



# WATER RESTORATION

## Structural Drying

### INTRODUCTION

Drying the structure is an extremely important aspect in handling a water loss. This involves much more than drying carpet and pad. You will need to locate and dry all affected materials. If the structure is not dried appropriately the damage can progress to include secondary damage and possibly amplification of mold and bacteria. Proper drying procedures can save the property owner and the insurance company thousands of dollars in replacement costs.

*This brochure is a guideline only and is not a comprehensive approach to structural drying. It is imperative you attend a water restoration course or an applied structural drying class to learn more about this service.*

### PROCEDURE

- **STEP 1**  
Complete a work authorization form. Have the insured sign and date it.
- **STEP 2**  
Identify possible health and safety concerns. Electrical shock and slip & fall hazards are common on water damage restoration job sites. Post warnings where needed to alert anyone who may enter the area of these potential hazards. Provide all technicians with proper PPE (Personal Protective Equipment) as required to perform the job safely.
- **STEP 3**  
Locate and eliminate or contain the source of the water intrusion. Determine the category of the loss. If it is not clean water (category 1), institute procedures for category two or category three loss. Technical Guides on these topics are available from your Bridgepoint distributor.
- **STEP 4**  
Smaller items should be moved to an unaffected area, if practical. Large or heavy items should be lifted or blocked to prevent further damage from moisture. Standard drying

and restoration principles will be needed to restore these contents.

- **STEP 5**  
Extract water from the carpet and pad. Preferred tools are the **Hydro-X Xtreme Xtractor** or the **Water Claw**. These tools are able to remove up to 97% of the water from carpet and padding without disengaging the carpet. Testing has proved these tools superior regardless of the category and class of the flood or the style of carpet and pad. The **Water Claw** comes in a variety of sizes to match your extraction equipment. Your Bridgepoint or Interlink Supply distributor will be glad to demonstrate either of these pieces of equipment. Remove water from hard surfaces using squeegees or other appropriate tools.

- **STEP 6**  
Thoroughly inspect anywhere water may have traveled. This includes under walls, into a crawl space or basement, stairwells, under cabinets or built-in appliances even HVAC systems and ductwork. Make sure to include drying these areas.

Proper tools to make the inspection will include **Moisture Probe, Thermo-Hygrometer** and **Penetrating and Non Penetrating Moisture Meters**.

- **STEP 7**  
Install equipment needed to increase evaporation. Evaporation can be increased with air movement and by heating the wet surfaces. For more information on using directed heat and air to rapidly accelerate structural drying, see the **Bridgepoint Technical Guide** on "Accelerated Drying."

Air movement is created by using **Centrifugal Air Movers** and **Axial Fans**. When drying carpet and pad in place, use one air mover for every 12 – 16 linear feet of wall in the effected area.

For hard to reach areas such as under or behind cabinets and inside walls covered by a vapor barrier, you may need **Dri Force Inter Air Drying System** or the **Injecta Dry Wall Drying System**.

- **STEP 8**  
Evaporation will increase humidity in the air. This moisture must be removed by dehumidification. Install dehumidifiers. The **Phoenix 200 Max LGR** and the **Drizair LGR 2000** are excellent choices for most structural drying jobs. For information on the size and number of dehumidifiers necessary to dry the structure, please, see the **Bridgepoint Technical Guide** on dehumidification.

### Accessories Needed



#### Water Claw Extraction Tools

**Type:** Extraction Tools  
**Highlights:** Extract water and chemical from carpet, backing and pad.



#### Carpet Wand

**Type:** Wand  
**Highlights:** For surface extraction of water from carpet fibers.



#### Gekko Hard Surface Tool With Squeegee Attachment

**Type:** Hard surface cleaning tool  
**Highlights:** Extracts flood water from hard surfaces. Cleans hard surfaces, tile and grout.



#### Moisture Probe

**Description:** Moisture Detector  
**Purpose:** Locate migration of water in carpet backing and pad.



#### Survey Master, ThermoHygrometer, Moisture Meters

**Description:** Moisture Detection Tools  
**Purpose:** Monitoring moisture content, relative humidity, temperature, etc. allows you to know what is when and when it has been completely dried.



#### Psychrometric Calculator

**Purpose:** Determine humidity quickly to dictate equipment needs.



#### Axial Air Mover

**Type:** High Volume Air Movers  
**Highlights:** Creates air movement to speed drying.

## Equipment Needed



### Truckmount

**Description:** Truck-mounted Extraction Machine

**Purpose:** Provides heat, pressure and vacuum for the cleaner.



### Olympus Portable

**Description:** Portable Extractor

**Purpose:** Portable unit that extracts water and chemical from carpet and upholstery.

## Machines



### Hydro-X Xtreme Xtractor & Vacuum Pac

**Description:** Carpet and Pad Water Extraction Tool

**Purpose:** Removes the greatest amount of water from carpet and pad for fastest drying.



### LGR Dehumidifier

**Description:** Dehumidifier

**Purpose:** Removes moisture from the air to speed up drying and prevent secondary damage.

### Injecti Dry Dying Sstem

**Description:** Forced Air Cavity Drying System

**Purpose:** Use to dry wall cavities, wood floors, under cabinets and other hard to access locations.

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**HELPFUL HINTS** – With both conventional and top-down drying systems, it is important to reduce indoor humidity to 30% - 40% as quickly as possible. In most cases, a central air conditioning system works well to provide added dehumidification in the early stages of a job. Keep in mind that most refrigerant dehumidifiers work best between 68° and 90°. Don't cool the air below 68°. In cold weather it may be beneficial to provide additional heat. Direct heaters that burn fossil fuels will add water to the structure. Indirect heat should be used.



Refer to the **Technical Guides** on Structural Drying, Dehumidification and Accelerated Drying for additional helpful information.

**NOTE** – It is imperative that anyone attempting structural drying be well trained in its procedures and have a good understanding of the science of psychrometry and the tools it takes to perform it. If you lack this training, it is advisable to attend a current Water Damage Restoration class or an Applied Structural Drying class.

