

Program Instructors:



Randy Stabnow, PE
Engineering Manager
Auburn Mechanical



Larry Nicholson, PE
Engineer
Auburn Mechanical

Learn the answers to these questions:

- *What is cross flow?*
- *What are the benefits of a series loop?*
- *What is NPSH and how do I calculate it?*
- *What type of valve should I use?*
- *How do I avoid common pitfalls?*

And many more...

MCAWW Board of Education:

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MCA of Western Washington
is proud to sponsor ongoing
educational programs and seminars
for the benefit of our members:

Project Manager Certification:

CMPM 1
CMPM 2
CMPM 3

Technical Training Series:

Intro to HVAC
HVAC Engineering
Plunging into Plumbing
The Last 10%
Intro to Hydronics & Steam

Other Programs:

Mechanical Service Professional (MSP)
Mechanical Contracting Leadership (MCL)
Fierce Conversations

Sample of Recent, Specialized Seminars:

Introduction to Virtual Design & Construction
Business Writing
Payroll Trust Reporting
Lean Construction
...And many more!

For more information, please contact
Tamara Butler, Director of Education
at tbutler@mcaww.net

*MCAWW educational programs are for Western Washington
Mechanical Contracting Industry Improvement Fund contributors.*

MCAWW Board of Education Mission:

**Providing MCAWW Members innovative,
meaningful learning opportunities**

Knowledge ~ Growth ~ Respect



Mechanical Contractors Association
WESTERN WASHINGTON

MCA of Western Washington
1100 Olive Way, Suite 1250, Seattle, WA
Tel. (206) 442-9029 ~ Fax (206) 442-9364
www.mcaww.net

Introduction to Hydronic Piping & Steam Systems

Course #507-17

October 10, 17 & 24, 2017
12:00 to 4:00 p.m.



Sponsored by



Mechanical Contractors Association
WESTERN WASHINGTON

INTRO TO HYDRONICS & STEAM

Description

This course will help you understand the different types of hydronic systems and the components that make them up. The course will cover pumping principles, different system types, air elimination, thermal expansion and contraction, pipe sizing, controls and balancing basics, plan review examples, and will also touch on 2015 code implications. Participants will also gain an understanding of Steam Systems, including code requirements and piping requirements, as well as advantages and disadvantages of Steam Systems.



Benefits

Students will:

- » Become familiar with several different Hydronic Systems and the benefits and disadvantages of each
- » Determine how to control and eliminate air in Hydronic Systems and maintain system pressure
- » Understand different pumping arrangements and control strategies
- » Review applicable code requirements including metering, heat recovery and high-efficiency VAV
- » Understand the basics of Steam and Condensate Piping Systems
- » Review the code required differences between high pressure and low pressure Steam Systems
- » Identify the key components of a Steam PRV station

Who Should Attend

This program will benefit project managers of all levels and anyone who wants a solid overview of Hydronic and Steam Systems. Participants are expected to have some experience with mechanical piping systems.

Class	Date	Time*	Location
Part 1	Oct. 10, 2017	12:00 - 4:00 pm	MCAWW
Part 2	Oct. 17, 2017	12:00 - 4:00 pm	MCAWW
Part 3	Oct. 24, 2017	12:00 - 4:00 pm	MCAWW

*Lunch is included each day at 11:30 am

Tuition for the 3-day program is \$175



Intro to Hydronics & Steam

Course #507-17

REGISTRATION FORM

Name: _____

Firm: _____

Title: _____

Cell: _____

Email: _____

Years in Industry: _____

Dietary restrictions? _____

Supervisor: _____

Confirm that you are available for all classes, or list any known exceptions:

I am available for all classes or

Known Exceptions: _____

Check here if you require special accommodations under the American with Disabilities Act.

Check here to opt in to the MCAWW E-newsletter and stay current on all upcoming classes and events.

HOW TO REGISTER:

Mail completed registration form

with check for \$175 to:

MCA of Western Washington,
1100 Olive Way, Suite 1250,
Seattle, WA 98101

Or email registration to:

tbutler@mcaww.net and call (206) 442-9029
to pay by credit card

Registration Deadline: Sept. 15, 2017

*Class limited to 20 participants
(Number of attendees per firm may be limited)*

MCA of Western Washington occasionally videotapes, records or photographs events for the purpose of responsibly promoting the association and/or attendance at future events. By registering for this event you agree to allow us to use your name and likeness for such purposes.