

OCTOBER TECHNICAL MEETING AND MEMBERSHIP PROMOTION NIGHT

CONDENSING BOILERS:

OPTIMIZING DESIGN AND CONTROL OF

HOT WATER SYSTEMS

SPEAKER: DON BETTS, CLEAVER BROOKS

We welcome you to join us for our technical meeting at the Hotel Biltmore in Santa Clara for an evening of sharing knowledge, fun, and networking.

Date:	October 9 th , 2019
Location:	Hotel Biltmore
	2151 Laurelwood Rd, Santa Clara, CA 95054
<u>Time:</u>	
Check-in and S	ocial: 5:30PM

Lheck-lh and Social. Dinner YEA Mixer

5:30PM 6:30PM - 8:15PM 8:30PM – Last Call

Cost:

Early bird Registration fee:	\$ 50/- (by Midr
Late Reg/Walk-ins/Non-Members:	\$ 60

night Oct 2nd)

RSVP: https://sjashrae.org

Speaker:

DON BETTS

PRODUCT SALES MANAGER, CLEAVER BROOKS

Don Betts is a Product Sales Manager at Cleaver Brooks located in Milwaukee, WI. Don has over 30 years of experience in engineering and sales involving heat transfer equipment. Don's product experience includes incineration, waste heat recovery, hot water and steam systems. In addition, Don has management experience as the general manager of a hot water, ASME Code, and heat exchanger manufacturing facility. Don is from the Milwaukee area and graduated from Marquette University with a B.S. in Mechanical Engineering.

Presentation Summary

This presentation will cover optimization of system design and control strategies for hydronic systems with condensing boilers. The presentation begins by covering the science of condensing, and discussing how condensing boilers are able to achieve higher efficiencies by capturing latent heat from the boiler flue gas. Next, the presentation will address different methods for controlling and staging boilers, and discuss how to optimize controls for condensing boiler systems given the inverse efficiency characteristics of condensing boilers. Finally, we will compare primary variable and primary/secondary systems, and discuss the pros and cons of these two system designs when utilizing condensing boilers.