PolyCoil

Features

Polycoil heat exchangers are an all plastic heat exchangers with superior corrosion resistance. They provide high heat transfer performance though 440 ultra-thin walled tubes (0.008in). Superior durability is achieved by a plastic-to-plastic weld of each individual tube to their manifold allowing for high operating pressures. Polycoil exchangers are extremely light weight making installation easy and provide a very low internal pressure drop. They are suitable for use with air-to-liquid and liquid-to-liquid applications. Multiple banks/arrays of exchangers can be connected together easily utilizing a built in compression snap clip (supplied) allowing the side frame on each unit to be firmly linked. All exchanger undergo two pressure tests before shipping and inspected for leaks.

Applications

- Cooling Towers
- HVAC (non-refrigerates)
- Geothermal
- Marine, Swimming Pools
- Automotive
- Radiant Heating/Cooling

Materials

Exchanger	Nylon or HPDE
Baffles:	ABS, Nylon, HDPE
Side Frame:	PVC, Nylon, HDPE

Physical Details

Dimension (LxWxH)	77.65in x 11in x 3in
Tube Length	72.0 in
Dry Weight	9.9 lb
Internal Fluid Volume	1.27 gal
Number of Tubes	440
Tube Diameter	0.118in

Connections

Available : (1in)	Hose Barb, PEX, NPT
Clamp Torque Spec	35 in-lb

Fluid Compatibility

Water
Glycols
Salt/Brine Solutions
Hydro Carbon & Oils
Acids & Alcohols (HDPE only)
Chloride Solutions (Nylon 612 only)
For a additional fluids or a comprehensive list please contact us

Warranty

3 year limited warranty on all materials

Durability

250,000 Pressure Cycle @ 120psi

Operating Conditions

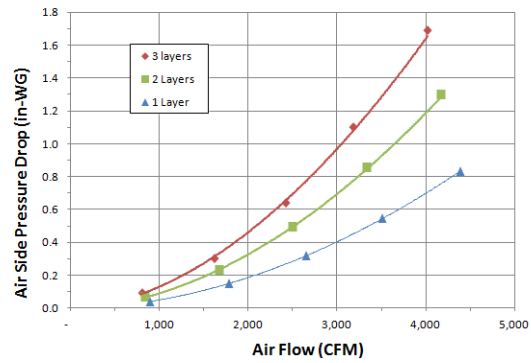| *Nylon*		*Polyethylene*	
Operating Pressure	80 psi (max)	Operating Pressure	40 psi (max)
Burst Pressure	400 psi	Burst Pressure	130 psi
Temperature Range	-40°F to 250°F	Temperature Range	-40°F to 140°F
Flow Rate	60 GPM (max)	Flow Rate	60 GPM (max)

PolyCoil

Performance

Polycoil HX-R-72
with 1in Hose Barb

Internal Pressure Drop (psi) vs *Flow Rate (GPM)*
Legend: Water, 40% Propylene Glycol, 30% Propylene Glycol, 20% Propylene Glycol, 10% Propylene Glycol

Polycoil HX-R-72

Air Side Pressure Drop (in-WG) vs *Air Flow (CFM)*
Legend: 3 layers, 2 Layers, 1 Layer
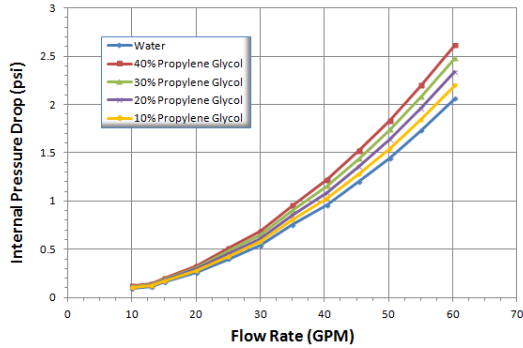
Polycoil HX-R-72
Submersion in Flowing Water
(equal internal/external flow)

