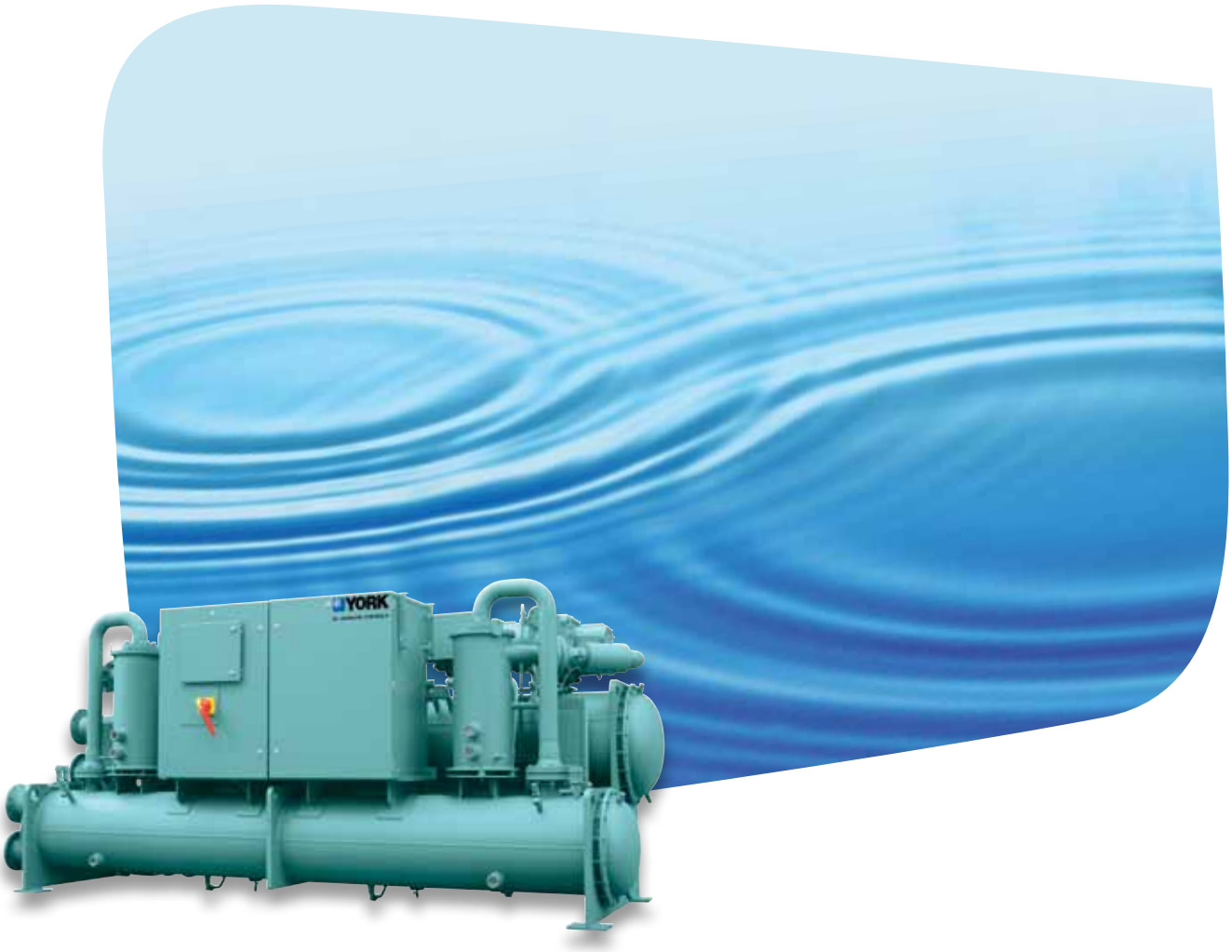
YORK® YVWA VARIABLE-SPEED,
WATER-COOLED, SCREW CHILLERS

Infinite chiller configurations to help you achieve your goals



Johnson Controls


Efficiency
Flexibility
Sustainability
Confidence

YORK® YVWA variable-speed, water-cooled, screw chillers

INTRODUCING YVWA

Continuing a history of engineering innovations that meet your requirements

Building requirements are constantly evolving. To keep you ahead of the curve, Johnson Controls has developed numerous technological innovations for our YORK® chillers. When some refrigerants were identified as ozone depleters, we adapted our chillers to use compounds that are friendly to the environment. When electricity prices began to escalate, we developed enhanced tubes and variable-speed drives that slashed energy use. And when the industry was looking for ways to recover energy, we developed a full line of heat-recovery chillers.

