PHOENIX SIZING GUIDE

FOR DEHUMIDIFICATION EQUIPMENT

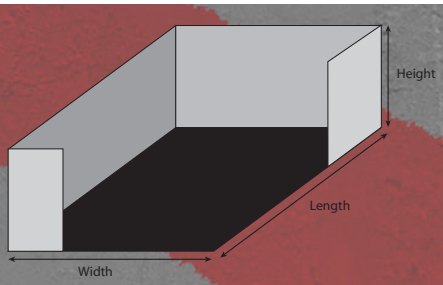
ACCORDING TO RESTORATION STANDARDS

Step 1: Determine the cubic feet of the affected area

Cubic Feet of affected area = (width) x (length) x (height)
= (square footage of affected area) x (height of ceiling)

Step 2: Determine the class of water damage

CLASS 1: Slow Rate of Evaporation – (least amount of water absorption and evaporation load): Water intrusion where low porosity materials (e.g., hard surface flooring, plaster, concrete) or medium porosity materials (e.g., structural framing, wood substrates) have absorbed minimal moisture; less than 5% of the combined floor, wall and ceiling surface area in the space is wet, highly porous material (e.g., carpet, gypsum wallboard).



CLASS 2: Fast Rate of Evaporation – (significant amount of water absorption and evaporation load): Water intrusion where wet, highly porous materials (e.g., carpet, gypsum wallboard) represent more than 5%, but less than 50% of the combined floor, wall and ceiling surface area in the space.

CLASS 3: Fastest Rate of Evaporation – (greatest amount of water absorption and evaporation load): Water intrusion where wet, highly porous materials (e.g., carpet, gypsum wallboard) represent more than 50% of the combined floor, wall and ceiling surface area in the space.

CLASS 4: Specialty Drying Situations – (deeply held or bound water): a water intrusion that involves a significant amount of water and absorption into low porosity materials (e.g., hard surface flooring, plaster, concrete) or assemblies (e.g., gym floors, structural cavities, multiple layers of gypsum wallboard) that have a low rate of evaporation due to deeply held or bound water. Drying may require special methods, longer drying times, or substantial vapor pressure differentials.

Other factors can impact the drying environment. Restorers should understand and consider these factors when estimating the drying capacity needed to prevent additional damages and begin the drying process. These factors include:

- influence of heating, ventilating, and air conditioning (HVAC) systems;
- build-out density of the affected area;
- building construction complexity; and
- influence of outdoor weather.

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For Dehumidification Equipment

According to Restoration Industry Standards

Step 3: Determine the proper division factor

The division factor is determined by the class of water damage and the type of dehumidifier used.

Class of Water Damage

Type of Dehumidifier	Class 1	Class 2	Class 3	Class 4
Standard or Conventional	100 pints 70 pints	40 pints 35 pints	30 pints 25 pints	N/A N/A
Low Grain Refrigerant (LGR)	100 pints 70 pints	50 pints 40 pints	40 pints 30 pints	40 pints 70 pints
Desiccants	1 ACH 2 ACH	2 ACH 4 ACH	3 ACH 5 ACH	3 ACH 2 ACH

*Current IICRC S500 reference sizing recommendations
*Current American Drying Institute sizing recommendations

Step 4: Determine pints of dehumidification needed per day

$$\text{Pints needed per day} = \frac{\text{Cubic Feet of Affected Area (from Step 1 above)}}{\text{Division Factor (from Step 3 above)}}$$

Step 5: Determine dehumidifier's rated performance at AHAM (80° F/60% RH)

Dehumidifier	Pints at AHAM
Phoenix R125	65
Phoenix R150	75
Phoenix Dry Max	80
Phoenix R175	92
Phoenix 200	124
Phoenix R200*	125
Phoenix 200 Max	128
Phoenix R250	135
Phoenix 200HT	135
Phoenix 250 Max	145
Phoenix 270HTx	161
Phoenix 300 Max	175

* This product has been replaced by the R250

Step 6: Determine number of dehumidifier required

$$\text{Number of dehumidifiers required} = \frac{\text{Pints of Dehumidification Needed Per Day (from Step 4 above)}}{\text{Dehumidifiers Rated Performance at AHAM (from Step 5 above)}}$$