

NEWS RELEASE

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Contact: Jane Burt, Advertising and Marketing Manager
jbert@port-a-cool.com

Phone: 936-598-5651 ext. 1815

The advantages of various cooling systems and their application have long been the debate of HVAC professionals. But, today, with exorbitant utility costs, dwindling energy resources, and environmental concerns, alternatives to traditional cooling have come to the forefront once again.

ECONOMICAL AND EFFICIENT EVAPORATIVE COOLING

Evaporative cooling systems also require fewer materials to operate, typically only water and electricity. This can reduce energy consumption up to 3/4. These systems also typically require less maintenance ... a considerable savings over the course of a year. Already, generating capacity shortfalls resulting in loss of energy for consumers have been suffered in California, New York, New England, with other areas still showing shortfalls. In addition, transmission is an issue where lines can't carry any more power and lines can't be upgraded fast enough. California, Dallas/Ft. Worth, Chicago, and New York City are all included in that group. With demand up and supply down, energy prices for consumers soared during the lack of energy, further frustrating consumers.

Evaporative cooling provides an energy efficient, environmentally friendly alternative to traditional air conditioning that has existed since the ancient Egyptians hung wet blankets in their doorways and enjoyed cooling whenever the dry wind blew through the saturated blanket. Through the centuries, developments in this industry and improvements in product designs have made evaporative cooling effective in a variety of climates.

DIRECT AND INDIRECT EVAPORATIVE COOLING

There are two types of evaporative cooling systems, direct and indirect.

Indirect evaporation does not add moisture to the air. Water is added to the exhaust air just before it enters the heat exchanger, lowering its temperature.

In direct evaporation, water is evaporated directly into the air that is circulated to the space being cooled. This lowers the ambient temperature and adds moisture to the air. The Port-A-Cool® portable evaporative cooling unit is a product that provides direct evaporative cooling. Portable units offer all the benefits of evaporative cooling, but provide a more economical solution to cooling open areas such as warehouses, tent events or outdoor areas. The Port-A-Cool® unit can be configured into an existing system to supplement cooling of people or equipment. And, portable units are even more economical to operate than a roof top evaporative system or cooling tower, costing less than one dollar a day for water and electricity.

THE PAD'S THE THING

The Port-A-Cool® portable evaporative cooling unit uses a pad system for maximum cooling and efficiency. Küül® pads are cellulous cooling cells produced for durability and longevity and have been tested to be superior to any other pad on the market for highest tensile strength, dry crush strength and wet crush strength, per square inch. Because these pads are fluted and manufactured with specific angles, pollutants from outside air are virtually eliminated. The durability of the pad in a direct evaporative cooling unit is vital to the generation of cool air. Küül® pads are manufactured from 100% virgin kraft paper and each sheet is cured prior to block formation, also referred to as “Thru-Cure”. Uncured phenolic resin will wash from or leach out of the paper. The resin in a Küül® pad is fully cured before the individual sheets are adhered to one another. Küül® pads are the only evaporative cooling pad employing the “Thru-Cure” method. These pads typically last from three to five years, depending on frequency of use.

For example, the Port-A-Cool® unit operates best when the temperature is above 85° F. and below 75% relative humidity. Swamp coolers are typically ineffective above 30% relative humidity, leaving a 45% ratio between the two. Here's an example, on June 16th, the relative humidity in Hastings, NE, USA, is 44% which means a swamp cooler would be ineffective while a Port-A-Cool® unit would still provide cool air. In fact, the only areas of the U.S. where a swamp cooler would be effective on June 16th are the west coast and the surrounding states, whereas, on that same day, a Port-A-Cool® unit could cool anywhere in the United States, because no place is indicated to have higher than 75% relative humidity.

IS IT THE ANSWER?

There are many factors to consider when designing cooling systems for structures or even for outdoor use. However, due to numerous improvements, evaporative cooling is definitely a contender in a far great array of applications than it has been historically.

It has been said that the ideal air conditioning equipment would sanitize the air, cool the air, humidify the air and evenly distribute the air throughout an area ... and do all this cost efficiently. It looks like we've found our winner.

For more information, please visit our website at www.port-a-cool.com or call 1-800-695-2942 to speak to a customer service representative.

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