



FIRST IN FINE EQUIPMENT AND  
TECHNICAL ASSISTANCE

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Temperature Systems, Inc.



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**TSI Electronic Catalogs**

Look for the new Temperature Systems Hydronics and Solar catalog to be out on July 1st. Our Supply and revised Refrigeration catalogs will be published by July 1 of 2011. In order to be more environmentally friendly and to save costs, we are also going to publish our catalog on flash drive and CD ROM. You will be receiving a request asking you in which form you would like to receive our next catalog.

One problem that we have in printing a catalog is that it is obsolete the minute it is printed. However, you have the ability to view the latest and most up to date catalog information on our website. Click on the "Catalog Download" in the upper right hand corner of the website and you will have access to our catalog on PDF files that are constantly updated. You will need a password to access this file. If you do not have a password, please contact Don Koch at 608-327-2332 to get set up.



**LAARS Call Center**

Laars has entered into their busy time of the year and the volume of calls going through their call center is such that it is increasingly difficult for them to answer all of your calls in a timely manner. Because of this, they would like to offer you another way of contacting their Technical Service reps. Please e-mail them your questions and they will answer them as quickly as possible. If you include the model and serial number and a complete explanation of the problem (along with your return phone number) they can get back to you with an answer. The e-mail addresses for the technical support group are:

GPeteya @ Laars.com      NMurdough@Laars.com      KUyeno@Laars.com  
 GEORGE PETEYA      NOEL MURDOUGH      KERRI UYENO

It is their hope that this will speed things up and get your answers to you. Please remember the call center phones are available from 8:00 a.m.—5:00 p.m. EST.

**Price Changes**

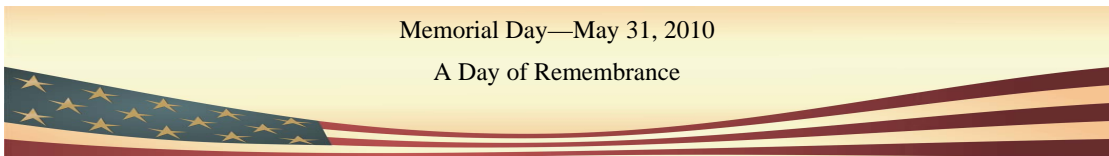
Amtrol	+4-6%	May 24
Hart & Cooley Flexible Duct	+4%	June 7
Selkirk-Metalbestos	+4%	July 6



**Congratulations Steve as you "jump" into retirement.**

**Steve Vaughn, former CEO and son of TSI's founder, Chuck Vaughn, retires May 7th, 2010 after 34 years.**

**Steve is looking forward to spending time with his wife, Kris, and working on his many hobbies.**



## Helpful Hints from our Credit Dept.

### **FRAUD!!!**

That's an expensive word. What are you doing to protect your business against fraud? It happens every year. Are you reviewing the cancelled checks each month? Do you review vendor statements and are they accurate? Are payments being received? What is your weekly total of receivables, payables and billings? Who are the accounts payable and do the names and amounts make sense? How are cash and checks handled when collected by employees? Are customers saying their payments are not being applied against their account? Please think about these questions and take action to protect your business

## Focus on Energy

By now you should have received a copy of the following letter from Focus on Energy. This is a reminder that Focus ended all SEEARP rewards as of **April 30th**.

*Dear Focus on Energy Partners,*

*Thanks to all of you for helping make the State Energy-Efficient Appliance Rebate Program (SEEARP) a tremendous success! Due to the increased activity since early April when Focus announced an end-date for the program, **Focus is ended all SEEART rewards April 30**. This end-date includes HVAC and water heating equipment.*

*You will be receiving a packet with updated Focus materials and applications by early next week. Please stop using the current materials showing SEEARP rewards immediately upon receiving this packet. Updated materials will also be available at [focusonenergy.com](http://focusonenergy.com) starting May 1.*

