METROPOLITAN NY CHAPTER Refrigeration Service Engineers Society

Continued Education for the HVAC/R Industry



"Better Service Through Knowledge"

April 2013



WWW.METRONYRSES.ORG

Don't Be Afraid To Ask "Why?"

With all the different technologies in our industry, it is truly difficult for us to be well versed in all aspects of this trade. Occasionally we all have questions about how a system operates or how a system component functions.

There are several ways we can get answers to our questions. The easiest way is to just ask someone who has more experience with the system or component. Calling the manufacturer is also an excellent way of getting your questions answered. If that option is not available you can call your local wholesaler or distributor who sells the product. If that does not work, call on a friend.



Unfortunately sometimes the answer we get may not be clear nor accurate. If an answer does not make sense or is unclear, we should not just simply accept it as fact, but should ask it again or ask "why".

Sometimes this is difficult. We may be embarrassed by the fact that we do not understand the answer or we do not believe the person answering the question. If possible, ask for clarity. If that is not possible, *don't give up*, but ask the same question to a different person. Hopefully that person will be able to answer the question in a clearer manner or provide an answer that makes sense.

When asking a second person the same question, occasionally you may get a totally different answer. This can be quite frustrating. Now you're faced with a small dilemma: who is right? The best way to handle this situation is to, yes, ask a third person; hopefully that person's answer will match one of the first two. If the third answer is totally different, don't give up; keep going until you have an answer that is clear and makes sense <u>to you</u>.

Sometimes you may run into a road block and will not be able to get your question answered in this manner. When this occurs you do have some options: you can research the question yourself either online or through textbooks. This is a longer process but sometimes the answer will be in black and white and written in a manner that is clear and makes sense to you.

Recently a technician told me of an encounter he had with a question concerning a refrigeration compressor. He did not know what the RLA rating on the compressor stood for, so he asked around and was given two different answers. One person told him it meant the "running load amperage" and another told him it was the "rated load amperage" of the compressor and really did not represent the actual amperage draw of the compressor. After thinking about the two answers he realized that the first answer could not be accurate. He remembered the amperage draw of a compressor is based on the suction pressure, discharge pressure and applied voltage, so how could a compressor manufacturer stamp on the compressor the running load amperage when it varies by external factors?

After some additional investigation, he discovered that RLA did stand for the "rated load amperage" and is a mathematical calculation required to meet Underwriters Laboratories Inc. (UL) approval. The compressor manufacturer must run a series of tests to determine the Maximum Continuous Amps before the overload trips. Once that has been determined, UL says divide the MCC by 1.56 to determine the RLA. Some compressor manufacturers, such as Copeland and Carlyle, use a different factor. They divide the MCC by 1.44. If the RLA has any value, it is to determine at what amperage draw the compressor overload will trip and to determine the fuse/circuit breaker size and the wire size.



The next time you have a question, don't be afraid to ask "why," but be prepared for different answers to the same question.





<u>**TECHNICAL</u>** <u>**TRAINING**</u> Coming to the Metro New York area</u>

<u>Recommended for:</u> HVACR Service Techs HVACR Electricians HVACR Contractors HVACR Students

SATURDAY, April 20th, 2013 8:30am – 5:00pm

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

FULL DAY 4 SESSIONS with Hot Lunch served





Morning Sessions:

- Introduction to the Proper Use of MultiMeters & Wiring Diagrams for Quick & Accurate Troubleshooting and System Diagnoses
- Using and Interpreting P-T Charts to Troubleshoot Air Conditioning Systems

Afternoon Sessions:

- Troubleshooting Air Conditioning Systems Electrical <u>and</u> Mechanical Analyses and Diagnostics
- Analyzing and Troubleshooting Gas and Oil Heating Systems

This program utilizes lecture, field examples, computerized demonstrations, handout materials and encourages audience participation. A certificate of completion will be mailed to all participants.

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

For Further Information Call: Stan Hollander @ 718 232-6679

REGISTER EARLY – SEATING LIMITED				
HVACR SERVICE TRAINING SEMINAR 4/20/13				
RSES Membership # (if applicable)				
NAME	COMPANY NAME			
ADDRESS	CITY		STATE	ZIP
PHONE: DAY #		NIGHT #		
WANT TO USE CREDIT CARD? #			EXP. DAT	TE

MAKE CHECKS PAYABLE TO: METRO NY RSES

MAIL CHECKS ALONG WITH THIS REGISTRATION FORM (DETACHED) TO: STAN HOLLANDER; 1837 61st STREET; BROOKLYN, NY 11204 METROPOLITAN NEW YORK CHAPTER, RSES For Information Call: Stan Hollander, CMS (718) 232-6679

