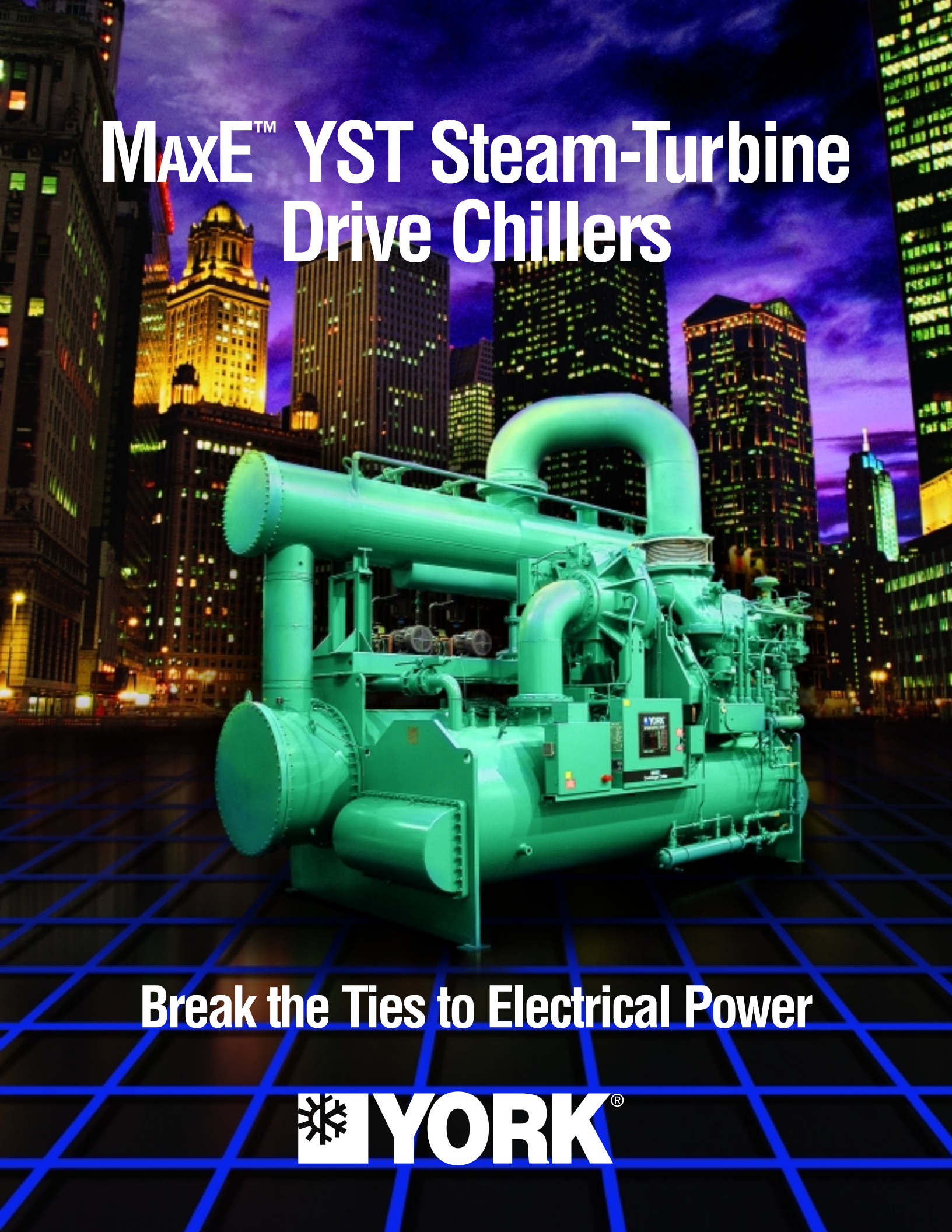
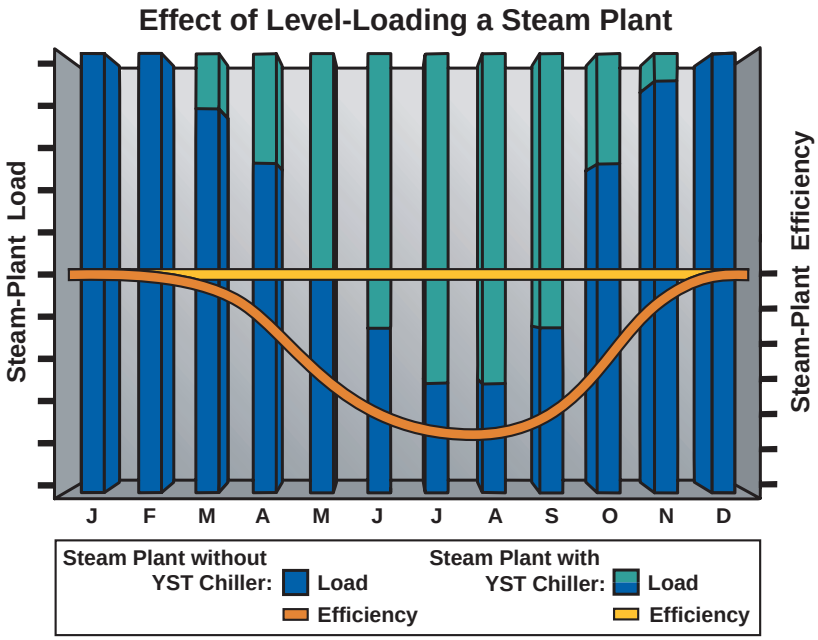


