Specializing in Custom Heating Solutions

Heat your next project with a Dryair System

PORTABLE HEATING SYSTEMS

THE ABEX AWARDS
Saskatchewan Achievement in Business Excellence
1999 - New Product Category
2000 - Physical Environment Category

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Ten Profitable Reasons why you should heat your next project with a Dryair system!

Versatile set-up & heat delivery!
The versatility of the DRYAIR system allows you to individualize each project’s heating approach.

- The water heater cabinet can be positioned anywhere on site. Utilizing natural gas, propane or oil, only one hook-up would be required. From this central location, fluid circulation lines can put you in reach of all the structures in the development.
- The water heater can be easily converted from natural gas to propane.
- Heat produced in the water heater can be delivered through circulation lines over a distance of 400 feet or more... in multiple directions!
- Heat can be delivered when and where required. Portable heat exchangers make this as simple as rolling the unit to a new location and re-attaching circulation lines and electrical.
- All circulation hose connections utilize quick-connect couplers.
- Low cost plastic flexible ducts are also available to deliver warm air horizontally or vertically over distances of 200 feet or more.
- The DRYAIR system can also tie into ventilation ducts already in place. This heating method would provide you with the best distribution of heat... especially on projects which require a large number of individual rooms to be heated.
- Portable heat exchangers can be located inside the structure for re-circulating air or outside to introduce fresh air to the work site.

Delivers clean air!
As heat is provided with a liquid-to-air transfer, no noxious fumes are introduced, therefore, maintaining a healthy environment.

Low supervision!
DRYAIR’s automatic temperature control and “no-flame” heat exchangers cut down on daily supervision and is a real plus for over-night and week-end work breaks.

- Temperature control and fuel usage is automatic. Each portable heat exchanger can be thermostatically controlled to provide individual area heat control.
- If heat requirements lessen, the water heater will automatically maintain set work site temperatures. The water heater has a 2-stage output allowing variable heat delivery to accommodate changing heat requirements.
No risk of fire or explosion!
Completely eliminate the risk of fire or explosion inside the work site caused by the operation of an open flame system. The DRYAIR system is as good as it gets!

- The DRYAIR system is designed to operate with high air flow (e.g. 2,500 cfm) and relatively low temperatures -110 -150°F (43 - 65°C)... well below combustion levels!
- The water heater, which is the only fuel burning appliance, is located away from the work site in its own enclosure.
- The fluid distribution system is a low pressure atmospherically vented system. There is no chance of an explosion or line burst due to pressure build-up.
- No special boiler certification is required to operate the system.

Save on heating costs!
A number of factors make the DRYAIR system more economical to operate than conventional portable heating systems.

- Unlike direct flame burners, the DRYAIR system does not produce moisture or noxious fumes, thereby all but eliminating the need for supplemental ventilation. A building can typically be heated with half the BTU capacity which results in substantial energy savings.
- Substantial savings are incurred through reduced man-hours allocated to portable heat supervision and maintenance.
- With the threat of fire and explosions eliminated, insurance rates may be reduced.
- With propane as a fuel, there may be additional savings in fuel cost by purchasing in bulk rather than by a filling a number of small bottles.

Increase productivity & reduce construction time!
- With no noxious fumes being introduced to the work site, a better working environment is assured which will, in turn, lead to improved worker productivity.
- Quicker drying of drywall, paint and stucco.
- Quicker and more uniform curing of concrete... no dusting.
- The DRYAIR system requires less maintenance versus a number of in-line burners. (ie: no burner maintenance or filling and changing propane bottles).
- The DRYAIR portable heat exchangers can be simply moved when a where heat is required. Not so with conventional natural gas burners which, legally, require a qualified gas fitter whenever they are to be moved.

Improve your end product!
Excess moisture can have a detrimental effect on millwork, wood, drywall and concrete structures. As a DRYAIR system does not add moisture, the work site environment is more reminiscent of a low humidity summer project.

Dehumidify all year long!
- DRYAIR delivers low humidity air... ideal for the safe and efficient removal of moisture!
- DRYAIR helps keep winter and summer drywall & stucco projects on schedule.

How it Works!
In its simplest form, the DRYAIR system uses a natural gas, propane or oil fired hydronic water heater (2) to heat a heat transfer fluid/antifreeze.

