YORK® YMC²
MAGNETIC CENTRIFUGAL CHILLERS

Reduce energy costs in office buildings with superior chillers



Johnson Controls

Let the experts in building efficiency improve your facility's energy profile





The efficiency, quietness, reliability, and sustainability of YMC² chillers create effective work spaces in office buildings.

Proven experience in office environments

When it comes to creating superior chillers for high-performance building environments, Johnson Controls reputation is built on a foundation of 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 encountered by office buildings. For a more sustainable building design, you need mechanical equipment that minimizes energy consumption, uses environmentally responsible products, enhances indoor environmental quality, and minimizes maintenance costs. That's why we developed the advanced YMC² chiller. It addresses all of these pressing concerns – energy, sound, reliability, and sustainability – to respond positively to environmental and occupant health issues without negatively affecting your bottom line.

Chiller technology for a more efficient, quieter, greener facility

Improve energy efficiency

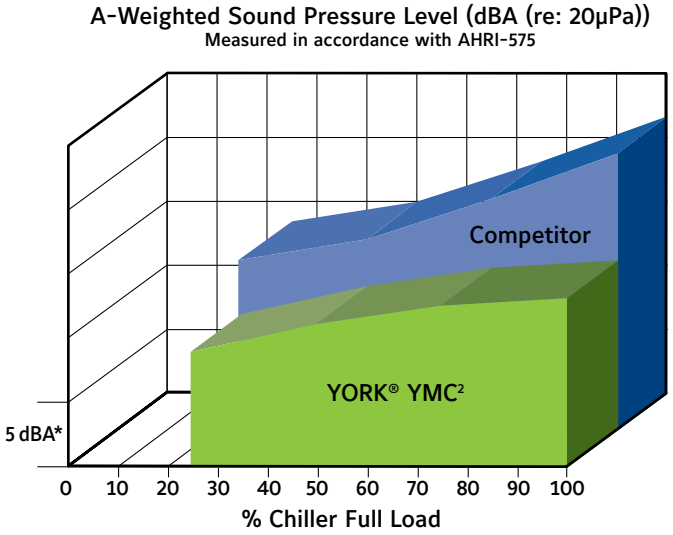
According to the Department of Energy, office buildings consume more energy than any other type of building, accounting for 23% of commercial-building energy expenditures. That's why Johnson Controls developed the YORK® YMC² chiller. By employing today's proven permanent-magnet motor and active magnetic-bearing technology, the YMC² chiller eliminates the mechanical-contact losses associated with a conventional driveline. We also improved chiller efficiency with our patented OptiSpeed™ variable-speed drive and advanced falling-film heat-exchanger technology. The result: the new YMC² chiller can cut electricity consumption by 10% compared to conventional, variable-speed chillers. Money not spent on energy can be directed to other important areas of your budget.



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

Lowest sound level contributes to higher productivity

Low noise levels are critical to office productivity and comfortable conference rooms. That's why it's important to start with low sound levels in the mechanical room. The YMC² chiller incorporates active magnetic-bearing technology to eliminate driveline sound, and our patented OptiSound™ control reduces noise and vibration that can occur at off-design loads. The result is a sound level that does not exceed 73 dBA at AHRI-575 full-load standard conditions – the volume of a typical cellphone ringtone. It is the lowest level on the market. In fact, it is so much quieter than competitive magnetic-bearing chillers, it sounds about half as loud.



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***Note: each segment on the Y axis = 5 dBA.**

Greater reliability and increased uptime

It's important to avoid breakdowns that could impact employee or tenant satisfaction. That's why the YMC² chiller uses a proven permanent-magnet motor and active magnetic-bearing driveline. The driveline has fewer moving parts subject to problems and completely eliminates oil-related maintenance. Our patented OptiSpeed™ variable-speed drive also improves reliability with its soft start that extends motor life. The YMC² driveline also saves time and money because it is field-serviceable. And 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.

Add LEED points to your green-building rating

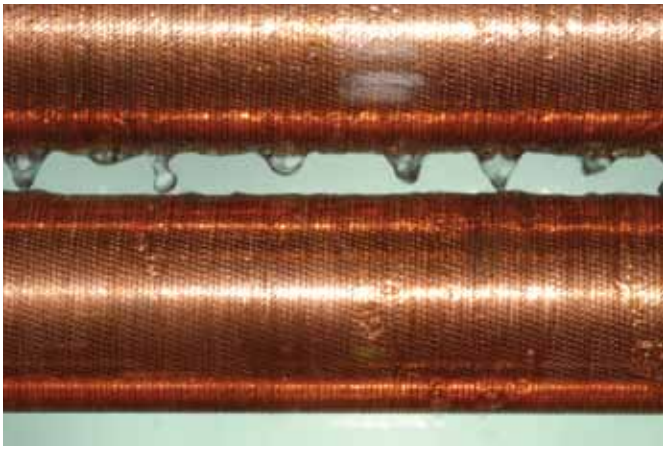
As a leader in energy-efficient, green-building technologies, we designed the YMC² chiller to qualify for points in the Leadership in Energy and Environmental Design® (LEED) Green Building Rating System. The maximum number of points can be earned under the Enhanced Refrigerant Management (EAc4) credit, because the YMC² chiller employs an advanced falling-film heat exchanger that reduces the refrigerant charge. And because a YMC² chiller makes it easy to raise baseline building performance above ASHRAE/IESNA Standard 90.1-2007, you could also earn additional points for the Optimize Energy Performance (EAc1) credit.

Performance counts

Our leadership in building efficiency makes Johnson Controls the first choice for office buildings. Count on us for greener, higher-performance solutions that can make your facility a productive and pleasant environment for your occupants.



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



(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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