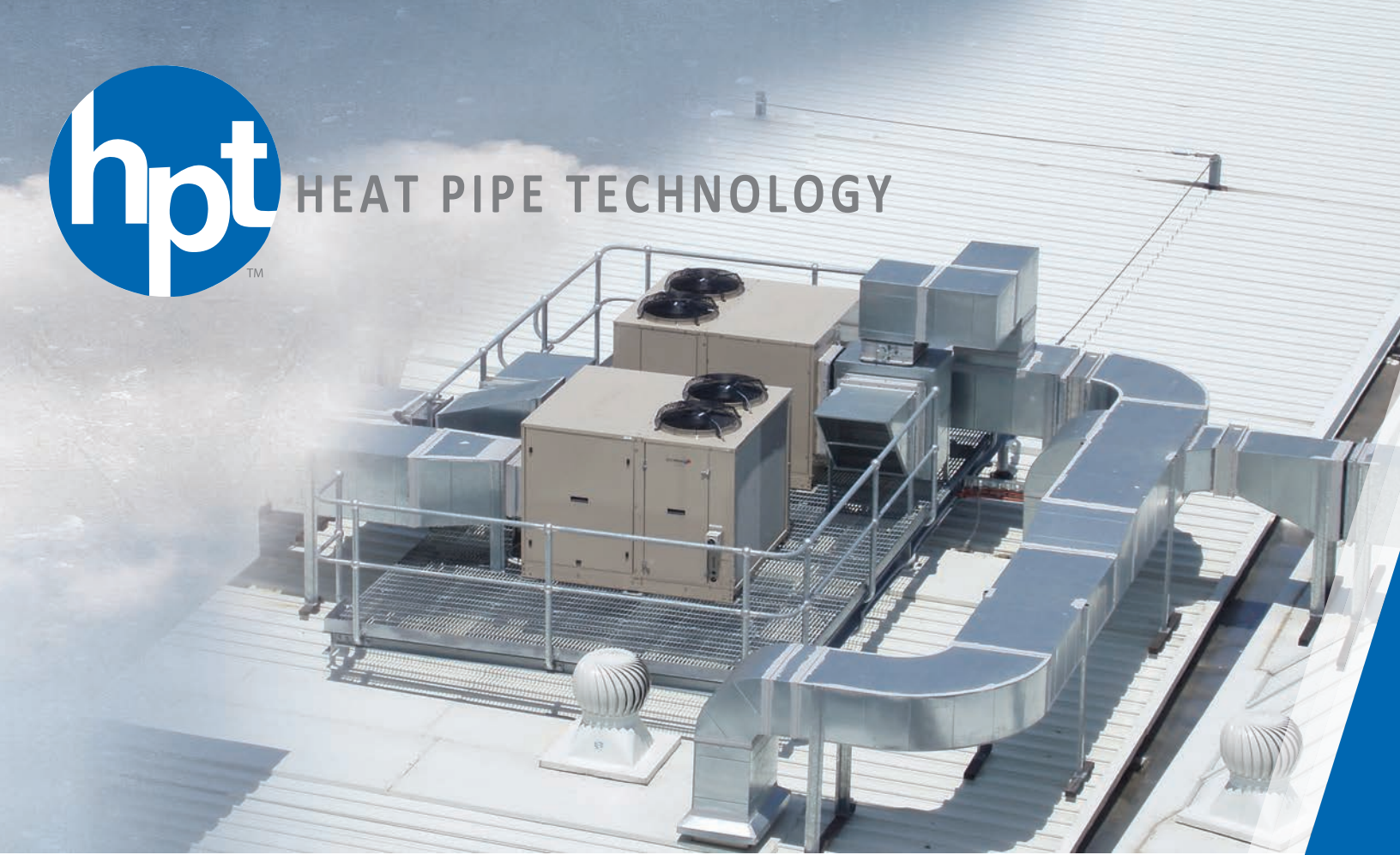
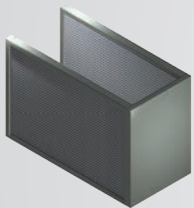




