



The Ultimate Green Machine for High Performance HVAC Systems



Frictionless Oil-Free Centrifugal Chillers

110 to 300 Tons



Engineered for flexibility and performance™

The New Standard for Efficiency and Quiet

Ideal for Green Buildings

Ultra-efficient McQuay frictionless chillers are ideal for high performance HVAC systems and have been installed in sustainable buildings designed to meet requirements for LEED® certification.



Salem Conference Center, Oregon
Designed to LEED Silver



Johnson County Sunset Drive Office Building, Olathe, Kansas; Designed to LEED Gold

For information on designing high performance HVAC systems, visit the McQuay GreenWay™ System Solutions page on our web site, www.mcquay.com.

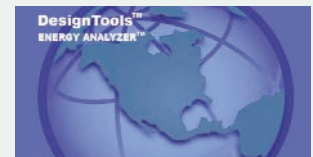


McQuay Frictionless Oil-Free Centrifugal Chillers—The Ultimate in Energy Costs Savings and Quiet Operation

- Energy savings with part load performance as low as .33 kW/ton IPLV
- Quietest sound levels in the industry with sound pressure ratings as low as 77 dBA per ARI Standard 575
- Lower maintenance costs because the frictionless, magnetic bearing compressor design eliminates the oil support system
- R-134a refrigerant with no ozone depletion potential or phase-out schedule

How Much Can You Save?

Using the McQuay Energy Analyzer™ program, the estimated energy savings with a McQuay frictionless chiller are impressive.



Frictionless Chiller Annual Energy Savings Comparison

Location	Phoenix	Tampa	Chicago	New York City
Chiller Type	Screw vs Frictionless	Screw vs Frictionless	Centrifugal vs Frictionless	Centrifugal vs Frictionless
Building Type	School	Hospital	3-Story Office	Hotel
Square Footage	108,500	37,000	56,400	158,000
Design Cooling Load (Tons)	300	150	150	300
Annual Cooling (Ton-Hr)	482,172	561,524	102,870	454,232
On - Peak Charge (\$/kWh)	\$0.06	\$.05	\$.064	\$.109
Off - Peak Charge (\$/kWh)	\$0.06	\$.021	\$.044	\$.109
Annual Energy Savings	\$6,257	\$6,008	\$2,252	\$4,428
Simple Payback (years)	3.73	1.89	2.54	2.36

Unique Features for Optimal Performance

McQuay Model WMC Frictionless Oil-Free Centrifugal Chiller

Open Choices™ Feature for Easy BAS Integration

- Allows your choice of BAS vendors
- LONMARK®, BACnet® or Modbus® communications modules available

Touch Screen Operator Control Panel

- Easy to learn, easy to use
- Monitor unit status at a glance
- Change control parameters on the screen

Ultra Quiet

- Magnetic bearings eliminate the metal-to-metal contact noise of conventional bearings
- Sound pressure as low as 77 dBA per ARI Standard 575
- Designed for sound sensitive applications

Compact Design

- Up to 150-ton size is only 35 inches wide
- Up to 300-ton size is only 47.5 inches wide

Tremendous Part Load Performance

- Dual compressors on a single refrigerant circuit
- IPLV as low as .33 kW/ton
- 32% more efficient than screw compressor chillers

Unmatched Unloading Capability with VFDs

- Unloads chiller to 10% of full load
- VFDs mounted with compressor
- Reduces compressor speed



47.5 inches
(300-ton unit pictured)

R-134a Refrigerant

- No phase-out schedule or ozone depletion potential
- A1 (best) rating under ASHRAE Standard 34 (lower toxicity, no flame propagation)
- Positive pressure design for sustainable performance

Simplicity with Removal of Oil Handling Equipment

- Magnetic bearings eliminate bearing lubrication
- Increased chiller reliability
- Eliminates oil heaters, oil coolers, oil pumps, oil piping



The University of California-Stockton, Acacia Court building's McQuay WMC Chiller delivered electrical cost savings and reduced maintenance.

McQuay[®]
Air Conditioning

The Inside Story on Savings

Cost Effective Integration

McQuay offers Open Choices™ for communications protocol to give building owners long term choices for building automation system integration, equipment adds or replacements, and service support.

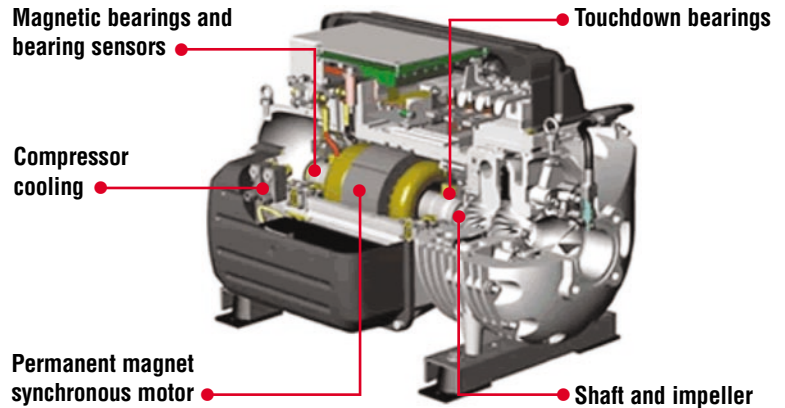
Our WMC chiller has MicroTech II® unit controls for easy integration with the building automation system of choice using BACnet®, LONWORKS® or Modbus® communications. McQuay WMC chillers with MicroTech II® unit controllers are available LONMARK® 3.3 certified.



*A global leader in
system solutions for
air conditioning, heating,
ventilating and refrigeration.*



(800) 432-1342
www.mcquay.com



Magnetic Bearing Centrifugal Compressor

Energy Cost Savings

ARI tests show the McQuay Frictionless Oil-Free Centrifugal Chiller operates most efficiently at part load, which is where most chillers typically have most of their run time. The two main reasons for this efficiency are high-speed impellers and magnetic bearings.

Using high speed centrifugal impellers with integral variable speed drives, the compressor speed is reduced as the cooling load decreases. This optimizes energy saving performance across the entire operating range.

Magnetic bearings in the compressor also help increase operating efficiency because they do not create the energy consuming drag that oil-lubricated bearings do.

For more information or the name of your local McQuay representative, call 1-800-432-1342 or visit www.mcquay.com

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Products manufactured in an ISO certified facility.