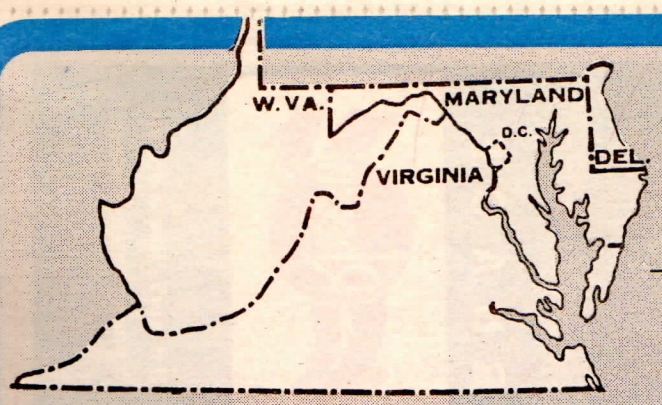

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Mid-Atlantic HVAC/R News

•Air Conditioning • Heating • Refrigeration

A Monthly Report To The Heating, Cooling And Refrigeration Industry.

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Dealers and contractors enjoy lunch after a round of golf!

A/C Suppliers Holds Foolish Opening

Air Conditioning Suppliers annual Foolish Opening golf tournament was once again a huge success.

The tournament was held on September 15th at The Hollows in Montpilier, Virginia. It was a Captain's Choice

The Opening began with a shotgun start at 9:00 a.m. with 120 dealers, contractors, vendors, and distributors teeing off.

Throughout the day, there was a beverage cart touring the course and afterward there was a catered barbeque and awards banquet.

The winners (and losers) for this year's tournament was as follows:

• "Losing" Team—Nelson Foster, Ray Foster, Raymond Foster, and Stan Floyd;

• Winning Team—Craig West, Jason Warren, Steve Farmer,

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Elliott Lawrence Named AES Territory Mgr

John Clark, general manager of Automatic Equipment Sales in Washington, D.C. has announced the promotion of Elliott Lawrence to the position of territory manager.

Lawrence's promotion became effective on September 1st and he is responsible for sales and service to residential and commercial heating and cooling dealers in the metro

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Elliott Lawrence

Columbia Supply Creates Oil Furnace Awareness

Scott Miller, president of Columbia Supply Corporation, headquartered in Richmond, Virginia, has announced that Columbia Oil Furnaces has recently introduced a counterflow model available in their distribution area of the state of Virginia.

In an effort to increase dealer and contractor awareness to the Columbia Oil Furnace line, Miller invited Rose Marie Bartchak, national sales manager of Boyertown Furnace Co., manufacturer of Columbia Oil Furnaces, to meet with dealers and contractors at their offices. They mainly were in the Harrisonburg, Staunton, and Charlottesville areas. The visits were so successful that Columbia Supply is planning to schedule more meetings in mid-to-late October for the Richmond and Tidewater areas.

"Columbia Supply would really like to thank Rose Marie for spending time with our customers," stated Miller. "We have found that where many companies have gone to multi-position in the oil model, we have found many of the dealers

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Scott Miller

Belleville To Host Rheem Dealer Meetings

Rick Thomasson, sales manager for Belleville Supply company, headquartered in-Richmond, Virginia, has announced the dates for their annual Rheem dealer and contractor meetings.

The meetings will be held in Roanoke on November 8th at the Marriott, in Richmond on November 9th at the Sheraton Park South, and in Tidewater on November 10th at the Omni International Waterside.

This year's meetings are luncheon meetings beginning at 12:00 p.m. The meeting is to be casual and open to all dealers, contractors, and their spouses.

This year's meeting will be conducted by Phil Villarreal, Rheem district sales rep. He will discuss all of the Rheem products and what Rheem, at the

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Rick Thomasson

Old Dominion Hosts Annual Dealer Golf Outing

Old Dominion Supply recently held their annual golf outing at Glenn Dale Golf Club in Glen Dale, Maryland.

The outing was held on October 3rd with more than 120 golfers teeing it up for a Callaway format tournament.

The tournament began with a shotgun start at 9:00 a.m. and was followed by a lunch buffet and awards ceremony. There was a beverage cart on the course to make sure that the dealers, contractors, and vendors didn't get thirsty. They also provided a cookout of hot-dogs and hamburgers at the turn for those of us who were hungry.

