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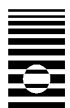
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The ENERGY
CONSERVATORY

DIAGNOSTIC TOOLS TO MEASURE BUILDING PERFORMANCE

The Energy Conservatory
2801 21ST Avenue South
Minneapolis, MN 55407
(612) 827-1117
Fax (612) 827-1051
www.energyconservatory.com
info@energyconservatory.com

Automated Blower Door Testing with the DG-700 and TECTITE Version 3.0

The capabilities of the new DG-700 Pressure and Flow Gauge have opened up new opportunities for automated airtightness testing of buildings. The DG-700 Gauge comes standard with a DB-9 serial port which can be used to create a 2-way communication link between the gauge and a computer. This communication link, along with the gauge's fan control output jack, can be used to conduct automated Blower Door tests - just like a 2 Channel APT system.

In order to conduct automated Blower Door tests with a DG-700, here's what you need:

1. The first item is the latest version of our TECTITE software (Version 3.0). TECTITE 3.0 can communicate with a DG-700 just like it was an APT system. Version 3.0 includes all the features of TECTITE 2.5 including the popular test file comparison option. Of course TECTITE 3.0 can still be used to analyze and store manually collected test data. The latest version of TECTITE should be available at the end of July and will cost \$175. Customers who have purchased any previous version of TECTITE can receive a free upgrade to Version 3.0.
2. The second item is an "auto-compatible" Blower Door fan speed controller. The "auto-compatible" fan speed controller is identified by a telephone jack located on the side of the control box opposite of the power cords. Most existing fan speed controllers for Model 3 fans do not have this feature, but it can be added on any controller less than 5 years old. New Blower Door fan speed controllers with the "auto-compatible" connection are \$145, older units can be upgraded for a cost of \$50.
3. The third item is a DG-700 fan control cable which provides the connection between the DG-700 and the "auto-compatible" speed controller. The cost of this cable is \$25.

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4. Finally you will need a communication link between your laptop computer and the DG-700. For laptops with a standard 9 pin serial port, you will simply need a serial communication cable (we sell them for \$12.50). Some new laptop computers may not have a dedicated 9 pin serial port and only have one or more USB connections. If your computer only has USB connections, you will need a USB conversion cable. Contact us for recommendations on USB to serial conversion cables.

For more info, look through our new website at www.energyconservatory.com. Check the "What's New Section" for availability of the new TECTITE software.

Meet Curtis Patak

Hi my name is Curtis Patak and I've been working for the Energy Conservatory since 1992. I'm involved in the production, repair, and shipping of many of our products. If you have ever sent a fan, speed controller or aluminum frame in for repair, chances are I'm the person who worked on it. The Energy Conservatory has been a good fit for me because I have always been concerned about the environment and energy conservation. I enjoy bicycling to work daily and I feel good working for a company that can make a difference.

If we met in person you might recognize me – I'm the guy on all our brochures and website doing the Blower Door and Duct Blaster tests. On the personal side, I'm a single parent of a 16 year old boy which is a thrill a minute. I have lived in Minnesota all my life and enjoy staying active out doors year round. Hobbies include bicycling, camping, photography and snow shoeing. I am looking forward to Affordable Comfort 2004 Conference in Minneapolis – hope to see you there and be sure to bring your bike.

TEC's New Website is Up and Running

The Energy Conservatory has always tried to provide our customers with current, relevant information about our products and about how best to treat the house or building as a system. Over the years we have added important information like our complete product manuals and product quick guides to our website at www.energyconservatory.com. With each new addition, we tried to put this vital information in just the right place on the website. We had so much information on the website that it started to get a bit big. So over the last few months we have been working with a graphic designer and website constructor to develop a website that showed a more up to date image, provided easy navigation around the site and looked more like us.

Our new website went live June 1, 2003 and we hope that you will take advantage of the new features and reformatted information. When you look at our site you will notice that we have added a search engine to help you find the information you are looking for. There is a "What's New" section so that you can quickly see the latest additions to our website and products. For your convenience, we have also added a number of quick links on each of the product

pages (manuals, brochures etc.) and have updated links to other organizations that may be helpful to you or your business.

We have not reduced the amount of information, just rearranged it. As always you can view and print previous issues of the Update, download the latest demo versions of TECTITE and TECBLAST, read articles from The Energy Conservatory or follow the link to Home Energy Magazine articles, download the product specifications for the New DG-700 and the IR-InSight Infrared Camera, find a contractor in your area or send us a note that you are a contractor doing building performance tests with the Blower Door™ or Duct Blaster®, and lots more.