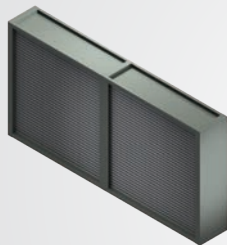
HEAT PIPE TECHNOLOGY



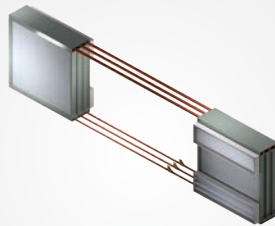
ZERO CROSS CONTAMINATION ENERGY RECOVERY AND HEAT EXCHANGE FROM HPT™



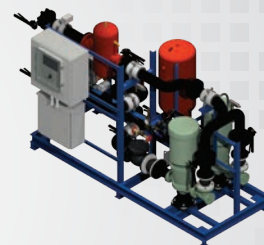
Wrap Around Dehumidification (In-Series Recovery)



Side-by-Side Recovery



Split Passive Thermosiphon



Glycol Run-Around Systems



Heat Exchangers

6904 Parke East Blvd., Tampa, Florida 33610
Phone: (813) 470-4250 • Email: sales@heatpipe.com
© Heat Pipe Technology, Inc., All Rights Reserved

For more information, visit www.heatpipe.com



Passive Energy Recovery

Heat Recovery Module (HRM)

- AHRI 1060 Certified and ETL Listed
- Zero Cross Contamination
- Passive Recovery—No moving Parts!
- Huge redundancy in hermetically sealed circuits
- Minimal Maintenance



HRM-H

Equal Cool & Heat Recovery

- ✓ Suited for climates with equal calls for cooling and heating

Galvanized or
Stainless Steel
Construction



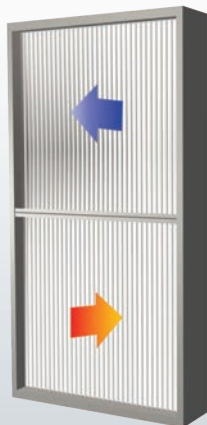
Up to 40" Separation
Between Air Streams

Copper or
Aluminum Fins

HRM-O

Cool Only or Heat Only Recovery

- ✓ Suited for either predominantly heating or cooling climates
- ✓ Process applications



Cool Air

Warm Air

HRM-Z

Winter (Heat) Recovery Optimized

- ✓ Suited for predominantly heating clients



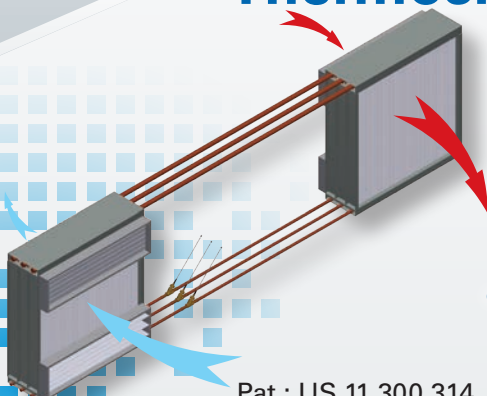
Supply

Exhaust



Pat.: US 10,274,221

Thermosiphon Heat Pipes (HRM-V, DHP-V)



