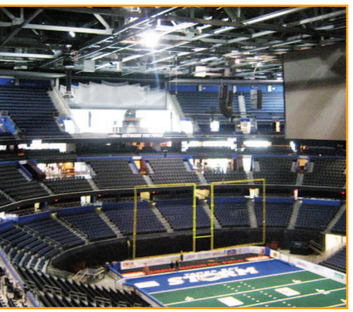
DHP-S Site Installed Dehumidifier Wrap Around Systems

utilizing heat pipe heat exchangers
solving high humidity problems
saving energy

- Copper tubes and copper or aluminum fins
- Galvanized or stainless steel casings
- Variety of coatings for protection against corrosion
- HFC heat transfer fluid for long term environmental protection and LEED points
- Multiple circuits for enhanced performance
- Most compact design, which is especially important for field installations
- Highest effectiveness and lowest air side pressure drop for maximum energy savings
- No moving parts for increased reliability and virtually no maintenance
- Controllability options to modulate leaving air temperature



hpt™ HEAT PIPE TECHNOLOGY

advanced energy recovery and dehumidification

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LIT CODE: DHP-S 08/2021

DHP-S Dehumidifier Wrap Around Systems can help you qualify your next project to be U.S.G.B.C. LEED Certified. Call 1-800-393-3464

HEAT PIPE TECHNOLOGY

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DHP-S SITE INSTALLED DEHUMIDIFIER WRAP AROUND SYSTEMS

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pharmaceuticals	military bases
hospitals	schools
hotels/motels	laboratories
libraries	data centers
museums	arenas

DHP-S Site Installed Dehumidifier Wrap Around Systems are compact and highly efficient heat transfer devices designed to provide both pre-cooling and reheat in applications where both the temperature and humidity must meet requirements as well as solve high humidity problems.

heatpipe.com

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Over thirty years ago, Heat Pipe Technology invented the use of heat pipes wrapped around a cooling coil to save energy and increase the moisture removal capacity of air conditioning systems. In addition to installing these heat pipes at the HPT™ plant, and selected manufacturing partners, heat pipe systems are also installed in AHUs already installed in the field.

Wrap around heat pipes can save energy and enhance dehumidification, either by replacing or minimizing the expensive reheat, or by reducing the Sensible Heat Ratio of the A/C equipment. Heat pipes fit totally inside the AHU and are easily controllable if needed.

One strategy is to "oversize" the heat pipes at design conditions but modulate their effect and then allow them to operate more fully at part load conditions. This will maximize the overall energy savings.

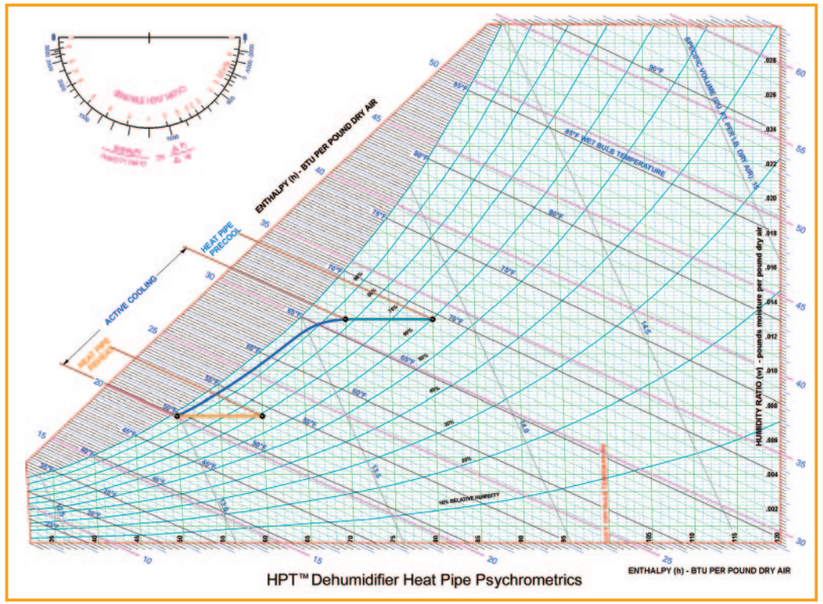
APPLICATIONS

- 100% Outside Air Systems
- Mixed air AHUs
- Replaces electric or hot water reheat
- Multi-zone AHUs
- Systems from 5,000 – 100,000 CFM
- Chilled Water, Brine, and DX Systems

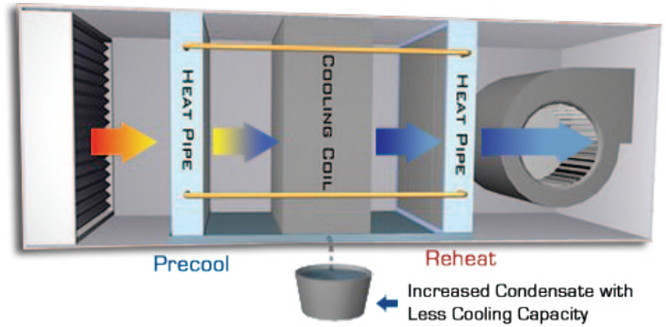
The sensible solution to high humidity

HEAT PIPES

Heat pipes are thermal transfer devices capable of moving large amounts of heat energy - with no moving parts - from the incoming air stream to the supply air stream in A/C units. The dehumidifier heat pipes consist of two sections, the precool (evaporator) section placed before the cooling coil and the reheat (condenser section) placed after the cooling coil.



HPT™ Dehumidifier Heat Pipe Psychrometrics



As hot incoming air passes over the precool coil, the liquid refrigerant vaporizes, absorbing heat from the air stream, thus lowering its temperature. This allows the cooling coil to run at a lower temperature. As a result more condensate is removed. Vaporized refrigerant then moves through connecting tubes to the reheat section downstream of the cooling coil, where it condenses, warming up leaving air and reducing its relative humidity.

HOW IT'S DONE

1. Contact Heat Pipe Technology (HPT™) or your sales representative with a description of the system.
2. An HPT™ representative will visit the job site to inspect and pre-qualify the system.
3. HPT™ then sets up an inspection trip, studies the technical aspects of the customer's systems and controls, and determines the project's requirements.
4. The customer and HPT™ work together to determine the time for the installation to take place. This may include working holiday hours, only at nights, or scheduled shut downs.
5. The final comprehensive proposal complete with technical performance data and the conditions of the work is submitted to the customer for final acceptance.
6. The work is performed totally by HPT™ employees and the customer receives the benefits.