

OESP News



Oil & Energy Service Professionals

November 2017 Issue

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Now accepting ads for the February 2018 issue of the OESP News. Ads must be in by January 1.

OIL & ENERGY SERVICE PROFESSIONALS

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Oil Heat Cares Provides Relief to a Neighbor in Need in NJ

Oil Heat Cares once again displayed its commitment to the community by helping a family in need.

Heather McMahon of Roselle Park, NJ, is a single mother of two teenagers. She works two full time jobs in the medical field to make ends meet. A J.W. Pierson customer since 2005, Heather found her boiler dry-fired and in need of replacement - an additional expense she could not take on.

OESP Member **Charley Holmes** of J.W. Pierson discussed financing options including the local Union County Weatherization Program, which would install a new boiler at no charge, if she qualified.

Heather applied to the agency and was told that despite being unable to afford a new boiler, she did not qualify.

Feeling defeated, Heather spoke with



Heather McMahon's new boiler is just what this single mother of two needs before the winter heating season.

Charley who introduced her to Oil Heat Cares. Her application was quickly completed and approved, and the folks from the Garden State chapter got right to work.

Working with Heat Solutions, Charley and his team completed the project in just one day.

A special "thank you" goes out to J.W. Pierson for donating the boiler and **Joe Harzim**, owner of Heat Solutions and a Garden State Chapter board member, for the installation. **Ed Kennedy** and his team assisted with the boiler removal while **Robert Delpino** and his technician completed the install. **Carlos Rodriguez** followed up by setting up the burner and completing efficiency testing.

Needless to say, Heather is thrilled with the outcome and could not be more appreciative of the efforts made on her behalf by Oil Heat Cares.



Heather McMahon's new boiler arrives at her home in Roselle Park, New Jersey, a suburb of New York City.

Air Flow is Not a Mystery!

By Ralph Adams

In our industry one of the things we do the most is move air, and the thing we know the least about is moving air.

As technicians, we work with our hands; we are people that use our hands to fix things.

But it's hard to put your hands around air flow. Just because we can't get our hands around it does not mean we may not have problems with it. Why should we care? Why does it matter? Why do we need to know? I am a why person, I always have to know why.

Why should we care? Because air flow will affect the system operation, the efficiency and the life span of the piece of equipment.

Not enough air flow on a furnace and the unit will short-cycle the burner on and off on the limit control. This could cause the heat exchanger to overheat and prematurely crack. On an A/C system with low air flow, this will lead to someone overcharging the unit to raise the suction pressure. In turn, this will lead to the unit being overcharged, liquid getting to the compressor and compressor failure.

In both of these situations, the customer did not receive the efficiency, longevity or comfort out of the system. *That is why it matters!* We need to know so we can correct the problem.

As heating and air conditioning equipment efficiencies continue to rise, we are going to see more problems with using existing ductwork. Let's think about the history of our industry. A lot of homes we service were built in the 30s, 40s, 50s and 60s, and these systems were only heating systems with ductwork for heating, but not cooling.

Then in the 70s someone had the great idea that while we were replacing the furnaces, we should install A/C. We have the ductwork already!

These early A/C systems were not very energy efficient. Because of the inefficiency, they were very forgiving. Today's new systems are not as forgiving. If you have a customer reporting about how well their first system worked, how long it lasted and that every system since has not performed as well or lasted as long, chances are you have an air flow problem. So how do we check it?

There are a number of different ways to check airflow Temperature Rise, TESP (Total External Static Pressure) or Velocity. You will be surprised how easy these methods are to perform. We will go through each of these methods.

Let's start with the Temperature Rise Method. We need to begin by starting the furnace and letting it run for a few

minutes. Measure your return air temperature as well as the supply air temperature. When measuring the supply temperature, be sure your thermometer is out of the line of site of the heat exchanger as shown in Figure 1:



Figure 1: Measuring the supply temperature.

We also need to do a combustion efficiency test while you are measuring the temperature rise. Now, subtract the smaller number from the larger number and you have your ΔT .

For example: our supply temperature was 155 degrees and our return temperature was 70 degrees, this would give us a ΔT of 85 degrees. Our combustion efficiency was 81.5%. Now we need to find the BTUH input of the unit we are working with. We do this by looking at the nozzle size on the burner and the pump pressure the burner is operating at.