To help you meet today's challenges, Johnson Controls designed the YORK YVWA chiller. This cutting-edge design uses a number of engineering advances to address four primary requirements of building owners and designers – efficiency, application flexibility, sustainability, and confidence.

When electricity prices escalated, Johnson Controls pioneered enhanced tubes for our YORK chillers.

The YVWA chiller addresses four primary requirements – efficiency, application flexibility, sustainability, and confidence.

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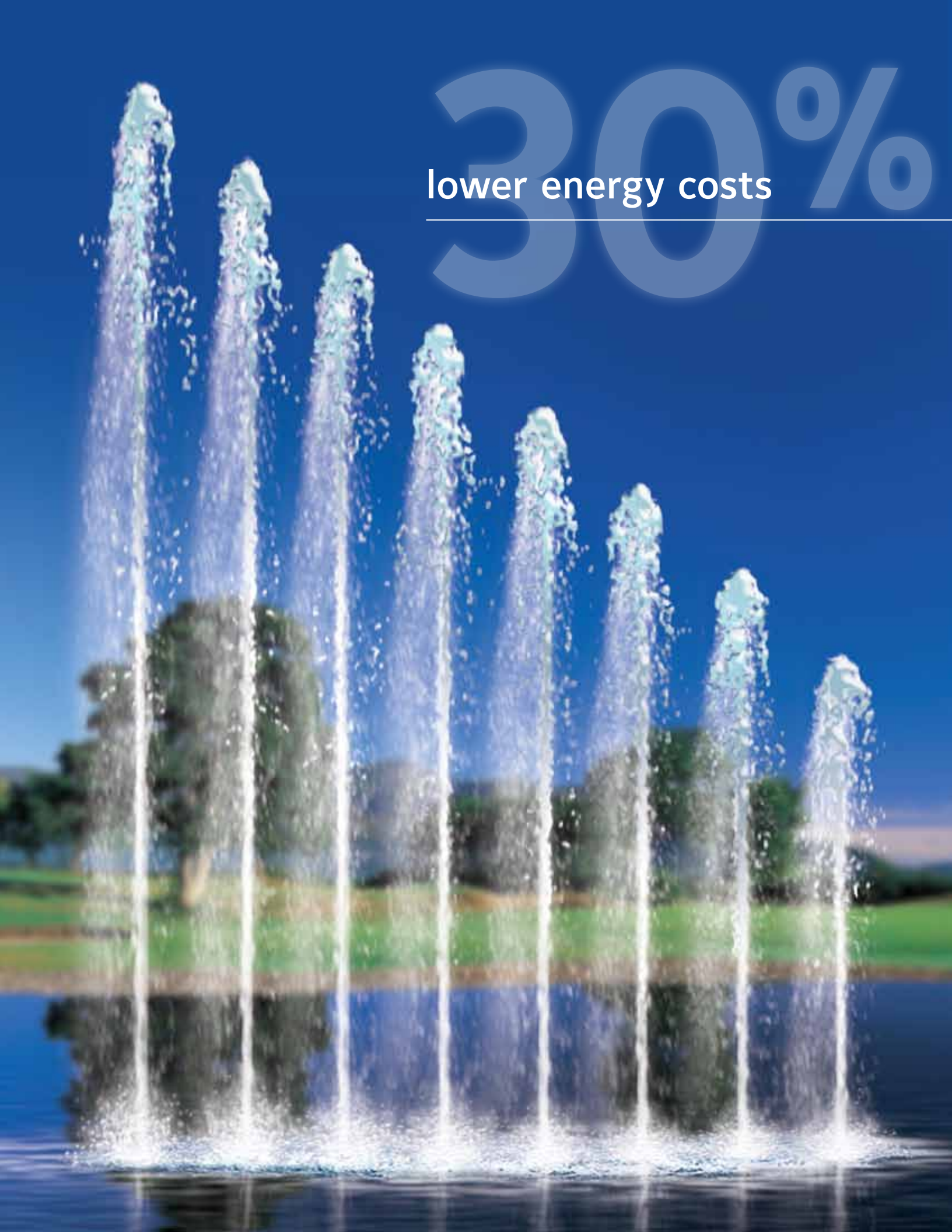

30%
lower energy costs

Reduce compressor speed. Increase energy savings.

