

DRYING Solutions



Extended drying times can cause schedule delays... spring, summer, winter & fall!

Contractors are faced with completion deadlines that, at times, are impossible to meet due to unforeseen delays. These delays, quite often, are caused by extended drying times during different phases of the project.

When relative humidity is high, the drying process can be at a standstill... even when the ambient temperature is that of a warm summer day (ie: 80°F, 27°C). With high relative humidity being the key factor, poor drying conditions could plague you all year round!

Letting nature do the drying for you is a very risky proposition and completely unpredictable. Current methods, such as portable open flame heaters, can be equally unpredictable and have undesirable side-effects. Combustion by-products from open flame burners can cause damage to millwork, wood, drywall & concrete structures. Inadequate air circulation can prevent the proper exhaust of moisture-laden air from the structure. This can lead to condensation problems inside the structure. Also... added moisture from the combustion process will further extend drying times.

**Note that a 1,000,000 BTU direct flame heater will add up to 265 gallons of water to the air inside a structure in a 24-hour period.*

Dryair provides desert air conditions

A Dryair system will provide you with desert air conditions allowing for the quick removal of excess moisture.

Dryair's portable heat exchangers provide fluid-to-air heat transfer of clean, heated, low-humidity air.

**Note that a rise in air temperature of 18°F (10°C) will reduce relative humidity by 50% thus allowing it to capture more moisture.*

The heat exchangers also provide proper air circulation to exhaust the moisture-laden air from the structure.

The Dryair approach

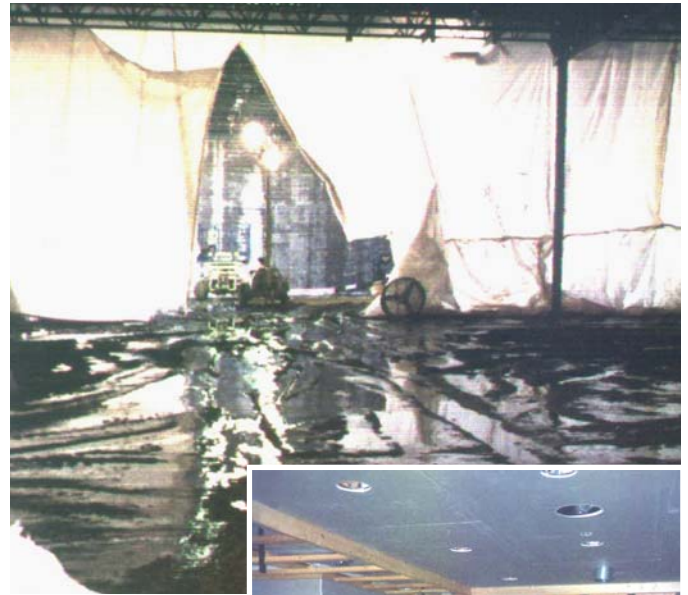
Dryair's portable heat exchangers are positioned inside the structure. These units serve a dual function;

- A) The heat exchangers' fluid-to-air heat transfer provides clean, heated, low-humidity air.
- B) The heat exchangers' blowers (2,500 CFM per Model 200 heat exchanger) provide the air flow required to exhaust the moisture-laden air from the structure.

Two air exhaust approaches can be considered;

1) In a fully enclosed and sealed building, set up one heat exchanger with its air intake ducted to the outside of the structure. Its primary function will be to provide a positive pressure to the structure and promote air exchange. One or more openings can be provided for exhausting the moisture-laden air (windows or ceiling vents). The other heat exchangers can be evenly distributed throughout the structure. Their function will be to heat the air, capture moisture and provide internal air circulation.

2) In an unsealed building (large open doors, open roof vents) set up a couple of heat exchanger with their air intakes positioned so that they are pulling air into the building from the outside. The other heat exchangers can be evenly distributed throughout the



structure. The heated air produced by the heat exchangers will capture moisture and rise until exhausted from roof vents.

If exhausting from door tops, the heated air will rise and displace the

cooling air at the ceiling. This displaced, moisture-laden air will exhaust out the first opening encountered.

The combined action of the heat exchangers pulling in outside air at ground level and air being exhausted at the upper levels of the structure will create the natural convection air currents desirable for moisture removal.

Please note that to optimize drying times, it is recommended that you pump all standing water out of the structure. Although the Dryair system would eventually remove standing water, it is quicker and more cost effective to pump rather than evaporate.



Key benefits

- Promotes total structure dry-out.
- Provides desired drying conditions for interior finish work
 - Allows for day by day application of joint compound or finish texture to drywall and minimizes expansion and contraction of wall board.
 - Less downtime between finished drywall and paint application. No shading of paint caused by residue of open flame heaters.
 - Better adhesion of caulking materials.
 - Provide drier concrete slabs for carpet and tile water-based adhesives.
 - Better conditions for application of epoxy and urethane coatings. Dry conditions for application of epoxy joint fillers.
 - Less chance of shrinkage at mitered joints in finish trim materials.
- Exceptional dry-out capabilities for water damage due to flooding or other unexpected water conditions.

Equipment Requirements:

- Water Heater Module (all fuel types) and circulation system (fluid lines & portable manifold).
- Model 200 Heat Exchanger (the number of Heat Exchangers dependent on Water Heater Module BTU capacity.)