we can work with whoever their preference is."

With a well-trained, dedicated staff and strong support from ENGIE, Systecon looks forward to the future.

When Regional Manager Karoly joined almost a decade and a half ago, the company earned about \$12 million a year, but this has grown to upwards of \$70 million today. "That's quite a lot of growth," he says, "and even through the recession, we had great years. I see the acquisition by ENGIE being a great thing, and that will make the growth go even quicker." ■

Content Developed by Aaron Conway | Designed by Ebic Tristary





6121 Schumacher Park Dr., West Chester, OH 45069 | P: 513.777.7722

www.systecon.com

SUPPORTED BY

SONDEX

www.heatexchangers.danfoss.com

