

NOTES:

1. (M) -FAN MOTOR LOCATION
2. MAKE-UP WATER PRESSURE 20psi MIN. 50psi MAX.
3. 3/4" MOUNTING HOLES. REFER TO RECOMMENDED STEEL SUPPORT DRAWING
4. HEAVIEST SECTION IS UPPER SECTION
5. * APPROXIMATE DIMENSIONS. DO NOT USE FOR PRE-FABRICATION OF CONNECTING PIPING.
6. MPT DENOTES MALE PIPE THREAD, FPT DENOTES FEMALE PIPE THREAD, BFW DENOTES BEVELED FOR WELDING.

WEIGHTS			NO. SHIPPING SECTIONS
SHIPPING	OPER.	HEAVIEST SECTION	
26450	35300	18680	2

MODEL NUMBER: (2) PMCB585 CONDENSERS

CERTIFIED FOR: THE STELLAR GROUP

PROJECT: TROPICANA PRODUCTS, INC.

CUSTOMER ORDER NO. 9893-459-1

EVAPCO NO. 985901/02M-3M

CAPACITY 415 T.R.

R-717

REFRIG. 96.3 COND +20 ° SUCT 78 ° W.B.

FAN MOTOR HP (1) 10 AND (1) 5

ELEC. SPEC. 460/60/3

PUMP MOTOR HP (1) 7.5

ELEC. SPEC. 460/60/3

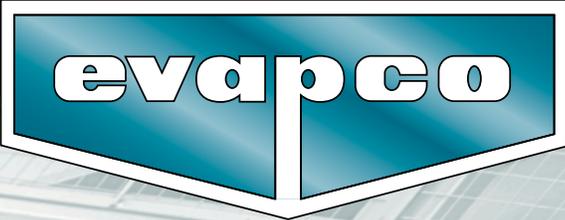
REMARKS: UNIT FURNISHED WITH HANDRAILS AND GALVANIZED ELIMINATORS. DRIVES SIZED FOR 0" ESP.



**EVAPORATIVE
CONDENSER**

3/30/98 JMR

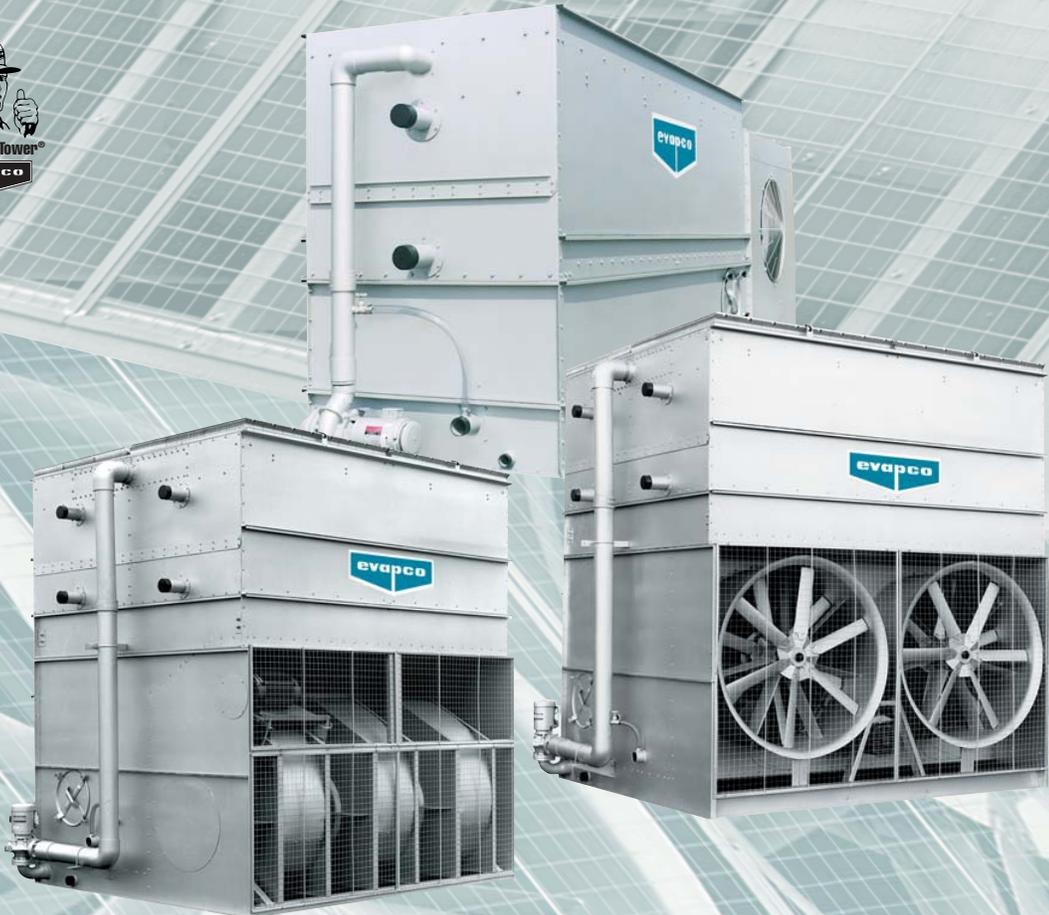
CPTM1810ERA-06



LSCB/LRC/PMCB

Evaporative Condensers

Advanced Technology for the Future, Available Today



Exclusive Thermal-Pak® Coil
Z-725 Galvanized Steel Construction
Totally Enclosed Fan and
Pump Motors



CERTIFIED EN ISO 9001:2000



Since its founding in 1976, EVAPCO Inc. has become a world-wide leader in supplying quality equipment to the Industrial Refrigeration HVAC and Process Cooling Industries.