Heat Transfer (BTU/hr) vs *Temperature Difference (°F)*
Legend: 10 GPM, 7 GPM, 5 GPM
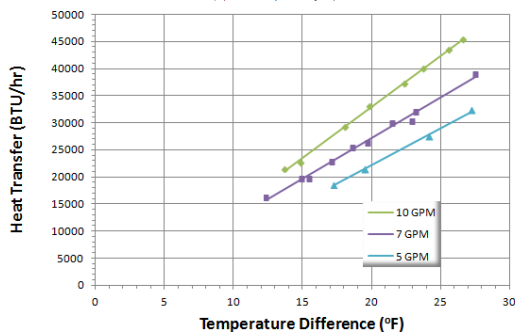
Polycoil HX-R-72
Submersion in Stagnate Water (Pond)

Heat Transfer (BTU/hr) vs *Temperature Difference (°F)*
Pond - Inlet
Legend: 12 GPM, 10 GPM, 8 GPM, 6 GPM
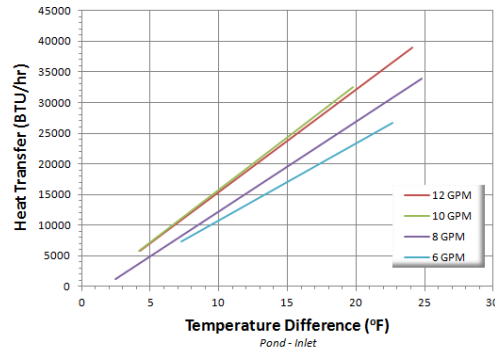
Polycoil HX-R-72
Submersion in Flowing Water
@ 18°F Temp Difference

Heat Transfer (BTU/hr) vs *External Water Flow (GPM)*
Legend (Internal Flow): 10GPM, 7GPM, 5GPM, 3GPM
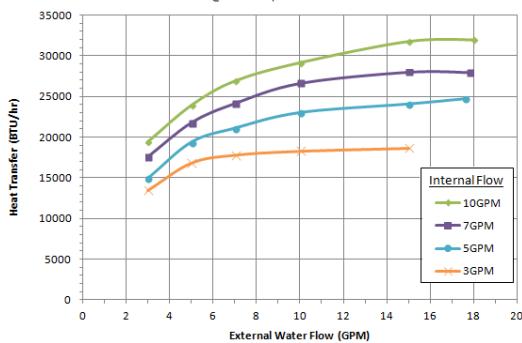
Model Number

HX- R- 72- NY- 1-HB -1-1-RL- A

Type Of Heat Exchanger	Tube Length	Material Type	Connection Size	Connection Type	Side Frame Material	Baffle Material	Header Orientation	Stacking Pins
R = Rectangular	72 = 72in	NY = Nylon/Polyamide 612	1 = 1in	HB = Hose Barb	1 = PVC	1 = ABS	RL = Right/Left	A = Front Face
C= Curved	57 = 57in	PA66 = Nylon/Polyamide 66	2 = 0.5 in	PR = Propex	2 = Nylon	2 = Nylon	LL = Left/Left	B = Top Face
T = Tube & Shell	48 = 48in	PE = Polyethylene (HDPE)	3 = 0.75in	FNPT = Pipe Thread	3 = HDPE	3 = HDPE	RR = Right/Right	C = Both Faces
	42 = 42in		4 = custom	MNPT = Pipe Thread	4 = Custom	4 = Custom		
	28 = 28in			CUST = Custom				
	12 = 12.63in							
	XX = Custom							

77.75
74.75
72.00 Exposed Tube
11.00
3.00

A

B

1in Hose Barb

DETAIL A
SCALE 1 : 2

DETAIL B
SCALE 1 : 2

Connecting Pin
(for multiple banks of HX)

CESARONI TECHNOLOGY INCORPORATED