

IPE6

PLATE EXCHANGER

The biggest enthalpy plate exchanger in the market



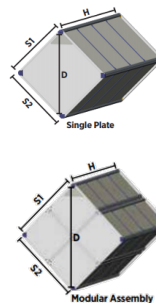
Featuring our **NEW** advanced **washable** POLYMER membrane! The **IPE6** is now offering greatly improved performance and product sizing capabilities for all applications. Furthermore, thanks to a completely redesigned assembly and much improved production methods, the **pressure drops were reduced by up to 10%**.

With a total of 8 square dimensions, optimized spacings per square and adjustable width, the IPE6 plate exchanger gives you the full design capabilities for the biggest projects yet. The revamped construction now allows the manufacturing of plate exchangers up to 96" (8 feet) long in just one section. Not only does this make the IPE6 the biggest enthalpy plate exchanger of the industry, but **its versatility is unmatched in terms of performance versus size**.

Features and Benefits:

- **NEW** polymer washable membrane
- Optimal spacings for each square to suit all different application needs
- From 24" square to 79" square dimensions available (total of 8 square dimensions)
- Adjustable width dimension up to 96" (including its casing) in one section
- Pressure differential limit of 5" WC (0.1" to 0.18" spacing)
- AHRI 1060 certified cores for guaranteed performances
- UL Recognized Component and bear the UL Certification Mark (tested under UL900 with success by the UL laboratory)
- Membrane will not promote the growth of mold or bacteria (Successfully passed AATCC30-2017 Test III and ISO 846C:2019)
- Standard 5 years warranty
- Square sizes that match perfectly with our Sensible plate exchangers product line

Dimensional Data (in/mm):



Model	Square (S1, S2)		Diagonal	Spacing	Width or Height (H)
	in	mm			
	Single Plate		in [mm]	in [mm]	in
24	23.62	600	32.36 [822]	0.1 [2.5]	Adjustable to 96" in one section using 4" increments
27	27.56	700	37.93 [963]	0.1 [2.5]	
34	33.47	850	46.28 [1176]	.12 [3.1]	
40	39.37	1000	54.63 [1388]	.12 [3.1]	
48	47.24	1200	65.76 [1670]	.12 [3.1]	
	Modular Assembly		in [mm]	in [mm]	
55	55.12	1400	76.9 [1953]	.16 [4.0]	
67	66.93	1700	93.6 [2377]	.18 [4.5]	
79	78.74	2000	110.3 [2802]	.18 [4.5]	



Operating Principle:

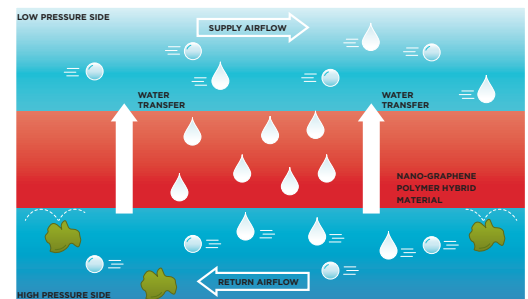
Summer operation

In summer operation, heat and humidity from the outside fresh air is transferred to the outgoing air, greatly reducing air-conditioning costs.

Winter operation

In winter, heat and humidity from the outgoing air is recovered and transferred to the fresh incoming air, greatly contributing to reduced heating costs.

Polymer Membrane:



● Air molecules ▲ Water molecules ■ Air contaminants

setting the
standard
for **energy**
recovery

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IPE6 PLATE EXCHANGER SPECIFICATIONS

1. GENERAL SPECIFICATIONS

- 1.1 Furnish and install the IPE6 enthalpy plate energy exchanger.
- 1.2 The enthalpy plate energy exchanger shall transfer both sensible and latent energies between outgoing and incoming air streams in a cross flow arrangement.
- 1.3 The enthalpy plate exchanger must be manufactured in North America.
- 1.4 The enthalpy plate exchanger manufacturer must have at least ten (10) years of experience in the manufacturing of energy recovery components.

2. PRODUCT SPECIFICATIONS

- 2.1 The enthalpy plate exchanger media shall be a polymer hybrid material or coated with hydrophilic resin.
- 2.2 The polymer material shall exchange water by direct vapor transfer using molecular transport without the need of condensation.
- 2.3 The plate exchanger shall be constructed of alternate layers of corrugated spacer and liner polymer material.
- 2.4 The enthalpy plate exchanger shall have a unique triangular flute design to provide very low pressure drop values and optimal energy transfer.
- 2.5 The enthalpy plate exchanger shall be assembled into a strong, self-supporting frame made of aluminum corner extrusions and 16 gauge galvanized G90 steel end plates.
- 2.6 The corners of enthalpy plate exchanger shall be sealed with silicone.
- 2.7 The aluminum corner extrusions shall be hollow to accept mounting screws and shall provide a 45° corner support angle.
- 2.8 The enthalpy plate exchanger shall operate at temperatures between -40 °F and 140 °F (-40°C and 60°C).
- 2.9 The enthalpy plate exchanger shall withstand, without more than 35 % increase of pressure drop, pressure differentials of at least 5" WC. It shall withstand pressure differential of 10" WC without permanent deformation.
- 2.10 As specified in ASHRAE 52.2-2017 MERV 6 type filters shall be used on both faces of the enthalpy plate. Filters to be supplied by others.

3. QUALITY ASSURANCE SPECIFICATIONS

- 3.1 Performance: The enthalpy plate exchanger shall bear the AHRI 1060 Certified Product Seal. Sensible, latent and total effectiveness along with pressure drop, EATR and OACF rating shall be clearly documented with performance tests conducted in accordance with ASHRAE Standard 84-2020 and per the official AHRI laboratory. Exchangers that do not bear the AHRI 1060 certified seal shall be unacceptable.
- 3.2 Fire resistance: Following UL 1812 (Heating and Cooling Equipment) and UL 1995, the "Standard of Safety for Heating and Cooling Equipment", the enthalpy plate exchanger shall be a UL Recognized Component and bear the UL Certification Mark.
- 3.3 Bacteria & mold resistance: The membrane shall not promote the growth of mold or bacteria and must have successfully passed AATCC30-2017 with no growth of *Aspergillus niger* observed after 14 days and ISO 846C:2019 with no growth of *Pseudomonas aeruginosa* observed after 28 days.
- 3.4 Longevity test (frosting/defrosting cycles): The exchanger must have successfully passed 500 frosting/defrosting cycles with less than 5% change of its performance.
- 3.5 Warranty: The enthalpy plate exchanger shall come with a warranty of at least 5 years against manufacturing defects that could alter its function. Longer warranty periods shall be available upon request.

