

METROPOLITAN NY CHAPTER Refrigeration Service Engineers Society

Continued Education for the HVAC/R Industry

"Better Service Through Knowledge"

January 2010

WWW.METRONYRSES.ORG



Slip & Drive Connections

A common method of joining two sections of rectangle duct is with the use of "S" slips and Drive clip connectors. This method is quite often used in residential duct applications and with smaller duct sizes for some commercial applications.



When cutting rectangle duct which will be connected using "S" slips and Drive clips, a 1/2" allowance is typically made for these connectors. This means when measuring the duct to size, an extra 1/2" must be added to the overall measurement of each side connected. For example, if a 33" section of rectangle duct is needed and will be joined on each end using "S" slips and Drive clips connectors, a 34" (33" + 1/2" + 1/2") section needs to be cut, then the ends formed to accept the "S" slips and Drive clips.

When forming the ends of the duct, typically the corners on each end are notched at a 60° angle to allow an easier installation of the "S" slips and Drive clips. The "S" slips are installed on the longer side of the duct end, and the smaller end is then turned down using a folding tool to accept the Drive clips when the sections are placed together.

You Make The Call (028)...

You are called out to service the below-listed equipment with the complaint and conditions observed. From the information given, determine what is the most likely cause of the problem.

Equipment to be serviced:

- ♦ Walk-in freezer using R-404a refrigerant, an air cooled condenser, and a TXV metering device. It has pump down controls and a 208/230 volt single phase, refrigerant cooled compressor

Customer's complaint:

- ♦ The compressor has failed three times in the past 12 months. Why does the compressor repeatedly fail?

Conditions observed:

- ♦ 207 volts measured at the compressor
- ♦ Amperage draw of the compressor is 8.8 amps
- ♦ Both the condenser and evaporator fans are running
- ♦ Both the evaporator and condenser coils are clean
- ♦ Ambient temperature is 75°F
- ♦ Suction pressure is 24 psig
- ♦ Discharge pressure is 252 psig
- ♦ Suction line temperature at the outlet of the evaporator is -10°F
- ♦ Liquid line temperature at the outlet of the condenser is 89°F
- ♦ Discharge line temperature is 210°F
- ♦ The 1/4" cap for the suction service valve is missing
- ♦ The bulb of the TXV is located on the top of the suction line
- ♦ Some of the insulation on the suction line is missing
- ♦ The discharge line is slightly discolored

OFFICIAL NOTICE

The nominating committee appointed by our President is: Stan Hollander, Herbert Meyer & Kurt Eggert. They nominated and thereby propose the following members in good standing for the following positions.

President: Drew Garda

Vice President: Howard Da Costa

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Educational Director: Stan Hollander, CMS

Member of the Board of Directors: John Plaut

Newsletter Co-Editors: Stan Hollander CMS, and Herbert Meyer

The Board of Directors is comprised of the above officers and members.

A formal election of Officers and Board Members will be held at the February 10th, 2010 meeting.

If any member in good standing is interested in becoming an officer or member of the Board of Directors, or would like to recommend another member, please contact an existing officer.

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COMING EVENTS

Small Duct, High Velocity A/C Systems
 Electric Motor Troubleshooting
 Refrigeration Piping Problems
 Troubleshooting Electric Motors
 Variable Frequency Drives
 Scroll Compressors

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

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**SATURDAY,
MARCH 20TH,
2010**

8:30am – 5:00pm

Location:

Riccardo's Catering
21-01 24th Avenue
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(718) 721-7777

**FULL DAY
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Seminar



WE WILL COVER:

Morning Session: Variable Frequency Drives (VFDs)

- How VFDs generate Variable Frequency
- Basic Drive Components
- Installation Techniques and Precautions
- Using VFDs in Variable Torque HVAC Applications

Afternoon Session: Scroll Compressors

- Scroll Operation, Anatomy & Characteristics
- Scroll Compliance
- Key Design Features
- Why Scroll Compressors Fail

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

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Variable Frequency Drives and Scroll Compressors SEMINAR 4/20/10

RSES Membership # (if applicable) _____
NAME _____ COMPANY NAME _____
ADDRESS _____ CITY _____ STATE _____ ZIP _____
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WANT TO USE CREDIT CARD? # _____ EXP. DATE _____

MAKE CHECKS PAYABLE TO: METRO NY RSES
MAIL CHECKS ALONG WITH THIS REGISTRATION FORM (DETACHED) TO:
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METROPOLITAN NEW YORK CHAPTER, RSES

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

COMING MARCH 20th:

**ALL DAY SEMINAR – 2 SESSIONS (morning & afternoon)
VFD (Variable Frequency Drive) Motors
plus Scroll Compressor Technology**

Wednesday January 13th, 2010 at 7:30pm

at

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21-01 24th Avenue, Astoria NY 11102

**Introduction to High Efficiency
Condensing Modulating Boilers**

By

Bill Gluckin—Triangle Tube, Inc.

— PLACE LABEL HERE —

**EDUCATIONAL PROGRAM
Wednesday January 13th, 2010
at 7:30pm — THIS PAGE
SEE DETAILS —**