MaxE™ YST Steam-Turbine Drive Chillers

Break the Ties to Electrical Power

YORK®

Get off the grid with the hottest



The use of a MAXE YST steam-driven chiller improves cogeneration system and boiler plant utilization.

Avoiding dependency on costly electricity

Year after year, the availability of affordable and reliable electricity concerns owners of commercial, industrial, and institutional facilities. That's why owners continue to look for alternatives to minimize their dependency on utility-sourced electricity.

Furthermore, the emphasis on environmentally responsible, distributed-energy systems requires efficient recovery of exhausted heat. Cogeneration systems and boilers that need to operate year-round to meet site demand run inefficiently at low loads in summer.

In many systems, a more effective strategy can be attained by maintaining high firing rates throughout the summer by producing steam for building or process cooling.

This strategy not only improves operating efficiency, it also cuts electric consumption, thereby reducing annual operating costs. Add the savings obtained from utility rebates and demand-side management strategies that reduce peak electric rates, and steam becomes a much more affordable, more reliable way to keep cool than electricity alone.

Get the most efficient use of steam for cooling

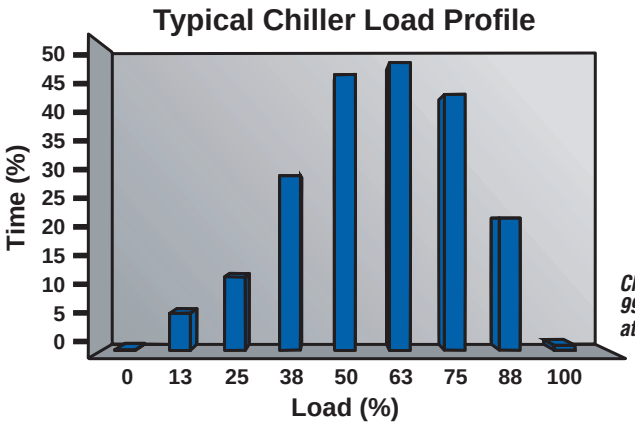
To get maximum advantage from steam for mechanical cooling, it takes advanced chiller technology configured and optimized for the required conditions—all realized with a MAXE YST steam-turbine-drive chiller from YORK®.

energy source for cooling — steam

YORK's decades of history with steam systems has culminated in the most advanced alternative-fuel chiller. YORK engineering ensures that an efficient, multistage, steam turbine is integrated with the optimal steam condenser to make the most efficient use of available energy to power the chiller. The drive is configured with the proven efficiency of a YORK MAXE centrifugal chiller. The result: unbeatable efficiency at real-world operating conditions.

Focus on minimizing operating costs

In the real world, chillers operate nearly 99% of the time at off-design conditions. Consequently, how a chiller operates at off-design determines the real energy costs. The MAXE YST chiller is designed to deliver superior performance at both design and off-design conditions. It is engineered to take advantage of the steam turbine's inherent variable-speed, capability to seamlessly optimize chiller speed and to handle low entering-condenser-water temperatures, allowing the system to operate at the highest efficiency — standard features in all YST chillers.



