

**METROPOLITAN NY CHAPTER**  
**Refrigeration Service Engineers Society**

*Continued Education for the HVAC/R Industry*

**“Better Service Through Knowledge”**

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**November 2008**

**WWW.METRONYRSES.ORG**



**Recommended for:**

- HVAC Contractors
- HVAC Service Technicians
- Boiler Contractors
- Plumbing Contractors
- Plant Maintenance Engineers
- Weatherization Auditors
- Safety and Health Officials
- Gas Utility Personnel
- Home Inspectors



**Peerless Boilers**

**---Technical Training ---  
Coming to the Metro  
New York area**

**SATURDAY,  
NOVEMBER**

**15<sup>TH</sup>, 2008**

**8:30am – 5:00pm**

**Location:**

Riccardo's Catering  
21-01 24th Avenue  
Astoria, N.Y. 11102  
(718) 721-7777

**FULL DAY  
SESSION  
with Hot Lunch  
provided**

**BOILER / RADIATOR  
& PIPING SIZING**



**Seminar**



**WE WILL COVER:**

- Measuring Heat Loss  
Different Calculation Methods, Including Manual J, IBR, etc.
- Sizing Hydronic Systems  
What Are The Factors To Consider?
- Sizing Steam Systems  
Steam systems are unique. Learn the “whys and hows”
- Distribution Piping  
Understanding Distribution Methods, Tricks, and Piping Tables
- Circulating Pumps and Considerations  
Understanding Head Pressure and GPM
- Radiation  
Learn About the Different Types of Radiators, Their Advantages and Drawbacks

This program utilizes lecture, field examples, demonstrations, slides, handout materials and encourages audience participation. A certificate of attendance and a \$25 cash rebate towards the purchase of CO or combustion test instruments from Bacharach Instruments.

The cost for full program, including morning & afternoon refreshment breaks and full service, hot sit-down lunch is:  
\$105 for RSES members, \$130 for non-members

**Brought to you by:**

**R.S.E.S.  
REFRIGERATION SERVICE ENGINEERS SOCIETY  
METRO NY CHAPTER**

Don't miss this great educational opportunity to sharpen your skills.  
For last minute seating availability, call: Stan Hollander: 718 232-6679

## ***Locating Air-Cooled Condensing Units***

When installing walk-in coolers and freezers, the installing contractor will need to select the proper location of the condensing unit. Location is an important consideration for the overall success of the installation. There are several items to consider when selecting the location of this type of condensing unit.

First, the location should be discussed with the customer. Be sure the customer is in agreement with the placement of the condensing unit. The customer may have a plan for the location different from where the installing contractor decides to place the unit. As retail space becomes more expensive, customers will want to take advantage of all their indoor space and may want the condensing unit located outdoors or in an indoor location that will not interfere with their operation.

If the condensing unit is to be placed indoors make sure the location has adequate ventilation. Low temperature condensing units will require approximately 200 CFM per 1000 BTU, and medium temperature units will require approximately 165 CFM per 1000 BTU. Always check with the condensing unit manufacturer for their ventilation requirements, as they may differ from these approximate values. Another consideration with air-cooled units located indoors is the heat they may add to the space. This additional heat may be objectionable to the equipment owner.

An alternative to locating the condensing unit indoors is to place it outdoors. When installing outdoors there are several additional components which should be installed to the condensing unit. Some of these components may already be installed if it is ordered for an outdoor application.

The condensing unit should have a crankcase heater installed. This will help to prevent refrigerant migration during the off-cycle when the condensing unit is exposed to temperatures which are colder than the evaporator. The condensing unit will also need some means of keeping the high side pressure above a minimum value during low outdoor temperatures. This is normally accomplished with either a fan cycling control or a head pressure controller.

The method of controlling the case temperature may also need to be modified. The system should use a pump-down method to control the operation of the

condensing unit. A standard air-sensing temperature controller should be used to control the operation of a liquid line solenoid. When the temperature controller is satisfied it will close the liquid line solenoid, causing the refrigerant to be trapped in the condenser and receiver. This will cause the low-side pressure to drop. The system's low pressure control will then shut down the condensing unit when the low side pressure drops to an appropriate value. A defrost timer will also need to be added to the control system to ensure that the evaporator defrosts properly.

The outdoor unit should also be covered to protect it from the outdoor environment. If the condensing unit is ordered for an outdoor application it will normally come with some type of enclosure. When moving an indoor condensing unit to the outdoors make sure an adequate enclosure is constructed to properly protect the unit.

One last consideration when installing either an indoor or outdoor condensing unit is to make sure the system can be easily serviced. Too often service technicians encounter systems where the condensing unit is located in an area where it is extremely difficult to access. Also make sure there is an electrical disconnect available to shut off the electrical supply, when needed. >>

### **CHANGING V-BELTS**

Below are some general safety tips to follow when changing V-belts:

- Never try to stop a V-belt drive with your hands. Let it stop completely on its own before working on the fan assembly.
- Do not put your fingers under the V-belt. If the fan or drive moves, your fingers could become trapped between the V-belt and the drive and cause severe injury.
- Lock out the fan circuit to prevent the motor from starting while the belt is being changed.
- Block out the fan to prevent it from rotating while the belt is being changed.
- Replace fan guards, if equipped, before energizing the fan. <<

*Q. Did you hear about the restaurant on the moon?  
A. Great food, no atmosphere.*