Award winners for the tournament were Pat Ryan—Low Gross, 1st place; Bobby Bryant—Low Gross, 2nd place; Tom Goolsby—Low Gross, 3rd place; Mike Hendricks—Low Net, 1st place; Bill Ray—Low Net, 2nd place; Jeff Weiss—Low Net, 3rd place; Doc McGraw—Closest to the Pin on hole 5; Joe Stanley—Closest

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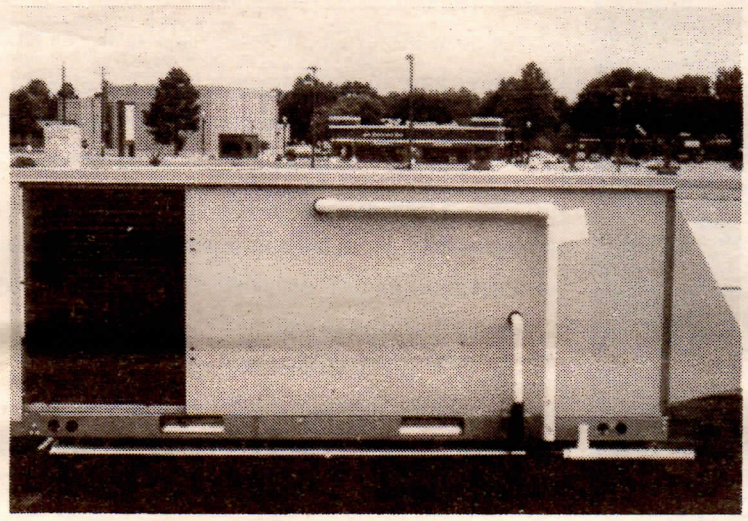
PRODUCT NEWS

Indoor Air Quality And The Condensate Trap

by Warren C. Trent, P.E. &
C. Curtis Trent, Ph. D.
Trent Technologies, Inc.

Indoor air quality has become and remains a major health issue, worldwide. The Environmental Protection Agency estimates that one in three buildings in the United States is "sick." Others have estimated 50 percent of the work force in North American and Europe suffers from "sick building syndrome."

The contaminates responsible for poor indoor air quality are numerous. From time to time, one or more of these contaminates has been implicated in building-related illnesses. However, according to one authority, "Some 40 percent of aliments in most buildings are attributable to bacteria, mold, yeast, algae and other biological contaminates..."



Sources of these biological contaminates are found in many buildings, some more frequently than others. But there is a source of certain biological contaminates that is almost always present: Wet and moist surfaces inside heating, ventilating and air conditioning (HVAC) systems.

Current practice in the industry practically ensures wet and moist surfaces inside most HVAC systems. That practice is the use of a condensate trap to provide a seal against air ingestion through the condensate drain line and to control the flow of condensate from draw-through type HVAC units.,

The condensate trap exhibits so many failure modes that its use in draw-through type HVAC systems virtually ensures wet and moist inside surface, and that these systems will become generators and dissiminators of biological agents (bacteria, mold, mildew, yeasts and other fungi).

Until recently, a few in the industry have associated the problems of indoor air quality with the mundane HVAC condensate trap. Yet, its use and misuse may cause more indoor air pollution than any other component in the entire system.

Unfortunately, despite extensive studies and other efforts by many government and private agencies during the past few years, no measurable and documented improvement in building indoor air quality has been reported. In fact, the incidence of reported illnesses, building closings, and costly health related litigation cases are proliferating.

A lot has been learned about the causes and sources of indoor air pollution, but remarkably little, it seems, has been learned about how to achieve suitable indoor air quality.

When building-related illnesses do occur, it is often possible to identify the contaminates and eliminate (or neutralize) their sources.

In certain buildings, however, it may be extremely difficult to identify and eliminate the source of biological agents (bacteria, mold, mildew, yeast and other fungi). These biological agents live and propagate on wet and moist surfaces such as walls, ceilings, carpets, furniture and the internal components of the HVAC system.

When walls, ceilings, carpets, and furniture are involved, it is usually possible to find the cause of wetness and eliminate it.

However, finding the cause of wet and moist components inside a HVAC system is not a simple task; because, wetness inside HVAC systems is caused by a number of very complex conditions, including the following:

- Excessive airflow'
- Non-insulated refrigerant lines in the airflow path;
- Deficient airflow;
- Improper blower (fan) locations;
- Unduly large condensate pans; and
- Inadequate seals on condensate drain lines.

