

Innovations in Drying

By Kevin Fisher

I was watching TV and noticed a story about an upscale hotel in Las Vegas that had a flood on a custom wood floor. The maintenance staff used an airmover to “dry” it out. The floor eventually had to be replaced, and I found myself screaming at the TV the entire time: “Where are the drying panels? Why are you tearing this out? Why haven’t you called a restorer?” Then my wife handed me the Ritalin bottle, and I calmed down.

As I watched this small tragedy unfold, it struck me that most people are not aware of the technology that is available to save money and time in water losses. There are tools that allow a professional, trained technician to dry buildings quickly, safely and economically. Technologies in humidity control, airflow, temperature control, and sensing technology are advancing rapidly. While no *one tool* is the answer to every problem, a properly trained technician employing the latest technology is still the most effective way to dry buildings.

Humidity control continues to see innovations every year. Several years ago the industry was introduced to “low grain” refrigerant dehumidifiers. These use less electricity to remove much more water and continue removing water in drier conditions. I haven’t run into a professional restorer in the last year who would use anything but LGRs. The improvements in LGRs lately have been mostly ergonomic. Manufacturers are finding ways to make these dehumidifiers smaller and easier to transport.



On the desiccant side of the dehumidifier universe, there have also been innovations. There are more brands of desiccants available than ever before. Whatever size is needed, it is probably available. Changes in technology have also allowed restorers to use desiccant dehumidifiers without ducting wet air out of the structure.

Airflow is an area that has seen the best improvements. Does anyone else remember wishing that airmovers came with GFCI outlets? All of the newest airmovers do. How about wanting more airflow and pressure for less amps? They’ve got it. More stackable? More durable? More ergonomic to carry? Multi-positional? Got it all.

The accessories for airmovers have improved and are available for nearly every model. There’s an attachment for standard airmovers that focuses the air along the wall better. Better ducting has been designed for attachment to standard airmovers and high-pressure axial fans. And there are stands for older axial airmovers that aren’t multi-positional.

Specialty airmovers continue to be more widely used, and could have saved the hardwood in that Vegas hotel. Inter-air dryers are being used for drying walls, floors and ceilings from all sides. Drying panels are being used successfully to dry everything from hardwood to tile. There are multiple attachments for inter-air drying systems that allow the air to be HEPA filtered, and keep water out of the blower unit.

Air filtration devices continue to become smaller, more efficient, and less expensive. Air filtration units are now made to be portable for one technician. If more CFM is needed, simply add units. A side benefit of using more smaller units is that there are multiple capture zones, again increasing efficiency. Anyone wanting to go back to the days of refrigerator-sized air scrubbers raise their hand...I didn’t think so.

Temperature control has finally taken its rightful place alongside humidity control and airflow. There was a time when direct-fired furnaces were used for adding temperature. Now we have other ways of increasing the temperature through indirect heat, preventing the addition of moisture and other potentially harmful fumes. These temperature control systems are able to apply heat to the entire structure and some can directly heat a wet

surface. While heat is not a cure-all for drying, it's a great tool to have available in your tool box when it's needed.

Don't like it hot? How about a cool down with air conditioning? While there's not a water restoration-specific air conditioner made, effective water restorers have found the benefits of air conditioning. HVAC and portable AC units can be used for temperature control and also humidity control (can I get an "amen!" from the Gulf Coast). Another advancement with AC units is the realization that cool dry air can be used to boost dehumidifier performance when the air gets dry. (Come to an advanced drying school to find out how, because I can't explain it without a whiteboard and a big sponge.)

Sensors are basically the same sensors we've had for years, just more usable, faster and accurate. More sensor manufacturers are combining multiple sensors into one unit. Some sensors are able to log readings, others can correct the reading based on temperature and material type. Of course, there's the new darling of the sensor industry: thermal imaging cameras. The greatest improvements in thermography are that the prices are coming down, the features are going up and training is more available than ever.



Air conditioner vent feeding air to dehumidifier

Yes, BUT...what brand? What model? I've spent several paragraphs talking about new improvements and haven't mentioned a single manufacturer. This is because I hold two facts dearly:

- You are smart enough to do your own research and find what will work best for you.
- The most effective drying tool is a trained, professional technician.

As an instructor in this industry, I have trained hundreds of people, many of whom were a lot smarter than me. I have an awesome amount of respect for what a trained, professional technician can do. If I place effective drying tools in trained technicians' hands, they can dry any structure. Now reverse that statement: If I place the "best" drying tools in untrained technicians' hands, will they be successful? NO!

Training opportunities abound now in this industry. There are certification classes held literally everywhere. Several schools now offer basic as well as advanced classes. A greater number of classes are offered. There's no excuse for having a poorly trained staff. Poorly trained technicians cost you money and hurt the reputation of the industry.

All your drying effectiveness goes back to that front line technician. Have you put in the time and effort to properly train that person? Do they really understand how to use that \$1000 sensor? Are they able to document their readings and prove that the structure is dry? If you can't answer "yes" to all of these questions, then all the new equipment in the world will not help you.

Manufacturers are constantly inventing more and better



tools to effectively dry structures. With these changes, the industry has responded by offering more and better education to help you refine the most critical tool in your arsenal: *the technician*. Have you taken advantage of this asset?

It is important to stay current with change in technology; both in the *equipment* you use and in the *knowledge* you employ. Changes have occurred in both of these areas. There are companies that have not embraced changes in the industry, choosing to bury their heads in the sand. Unfortunately, these companies find themselves perfectly prepared for the marketplace that no longer exists.

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