Let's say we have a nozzle size of 1.00 and our burner is operating at 100 psi. That would give us a BTUH input of around 138,000. Now we have all the information we need to calculate the air flow. The formula to do this is shown in Figure 2:

$$\begin{aligned} \text{CFM} &= \frac{\text{BTUH Input} \times \text{Combustion Efficiency}}{\Delta T \times 1.08} \\ \text{CFM} &= \frac{138,000 \times 0.815}{85 \times 1.08} \\ \text{CFM} &= \frac{112,470}{91.8} \\ \text{CFM} &= 1,225 \end{aligned}$$

Figure 2: Calculating airflow on a furnace using the temperature rise method

(continued on page 9)

Update on Membership

By George Fantacone

Now, more than ever, it is so important to stress the value of membership in OESP.

OESP provides invaluable education and enriches the careers of our members. Each month there are 15-22 opportunities for training. The chapters offer monthly training on processes, products and services that make our jobs easier and better serve the customer.

Our newly-designed website now offers our members a consolidated location to view industry activities, as well as more opportunities for education. It's just another way that OESP is helping you.

Another superb membership benefit is the annual Eastern Energy Expo, scheduled for May 2018 at Foxwoods in Manshatucket, CT. At Foxwoods, just as we had in Hershey, PA earlier this year, we will be providing top-notch education led by the best and brightest in the industry. As a member, you have first access to this education. We hope to see you there – May 20-23, 2018.

Throughout the year, our membership team, represented by all of the local chapters, lends its time and energy to many membership initiatives. We need your help to continue this great work.

Invoices for 2018 are out and if you pay before December 31, 2017, you will get the 2017 rate. Simply subtract \$35 from your invoice price by entering promo code 35off online or if mailing in a check, subtract \$35.

Now, through the remainder of 2017, new members

who join OESP will get the rest of 2017 and all of 2018 included in their dues, and they will pay the lower 2017 rate. If you are not a member, join now to take advantage of this value!

In most cases, your investment in OESP is less than 50 cents a day. Invest in yourself and join our community today!

Once you join, it is time to maximize your membership. We invite new members to attend their first chapter meeting for free before the end of 2017. Just RSVP to your chapter so organizers can make dinner arrangements and enjoy.

Visit our website and click "Join" to join online to start realizing the enormous value of an OESP membership.

Already a member? Spread the word! **Recruit two new members and we will mail you a \$50 gift card.** Since the beginning of the year we welcomed more than 100 new members to OESP throughout the region. Let's keep the momentum up as we head into our busy season.

The bottom line?

Thanks to our strong association, our members have terrific resources available to them - including the best educational material developed by the top trainers in the industry. Without you, there would be no OESP. Let's work together to ensure that both our industry and association remain healthy and vibrant.



Welcome to our New Members!

Since our last printed issue, we've welcomed these new members:

Timothy Doran
Jim Harding
Waiman Leung

Wanda Lopez
Blake Melville
Dean Millard

Stephen Nugent
Craig Parker
Steven Raimondi

Welcome to OESP and congratulations on your smart decision to invest in yourself and your future!

Corporate Members

OESP thanks our Corporate Members for their support.

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OESP is Proud to Support Vets2Techs

Vets2Techs' mission is to help provide a stream of professional talent, of military veterans, to the Oil & Propane industry and its stakeholders. Our industry has been challenged for decades to find a talent pool to draw from. Vets2Techs addresses that challenge head-on, by providing a FREE link between our industry and the veteran community.

What is Vets2Techs? Vets2Techs is a project that helps veterans find rewarding jobs in the oil and propane industry. These jobs can range from technicians to delivery drivers to sales and management.

WHY Vets2Techs? Veterans are the best candidates to consider when you are looking for positions to fill in your company. Along with being disciplined and hardworking, they possess many of the special skill sets and qualifications (such as a CDL) needed to work in this industry. Vets2Techs is working in conjunction with the PA Veterans Employment Outreach Program, which currently has a reach to more than 40,000 employment-seeking veterans.

Who can participate? Oil and propane companies alike are taking part in this organization and tapping into the talent of our country's veterans. We would encourage any OESP member to consider Vets2Techs if you are looking to fill a position in your company.



How do I get started? Register today! Visit Vets2Techs.com and register to start posting jobs! No membership or fee is required.

For more information or questions, please contact info@vets2techs.com

Have You Visited the New OESP Website?