The heated heat transfer fluid is pumped (3) through a fluid distribution system loop (5, 6) to remote locations. The fluid distribution system is a low pressure, open fluid loop with an atmospherically vented fluid reservoir (4).

Heat exchangers are located at remote locations along the fluid distribution system loop.

“Portable heat exchangers” (8) are used to heat enclosed structures. The units are comprised of a heat transfer coil (9), fan (10) and thermostat temperature controls. The heated heat transfer fluid flows through the heat transfer coil, where heat is transferred to the air (11,12) being drawn through the coil by the fan. The coil is specially designed for optimum heat transfer, without adding any moisture or fuel combustion by-products to the air.

“Heat exchange loops” (14) are used in ground thaw, cement cure & radiant floor heat applications. They are comprised of flexible hose with hydraulic-style quick-couplers for quick hook-up. The method of heat transfer is by;

A) direct contact with the object to be heated
B) passive heat conduction into the ambient air in the enclosed area.

An optional mixing/booster(16) unit can be used to;
A) provide dual temperature control to one fluid circulation system
B) boost flow and increase pumping distances

Product application versatility!
Because of it’s application versatility and quick set-up, a DRYAIR system can be used in a wide range of applications:

- Heat multiple and multi-storied structures simultaneously.
  (ie: residential developments).
- Heat remote camps.
- Grade beam curing.
- Ground thaw capability.
- Heat functions where safety and air quality must be maintained.
  (ie: trade show functions or other social events).
- Provide an emergency heat source for structures where the heat source has failed.
- Provide heat or the removal of moisture in environments where other systems cannot operate because of a high risk of fire or explosion.

Heating requirement & cost calculations are a snap!
DRYAIR has developed computer software that allows you to easily calculate your heating requirements. The program will also provide you with an estimate of total fuel and electrical costs... an excellent tool for project estimators.
**General Specifications**

**Water Heater Cabinet**
- Model: 2000-1200
- Weight: 1,815 lb. (823 kg)
- Electrical: 115/230v 1ph
- Dimension:
  - Height - less exhaust stack: 5'3" (1.6m)
  - Height - c/w exhaust stack: 9'4" (2.84m)
  - Width: 3'10" (1.17m)
  - Length: 8'9" (2.67m)
- Water heater:
  - Fuel: natural gas, propane, diesel fuel
  - Type: staged output
  - Input capacity - *natural gas model*: 1,233,000 BTU
  - Efficiency: 83%
  - Temperature range: -120°F to 200°F (49°C to 93°C)

**Circulation System**
- Basic features:
  - atmospherically vented, low pressure
  - return water temperature control for water heater protection
  - auto by-pass for variable flow demands of the portable heat exchangers
- Heat transfer fluid (HTF): non-toxic propylene glycol / water mixture
  - freeze protected
- Circulation pump: 2 hp, 80 gpm (364 lpm)

**Portable Heat Exchangers**
- 80 model: 80,000 BTU capacity
- 200 model: 200,000 BTU capacity
- 600 model: 600,000 BTU capacity
- Electrical: 115v, 1ph

*To obtain input capacities for a propane model, derate natural gas capacities by 8%.*

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**Dwight Steig - Site Superintendent**
Mackley Construction Inc.

“The main benefits I experienced with the DRYAIR system are:
1) No open flames and no fumes... so productivity is up.
2) Low Maintenance.
3) Low humidity so interior finishes are easier to complete.
4) Even heat distribution.
5) Easy weekend checks by just looking at one system control panel for problems.”

**Gary Nicholat - Site Superintendent**
Dominion Construction Inc.

“We were able to hook the system up to the ductwork inside the building and have heated, filtered air easily distributed throughout the building. Plus we could also reduce the amount of water in the building and provide a non-toxic, fire-free environment.”

**Lionel Foot - Site Superintendent**
Mueller-Hein Corp.

“Oh one job, we substituted 1.5 M BTU’s of direct fire units with a 600,000 BTU DRYAIR system, resulting in savings that more than offset the additional rental charges.
By providing a more even temperature and greatly reduced humidity level, the working conditions and progress of the work were greatly enhanced.”

**Daren Zubot**
PCL Construction

“Temperature control and fuel usage is automatic... the DRYAIR system requires very little supervision therefore cutting maintenance costs!”

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We, at DRYAIR, are committed to providing workable & innovative heating solutions tailored for specific requirements.

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