YORK® YMC²
MAGNETIC CENTRIFUGAL CHILLERS

Superior chiller performance for healthcare facilities



Johnson Controls

Trust Johnson Controls to provide the reliable environment essential to your facility





The reliability, efficiency, and sustainability of YMC² chillers create a healthy, high-quality environment for hospital and medical facilities.

Proven experience in healthcare facilities

When it comes to creating high-quality environments in healthcare facilities, YORK® chillers, manufactured by Johnson Controls, have an established reputation for innovation. When electricity prices climbed, we pioneered variable-speed drives and enhanced heat exchangers to keep energy consumption down. When CFC and HCFC refrigerants were designated for phase-out, we offered environmentally friendly alternatives to give facilities a sustainable future. And when you needed chiller control that was both powerful and intuitive, we created the first full-screen, full-color, microprocessor control center.

In today's changing world, Johnson Controls understands the challenges facing hospitals, medical centers, and healthcare facilities. One hallmark of a high-quality medical facility is that skilled care is available at all hours. That commitment means HVAC equipment must be available 24x7 – without downtime or lost capacity. And whether your facility is a non-profit or for-profit institution, minimizing energy costs is always a priority. In addition, there is increased emphasis these days on creating a greener facility to provide a therapeutic environment for patients and an attractive workplace for employees. We developed the YMC² chiller to address all of these pressing concerns – reliability, operating costs, and sustainability – so you can provide high-quality services without the burden of high costs.

Advanced chiller technology that meets the needs of medical facilities

Greater reliability, increased uptime

Because it is critical to avoid cooling interruptions, Johnson Controls uses magnetic-bearing technology to deliver unprecedented reliability in the most advanced centrifugal chiller we have ever offered – the YMC² chiller. The result is fewer moving parts subject to breakdown and no mechanical-contact losses. In addition, it completely eliminates oil-related maintenance. That is why we've used magnetic drives in our military-grade chillers since 1999.

Our patented OptiSpeed™ variable-speed drive improves reliability with its soft-start capability that extends motor life. And our OptiView™ control center provides complete monitoring and control capabilities to make sure the chiller operates within optimum parameters, and it enhances troubleshooting visibility if problems arise.

The driveline of the YMC² chiller is also field-serviceable, which means a back-up driveline isn't needed. If service is ever required, Johnson Controls fields the industry's largest service force – 5,000 technicians worldwide in 169 local service branch offices – a strong resource in assuring reliability.

Compatible with advanced medical technology

Harmonic voltage interference can be a problem for sensitive medical equipment, such as MRIs, CAT and PET scans, GC-MS and accelerators. That's why the OptiSpeed drive comes with a standard IEEE-519 harmonic filter to prevent chiller voltage harmonics from negatively affecting other equipment, while keeping your building within IEEE-519 guidelines.



The OptiView control center provides complete diagnostics to enhance troubleshooting visibility.

High technology brings lower energy costs

The YMC² chiller cuts energy costs by combining variable-speed technology, which provides efficient operation at off-design conditions, with magnetic-bearing technology, which eliminates the mechanical-contact losses associated with a conventional drive. Consequently, a YMC² chiller lowers electrical consumption by 10% compared to conventional variable-speed chillers. In addition, the OptiSpeed drive starts the chiller slowly, preventing power spikes that could incur high peak-demand charges. Money not spent on energy can be directed to other important areas of your budget.

Get the recognition that comes with being green

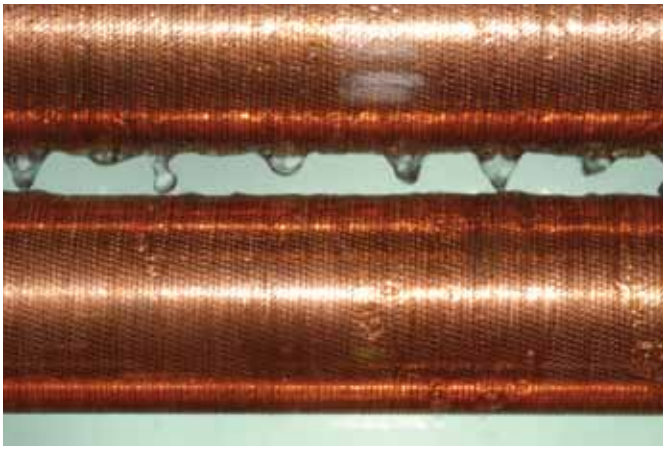
Does your institution enjoy a reputation as a responsible member of the community? As a leader in energy-efficient, green-building technologies, Johnson Controls can enhance your reputation even more by improving your green rating with the YMC² chiller. By employing an advanced falling-film heat exchanger that reduces the refrigerant charge, the YMC² chiller qualifies for the maximum number of points under the Leadership in Energy and Environmental Design® (LEED) Enhanced Refrigerant Management (EAc4) credit. And because a YMC² chiller makes it easy to raise baseline building performance above ASHRAE/IESNA Standard 90.1-2007, additional points can also be earned for the Optimize Energy Performance (EAc1) credit.

Performance counts

Our leadership in building efficiency makes Johnson Controls the first choice for hospitals and healthcare buildings. Count on us for more reliable, higher-performance solutions that can make your facility a productive and pleasant environment for patients and medical professionals.



To eliminate mechanical-contact losses in the driveline, the YMC² chiller utilizes a permanent-magnet motor and active magnetic-bearing technology.



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

A falling-film evaporator is more efficient because refrigerant is sprayed over the tubes, reducing refrigerant charge by 30%.

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