

## SERVICE TRAINING *July-December 2024*



5 Day

Air-Cooled (Airstack)  
Water-Cooled Modular

JULY 8-12      AUGUST 5-9  
SEPTEMBER 9-13      OCTOBER 7-11  
NOVEMBER 4-8      DECEMBER 2-6

5 Day

MagLev  
Gen I & Gen II

SEPTEMBER 23-27      OCTOBER 21-25  
NOVEMBER 11-15

3 Day

Water-Cooled  
Heat Pump &  
**\*\*MUST TAKE PREREQUISITE  
MODULAR CLASS FIRST\*\***

JULY 16-18  
SEPTEMBER 17-19

5 Day

MagLev  
Gen III & ModMag

JULY 22-26  
OCTOBER 14-18

4 Day

ARA/ARP  
**\*\*MUST TAKE PREREQUISITE  
MODULAR CLASS FIRST\*\***

AUGUST 12-15  
DECEMBER 9-12



MULTISTACK®



AIRSTACK®



MAGLEV®



FLEXSYS™



ARA/ARP

## LEVEL I COURSE

### 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)  
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



**\*\*STAND ALONE COURSE\*\***

## 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  
or  
3 Day  
FlexSys  
Course

Full 5 Day  
Course

**CLASS**

**CLOTHING**

**LODGING**

**\$1,000.00** 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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### DAY 1

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**

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

**CLASS**

Participants are responsible for travel and hotel costs.

**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 III/ModMag  
FlexSys settings G III/ModMag

**DAY 5**

Test  
Test review

## LEVEL II COURSES

### 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	<b>\$1,000.00</b> Includes lunches and one evening dinner. Participants are responsible for travel and hotel cost.
CLASS	8:00 am to 4:30 pm 3 days.
CLOTHING	Casual - Note, for security reasons no open toed shoes are permitted.
LODGING	Hampton Inn, Onalaska  <i>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.</i>



#### DAY 1

Components MSHDHRC  
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 overview  
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	<b>\$1,200.00</b> Includes lunches and one evening dinner. Participants are responsible for travel and hotel cost.
CLASS	8:00 am to 4:30 pm 4 days.
CLOTHING	Casual - Note, for security reasons no open toed shoes are permitted.
LODGING	Hampton Inn, Onalaska  <i>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.</i>



#### DAY1

Control review  
ARP component differences  
PCo 5+ ARP controller operation

#### DAY2

ARA piping layout  
Modes of operation  
c.pCO setup  
1st generation ARA master controller

#### DAY3

1st generation ARA module controller  
2nd generation ARA master controller

#### DAY 4

2nd generation ARA module controller  
Wrap-up