

PREMIER INDUSTRIES, INC.

STANDARD INDUSTRIAL EVAPORATIVE COOLER SIZES AND SPECIFICATIONS



Premier manufactures a wide range of Industrial Evaporative Coolers from 1000 CFM to 100,000 CFM or even larger in multiple sections. However, the standard size table is limited to a maximum of 60,000 CFM.

When selecting a cooler, the major considerations are, air volume, expressed as **Cubic Feet per Minute (CFM)**, **External Static Pressure (ESP)**, air velocity, measured in **Feet Per Minute, (FPM)**, cooling media thickness (to determine expected cooling efficiency) and expected overall performance of the cooler.

Housing material is very important. Stainless Steel, grade 304 or equal will provide lifetime use while Galvanized, Painted or Coated Steel will rust through in a few years. The somewhat higher initial purchase cost is more than offset by reduced maintenance, vastly greater service life and greater efficiency. Other considerations are which accessories would improve the performance, reduce maintenance or extend useful life. As an example, Premier Industries designs the water distribution system so as to actually increase the useful life of the cooling media. Considerations for type of blower, special accessories, size constraints, application restrictions also enter into the selection of an Evaporative Cooler.

All Premier Industries Standard Industrial Evaporative Coolers include the following features:

Housing: The standard housing, including wet and dry sections, is constructed from Stainless Steel, grade 304. Metal gauge (thickness) varies according to unit size, generally being 18 or 16 gauge. Housing construction meets SMACNA standards.

Blower: The blower is centrifugal type forward curve (or backward inclined for certain high static pressure applications), double width, double intake, mounted in arrangement 3 configuration with spring type vibration isolation, as well as a flex connection to the cabinet to allow for movement of the blower & motor.

Motor: The motor is open face, drip proof (or totally enclosed, fan cooled when specified) mounted on an adjustable mount. Motor drive is variable to provide for adjustment of blower speed to fine tune air volume delivered. Motors have thermal overload protection. Electrical supply is tri-voltage 208-230/460/3/60 unless otherwise specified.

Evaporative Cooling Module: The "wet section" contains Glacier-COR, or equal, Rigid Media, 12" thick unless otherwise specified. Standard plumbing includes a float valve and recirculating pump as well as distribution piping. All metal used in the wet section is Stainless Steel, grade 304.

Undercarriage Frame: A galvanized steel, "C" channel type frame around the perimeter of the cooler and crosswise under the wet section and blower and as otherwise required to fully support the unit is provided. The frame has lifting lugs on each corner for handling.

Configuration: All Premier Industrial Evaporative Coolers can be made as side, down, or up draft coolers. Blower and media access panels, plumbing connections and optional electrical control panels can be on either side of the unit.

The CFM range listed for our coolers reflects actual air delivery, not overly optimistic "industry standard ratings" as are used by many evaporative cooler manufacturers.

Model	CFM Range	Typical Blower Motor Horsepower Range	Blower Size (inches)	Pump HP	Dry Weight (lbs)	Operating Weight (lbs)
PIEC-13	1000 - 3000	0.5 - 5	12	1/40	375	470
PIEC-36	3000 - 5750	0.75 - 10	15	1/40	600	725
PIEC-69	5750 - 9000	1.5 - 15	18	1/40	800	975
PIEC-913	9000 - 13000	2 - 20	20	1/40	1100	1300
PIEC-1318	13000 - 18000	5 - 25	22	1/30	1500	1750
PIEC-1823	18000 - 23000	5 - 30	25	1/3	1650	2100
PIEC-2331	23000 - 31000	7.5 - 40	28	1/3	2200	3100
PIEC-3138	31000 - 38000	15 - 50	32	1/3	2700	3900
PIEC-3849	38000 - 49000	15 - 75	36	1/2	3350	4650
PIEC-4960	49000 - 60000	20 - 100	40	1/2	3900	5525

Model	CFM Range	Overall dimensions (inches) (see drawing below)			
		Width "A"	Height "B"	Depth "C"	Frame "D"
PIEC-13	1000 - 3000	36	32	50	3
PIEC-36	3000 - 6000	45	43	67	3
PIEC-69	6000 - 9000	52	56	67	3
PIEC-913	9000 - 13000	60	70	82	3
PIEC-1318	13000 - 18000	66	83	92	4
PIEC-1823	18000 - 23000	84	83	98	4
PIEC-2331	23000 - 31000	108	96	108	6
PIEC-3138	31000 - 38000	126	96	108	6
PIEC-3849	38000 - 49000	126	123	120	6
PIEC-4960	49000 - 60000	144	132	132	8

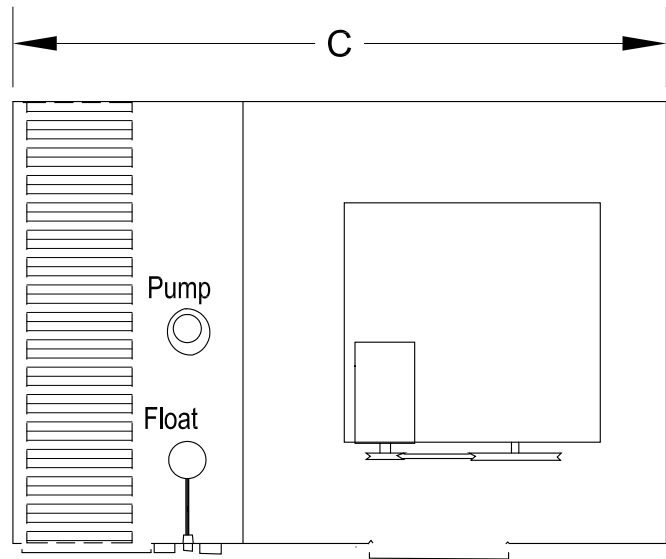
Note: Standard sizes and all pertinent data are subject to change without notice.

