



WRAP-AROUND HEAT PIPE HEAT EXCHANGER

DEDICATED OUTDOOR AIR SYSTEM



ADVANCED COOLING TECHNOLOGIES
The Thermal Management Experts | www.1-act.com

1046 New Holland Avenue
Lancaster, PA 17601, USA



ENERGY RECOVERY
SOLUTIONS



Phone: 717.295.6061 | ISO 9001 & AS9100 Certified | ITAR Registered



ENERGY RECOVERY SOLUTIONS



HEAT PIPE HEAT EXCHANGERS

NEW CONSTRUCTION | RETROFIT | FACTORY INSTALL

TYPICAL PAYBACK
2 YEARS

INNOVATIVE COMMERCIAL HVAC SOLUTIONS



AIR-TO-AIR HEAT PIPE HEAT EXCHANGER

SPLIT AIRSTREAM SOLUTIONS
HORIZONTAL OR VERTICAL INSTALLATION



IDEAL APPLICATIONS FOR HEAT PIPE HX

ASHRAE 90.1 installation recommendations

- Hospitals & Healthcare Facilities
- Government Facilities & Labs
- Theaters
- Fitness Centers / Natatoriums
- K-12 & Universities
- Resorts, Hotels & Condos
- Food & Restaurant Facilities

ADDITIONAL BENEFITS FOR WAHX

- Passive dehumidification
(Passive re-heating of supply air)
- Reduction in required cooling tonnage

“

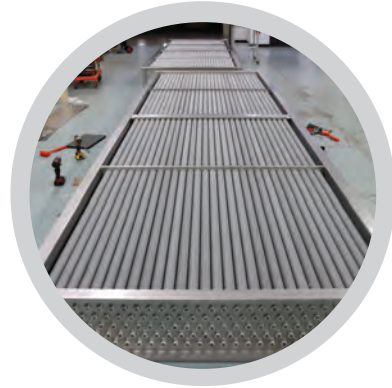
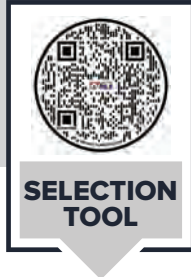
Great customer service support from top down, from inside applications engineer to regional sales manager, and great product offerings.

- Norman S. Wright, Hawaii

”

AIR-TO-AIR HEAT PIPE HEAT EXCHANGERS

SPLIT AIRSTREAM SOLUTIONS



TYPICAL INSTALLATIONS

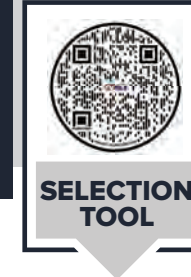
- Between two airstreams for precooling or preheating
- Flexible installation configurations from adjacent airstreams to non-adjacent airstreams with vertical separation
- Where outside air enters and the building's air exhausts

TYPE	DUCT ORIENTATION & CONFIGURATION	OPERATION	
SPLIT LOOP	PIPE-TO-PIPE	Horizontal, adjacent airstreams	<ul style="list-style-type: none"> • 1 season passive • 2 season passive
		Vertical, adjacent airstreams	<ul style="list-style-type: none"> • 1 season passive • 1 season passive, 1 season pumped
		Non-adjacent airstreams no vertical separation	<ul style="list-style-type: none"> • 1 season passive • 2 season passive • 1 season passive, 1 season pumped* • 2 season pumped*
		Non-adjacent airstreams with vertical separation	<ul style="list-style-type: none"> • 1 season passive • 1 season pumped • 1 season passive, 1 season pumped • 2 season pumped*

*Pump requirement dependent on horizontal and vertical separation and amount of energy transfer required

WRAP AROUND HEAT PIPE HEAT EXCHANGERS

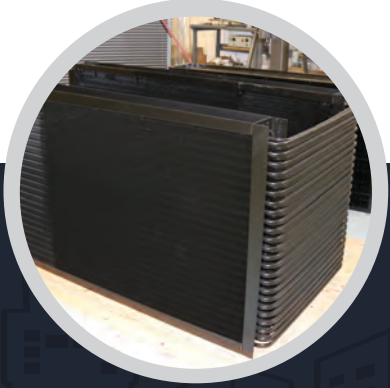
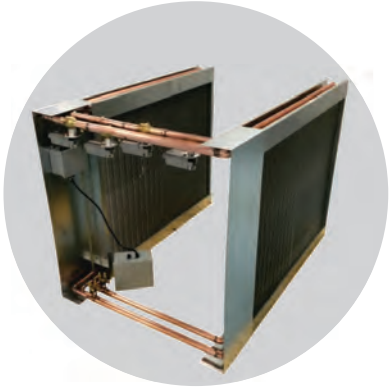
DEDICATED OUTDOOR AIR SYSTEMS



TYPICAL INSTALLATION

- Installed inside of an air handler around the cooling coil of a DOAS or DX system

WAHX TYPE	ORIENTATION	OPERATING SEASON
Pipe to Pipe	Horizontal series airflow installation	<ul style="list-style-type: none"> • Reheat not controllable • Passive operation only
Split Loop Thermosyphon	Horizontal series airflow installation	<ul style="list-style-type: none"> • Passive • Full reheat control • ON/OFF or Analog 0-10VDC



ACT'S ENERGY RECOVERY SOLUTIONS OFFER
ZERO CROSS-AIR CONTAMINATION

COMPANY INTRO

CUSTOM INNOVATIVE COMMERCIAL HVAC SOLUTIONS

Thinking beyond the wheel to create innovative HVAC systems that solve the air quality issues of today with practical energy-saving HVAC systems for tomorrow.



The same skilled engineering techniques that ACT engineers apply to specialized heat pipes for space are used to craft energy recovery heat pipes for ACT's HVAC line of heat pipe heat exchangers.

UP TO
40%
ENERGY SAVINGS

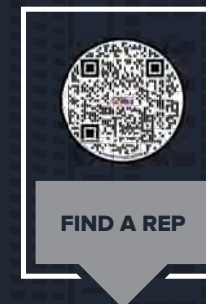
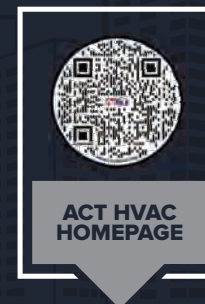
CUSTOMIZABLE GEOMETRIES

WHAT IS ENERGY RECOVERY?

Reducing energy consumption and cost by using passive or low energy consuming methods to precondition air.

RESOURCES

HVAC HOME PAGE www.1-ACT.com/HVAC



CONTACT US

www.1-ACT.com/HVAC
717-295-6061
solutions@1-act.com

Lancaster, Pennsylvania, USA
York, Pennsylvania, USA