

Centrifugal Theory & Repair Course



Schedule for 2012

April 30 – May 11, 2012
December 3 – 14, 2012

Centrifugal Theory & Repair Courses are held at:

**McQuay International
Staunton, VA**

Daikin McQuay Learning Institute
P.O. Box 2510
Staunton, Virginia 24402-2510
Phone: (540) 248-9646
Fax: (763) 509-7663

Visit Our Web Site at:
www.mcquay.com
for the latest training
schedules

McQuay International has been approved as an Authorized Provider by the International Association for Continuing Education and Training (IACET),
1760 Old Meadow Road,
Suite 500, McLean, VA 22102;
(703) 506-3275



Centrifugal Theory & Repair Training

Who May Attend:

Subject to pre-qualification, any mechanical contractor doing installation, maintenance and repairs of centrifugal chillers is eligible to send qualified technicians to this course. The technician should have a good working knowledge of the refrigerant cycle, power and control circuitry, and be skilled in the use of standard service tools and electrical meters.

Prerequisite:

The McQuay Centrifugal System Theory Course (CST) is the required prerequisite for the McQuay Centrifugal Compressor Repair Course. In addition to company pre-qualification, the technician must have attended this course within a year of the McQuay Centrifugal Compressor Repair Course and provide evidence that he or she has attended.

The Federal Government requires technicians to be EPA certified to work on the sealed refrigerant systems.

Enrollment/Payment:

Enrollment is limited and will be accepted on a first-come, first-serve basis. To enroll, please register online at www.mcquay.com, on the Training Page or fill out the attached enrollment form. Confirmation of enrollment along with an information packet will be sent to the student within five working days after receipt of your paid application. Full payment is required in advance of the class. If payment is not received prior to the start of class, the student(s) will be denied entrance.

Cancellation Policy:

For Cancellations made within 10 working days prior to course start date, the enrollee(s) will be charged the full course fee. Cancellations made less than four weeks prior to the course start date will be charged 50% of the course fee. An alternative person may use a confirmed space without penalty and substitutions may be made up until start of class.

Motel: A list of area motels will be provided with McQuay preferred rates.

Transportation: Students are responsible for their own transportation to and from the training center.

Attire: Dress is business casual. Students are required to wear steel toe shoes during the plant tour, at all times when passing through the production areas to and from the cafeteria through the plant. Safety glasses will be supplied.



McQuay[®]
International
a member of **DAIKIN** group

Course Fee:

\$4,800.00

Per student payable to
McQuay International

Fee Includes:

All instruction and work materials
Daily lunches and coffee breaks
Group Dinner (first night)

Payment is due in advance.

Application accompanied by
payment should be submitted to:

Daikin McQuay Learning Institute
Linda Custer
P.O. Box 2510
Staunton, VA 24402-2510

If other payment arrangements
are necessary, direct all inquiries
to:

Linda Custer
Training Administrator
Phone: (540) 248-9646
Fax: (763) 509-7663

e-mail:
linda.custer@mcquay.com

***Specifically Designed
for
Building Engineers
and
Maintenance Personnel***

Learning Outcomes:

Centrifugal System Theory - \$1,600.00

This five-day course is designed to teach the service technician how to trouble-shoot and recognize McQuay Centrifugal chiller system operating problems. This course is the required prerequisite for the Centrifugal Compressor Repair Course and is scheduled in the week preceding the Centrifugal Compressor Repair. This accommodates those students who will attend both courses.

In week 1 course, students will learn:

- Review of chiller theory, Centrifugal compressor theory and operation
- MicroTech[®] control systems
- Wye Delta Starters
- Solid-State Starters
- Centrifugal chiller VFD
- MicroTech programming/monitor program & troubleshooting
- McQuay Centrifugal compressor lubrication system
- Dual compressor operation, general maintenance
- Dehydration procedures
- Refrigeration charging and evacuation procedures
- Hot gas by-pass, liquid injection
- System analysis
- The class includes product review, plant tour of manufacturing facility and group hands-on training on MicroTech[®] simulators

Centrifugal Compressor Repair - \$3,200.00

This five-day course is designed to teach the service technician how to disassemble and reassemble McQuay Centrifugal compressors, how to fit and adjust internal operation parts and to understand normal compressor functions so as to be able to diagnose the cause of deviations from the norm.

