



EMPLOYEE SPOTLIGHT

Derrin Lail / Service Technician & Installation Specialist

Three years ago Derrin joined AirTight with a basic set of skills and a huge desire. After a lot of studying and diligence, he has quickly risen to the challenge to show the “AirTight Way” to the rest of the free world. Derrin is a hard working single dad to his young son Clay, is working on his AS degree from CPCC and is an avid motorcyclist and four-wheel rider. When the job requires craftsmanship, you can look for Lail to set the tone!



THE UNIFIED GROUP

We are an independent association of the country’s elite HVAC commercial contractors. We help our members increase productivity, profitability and customer retention, and we also provide a network for national and regional customer business solutions. Visit us at www.theunifiedgroup.com.



At AirTight we strive to be a leader in the heating, ventilating and air conditioning industry. AirTight is deeply committed to customer-based relationships focusing on communications, quality and integrity. It’s the only way we know how to do business.

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10 THINGS TO KNOW ABOUT REFRIGERANTS AND PHASE-OUT

For years, CFCs and HCFCs provided the chemical stability and efficiency required for air conditioning systems. However, they contain chlorine, and chlorine damages the Earth’s ozone layer. The Montreal Protocol of 1987 targets CFCs and HCFCs as ozone depleting substances and requires their phase-out over a 40-year period that began in 1995.

In response, a new family of refrigerants was developed. HFCs are ozone-friendly and won’t be phased out. But, the phase-out of CFCs and HCFCs requires owners and managers to take the long view when making decisions about their capital investments.

1. **The phase-out schedule affects current and future cooling system decisions.** Deciding whether to repair existing equipment or replace it are key decisions.
2. **HVAC life expectancy extends beyond the phase-out schedule.** If your rooftop uses HCFC-22, in 2020 you will be servicing it with refrigerant reclaimed from systems no longer in operation.
3. **Refrigerants have safety classifications.** ASHRAE Standard 34 classifies safety levels based on toxicity and flammability.
4. **Efficiency is a function of the system, not the refrigerant.** Although different refrigerants have different heat transfer properties, a chiller rated at 0.5 kw per ton offers this rated efficiency regardless of the refrigerant.
5. **“Green” refrigerants qualify for LEEDS points.** Refrigerants can earn a point for LEED certification.
6. **HFC-134a, 407C and 410A are efficient and available for the foreseeable future.** They have lower toxicity, no flame propagation, no phase-out date, don’t contain chlorine and have no ozone depletion potential.
7. **HCFC-22 is still available, but future support will decrease.** It cannot be used in new equipment after 2010.
8. **HCFC-123 is available for new equipment until 2020.** You will be able to operate HCFC-123 equipment for its useful life, but the refrigerant won’t be available for new equipment after 2020.
9. **“Green” refrigerants are available today for both large and small systems.** Large cooling systems are being designed for HFC-134a and 407C. In small systems, HFC-410A replaces HCFC-22.
10. **Take action for the future.** Your best preparation is to take a refrigerant inventory, determine which are being phased out, and recommend replacement alternatives.



REDUCING HVAC COSTS

Plug in the numbers below to determine the total cost of owning and operating a rooftop HVAC unit.

Installed unit cost	
Cost for energy to operate unit *	
Cost for preventive maintenance *	
Cost for repairs *	
Total HVAC cost (add 1-4)	

* During the life of the unit

Take the total cost and divide it by the number of years the equipment is in service; the result is your unit cost per year. (The industry standard for the useful economic life expectancy of a rooftop HVAC unit is 12 to 15 years.) A rooftop unit is expensive to purchase, maintain, operate and replace. By instituting a comprehensive preventive maintenance program, you will increase your efficiency, ultimately spending less money and experiencing fewer breakdowns. The goal is not to spend more money, just to spend your money differently and more wisely.

Benefits of preventive maintenance programs include:

- Increased employee productivity by providing a comfortable, clean work environment. By introducing outside or fresh air, you will flush out volatile organic compounds and improve your indoor air quality. If your air filters are changed regularly and the proper amount of outside or fresh air is introduced into your facility, your employees will be healthier.
- Providing a comfortable workplace can reduce employee turnover. If an employee is uncomfortable on the job he might begin looking for better working conditions.
- A steady flow to your operation because there is no disruption to perform scheduled maintenance.
- Cost savings - surveys indicate that breakdown repairs cost three times more than preventive maintenance.
- The potential for increased sales because the customer is more comfortable and is willing to spend more time in your store.

Comprehensive maintenance will extend the useful economic life of your units, reduce your energy costs and reduce your breakdown repair costs.

THE SIX R'S OF REFRIGERANT MANAGEMENT

1. Know the rules you have to comply with.
2. Review your equipment and record the maintenance history, including refrigerant, charge size and age.
3. Repair leaky equipment.
4. Retrofit - choose a refrigerant that will meet your performance needs, such as cooling capacity and system durability.
5. Replace old equipment. New equipment can often provide significant energy and maintenance cost savings.
6. Retire older, less efficient equipment, especially if the cooling demand has been reduced significantly since the equipment was first installed.



SUCCESS AFTER ALL

Tommy was diagnosed with Acute Lymphoblastic Leukemia on 11/21/1991; he was just six years old. For the next 2 1/2 years Tommy went through heavy doses of chemotherapy, as well as several bone marrow tests. Then Tommy had to endure radiation treatments of the brain and spine. During this time he came down with an outbreak of shingles and then an episode of pneumonia.

Tommy's parents took him for treatment to the Dana Farber Cancer Clinic, starting at three days a week, then down to two days, and then one day week, to once a month. Since the summer of 1994, Tommy has been in remission and he is now a strapping 21-year-old man. Now, once a year for the rest of his life, he will make the trip to ensure all is well.

In an era of way too many stories that we probably wish we had never heard, we felt this was one worth sharing. Tommy is the son of Kathy Tarsitano who works in the dispatch/production group at AirTight. We are so thrilled that this story shows the success of one young man and his family. Congratulations Tommy and the Tarsitano family.

DIRTY CONDENSER COILS? IS THIS A BAD THING?

The condenser coil is located in or on the outside of your air conditioner, and uses unfiltered outdoor air to reject heat from inside your facility, and therefore requires cleaning. A dirty coil that raises the HVAC system condensing temperature only 10 degrees reduces the net cooling capacity 7% and adds 10% in power consumption. If you're paying between 5 to 6 cents per kilowatt, that adds up to a lot of money over a year's time.

AirTight's preventive and predictive maintenance plans include annual condenser cleaning, so you won't have to worry about higher electric bills due to dirty condenser coils. Most major equipment manufacturers recommend performing this service once a year to restore the heat transfer capability that dirt and mother nature's oxidation cause.

If your facility is located in an area with a lot of construction and/or land clearing, the airborne dirt can really become a nuisance. If you are concerned, please call us and we can help evaluate if you're doing all the right things.

HIGH DENSITY BLADE SERVERS AND MORE HEAT

Your data center is the heart of your network, and your enterprise. Yet hot blade servers, dense storage racks and server clusters, and more network devices tax your cooling requirements. These high-density technologies may have small footprints, but they demand increased power and more cooling protection because you need to deliver higher levels of availability, or risk the inability to meet critical business challenges. AirTight delivers 7x24 mission-critical cooling service and repair for business continuity and access to data and network applications. If you need help in your critical site, please call us.