*Some important information to note:*

- *Equipment must be installed before the SEEARP application is submitted.*
- *You should not promise the SEEARP rewards to any of your customers. Funds may not be available for all customers who purchased and installed equipment by April 30.*
- *Funds are available on a first-come, first-served basis. Rewards will be paid in the order that completed and signed applications are received.*
- *The current status of the SEEARP funds is available at [focusonenergy.com/recovery](http://focusonenergy.com/recovery).*

**Note that Focus on Energy Cash-Back Rewards are not ending.** SEEARP funding came from the American Recovery and Reinvestment Act, while Focus is funded through Wisconsin utilities. There is no planned end-date for Focus HVAC or Water Heating Rewards.

*If you have questions about the SEEARP end-date or the Focus Efficient Heating & Cooling Program, please contact Doug Dettlaff at [ddettlaff@weccusa.org](mailto:ddettlaff@weccusa.org) or 888-509-3247, ext. 321.*

*Best,*

*Jill Cornelius*

*HVAC and Water Heater Program Manager*

*Focus on Energy*

*[jill@weccusa.org](mailto:jill@weccusa.org)*

*Phone: 888-509-3247, Ext. 167 Fax: 608-249-0339*

## Social Security Seminar

**Thinking of Retiring?** Please join us at TSI-Green Bay on May 27th from 4:30-6:30 P.M. A representative from Social Security will be with us to answer your questions. This seminar is open to all who are interested. Please call Linda Treml in our Green Bay office to reserve your spot. Her number is 800-776-2210.

# Engineering Department News

## Plan Review Fees –

The state of Wisconsin has updated their plan review fee schedules. There are only a couple of small changes, and our overall engineering fees are unchanged.

## Engineering Training Classes -

The Carrier motto is “Turn to the Experts”. This fall, we will be having a weekly one-hour class on the ‘engineering’ things that effect you the most: codes, ventilation rates, pipe & duct sizing, design ideas, energy costs, etc. We guarantee you will like the classes and they will help you to build your business, whether it’s residential **or** commercial. Be watching for dates and times. Tentatively, we are thinking of having classes every Monday afternoon, from 4:30 to 5:30, for 12 weeks. Every class will be accompanied with soft drinks and handouts of the materials discussed. We figure the total cost for the 12 weeks will be about \$50. Attend all classes and get a nice certificate. Nothing is set in stone yet, so be watching for more details.

## Flex Duct –

Ever put two full lengths of flex duct together on a system? Any air come out of it? Did you say “not much”? Hmm, gee, I wonder why?

The amount of friction (pressure drop) that air encounters as it passes through Flex Duct is a lot higher than rigid duct. I guess that’s pretty obvious. But, how much more is it?

A lot of the friction depends on the installation. Flex duct that is pulled tight and straight has less friction than duct that is saggy, droopy and loose (that’s the technical language). When flex is installed at ‘maximum stretch’, there is very little difference in friction from rigid sheet metal duct. But, when the installation is loose, things change dramatically.

Flex duct installed with even a small amount of sag can have **FOUR TIMES** the friction of the same size sheet metal duct. Flex installed with 85% of ‘maximum stretch’ will have a pressure drop of **10-11 times** that of sheet metal duct.

So, what does this mean to you? Use as little flex as you can. The flex duct that you make grille & diffuser connections with shouldn’t be more than about 5’ long. *Shorter if possible.* In those cases where you don’t have a choice, and you have to use the *code allowed maximum of 14’*, pull the flex as tight as possible and hang it with as little sag as possible.

Be sure to ask your TM or SE for more information on “ADC~Inst” which was sent to them on April 22, 2010.

## Required Lead-Safe Renovator Training

As of April 22, 2010, the Wisconsin Department of Health Services along with the Environmental Protection Agency (EPA), is requiring those involved in renovations in homes built before 1978, disturbing more than 6 sq. ft. of interior space or more than 20 sq. ft. of exterior space to have Wisconsin Lead-Safe Renovator certification.