In week 2 course, students will learn:

- McQuay Centrifugal compressor repair procedures & processes
- The class is divided into four small groups, each of whom then rotate between 4 repair stations:
 - Station 1 CE050 and Oil Pumps
 - Station 2 CE063 (Old and New Versions)
 - Station 3 CE079 and CE100
 - Station 4 CE087 and CE126
- Trouble Shooting Oil Loss

Note: Safety Shoes are required for the Compressor Repair Course.

Assessment:

At the conclusion of the course, the student will review, discuss and be assessed with a test on the learning outcomes of the course. The test will be graded based on the percentage of questions to determine the students' learning outcome. A score of 70% will be required for successful completion of the course and to be awarded CEU's (continuing education units).

CONFIDENTIALITY AND RELEASE AGREEMENT

WHEREAS, _____ (hereinafter "the Receiving Company") has requested McQuay International (hereinafter "McQuay"), and McQuay has agreed to make available to the Receiving Company and/or certain of its employees certain information (either through employee-attendance at McQuay service training courses or seminars or through distribution of McQuay technical service literature) relating to the servicing of McQuay Centrifugal Air Conditioning equipment (hereinafter "Technical Information").

NOW, THEREFORE, for good and valuable consideration the receipt and sufficiency of which is hereby acknowledged, Receiving Company agrees as follows:

The Receiving Company acknowledges that the Technical Information is proprietary to McQuay, is not generally known and provides a competitive advantage to those who possess it. Receiving Company agrees that neither it nor its employees will make copies of documents containing Technical Information or disclose the Technical Information to third parties without the advance written consent of McQuay. Receiving Company agrees that all of its employees who will be given access to the Technical Information will first be informed of Receiving Companies' obligation to protect the confidentiality of the Technical Information.

The Receiving Company does hereby release and forever discharge McQuay and all McQuay-appointed sales agents, divisions, affiliates, subsidiaries, parent organizations, directors, employees, service organizations, and parts outlets (hereinafter "McQuay-related entities") from any and all manner of claims, demands, damages, actions, and causes of actions, whether known or unknown, arising under any Federal or State antitrust law, or any other law relating to competition or monopolization, which the Receiving Company, its divisions, subsidiaries, affiliates, directors, agents, servants, employees, successors and assigns might now have, or have ever had, or might but for this Release have in the future, against McQuay and/or any McQuay-related entity, based in whole or in part on/or referring to any matter, cause or thing occurring in whole or in part prior to the date of this Agreement. Without limiting the generality of the foregoing, this release encompasses and releases all claims arising out of either (a) McQuay's and McQuay-related entities' past or existing programs, arrangements, system or methods for the sale of original equipment, the provision of warranty or post-warranty service on McQuay equipment, of the sales or repair and replacement parts, or (b) any past or existing relationships or agreements as between McQuay and the McQuay-related entities referred to above.

The Receiving Company agrees not to represent themselves as "certified", authorized", "endorsed", or use any terms implying McQuay endorsement of their competence and skills to perform service work on McQuay centrifugal refrigeration equipment.

The person executing this Agreement on behalf of the Receiving Company represents that he or she is authorized and empowered to execute this Agreement and to bind the Receiving Company thereto.

IN WITNESS WHEREOF, the Receiving Company, by its duly authorized officer, has executed this Agreement on this _____ day of _____, 200_____.

(Company Name)

By: _____

Its: _____

Subscribed and sworn to before me

This _____ day of _____, 200_____.

Notary Public