MULTISTACK

SERVICE TRAINING JANUARY-JUNE 2024



5 Day

Air-Cooled (Airstack) Water-Cooled Modular

JAN 8-12 FEB 5-9 MARCH 4-8 APRIL 1-5 MAY 6-10 JUNE 3-7 5 Day

MagLev Gen I & Gen II

FEB 19-23 MARCH 11-15 MAY 20-24 JUNE 24-28 3 Day

Water-Cooled Heat Pump &Heat Recovery

JAN 16-18 APRIL 9-11 5 Day

MagLev Gen III & ModMag

JAN 22-26 APRIL 15-19 4 Day

ARA/ARP

FEB 12-15 JUNE 10-13











MULTISTACK°

AIRSTACK®

MAGLEV®

FLEXSYS™

ARA



AIR-COOLED (AIRSTACK) & WATER-COOLED - MODULAR TRAINING PROGRAM

In our five day air-cooled and water-cooled modular training program, contractors and owner service technicians learn how to install, operate, maintain, and trouble shoot air-cooled and water-cooled modular chillers. Technicians who attend this course will help reduce expenses and downtime when servicing the equipment by having factory taught skills.

Participants will learn the design and controls of pCO3 controlled water and air-cooled chillers and, c.pCO controlled water and air-cooled chillers which include variable speed scroll units. Startup procedures, servicing, and off season maintenance will also be covered.

The course balances classroom theory with hands-on training. State of the art equipment, experienced instructors, and detailed training support materials assure an effective and thorough learning experience.

Technicians who complete the course and one factory supervised start-up per controller type will receive certification as a "Multistack and Airstack Authorized Service Technician" or a "Variable Speed Multistack Authorized Service Technician".

This class is necessary before either Level II class

TUITION \$1,425.00 Includes lunches and two evening dinners.

Participants are responsible for travel and hotel costs.

CLASS 8:00 am to 4:30 pm 5 days.

CLOTHING Casual - Note, for security reasons no open toed shoes are permitted.

LODGING Hampton Inn, Onalaska

We have reserved a block of guest rooms at the Hampton Inn in Onalaska, WI, for \$95 per night plus taxes. Please make your reservations by clicking on the appropriate link below. If you require additional information, call the hotel directly (608-779-5000 ext 0). Note that reservations can be made up to 10 days before class dates.

Please make sure to press 0 to talk to a real person.



MODULAR CURRICULUM

Company history, factory tour, MSX water-cooled components, installation, and controller walk through. MSX water-cooled simulators, heat pump and heat recovery overview, ASP air-cooled components, installation and controller variations, ASP air-cooled components, air-cooled installation, ASP air-cooled controls, ASP air-cooled control simulators, MSV water-cooled components, MSV controller operational differences, maintenance, and start-up discussion.

DAY 1: pCO3 UNITS

Company history

Outgoing model numbers

Serial numbers

Factory tour

MSX water-cooled components

Installation

MSX controller walk through (all settings and operation)

DAY 2: pCO3 UNITS

MSX water-cooled simulators

Heat pump and heat recovery

ASP air-cooled components

Air-cooled Installation

ASP air-cooled controller variation

DAY 3: c.pCO UNITS

ASP air-cooled simulators

New model numbers

c.pCO basics (program installation, board addressing, communication wiring, factory reset)

MSV water-cooled components

MSV water-cooled master controller walk through (all settings and operation)

DAY 4: c.pCO UNITS

MSV water-cooled modular controller walk through (all settings and operation)

 ${\sf MSV} \ water-cooled \ simulators$

ASF air-cooled components

DAY 5:

ASF air-cooled modular controller walk through (all settings and operation)

ASF air-cooled simulators

Start-up discussion

Maintenance Wrap-up



MAGLEV GEN I & II - TRAINING PROGRAM

The MagLev® GEN I & II training programs are for contractors and owner service technicians. Students learn how to operate, maintain, modify controls, and trouble shoot MagLev GEN I & II chillers. By attending this course, students will help reduce expense and downtime when servicing MagLev equipment.

The class is in two parts which can be taken together or separate. These two parts are MagLev/Turbocor (2-day) and FlexSys® (3-day). The trainee will learn the design and controls of Turbocor compressors, its maintenance; as well as, the layout, settings, operation, and adjustments available in the FlexSys controller of the MagLev chiller.

The course balances classroom theory with hands on training, state of the art equipment, experienced instructor, and detailed training support materials assure students of an effective and thorough learning experience.