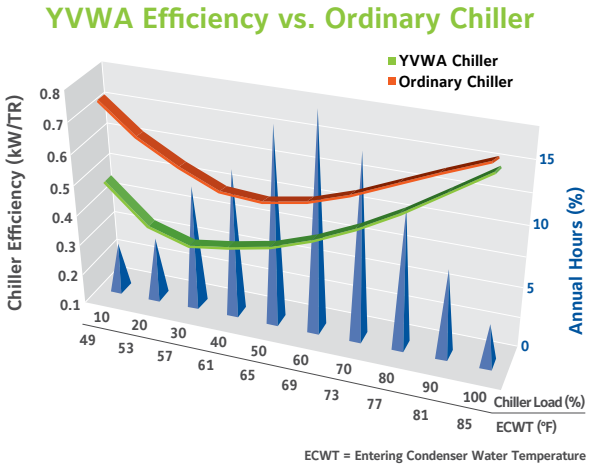
Finding the right balance between a chiller's capital cost and its cost of ownership can be a challenge. But Johnson Controls makes it easy.

By making variable-speed technology standard on every YORK YVWA chiller, Johnson Controls delivers high energy performance and low ownership cost. The base model YVWA chiller is more efficient than most competitive chillers.

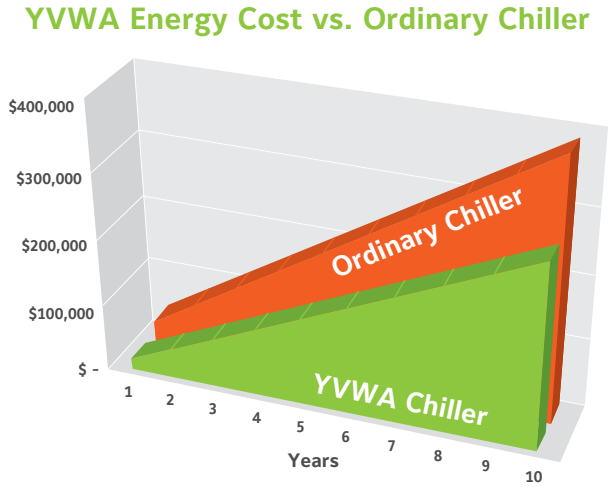
There is a simple reason for this phenomenon. In most places in the world, the variable-speed YVWA chiller saves energy during 99% of operating hours spent at off-design conditions, which include reduced load and/or reduced entering condenser-water temperature.

In addition, you can specify that your YVWA chiller be built with optimized performance, which can deliver an Integrated Part Load Value (IPLV) that is as much as 30% better than ordinary chillers.

The bottom line: the YVWA chiller makes it easy to balance capital cost and ownership cost.



The YVWA chiller delivers superior energy performance at all operating hours.



Note: 5,000 operating hours, 0.10 $/kWh energy rate, 250 tons design cooling load

An investment in an optimized YVWA chiller reduces energy costs by 30%.

1

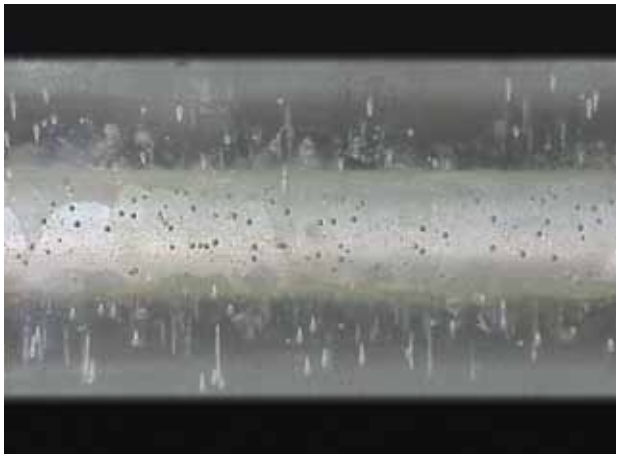
perfect match to meet your unique needs

Many applications. One chiller.

Like all screw chillers, the YVWA chiller is capable of handling higher pressure lift than a centrifugal chiller. As a result, a thermal-storage application that requires glycol to be chilled to 14°F, or a heat recovery or heat-pump application that requires water to be heated to 150°F, are within the capabilities of the YVWA chiller.

However, unlike ordinary screw chillers, the YVWA chiller has the flexibility to handle these high-lift applications with the highest efficiencies available. The difference is its variable-speed drive which constantly tunes the compressor speed to the exact lift and load requirements.

The remarkable flexibility offered by the variable-speed technology also allows the YVWA chiller to utilize a wide range of heat-rejection methods: in addition to an open cooling tower, you can also use a closed-circuit cooling tower, a dry cooler, or an adiabatic cooler, all with the peace of mind that the YVWA chiller is giving you the highest efficiency possible.