Pat.: US 11,300,314

- Alternative to Standard HRM and DHP
- Integrated Controls
- Span Larger Gaps

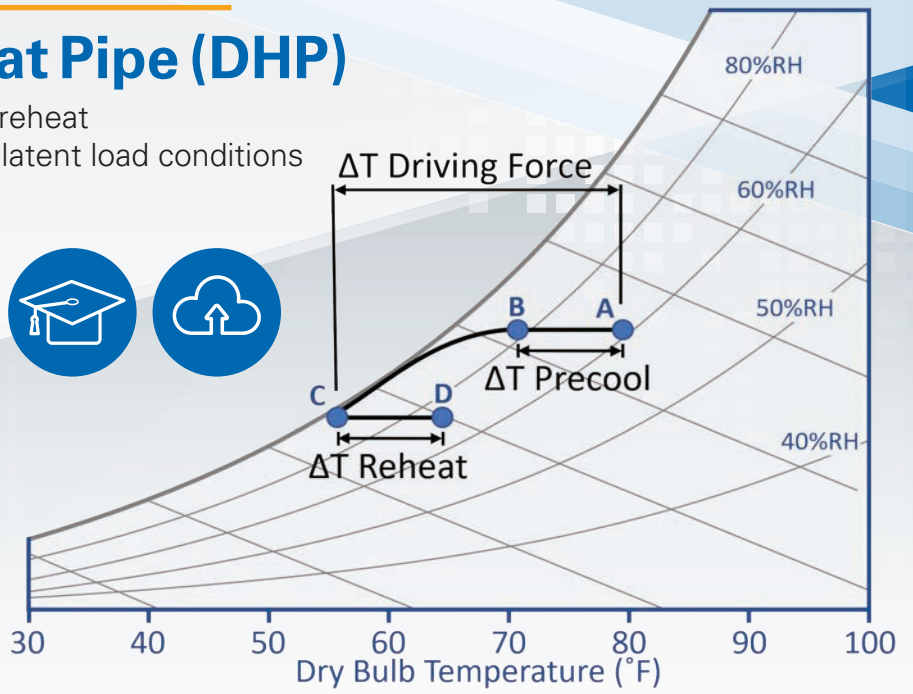
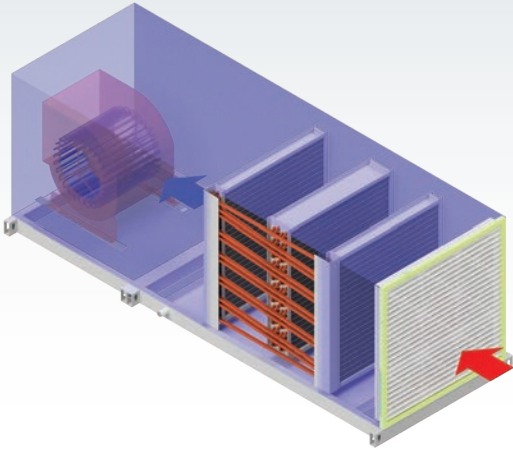


LEARN MORE

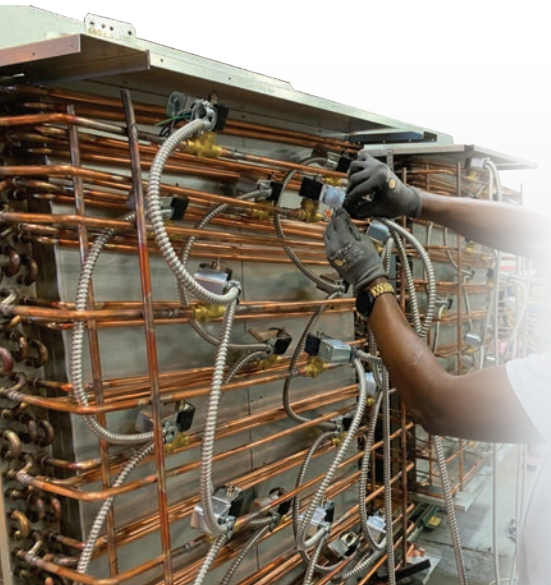


Dehumidification Heat Pipe (DHP)

- In series energy recovery
- No exhaust airstream needed
- Reduces cooling load
- Free reheat
- High latent load conditions

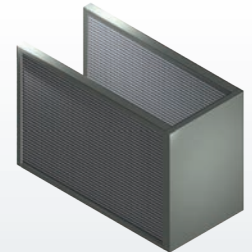


- A-B Warm, humid air enters AHU and is cooled by the heat pipe ('Precool')
- B-C The Cooling Coil cools and dehumidifies the air to the target dew point, requiring less energy
- C-D The air is heated by the heat pipe ('Reheat') to reduce %RH



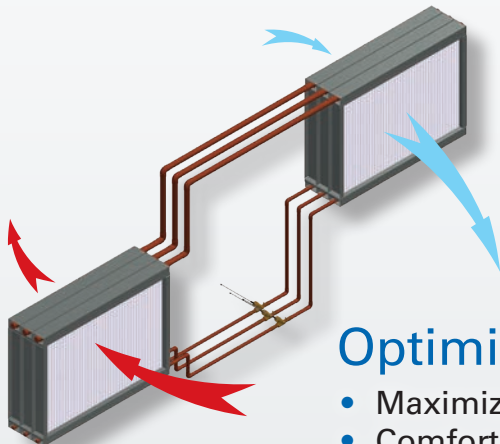
U-Frames

- Ship out as single product
- Installed by OEM or Contractor



Controllable

- Valves control refrigerant flow
- Control reheat and maximize savings

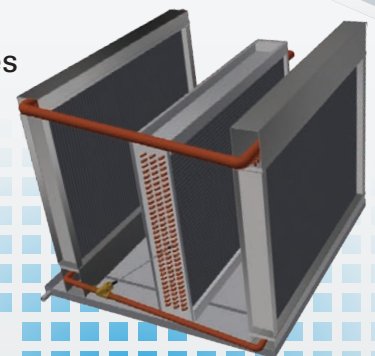


Optimized for Heating

- Maximize annual energy savings
- Comfort heating with some cooling

Dehumidification

- Piped outside of AHU
- Continuous control valves





Pumped Energy Recovery

For applications with multiple airstreams or greater distances, use HPT's SMART Water-Glycol Energy Recovery System. Our unique design process eliminates the traditional iterative selection approach by providing the full system design, not just coil selections, in hours.