Excessive airflow can cause condensate to be blown from the cooling coil and onto internal surfaces, before it can drain to the condensate pan. Too little air flow reduces the supply-air temperature and can cause moisture to form on supply grilles. Cool non-insulated refrigerant lines condense moisture that can drip onto the floor of the HVAC unit. An unduly large condensate pan extends the wet surface area, which in addition to promoting growth of contaminating organisms, promotes the growth of algae. It also catches debris which can block flow through a condensate trap.

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PRODUCT NEWS

Carrier Systems Orientation Meets Customer Needs

Combining an extensive product line with Carrier's Variable-volume/Variable Temperature (VVT®)/TEMP control systems, Carrier HVAC systems provide energy efficiency, resource and material efficiency and improved indoor air quality, air distribution and sound performance.

Demonstrating its commitment to these environmental parameters Carrier displayed its updated HJ Weather master (TM) Series of commercial rooftop units. The HJ Weathermaster Series achieves heating and cooling efficiencies that are among the highest in the commercial industry.

The Weathermaster Series achieves Seasonal Energy Efficiency Ratios (SEERs) up to 12.8 and Energy Efficiency Ratings (EERs) up to 10.5, resulting in lower operating and demand charge costs than competitive models of the same type. The series also has Annual Fuel Utilization Efficiency (AFUE) and steady state heating efficiency up to an industry-leading 82 percent as well as two-stage gas heating on all gas/electric models.

The Weathermaster rooftop unit's industry-leading sound ratings result from fan and compressor design innovations. The units use a belt drive high static fan assembly on all sizes for quiet operation and make provisions for indoor air quality options. Scroll or advance reciprocation compression improve sound ratings and reliability as well.

"The increased heating and cooling efficiencies offer long life and substantial cost savings to building operators and owners while quieter operation is a plus for occupants and neighboring tenants, " says Carrier Product Marketing Manager Bob DeSplinter. "Feedback after two years of operation has been very positive. We have obtained many jobs based on the utility rebate factor alone."

Carrier offers the HJ Weathermaster Gas/Electric (48HJ) and Electric/Electric (50HJ) models. Says DeSplinter, "With more than 90 models and voltages in the three- through 12.5-ton size range, the HJ Weathermaster Series provides optimum unit-to-load matching and voltage compliance for any structure for unprecedented comfort, reliability and operating efficiency."

For improved indoor air quality, the HJ Weathermaster unit features a non-corrosive condensate pan with a slope design that complies with ASHRAE(2) Standard 62, Indoor Air Quality. To promote longer equipment life, the units have a number of exclusive features. These include a prepainted cabinet with primed interior panels capable of withstanding the 500-hour salt spray test as specified in Federal Standard 141.

Other features unique to the HJ Series are a copper fin/copper tube coil, a fully integrated economizer with centrifugal power exhaust, a 115 volt convenience outlet and a confused power disconnect switch.

Carrier backs every HJ Series unit with a standard ten-year heat exchanger warranty with an optional 11- to 15-year warranty plus five years standard on its compressors.

● Warren Trent

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Each of the above conditions, with the exception of an "inadequate seal on condensate drian lines," can be remedied by applying known design procedures. The current practice of installing condensate trap on the drain line to form the required seal has been a dismal failure.

Under many field conditions, the condensate trap allows the ingestion of air and polluting gases. At the same time, it allows the blowing of condensate into the HVAC system, creating serious health problems and causing excessive property damage.

The problems caused by the condensate trap have been largely ignored by the HVAC industry and academia. The greatest awareness of the harm caused by the condensate trap is among owners and users, who generally assess the problem as a necessary evil and try to live with it. For them, the trap creates serious and costly problems.

Fortunately, for the HVAC user, there is now a device on the market that negates the problems associated with the condensate trap. The device uses air (instead of water) as a seal to prevent the ingestion of outside air through the condensate drain line. The device, named CostGard(TM), is manufactured by Trent Technologies, Inc. of Tyler, Texas. It has nomoving parts and is self regulating. For informaion on the CostGard(TM) Condensate Control Device, contact Trent Technologies, Inc., 535 WSW Loop 323, Suite 301, Tyler, Texas 75701. Telephone: 903-509-4843, Fax 903-561-0169.

Until the ingestion of outside air and gases through the drain line of draw-through HVAC systems is controlled, suitable levels of indoor air quality cannot be achieved, excessive damage to the HVAC system and its surroundings will continue unabated, and HVAC owners and users will continue to experience unnecessary maintenance costs and exposure to costly litigation.

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