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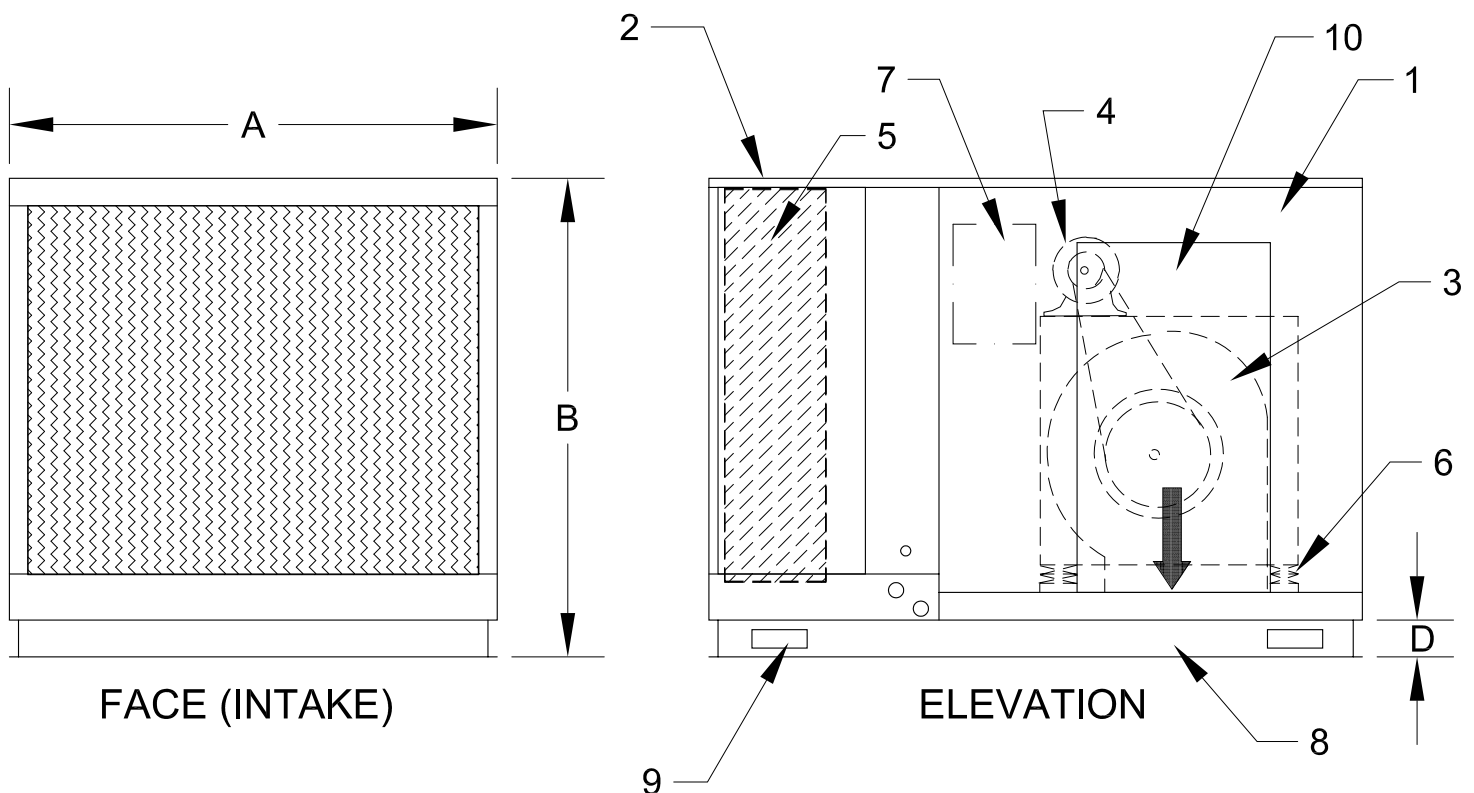
INDUSTRIAL EVAPORATIVE COOLER

LEGEND:

1. HOUSING: Stainless Steel, grade 304
2. EVAPORATIVE COOLING MODULE: Stainless steel, grade 304
3. BLOWER: Centrifugal type
4. MOTOR: Open face, drip proof type (motor mounting location may vary)
5. COOLING MEDIA: Glacier-Cor or CelDEK
6. VIBRATION ISOLATORS: Includes flex connection to cabinet
7. ELECTRICAL CONTROLS: Disconnect, Mag starter & interlocks (OPTIONAL, SEE WRITTEN SPECS)
8. UNDERCARRIAGE FRAME: "C" channel
9. LIFTING LUGS: Included on all frames
10. REMOVEABLE ACCESS PANEL



PLAN VIEW



Unit shown is a downdraft cooler - Premier Industrial Coolers can also be manufactured as sidedraft or updraft coolers

NOT TO SCALE

Don't see what you need? Premier Standard Size units are designed to fill the majority of applications. We also specialize in custom designed units to meet virtually any need. Coolers can be manufactured to match the size of your existing equipment for most applications where a direct replacement is desired to fit existing roof curbs, ductwork, etc.

It is easy to incorporate a wide range of accessories into our Industrial Coolers depending on your exact needs:

- Face Louvers
- Weather Hoods
- Birdscreen
- Electrical Control
- Automated Flush / Drain systems
- Total Dissolved Solid (TDS) sensors
- Interior Lights
- Intake Air Filters
- Freeze Protection Systems
- Magnehelic Differential Pressure Guages

Premier Industries has the ability to custom design and manufacture almost any type of evaporative cooling or air handling equipment. Call us with your requirements; our design specialists will be happy to recommend the proper equipment for your application.

Premier Industries

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