If you have our website bookmarked and you use the old link, you will be redirected to our new site. Or you can visit us just by typing in www.energyconservatory.com or www.ductblaster.com. Be sure to bookmark your favorite page. We hope that the new site is more useful and easier to use. If you have any comments or suggestions, please let us know by dropping us an email at info@energyconservatory.com.

Using the TrueFlow® Air Handler Flow Meter in Commercial Systems

The TrueFlow Metering system was designed to provide fast and reliable measurements of airflow rates through residential air handlers. Recently, two research organizations in the Pacific Northwest have been experimenting with using the TrueFlow system to check the installed performance of commercial rooftop economizer systems.

Economizers are used to provide a minimum level of building ventilation, as well as to make use of free cooling when outside weather conditions are appropriate (i.e. cool outdoor temperatures). Economizers control the amount of outside entering the building's air handler system by actuating an outside air damper located on the rooftop unit. Although very important, field verification of the airflow rate through the economizer's damper is rarely performed by commercial HVAC contractors. The difficulty and expense in getting reliable airflow readings is a common reason stated by contractors for not taking this performance measurement.

Ecotope (Seattle WA) and Portland Energy Conservation (Portland OR) have successfully used multiple TrueFlow metering plates to measure economizer flow rates on numerous buildings in the Pacific Northwest. In these buildings, TrueFlow plates are either simultaneously installed in the air handler's multiple filter racks, or they are attached directly onto the outside air intake housing to provide a direct airflow reading. Field measurements made with the TrueFlow plates has led to the discovery of numerous problems with economizer systems including improper ventilation levels (too high or too low), incorrect economizer settings, and failed damper controls and linkage mechanisms.

Both Ecotope and Portland Energy Conservation are now working with local utility companies to develop pilot commercial rooftop maintenance programs which include airflow measurements using the TrueFlow system. Contractors are provided with a custom package of Metering Plates (3-4) and spacers designed to fit most of the rooftop units in their area. By properly adjusting economizers, the utility hopes to make their commercial building stock a little more energy efficient to reduce overall load on their system. So far the results are promising and may be expanded to a larger group of commercial contractors.

Discontinuation of DG-3 Pressure and Flow Gauge (Effective July 1, 2003)

In April of this year, the DG-700 Pressure and Flow Gauge was introduced and has been very well received by our customers. The DG-700's state of the art design (dual sensor display) and specialized features (e.g. @50, @25, Baseline) have made it more practical and easier than ever to conduct sophisticated building performance tests. Effective July 1, 2003, The Energy Conservatory will no longer offer for sale the DG-3 Pressure and Flow Gauge. In its place, the DG-700 will be offered as the standard instrumentation option for both the Minneapolis Blower Door™ system and for the Minneapolis Duct Blaster® system. The cost of a new Model 3 Minneapolis Blower Door™ System with a DG-700 is \$2,525. The cost of a new Minneapolis Duct Blaster® System with DG-700 is \$1,875. The Energy Conservatory will continue to support the DG-3 for repair and recalibration. The DG-2 Digital Pressure Gauge and the DG-2 with analog output will continue to be sold for the foreseeable future.

As a reminder, The Energy Conservatory discontinued the sale of the analog (Magnehelic®) gauges with Blower Doors in January 2003. We are able to service these gauges and have a limited number of units available as replacement gauges.

Upcoming Shows

The following is a list of industry tradeshows where TEC will be exhibiting. If you are in the area, stop by the booth and see some of the new products first hand.

National Weatherization Training Conference, Phoenix, AZ, August 18 – 21 - www.wapconference.org

HVAC Comfortech Conference, Dallas, TX, September 10 – 13 - www.hvaccomfortech.com

Affordable Comfort Regional Conference, Westford, CT, October 1 - 2, 2003 - www.affordablecomfort.org

Energy & Environmental Building Association, Chicago, IL, October 15 – 18 - www.eeba.org

Affordable Comfort, Minneapolis, MN, April 26 - 30, 2004 - www.affordablecomfort.org – Watch our website for info on visiting The Energy Conservatory during Affordable Comfort

UPDATE



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Conservatory

2801 21st Avenue S Suite 160 Minneapolis MN 55407

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