LEARN MORE

See the SMART Water-Glycol Energy Recovery System specification



Packaged System

- Built and Tested in Factory - Reduced work on site

Pre-Engineered

- Quick selections, reduced design cost
- Automated proposal generation (selections, P&ID, drawings etc.)

Single Manufacturer

- Simpler problem resolution

Higher Performance

- HPT coils are designed specifically for energy recovery
- 50-60% effectiveness at 500 FPM

Integrated Controls

- Integrates into BMS with Modbus or BACnet
- Accessible controls features give customer flexibility



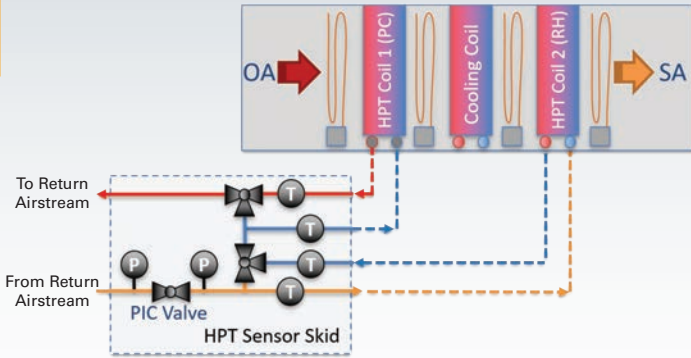
2" skid , Up to 51 GPM / 30,000 CFM





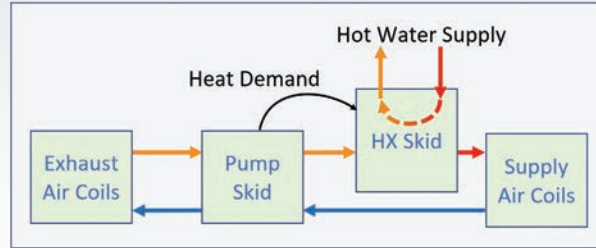
Add Precool-Reheat

- Remove heating coils from AHUs
- Less airside energy loss
- Reduce AHU footprint and less piping



Add Heat Injection

- Centralized heating removes the heating coils from AHUs
- Less airside energy loss
- Reduce AHU footprint
- Less piping



- Expected increase in savings when adding precool-reheat to energy recovery...

■ >100%
 ■ >75%
 ■ >50%
 ■ >25%

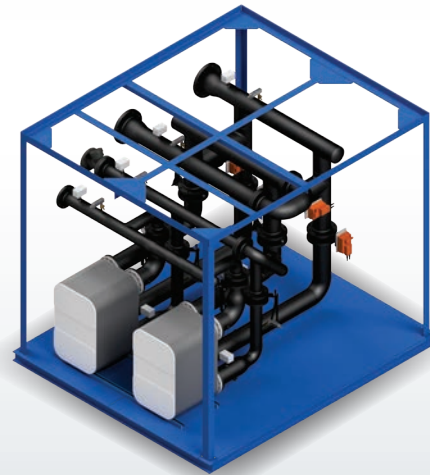
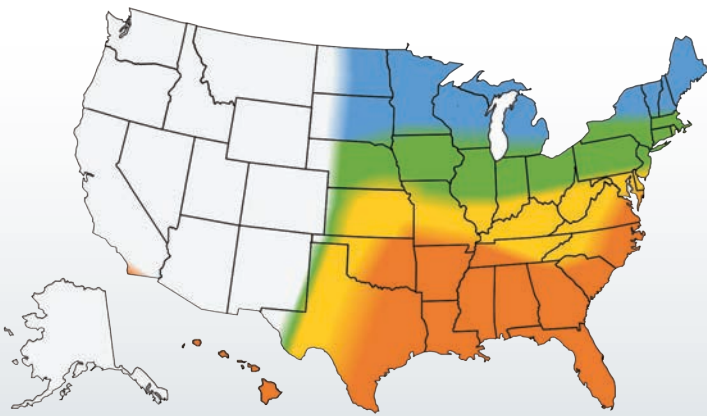


