FIRST CHOICE
EQUIPMENT SALES & SERVICE

# Items to look for in a water damage drying loss

- What type of water was involved with the loss?
  - **Category 1- Clean Water**
  - **Category 2- Some Degree of Contamination**
  - **Category 3- Sewage (Gross Contamination)**
  - **If the company is not addressing the water category, this is a RED FLAG!**

- Removing liquid water aggressively is easier than trying to evaporate it. (The restoration company should remove all liquid standing water before drying starts; this may require more than one extraction).
- The inside of wet walls must be addressed and accessed for dry air to be delivered to them. **The statements "we can dry the wall without making holes to deliver dry air" or "we can bake it dry" are simply not true.**
- The size of the equipment should match the need of the loss. Simply putting more small units on a loss rather than using the right size unit, will not necessary dry the loss.
- LGR (low grain refrigerant) dehumidifiers work using condensation principles and work in smaller areas very well, but have little drying potential in areas with less than 40% Relative Humidity and under 68% Fahrenheit. As a rule of thumb, an LGR dehumidifier works best in an area of 400 to 600 square feet, with a ceiling height of 8 to 10 feet. They are ideal for drying small office rooms and residential and light commercial office space and condominiums.
- What is being dried? Different materials dry at different rates. The denser the material is means more time will be required to dry it. Concrete walls and floors require more aggressive means to accomplish drying. Wood and sheetrock are less dense and can be dried in less time.
- You can reduce the time to dry a building by using the lowest achievable vapor pressure. Desiccant Dehumidifiers can produce the lowest possible vapor pressure conditions with dry air.
- On losses of 4000 square feet or greater consider the use of a Desiccant Dehumidifier.

**How long does the dehumidifier need to be there?**
Unfortunately there is no stock answer to this question, because of the variables involved in each loss that will make each one different.

# How to calculate what size Desiccant Dehumidifier unit you need.

***Desiccant Dehumidifiers work by taking wet air and processing it into dry air. This air exchange rate is measured in C.F.M. units (cubic feet per minute). Therefore, to determine what size unit you would need, you must convert the building space into the space by the foot measurement of the width, and then multiplying that figure by the foot measurement of the ceiling height. The final footage will equal the Cubic footage of the space.***

- **Example: Space 100 feet long, 40 feet wide, with a ceiling height of 10 feet.**

  **100ft.**
  **x40ft.**
  **4,000 square ft. x10 ft. = 40,000 cubic feet**

Your goal is to have 2 to 3 air exchanges of the air in that space in one hour.

- **Since our example has a total of 40,000 cubic feet, and we are looking for 3 air exchanges per hour, take the 40,000 cubic feet figure and multiply by 3.**

  **40,000 cubic ft.**
  **x 3 air exchanges**
  **120,000 cubic ft.**
  Air volume that is moved in one hour.

- **Then take the 120,000 cubic feet and divide it by 60 (60 minutes equals one hour). The answer will give you the size in cubic feet per minute (c.f.m.) of the desiccant dehumidifier you will need.**

  **120,000 cubic feet**
  **60 minutes**
  **equals= 2,000 c.f.m.**
  Using a 2,000 c.f.m., a Desiccant Dehumidifier should accomplish drying of that space in one hour.

*Therefore, you can calculate the required dehumidifier by using the mathematical formula above.*

Source: Commercial Drying Technologies Inc. 2006