

ASHRAE BLUEPRINT

November 2015

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PRESIDENT'S MESSAGE

Ryan O'Connor

**Chapter Meeting: Wednesday November 4th @
Westward Ho (The Country Club of Sioux Falls)
Social 5-5:30, Supper 5:30, Program 6:00-7:00**

RSVP at our Chapter homepage (www.sdashrae.org) no later than Noon on Monday, November 2nd. <http://sdashrae.org/meetinginfo.php>.

I was hoping to have a report from the 1st Annual ASHRAE Chapter shoot-out before going to print, but shooting in the rain didn't sound like much fun.

As I write this, it's snowing outside.... Even if the weather doesn't cooperate we are looking forward to a fun afternoon, I hope many of you are planning to join us for the shoot-out.

Distinguished Lecturers represent the greatest value the ASHRAE Chapter can bring to its members. This year we are working to get as many D.L. visits as possible. Please let myself or Mike Fellows know if you are familiar with a DL whom you would like us to bring to town for a presentation and seminar.

This month we are pleased to host D.L. Dan In-Hout. Air distribution is something that doesn't typically get noticed until it's done poorly. This month's afternoon seminar should help us in our attempts to go unnoticed! Dan is an expert in air distribution and I encourage you to take advantage of this seminar. At the modest price of \$50, you won't ever find a better value for this information.

See you at The Club,

Ryan

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CTTC Mike Fellows

Guest Speaker: DAN INT-HOUT III, Chief Engineer, Krueger, Richardson, Tx.

Dan is responsible for the presentation of technical data and advanced application engineering for the Grilles, Registers and Diffusers, as well as the VAV air terminals, fan coils and chilled beams produced by Krueger.

Dan has been in the Air Distribution research and design business since 1973, and has a Masters in Business Management from Central Michigan Univ., and a Bachelor in Biology & Physics from Denison University.

Dan has held several positions in the industry, including Owens Corning Fiberglass, Carrier, Titus Environmental Technologies and Krueger, in engineering, marketing and product research roles.

Dan has written a number of technical papers and articles on VAV system performance, acoustics, air diffusion, controls and occupant comfort. He was recently Chairman of both ASHRAE Technical and Standards Committees on Thermal Comfort, is a past Chairman of several other related ASHRAE Technical and Standards Committees, as well as ASHRAE Standards, Technical Activities Committee (TAC) & Environmental Health Committees. He received the ASHRAE Distinguished Service Award in 1993 and the Exceptional Service award in 2007

Dan is currently the Chairman of the AHRI committee on Applied Acoustics (885) and a past member of ISO 205 US Panel on Thermal Comfort. Dan is also a past member of the USGBC TAG on the Indoor Environment.

Dan is a Life member of ASHRAE and was elevated to the grade of ASHRAE Fellow at the Long Beach meeting in 2007, and the ASHRAE Board of Directors as a Director At Large (DAL) in 2014. Dan is currently on both the Research Activities Committee and Tech Council representing the Board.

Dan's Afternoon Seminar will be ***"All About Air Distribution"*** and the regular meeting presentation will be ***"You Can't Afford Discomfort"***

Afternoon Seminar (2:30-5:00)

All About Air Distribution- Cost \$50.00

The Basics

The basic physics of air distribution must be fully understood before one can properly select components for a project. This lecture will cover:

- Understanding Terminology
- ADPI (Air Diffusion Performance Index)
- Proper Diffuser Selection
- Common Product Groups
 - Well Mixed (Inductive) Air Distribution
 - Non Inductive Air Distribution

Effectiveness

In order to meet the increased expectations of building occupants, designers must be aware of the conflicts between first cost economics, occupant productivity and life cycle costs. Buildings that do not meet the needs of the occupants often result in expensive redesign or worse, result in lawsuits against all parties involved. First, we need to understand the rules:

- LEED: Many are not aware of some significant changes that have resulted in air distribution, IAQ and Comfort in the 2013 version (V4)
- Thermal Comfort: Determining optimum occupant comfort strategies. ASHRAE Standard 55 has been revised.
- Acoustics: Accurately predicting end use environments. A new classroom acoustical requirement needs to be understood.
- IAQ: The changing face of ASHRAE Standard 62.1, and upcoming developments.