Plate Heat Exchanger Skid



10" skid, Up to 1,291 GPM / 800,000 CFM



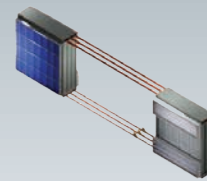
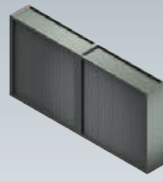
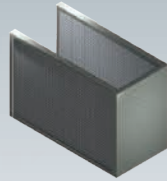
Energy Recovery Summary

DHP

HRM

Thermosiphon

Pumped Energy



Applications	Single Airstream	Adjacent Airstreams	Airstreams <120ft Apart	Multiple Airstreams
Winter Energy Recovery		✓	✓	✓
Summer Energy Recovery	✓	✓	✓	✓
Passive (no pumps/compressors)	✓	✓	✓	
Zero Cross-Contamination	✓	✓	✓	✓
AHRI 1060 Certification	N/A	✓	✓	3rd Party Tested
ETL Listing	✓	✓	✓	✓
Controls	◦ Solenoid Valves	◦ Bypass Damper	◦ Modulating Valves ◦ Seasonal Offset	◦ Fully Integrated
Coil Options	◦ Stainless Steel Casing ◦ Copper Fins ◦ Dip Coating	◦ Stainless Steel Casing ◦ Copper Fins ◦ Dip Coating ◦ Moisture Eliminator ◦ Bypass Damper ◦ Foam between airstreams	◦ Stainless Steel Casing ◦ Copper Fins ◦ Dip Coating ◦ Moisture Eliminator	◦ Stainless Steel Casing ◦ Copper Fins ◦ Dip Coating

LEARN MORE

See the results of independent, third-party testing using AHRI standards.



Moisture Eliminators are available to manage condensate off horizontal fins.



HPT Heat Exchanger Products

Fluid Coolers and Remote Condensers

- Process Cooling or Free Cooling
- Pre-Engineered modules with configurable coils
- 1 to 6 Fans long



150 MBH @110°F
550 MBH @80°F

425 MBH @110°F
1,625 MBH @80°F

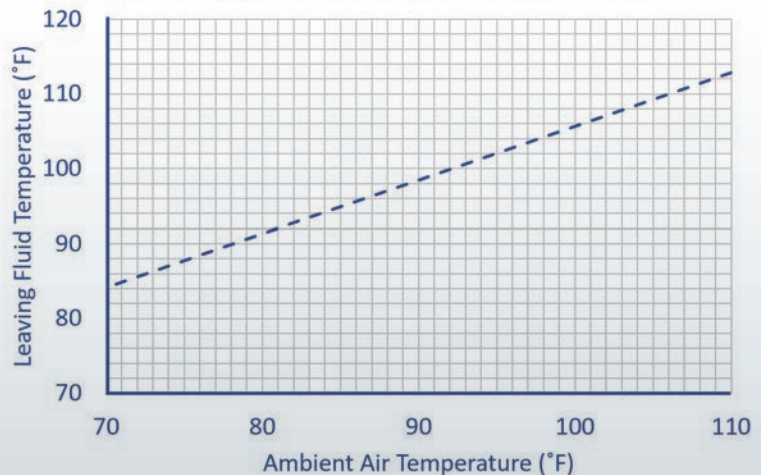
825 MBH @110°F
3,250 MBH @80°F

- EC or AC Fans
- Integrated controls
 - ✓ Control leaving fluid temperature
 - ✓ Optimize fan configuration
 - ✓ BMS interface as standard

 **LEARN MORE**



Cooling Performance with 120°F Fluid



Heat Exchangers

HPT now offers heating and cooling coils. Please contact our factory for help with a selection and quote.



Fluid Coils



Steam Coils



Evaporator Coils



Condenser Coils



**CONTACT US FOR YOUR
NEXT PROJECT**



advanced energy recovery and dehumidification

6904 Parke East Blvd., Tampa, Florida 33610

Phone: (813) 470-4250

Email: info@heatpipe.com

Web: www.heatpipe.com

© 2023 Heat Pipe Technology, Inc., All Rights Reserved

LIT CODE: UNI 01/2023



**CONFORMS TO
UL STD 207
CERTIFIED TO CSA
STD C22.2 # 140.3**