If you have questions about what person(s) from your company should be certified, contact Robin Pharo of Healthy Homes at 608-437-8633. Robin’s company is the training provider for these WBA-sponsored courses.

The first three Madison classes have filled up quickly. If you cannot get into the courses offered in Madison, go to [www.wisbuild.org](http://www.wisbuild.org) to find classes hosted by other local builders associations around the state.

To learn more about the new rules and regulations go to: [www.wisbuild.org](http://www.wisbuild.org) and select the calendar of events or call WBA Development Director Megan Taylor at 608-241-5151, ext. 24.

# Refrigeration Helpful Hints

**Q.**

## What is a Split Condenser?

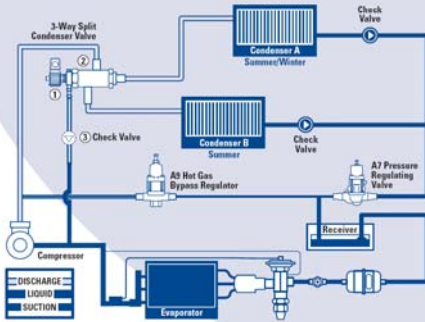
**A.**

Split-Condensers are used in large refrigeration systems to assist in head pressure control and to minimize the amount of system refrigerant charge required.

The size of the condenser required for summer operation is split into two parallel circuits. One circuit (designated "summer/winter") is active in summer and winter. The other circuit (designated "summer condenser") is rendered inactive during winter operation by a 3-Way Split Condenser Valve.

As the piping diagram indicates, a check valve is installed in the outlet of each condenser circuit, and head pressure controls are used to maintain minimum and stable head pressures. The two condensers are usually split 50/50 in size and are contained in the same "tube bundle" using condenser fan control as a supplement to the head pressure control valves. With this combination, the required refrigerant charge is kept to an absolute minimum.

### TYPICAL PIPING SCHEMATIC

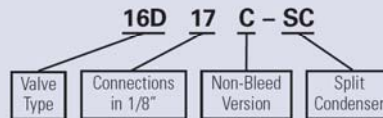


There are three sizes of Sporlan 3-Way Split Condenser Valves with connection sizes from 7/8 to 2-1/8 ODF. The "B" model is designed with an internal bleed. This feature allows refrigerant to bleed from the summer condenser back to suction when it is inactive during periods of low outdoor temperatures.



TYPE	PORT SIZE (Inches)	CONNECTION ODF Solder (Inches)
8D9B-SC	3/4	1-1/8
12D11B-SC		1-3/8
12D13B-SC	1-1/4	1-5/8
12D17B-SC		2-1/8
16D17B-SC	2	2-1/8
16D17C-SC		

### ORDERING INSTRUCTIONS



\* Also specify voltage and cycles \*

For more detailed information, refer to Sporlan Bulletin 30-20.

The above QuickTips taken from [www.Sporlan.com](http://www.Sporlan.com)

## Start/Run Capacitors—Taken from the RSES Journal

**Question:** What is the variance on MFD for start/run capacitors? I have heard +/-10%. Why are there 370-V and 440-V start capacitors, and what determines which one to use? What is the main factor for bulging failed capacitors?

**Answer:** The standard variance we have for run capacitors is +/-6% of the nameplate MFD rating. There is no variance listed for start capacitors since they have an MFD range as standard. A +/-10% rule of thumb is applied to many things, but we can't endorse it for capacitors. As a practical matter, the correct common capacitors are readily available.

The 370-V and 440-V ratings (on run capacitors) are the amount of voltage the particular capacitor can handle. Extra voltage capacity costs more money, but must be used if needed. You can replace a 370-V with a 440-V run capacitor, but not the other way around.

Capacitors bulge because of the shorting/overheating of the materials inside.

Question by John West, Jr., Chester, VA. Answer by Denny Bush, Manager of Marketing Development, A.O. Smith Electrical Products Co.