With the goal of saving energy over the 90.1 baseline (Overhead VAV), many architects are challenging the mechanical engineer to come up with alternate systems that will meet this goal. Displacement Ventilation (DV), Underfloor Air Distribution (UFAD) and Chilled Beams all have a potential to save energy, and meet these needs. I will briefly cover pros and cons of all 4 methods of air delivery:

- Overhead air distribution
- DV (Displacement Ventilation)
- Underfloor Air Distribution (UFAD)
- Chilled Beams and the DOAS Fan Box

High Performance

There is an ASHRAE committee developing ideas and research needs in the search for a true high performance air distribution system. A number of ideas have been identified. These include:

- Optimizing air handler performance
- Duct system leakage
- Advantages of economizer
- Pressure independent ventilation control

HISTORY

Eric Johnson

On October 31, 1961 the South Dakota Chapter of ASHRAE was granted its charter. National ASHRAE President John E. Everetts, Jr of Philadelphia presented the charter at a special meeting. Mr. F.H. Faust, National ASHRAE 2nd Vice President from Tyler, Texas and Mr. Fred Janssen, the Regional Director from Denver joined Mr. Everetts with words of encouragement and advice. Mr. Charles Thompson, President of the Nebraska Chapter and Mr. John McNamara, President of the Minnesota Chapter were present with delegations from their chapters as well. Numerous congratulatory wires and letters from other chapters were received and acknowledged at the presentation.

Chapter officers at the time were Melvin Bird, Chairman of the Board; Ralph Larson, President; John Sandfort, Vice President; Dave Rosenstein, Assistant Vice President; John Mahanna, Secretary; Bill Menzel, Assistant Secretary; and Fred Monick, Treasurer. Below is a picture of the original charter given to the Chapter at the presentation meeting.



The 2015-2016 South Dakota Chapter ASHRAE Line-up:

Sept 9	Noon	Pat Carus, M.S. – Data Aire <i>“Precision Cooling Basics for Today’s Data Management Needs”</i>
Oct 7	Noon	Kristi Honeywell, South Dakota State Engineer <i>“State Government’s Energy Reduction Efforts”</i>
Oct 30	ASHRAE Shootout	Hunter’s Pointe, Humboldt, SD. Sporting Clays.
Nov 4	Afternoon Seminar	Dan In-Hout, Chief Engineer, Krueger <i>“All About Air Distribution”</i>
Nov 4	Evening	Dan In-Hout, Chief Engineer, Krueger <i>“You Can’t Afford Discomfort”</i> ASHRAE Distinguished Lecturer Student and Past Presidents Night
Dec 9	Noon	To Be Determined...
Jan 6	Noon	To Be Determined...
Feb 12 or 13	Valentines Event	Olde Towne Dinner Theatre
Mar 9	Noon	To Be Determined...
April 6	Evening	To Be Determined... Student Night
May 29		<i>Golf – Brandon Golf Course</i>

Membership **Nathan Larson**

If you know of anyone that may be interested in joining ASHRAE, be sure to tell them about ASHRAE and invite them to a meeting. Membership information can be found at www.ashrae.org/members/ or call Nathan at 605-996-7548 with questions.

2016 ASHRAE Winter Conference

Jan. 23–27 | Orlando Hilton | Orlando, Fla.

*New Technical Program Tracks, Networking,
World's Largest HVAC&R Marketplace*

Special first time attendee registration fee available! Low, early-bird registration rates end Nov. 2. Register early! Registration to the ASHRAE Winter Conference includes free access to the AHR Expo!



2016 AHR Expo

Jan. 25–27 | Orange Co.
Conv. Center | Orlando, Fla.



Venues are strategically located next to each other for easy access.