The Turbocor portion of this class runs for two days and is for those who need training on Turbocor compressors only (OEM). The FlexSys portion of the class runs three days and is for those who already have a working knowledge of the Turbocor compressor and need to know how the Multistack MagLev chiller controls the compressors differently from other manufacturers. The entire 5 day MagLev class is designed for any technician who needs the knowledge base to work on both sides of the machine (compressor and controls).

TUITION

2 Day Turbocor 3 Day FlexSys

Course Full 5 Day Course

CLASS **CLOTHING**

LODGING

\$1000.00 Includes lunches and one evening dinner. Participants are responsible for travel and hotel cost.

\$1,425.00 Includes lunches and two evening dinners. Participants are responsible for travel and hotel costs.

8:00 am to 4:30 pm 2, 3 or 5 days.

Casual - Note, for security reasons no open toed shoes are permitted.

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History/compressor intro

Factory tour

Centrifugal basics

Compressor components

Compressor disassembly (Hands on)

DAY 2

Compressor interface

Monitoring software (SMT)

Maintenance and troubleshooting

Component testing (Hands on)

DAY 3

FlexSys basics

Controller components and layout

User screens

Controller settings

Logging into a controller with a laptop

DAY 4

Exercise 1

Basic logic writing

Exercise 2

Advanced logic writing

Exercise 3

DAY 5

Test

Test review



STAND ALONE COURSE

MAGLEV GEN III & MODMAG - TRAINING PROGRAM

The planned class layout for the MagLev® Gen III flooded class will introduce the students to the Turbocor TT compressor as well as the Turbocor VTT compressor. This introduction will include operation of these compressors, components, and tear down with testing of components. After the compressors, we will then begin covering the third generation FlexSys® controller and ModMag product. The controller portion of the class will include basic operation, components, and an in depth look at all of the settings.

TUITION

\$1425.00 Includes lunches and one evening dinner. Participants are responsible for travel and hotel costs.

CLASS

8:00 am to 4:30 pm 5 days.

CLOTHING

Casual - Note, for security reasons no open toed shoes are permitted.

LODGING

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DAY 1

Company history

Factory tour

Centrifugal basics

TT compressor components

TT compressor disassembly (Hands on)

DAY 2

TIB/CIM operation

Monitoring software (SMT)

Maintenance & trouble shooting

TT component testing (Hands on)

DAY 3

VTT Ccomponents

CIM operation

Monitoring software (VTT SMT)

FlexSys basics/overview

DAY 4

FlexSys components G III/ModMag

FlexSys logic G lll/ModMag

FlexSys settings G lll/ModMag

DAY 5

Test

Test review



WATER-COOLED HEAT PUMP/HEAT RECOVERY - TRAINING PROGRAM

Prerequisite: Air-Cooled & Water-Cooled Modular Training Program

This class covers controls and operation for the heat pump and DHRC® (Dedicated Heat Recovery Chiller) with use of simulators. This class will also focus on how the controls differ between the basic heat pump, DHRC, and the VME® (Virtual Moveable Endcap) II systems (that incorporate the DHRC modules).

TUITION

\$1,000.00 Includes lunches and two evening dinners. Participants are responsible for travel and hotel costs.

CLASS CLOTHING 8:00 am to 4:30 pm 3 days.

Casual - Note, for security reasons no open toed shoes are permitted.

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DAY 1

Components MSH DHRC

Basic DHRC control overview

DHRC master controller operation

DHRC module controller operation

DAY 2

Components MSX HP

HP controller differences

Components VME II, VME II

VME II install

VME II operation and controller

VME II startup

DAY 3

c.pCO controller

MSH variable speed components

MSH variable speed controller walk through

ARA/ARP - TRAINING PROGRAM

Prerequisite: Air-Cooled & Water-Cooled Modular Training Program

The planned class layout for the ARA/ARP will include the following: ARP (Airstack heatpump) layout, components, controllers, and operation. ARA c.pCO - controller background, program installation, file transfer, trend logs, ARA piping layout as well as refrigerant flow through piping, step-by-step current ARA software including all set points, and ARP layout controls.

TUITION

\$1,200.00 Includes lunches and two evening dinners. Participants are responsible for travel and hotel costs.

CLASS

CLOTHING LODGING 8:00 am to 4:30 pm 4 days.

Casual - Note, for security reasons no open toed shoes are permitted.

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DAY 1

Control review

ARP component differences

PCo 5+ ARP controller operation

DAY 2

ARA piping layout

Modes of operation

c.pCO setup

1st generation ARA master controller

DAY 3

1st generation ARA module controller

2nd generation ARA master controller

DAY 4

2nd generation ARA module controller Wrap-up