- **Easy-to-use features**
- **Mobile-friendly interface**
- **Members-only section**

 **ThinkOESP.org**

Thank you to our dedicated photographers around OESP for sending in these fantastic chapter updates!



Mid-Atlantic Chapter

Last month, more than 60 people gathered for the Mid-Atlantic Chapter's annual crab feast. Participants feasted on a menu of all you can eat steamed crabs and shrimp along with barbeque chicken, corn on the cob, coleslaw and potato salad.

Between courses, guests participated in a raffle and 50/50 drawing. **Steve Ennis** of Columbia Boiler and **Mike Peyton** of Griffith Energy Services both won tickets for Ravens and Redskins football games. The 50/50 winner took home \$200.

The Mid-Atlantic Chapter would like to thank **Bill Isenburg** from Triangle Tube, **Kurt Martin** from Beckett and **Bruce Graham** from Carlin for sponsoring the event. And thank you to all that came out for the day. The chapter is pleased to have raised \$500 for the scholarship fund.

For more information on the Mid-Atlantic Chapter, please visit oesp-midatlantic.org.

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Roger Daviston explaining how to increase your revenue on service work

Westchester Chapter

The Westchester Chapter was thrilled to have 54 attendees gather for October's meeting. Both chapter members and prospective members listened as **Bill Kuck** and **Christine Cummings** of Con Edison spoke about new computer protocols and filing a job.

The chapter was also fortunate to have **Roger Daviston** lead the group in a discussion on best practices for booking service calls and how to dispatch them.

For more information on the Westchester Chapter, please visit heatcoolpros.com.



Q&A with Con Edison representatives

Delaware Valley Chapter

The Delaware Valley Chapter met last month at Anthony's Ristorante while listening to **Tom Hartnett** of Aprilaire speak about the changing market of pleated air filters and humidifiers due to new variable speed air handlers as well as HVAC equipment. He taught the group that most evaporative humidifiers in the field are not able to keep up with the humidification requirements due to tighter homes and combustion air being brought in from the outside. Steam Humidifiers now account for about 1 out of every 4 units installed.

Also in attendance was **Mark Roberts**, the new District Sales Manager taking over for **Tom Hartnett**.

For more information about the Delaware Valley Chapter, please visit oesp-delawarevalley.org.



Pictured right to left: Tom Hartnett, Aprilaire large accounts manager; Mark Roberts, Aprilaire New District Sales Manager for tri-state; Pat Boyle, owner, Boyle Energy; Ed Peter, OESP Delaware Valley Chapter President, President, Wackenhut Co.



Anthony Reikow (left), BJ Terroni Co., with Kurt Martin, R.W. Beckett



Matthias Kuhn (left) with Mark Haeberlen; both are service technicians with John Cipollone, Inc.

Rhode Island Chapter

Last month the Rhode Island Chapter had more than 20 members attend their monthly meeting for dinner and education. **Frank Fitzpatrick** from Beckett spoke about the many products they offer.

For more information about the Rhode Island Chapter, please visit oesp-ri.org.



Pat DiNicola, President of Westwood Products

Garden State Chapter

The Garden State Chapter welcomed 30 attendees, including 10 service technicians, to its October meeting. **Pat DiNicola** of Westwood Products led the group in a discussion on the features and benefits of the Tigerloop product line. The chapter is excited to announce that the 50/50 drawing now exceeds \$650.

For more information on the Garden State Chapter, please visit oesp-gardenstate.org.



Chapter President **Ken Paterson** with chapter member **Dick Brandt**

Visit thinkoesp.org/calendar for meeting details.

Don't see your chapter? Email your meeting dates to lstrug@thinkoesp.org to have them included.



If you want to find your cooling air flow just move the fan speed to the heating tap and now you can calculate the air flow on the cooling side.

This same formula will work on a gas furnace but you will need to clock the meter to find your BTUH input. If you are looking at an air handler, you can calculate the air flow by running the electric heat and using the same type of formula as in Figure 2, shown below in Figure 3:

$$CFM = \frac{\text{Volts} \times \text{Amps} \times 3.414 \text{ (BTU/Watt)}}{\Delta T \times 1.08}$$

Figure 3: Calculating electric heat airflow

Using static pressure measurements is not hard. Basically it's all about the "umph"... and things that steal your umph. The blower is what makes our umph, and coils, air cleaners and the duct work all steal the umph. Some terms you may need to when performing static testing are:

Static Pressure: the outward force of air within a duct.

