

HEAT PUMP WATER HEATER CLASS

by **ERIC DECKER, PE, CPD**

Eric Decker, P.E., CPD, graduated from the University of Illinois at Chicago with a B.S. in Mechanical Engineering. He began his career with Bell & Gossett in Morton Grove, Illinois, working in the Commercial Pumps Marketing Department. In 2011, Eric joined Dawson Company’s Business Development Group, where he focused on supporting mechanical and plumbing consulting engineers in the Orange County area. He became Manager of the department in 2017.

Eric has extensive experience presenting on industry topics. He recently spoke at the 2023 ASPE Symposium in Bellevue, WA, and has presented at ASPE Chapter meetings in Los Angeles, Orange County, and San Diego. He has also presented at ASHRAE Chapter meetings for Orange Empire, San Diego, SoCal, and Tri-County. Eric is a Registered Professional Mechanical Engineer (P.E.), Certified in Plumbing Design (CPD), and an ASHRAE Past President of the Orange Empire Chapter.

Plumbing Engineers / Plumbing Engineers for Design Build Contractors

WHO SHOULD ATTEND?

Topic: Centralized Heat Pump Water Heater (CHPWH) System Design Considerations and New Sizing Techniques

PART 1:

- Overview of heat pump refrigerant cycle
- Discuss Minimum Lift and Water Side DeltaT
- Current 3rd Party Testing Standards (Energy Star, DOE, AHRI Standard 1300)
- Typical refrigerants used for CHPWH
- General design considerations

PART 2:

- “Single-Pass” vs. “Multi-Pass” configuration vs. piping schematic
- Peak and off-peak scenario hydronic analysis
- General comments on “single-pass” vs. “multi-pass”, pro’s/cons
- Electric Swing Tank vs. Electric Backup – hydronic analysis

PART 3:

- General comments vs. gas-fired, ASPE Fixture Tables
- CHPWH Sizing Methods
 - Peak/Off-Peak Sizing Method
 - Ecotope Sizing Method
 - CBECC-Res 2019 Sizing Method
- Other Sizing Methods – ASHRAE Load Profile
- Sizing example with CHPWH Sizing Methods

THURSDAY, FEBRUARY 27, 2025

8:30 AM - 12:00 PM, to be held at:

DAWSON COMPANY LEARNING CENTER * 1681 W. 2ND STREET, POMONA, CA 917665 (626)-797-9710

CONTINENTAL BREAKFAST WILL BE PROVIDED AT 8:00, LUNCH SERVED AT 12NOON

To ensure that each attendee receives the full benefit of this seminar, the class size is limited to 40 attendees.

Name _____
 Company _____
 Phone _____
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Name _____
 Company _____
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Name _____
 Company _____
 Phone _____
 Email _____

(A) Total Number of Persons Attending _____
 (B) Total Cost of Seminar per Person: \$50.00
 Total Enclosed (Ax B): \$ _____

Please let us know if you have any dietary requirements:

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