Chillers spend nearly 99% of operating hours at off-design conditions.

Compact packaging with the

Modular configuration provides maximum flexibility

Typically, manufacturing a steam-turbine chiller is an engineering-intensive process that involves integrating many different components. But YORK works smarter. We've evaluated each system component to dramatically simplify the overall chiller design.

The YORK YST steam-turbine chiller employs a fully modular concept. Components can be easily mixed and matched. Components are pre-designed to take advantage of advanced manufacturing techniques and ensure proper fit and prompt delivery.

Application flexibility

The MAXE YST chiller handles all the usual operating conditions you normally encounter with traditional chillers, including a wide range of leaving-chilled-water temperatures, entering-condenser-water temperatures, and fluid flows.

Furthermore, the YST platform has been designed for all normal steam pressures. However, should you have an unusual steam condition, YORK has the flexibility to accommodate this also.

flexibility to fit any job

The steam condenser can be top-mounted (far left) or side-mounted

Compact footprint

Traditional steam-turbine chillers require significant real estate. The YST chiller places the steam condenser on top of the chiller, so the footprint is no greater than a compact electrical chiller. Where preferred, the traditional side-mounting of the steam condenser can be selected from the extensive list of available options.

Handle industrial duty with industrial options

Demanding industrial applications require a standard array of options that make it easy to meet customer needs. Using the versatile YST packaged design as a base platform, YORK has the unique ability to custom configure a unit to meet your special requirements.

Born out of an industrial design.

Low noise

Because it uses a quiet steam-turbine drive instead of an electric motor, a YORK YST chiller operates at significantly reduced sound levels compared to many electric chillers.

Sophisticated controls specifically

Optimized to control steam

Previous-generation, steam-turbine chillers used a composite of various component controls. The YST is the first steam-turbine chiller where the control system has been developed from the ground up to control the complete chiller. At the heart of the system is the OptiView™ Control Center. Its powerful microprocessor and graphical user interface set the standard by presenting more data in the friendliest possible way.

In operation, proven OptiView control logic continually monitors all chiller and steam conditions, and automatically determines the most efficient way to run the chiller. Furthermore, the control algorithms have been developed from process-industry experience to ensure that the YST chiller will handle extraordinary operating conditions in a controlled and safe manner.

Instantly grasp the big picture

YORK has packaged the control system so carefully that a lack of steam-operator experience is not a problem. Thanks to the large, OptiView active-matrix color screen, data is shown in association with illustrations of the key chiller components. The clear layout, animated graphics and plain-language readouts are easy to read, virtually eliminating operator confusion. Visual cues explain key information, making operation essentially intuitive.

BACnet™

LONMARK®

MODBUS®

designed for steam

Information when and where you want it

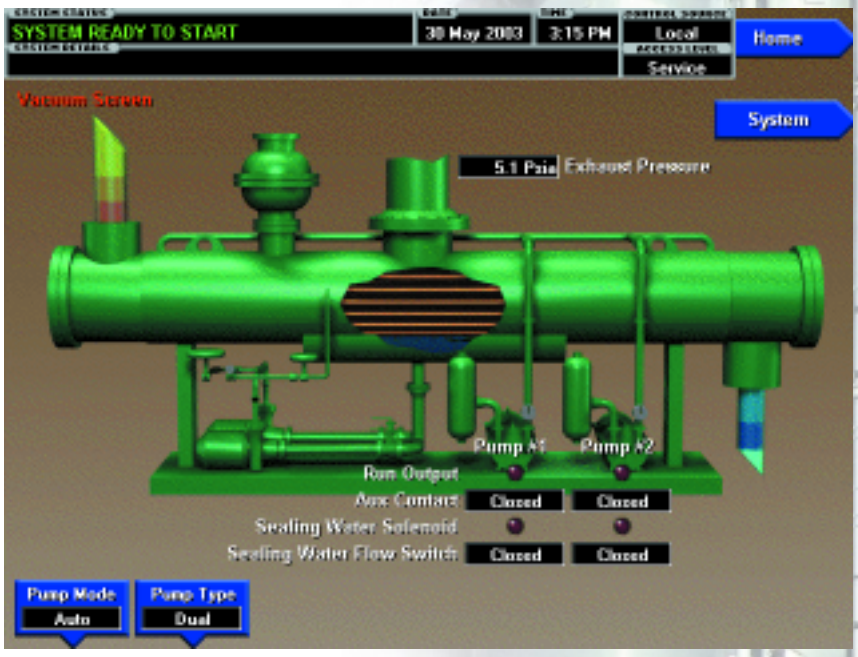
With the OptiView touchscreen, all key data is available for review at your fingertips. Detailed data logs and trending can be displayed directly on a single screen—or printed logs can be generated automatically at predetermined time intervals. System information can also be downloaded to a PC to simplify performance and troubleshooting analysis.