The YVWA chiller can efficiently handle the low evaporator pressure required for ice thermal storage.
(*Photo courtesy of Baltimore Air Coil*)

The YVWA can be used in heat-pump applications producing hot water for high-volume users such as hospitals and hotels.


30%
smaller CO_2 footprint

Reach greener goals. Start with a smaller footprint.

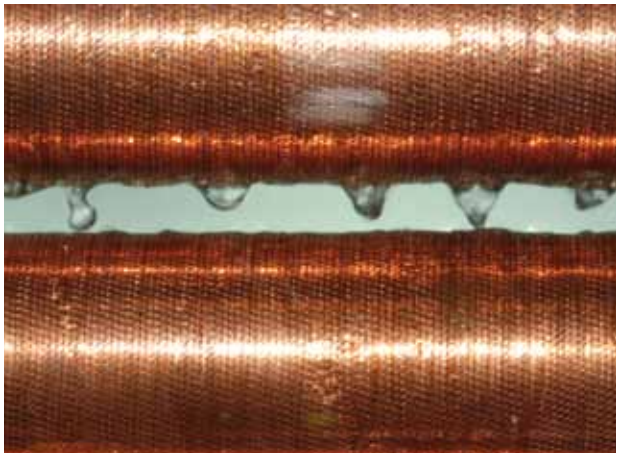
Why should you pay an economic penalty for being environmentally friendly? Unlike competitive chillers, the YVWA chiller does not make you choose between saving money and saving the environment.

The YVWA chiller reduces environmental impact in two ways: directly, by managing refrigerant charges and the potential refrigerant leak points; and indirectly, by minimizing power-plant CO_2 emissions, which are responsible for 98% of the Global Warming Potential associated with chillers.

To reduce the direct effect, the YVWA chiller uses HFC-134a refrigerant, which has no ozone-depletion potential and no phase-out date. We also reduced the number of fitting, joints, and other potential leak points by 35% compared to conventional compressor designs. Plus, our proprietary falling-film evaporator design allows refrigerant charge to be reduced by as much as 30% compared to conventional designs.

The indirect effect is addressed through the superior energy performance of the YVWA chiller, which cuts the energy that the power plant needs to produce and reduces emissions by as much as 30%.

Finally, the YVWA chiller makes it easy for you to earn points in the LEED® green-building certification program.



Reduce direct emissions with the YVWA's falling-film evaporator, which reduces refrigerant charges by up to 30%.

(*Photo courtesy of the LTCM lab of the Ecole Polytechnique Fédérale de Lausanne, Switzerland*)

The efficiency of the YVWA chiller can reduce your environmental footprint. Less electricity has to be generated, which means greenhouse-gas emissions created by the power plant are reduced by as much as 30%.

20,000

years of cumulative worldwide experience

Capable hands. World-class partner.

CONFIDENCE

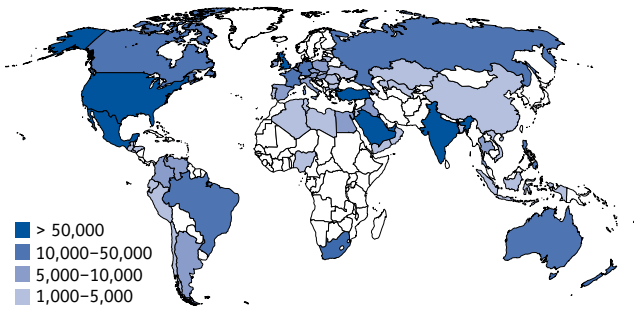
You can be sure you are making the right choice when you select the YVWA chiller. Our experience is unsurpassed. Johnson Controls invented variable-speed-drive technology for water-cooled chillers in 1979.

We also introduced the industry's first variable-speed, air-cooled, screw chiller in 2004. By 2010, our installed base exceeded 2,500,000 TR in over 100 countries. With all units combined, we have more than 20,000 years of field experience. The YVWA chiller uses the same variable-speed compressor, so you can trust the chiller will perform as expected in your application.

We also offer the proven support of the world's largest service organization. Johnson Controls employs over 15,000 technicians in over 150 countries, bringing decades of variable-speed chiller experience to your door.

Nobody can tailor and tune a variable-speed, water-cooled, screw chiller to match the unique requirements of your application better than Johnson Controls.

To learn more about the YORK YVWA chiller, go to johnsoncontrols.com/yvwa. Or locate your nearest Johnson Controls office at johnsoncontrols.com/locations



YORK variable-speed, air-cooled screw chillers in use, by cumulative capacity (tons).

Our 15,000+ service technicians in 150 countries provide chiller expertise to keep your facility running smoothly.

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Johnson Controls