



In Place Drying, not soIn

Around 2000 a new method of drying called “in-place drying” gained popularity within the restoration industry. At times it is referred to as “top down drying” and was marketed as being noninvasive and nondestructive as the process does not require the removal of any affected building materials. In comparison, the standard drying method allows for the removal of affected building materials (i.e. carpet, pad, drywall, etc.).

In-place drying quickly gained popularity because of excitement and hype of new technology, it is physically easier and less labor intensive, early adopters were looking for an edge up on the competition, and it was significantly more profitable because of the rental equipment required. Arguably the biggest reason for the global success of in-place drying was the IICRC (Institute of Inspection Cleaning and Restoration Certification), acknowledgement of the method. The IICRC also decided to offer a new course in its curriculum called Applied Structural Drying (ASD) in which in-place drying was taught.

However, in-place drying is drying the hard way. This technique relies on a larger number of air movers, increased air velocity and volume, paired with increased dehumidification and plastic containment of the affected area to evaporate moisture out of wet materials. In-place drying attempts to draw moisture out, rather than channeling or directing energy into wetted interstitial spaces.

There are two important differences between in-place drying and the standard drying method. In-place drying directs air onto the uppermost exposed surface of wet material, while the standard drying method directs air onto the underlying materials and requires significantly less equipment. It was soon discovered that using greater numbers of air movers and dehumidifiers failed to consistently preform as well as expected. Proponents of in-place drying overlooked the law of physics and kept manipulating the controllable variables to try and make the theory work.

The first law of thermodynamics states that energy can neither be created nor destroyed, only transferred or converted to another form of energy. Therefore, failure to deliver an air mover’s energy to the water molecule will never result in an increased potential for evaporation. Combined with the second law, which dictates the more energy tends to go to areas of less energy, the practical effect of deployment of drying tools is the following: wind velocity will collide with liquid water, materials are responsibly warmed to increase the internal vapor pressure within them, wet surfaces will be exposed to an atmosphere carrying a low pressure (dry). In drying excessively wet underlying materials that do not have liquid on their surface with the process of in-place drying, the carpet will become an insulator to substrate materials, thus hindering the higher energy air from reaching these surfaces. In contrast, the standard drying method delivers the kinetic energy provided by air directly to the effected materials and channels airflow around the perimeter of the room.

In-place drying was first described in Appendix D in the 2006 edition of the IICRC S500. Within Appendix D, there is a whole section that goes over the limitations and complexities of in-place drying. It states that “...there are limiting factors that make in-place drying inappropriate for every water loss situation...Category of water - in-place drying of carpet, pad, subflooring, wall assemblies, finishing materials, and other affected materials is appropriate only when processing category 1 water (clean water)...Floor Coverings - if carpet or other flooring material are discolored by furniture or other forms of staining or dye migration...then, replacement of both the floor covering and cushion or underlayment is appropriate...Subfloor – if the subfloor is composed of a highly pours wood material, which is likely to warp or sustain additional damage during drying; or if carpet and cushion are installed over solid wood flooring, which requires specialized drying techniques to remove trapped moisture from pockets of saturations, then that carpet should be disengaged, pad (and carpet) should be removed, and carpet and structural materials should be dried to industry standards...Commercial Buildings or Specialized Materials and Assemblies – in-place drying is appropriate primarily in residential and light commercial constructions...” With that being said, it is no wonder why in the most recent edition of the IICRC S500 – 2016 edition, in-place drying is no longer specifically described.

In-place drying is just another tool in the tool-box and is not suited for every project. The Gerloff Company’s highly trained and experienced staff assesses every project before making a decision on how to dry the affected area as every job is uniquely different. It is imperative that when selecting a restoration contractor, you choose one that has years of experience and understands the drying methods.

Until next time my friends, be prepared and stay safe.

January 2017

- Events**
- January 2: Office Closed
 - January 4: IFMA Luncheon
 - January 5: ACA Luncheon
 - January 11: Hill Country M&O
 - January 11: AAFAME Luncheon
 - January 12: IREM Luncheon
 - January 18: IASA Luncheon
 - January 18: AASMOSA Social
 - January 18: SABOMA Luncheon
 - January 19: Austin BOMA
 - January 19: CAMO Meeting
 - January 26: IWSA Luncheon
 - January 29-31: TASA Mid Winter Conference

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2 News Years Day Office Closed	3	4 IFMA Luncheon	5 ACA Luncheon	6	7
8	9	10	11 Hill Country M&O AAFAME	12 IREM Luncheon	13	14
15	16	17	18 AASMOSA Social SA Boma Lunch IASA Luncheon	19 Austin BOMA CAMO Meeting	20	21
22	23	24	25	26 IWSA Luncheon	27	28
29 -----TASA-----	30 --Mid Winter--	31 -----Conference-----				

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