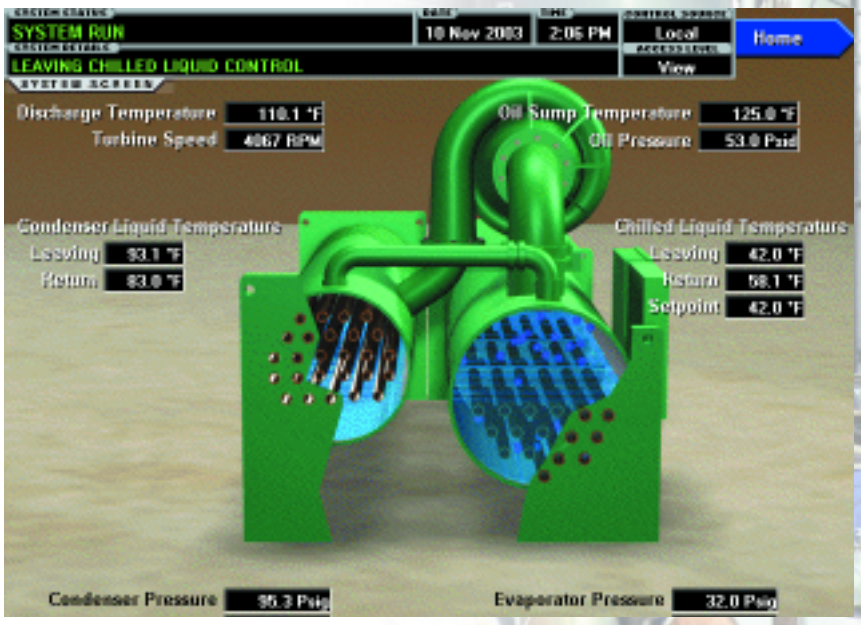
Start the system automatically

Traditionally, steam-turbine chillers required manual starting. Available with the YST chiller is an industry first — fully automatic starting of the chiller. The option is enabled by the OptiView Control Center and the addition of automatic valves, solenoids and sensors

Full system connectivity

The OptiView Control Center is designed to communicate with most building and process-management systems on the market today, including BACnet, LonMark and MODBUS systems. An open protocol allows all operating data to be accessed and read anywhere on the network.





Reliability that pays you back in long-term savings, peace of mind

R-134a: The long-term refrigerant of choice

To ensure your chiller satisfies environmental concerns over the long haul, MAXE YST steam-turbine-drive chillers use HFC-134a, which has zero ozone-depletion potential — making it the only major refrigerant without any phase-out schedule.

Decades of worry-free operation

YST chillers are built for industrial-duty to serve as your primary chiller. You can count on YST chillers to provide the same low-maintenance, highly reliable operation, and long service life that make YORK centrifugal chillers the preferred choice in the most demanding applications in the world.

Where technology and service expertise come together

By integrating proven steam turbine-drive technology with our MAXE centrifugal chiller design and OptiView Control Center, YORK has created the most efficient, most reliable way possible to maximize your real-world energy savings.

YORK also offers services to deliver the full benefit from the start. Our YORK sales engineers and project management team are specially trained to complete your project on time and on budget. Then, YORK technicians can implement start-up and commissioning, as well as train in-house staff. Finally, factory-trained service technicians can provide contracted maintenance procedures, as well as perform repairs and enhancements to maximize your savings over your equipment's entire lifecycle.

For the talent and technology to reduce dependency on costly electricity, call your nearby YORK Sales Engineer today.

YORK®

P.O. Box 1592, York, Pennsylvania USA 17405-1592
Tele. 800-861-1001
www.york.com

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