*Q. How do you organize a space party?  
A. You planet.*

 <p><b>HVAC/R</b> Parts Supplies Equipment</p> <p>27-01 BROOKLYN QUEENS EXPRESSWAY WEST WOODSIDE, NY 11377</p> <p>FAX (718) 274-4972</p> <p>Large Local Stock Free Catalogue</p> <p><b>718-545-4896</b> WHOLESALE ONLY</p>	 <p><b>SEALED UNIT PARTS CO., INC.</b></p> <p>P.O. BOX 21 2230 LANDMARK PLACE ALLENWOOD, NJ 08720 USA (732) 223-6644 FAX: (732) 223-1617</p>	 <p><i>Support Services for the HVAC Contractor</i></p> <p>HVAC Water Treatment</p> <p>Specialty Cleaning Pipe • Duct • Coil</p> <p>HVAC Antifreeze</p> <p>Lab Services</p> <p>Indoor Air Quality</p> <p><b>718-361-6666</b> www.csiontheweb.com</p>	 <p><b>UNITED REFRIGERATION INC.</b> Refrigeration, Air Condition- ing, Heating, Supplies, Equipment &amp; Parts</p> <p><b>Jim Herlinger</b> Branch Manager 51-05 59<sup>th</sup> Place Woodside, NY 11377-7408</p> <p>Tel: 718 476-2600 Fax: 718 476-2648 Branchv2@uri.com</p>	<p><b>HALSEY</b> SUPPLY CO. INC.</p> <p>FOR ALL YOUR</p> <ul style="list-style-type: none"> <li>AIR CONDITIONING</li> <li>REFRIGERATION</li> <li>EQUIPMENT</li> <li>PARTS SUPPLIES</li> </ul> <p>EPA-CERTIFICATION TESTING</p> <p>241 HALSEY STREET BROOKLYN, NY 11216</p> <p><b>(718) 574-4774</b> FAX (718) 574-4778</p>
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**Wednesday November 12th, 2008 at 7:30pm**  
at  
**RICCARDO'S**  
21-01 24th Avenue, Astoria NY 11102

***Does Your Building Suck?***  
**Why The Relationship Between The HVAC System  
And The Building Envelope Is Critical**  
by  
**Tony Woods & Steve Tratt—Zerodraft**

<p><b>SEE US 1<sup>st</sup></b></p>  <p><b>WHOLESALE DISTRIBUTORS</b> Refrigeration/AC/Heating</p> <p><b>BROOKLYN (718) 257-4039</b> 99-03 Foster Ave.</p> <p><b>JAMAICA (718) 526-0330</b> 139-29 Queens Blvd.</p> <p><b>MT. VERNON (914) 668-3631</b> 551 S. Columbus Ave.</p> 	<p><b>Fire Ice Mechanical Inc.</b></p> <p>HVAC/R Service Contractors</p> <p><b>KURT J. EGGERT</b></p> <p>Vogt Tube-Ice Authorized Dealer/ Sales &amp; Factory Certified Technicians Goldenrod Distributor;</p> <p>The Newest in Water Treatment Technology Air Conditioning &amp; Refrigeration</p> <p>Tel (718) 631-1503 Fax (718) 279-4686</p>	 <p><b>COMPRESSORS</b></p> <p><b>UNITED REBUILDERS, INC.</b> (URI)</p> <p>405-A Allentown Drive Allentown, PA 18109 (484) 223-3265 (800) 964-0888 FAX (484) 223-3260</p>	 <p>49-70 31st STREET L.I.C., NY 11101 Phone: 718-937-9000 Fax: 718-392-1296 1-800-937-9000</p> 	 <p><b>WEDDINGS</b> <b>OUR SPECIALTY</b> <i>Special Attention Given To</i> Dinner Dances • Company Parties Cocktail Parties • Business Meetings Fund Raisers • Fashion Shows Engagement Parties • Christenings <i>Special Discounts Given to Senior Citizens</i> <i>Riccardo's by the bridge</i> 21-01 24th Avenue, Astoria, NY 11102 718 721-7777 ANTHONY M. CORBISIERO RICHARD F. CORBISIERO</p>
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# METROPOLITAN NEW YORK CHAPTER, RSES

For Information Call: Stan Hollander, CMS (718) 232-6679

\*\*\*WE NOW HAVE OUR OWN WEBSITE: [WWW.METRONYRSES.ORG](http://WWW.METRONYRSES.ORG) CHECK IT OUT\*\*\*

## I DIDN'T KNOW THAT

- |   |   |  |
|---|---|--|
| Q. What occurs more often in December than any other month?     | A. Obsession.   | Q. There are more collect calls on what day of the year?                       |
| A. Conception.  | Q. If you were to spell out numbers, how far would you have to count until you found the letter "A"?    | A. Father's Day.   |
| Q. What separates "60 Minutes" on CBS from every other TV show? | A. One thousand.  | Q. What trivial fact about Mel Blanc (voice of Bugs Bunny) is the most ironic? |
| A. It has no theme song.  | Q. What do bullet proof vests, fire escapes, wind-shield wipers, and laser printers all have in common? | A. He was allergic to carrots.   |
| Q. Half of all Americans live within 50 miles of what?          | A. They all were invented by women.   | Q. What activity is performed by 40% of all people at a party?                 |
| A. Their birthplace.  | Q. What is the only food that doesn't spoil?  | A. Snooping in your medicine cabinet.  |
| Q. Most boat owners name their boats. What is the most popular? | A. Honey.   |  |

## COMING EVENTS

Does Your Building Suck?  
 Compressor Starting Issues  
 Pricing Guidelines  
 Scroll Compressors  
 Back to the Basics

If you have any suggestions or requests for future programs, please let us know!

PLACE LABEL HERE