External Static Pressure: (Total) Resistance to the fan. Can be compared to blower performance chart to estimate air flow.

Pressure Drop: the loss of pressure through a device or length of duct and or fitting.

Available Static Pressure: the pressure left over to move the air through the ducts after all the pressure drops have been calculated.

Some tips and notes for performing a TESP

- Static probes can be positioned into or away from the airflow, as long as the holes in the probes are perpendicular to the airflow.
- If individual readings are taken, you add the two readings for the TESP, and subtract the low reading from the high reading when testing individual components.
- .50 inch w.c. is usually the max TESP recommended by most manufacturers using multi speed blowers. Variable speed blowers can be a little higher.
- TESP is the measure of resistance the blower must overcome outside (external) to the furnace/air handler cabinet.
- Most manufacturers' TESP numbers are based on a wet coil.
- Static probes can be placed on each side of a piece of equipment (coil, filter, etc) to get the pressure drop (resistance) across that specific piece of equipment.
- Always remember to read the notes on the bottom of the manufacturer's blower performance table for specifics in testing their equipment.



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Message from the Executive Director

By Lisa Strug

We are now in the second month of the new OESP website, with a redesigned look and more valuable information than ever. If you have not already done so, please visit ThinkOESP.org to click around your new website.

You will see there are now two calendars online. The first shows all of the meetings that local chapters of OESP have planned throughout the year. Information on speakers is updated as soon as the chapters have it.

The second calendar details all of the industry training that is happening throughout our region. These courses are hosted by many of our industry partners during the year and your membership in OESP ensures that you know about them. So the next time you are looking for training on a Beckett, Carlin, Roth or any host of other products, just visit ThinkOESP.org

On another note, invoices were sent out last month. For those of you with emails in our system, you should have received them electronically. For ease and convenience, we have recently set up the updated invoice system so that you don't need to log in to process your dues. Simply click the link and pay online.

If you are ever unsure of the authenticity of an email from OESP, please contact Association HQ to inquire. We are happy to check for you, verifying before you click. If you have an issue retrieving your invoice, please let us know and we will resend it.

In your email or on your printed invoice, you received instructions to pay your bill before 12/31/17 to receive \$35 off. When you pay electronically, just enter 35off in the coupon code field to automatically receive this savings. If you pay by check, simply deduct \$35 from

your bill and save away!

Do you have a friend or colleague that would benefit from membership in OESP? Bring them along to a fall meeting. It is more important than ever to continue to grow our great association and educate the next generation. Bring two new people who join and receive a \$50 gift card!

New members can join now and get a "Nearly 2 for 1" on the upcoming heating seasons. They will get the remainder of 2017 and all of 2018 included in one price. And, with dues increasing January 1, anyone who joins now will save.

OESP is always looking for people who are interested in making a difference in their career and this great association. One of the ways is by providing networking opportunities to help grow your business.

Everyone wants to work with people they know and trust, so get involved in your local chapter and experience the difference it will make for you. Please contact me or your local chapter president to learn how you can make a bigger difference.

We would like to thank our loyal and generous advertisers for their support this year. Thank you to **Taco, Honeywell, Slant/Fin, Wohler, Sid Harvey, Carlin/ Hyrdolevel** and **ECR International**. Your company could be in the next issue – contact us to find out how.

On behalf of **Jonathan Jaffe, Erika Handler** and the rest of the OESP management team, it continues to be a pleasure to serve the association. Our very best wishes for a terrific, and profitable, heating season. Stay warm!



Special Announcement: NFPA 31



The National Fire Protection Association (NFPA) 31 is a standard for the safe, efficient design and installation of heating appliances that use a liquid fuel, typically No. 2 heating oil, but also lighter fuels, such as kerosene and diesel fuel, and heavier fuels, such as No. 4 fuel oil. NFPA 31 applies to the installation of these systems in residential, commercial, and industrial occupancies.

The NFPA technical committee is in the process of updating the code for a 2020 release and is currently looking for input. If you have any recommendations for the 2020 edition, **please submit them online by January 4, 2018.**

For more information on the NPFA 31 and the revision cycle, please visit:

www.nfpa.org/codes-and-standards/all-codes-and-standards/list-of-codes-and-standards/detail?code=31



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