EVAPCO's success has been the result of a continual commitment to product improvement, quality workmanship and a dedication to providing unparalleled service.



An emphasis on research and development has lead to many product innovations – a hallmark of EVAPCO through the years.

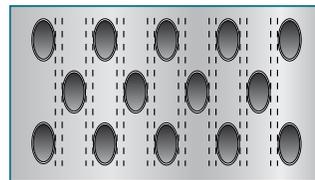
The ongoing R & D Program enables EVAPCO to provide the most advanced products in the industry – technology for the future, available today.

With 16 facilities in seven countries and over 160 sales offices in 42 countries world-wide, EVAPCO is ready to assist in all your evaporative cooling needs.

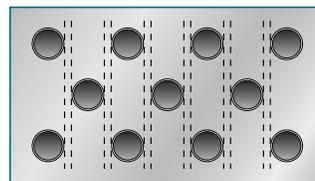
Owner Advantages

Patented Thermal-Pak® Coil

EVAPCO's patented Thermal-Pak® condensing coils feature a design which assures maximum condensing capacity. The air-flow thru the coil is counterflow to the refrigerant flow, providing the most efficient heat transfer. This special coil design is utilized to reduce the air pressure drop through the unit while maximizing tube surface area and increasing its heat transfer capabilities. The uniquely shaped tubes of the coil are staggered in the direction of air flow to obtain a high film coefficient. In addition, all tubes are pitched in the direction of refrigerant flow to give good drainage of liquid refrigerant.



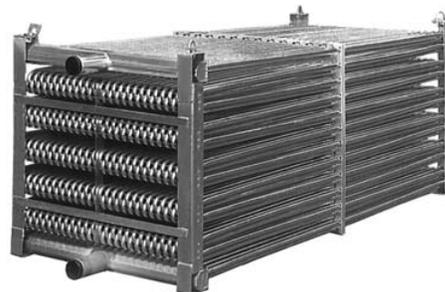
Thermal-Pak® Coil by EVAPCO



Round Tube Coil by Others

The coils are manufactured from high quality steel tubing following the most stringent quality control procedures. Each circuit is inspected to assure the material quality and then tested before being assemble into a coil. Finally, the assembled coil is air pressure tested under water in accordance with the "Pressure Equipment Directive" (PED) 97/23/EC.

To protect the coil against corrosion, it is placed in a heavy-duty steel frame and the entire assembly is dipped in molten zinc (hot dip galvanized) at a temperature of approximately 430°C).



Thermal-Pak® Coil

U.S. Patent No. 4,500,330

EVAPCOAT Corrosion Protection System: The Standard for Evaporative Condensers

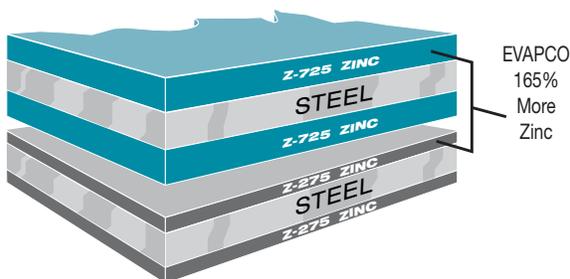
EVAPCO, long known for using premium materials of construction, has developed the ultimate system for corrosion protection in galvanized steel construction – the EVAPCOAT Corrosion Protection System. Marrying corrosion free materials with heavy gauge mill hot-dip galvanized steel construction to provide the longest life product with the best value.

Z-725 Mill Hot-Dip Galvanized Steel Construction

Mill hot-dip galvanized steel has been successfully used for over 25 years for the protection of evaporative condensers against corrosion. There are various grades of mill galvanized steel each with differing amounts of zinc protection. EVAPCO has been a leader in the industry in developing heavier galvanizing, and was the first to standardize on Z-725 mill hot-dip galvanized steel.

Z-725 designation means there is a minimum of 725 g of zinc per sqm of surface area as measured in a triple spot test. Z-725 is the heaviest level of galvanizing available for manufacturing evaporative condensers and has a minimum of 165% more zinc protection than competitive designs using Z-275 steel.

During fabrication, all panel edges are coated with a 95% pure zinc-rich compound for extended corrosion resistance.



Type 304 Stainless Steel Strainers

Subjected to excessive wear and corrosion, the sump strainer is critical to the successful operation of the condenser. EVAPCO uses only stainless steel for this very important component.

PVC Drift Eliminators

The final elements in the upper part of the condenser are moisture eliminators which strip the entrained water droplets from the leaving air stream.

EVAPCO eliminators are constructed entirely of inert, corrosion-free PVC. This PVC material has been specially treated to resist damaging ultraviolet light. The eliminators are assembled in easily handled sections to facilitate removal thereby exposing the upper portion of the unit and water distribution system for periodic inspection.

PVC Water Distribution System

Another important part of an evaporative condenser is the water distribution system. In order to give the maximum heat transfer and minimize scaling, the coil must be drenched with water at all times. The EVAPCO system does this by circulating approximately 4 l/s over every square meter of coil surface area.

The water distribution system is greatly simplified in EVAPCO units, with the largest non-clog ZM water diffusers available for evaporative condensers. The ZM diffusers are threaded into the water distribution header to ensure correct positioning. Also, a collar on the diffuser extends into the header and acts as an anti-sludge ring to reduce the need for maintenance. Excellent flooding of the coil is maintained at all times without numerous small orifice nozzles. For corrosion protection the ZM diffusers are made of heavy-duty, glass reinforced nylon for long life and 100% corrosion resistance. Distributor pipes are non-corrosive Polyvinyl Chloride (PVC).



ZM Spray Nozzle

Totally Enclosed Motors

EVAPCO uses totally enclosed motors for all fan and pump motors as standard. These superior motors help to assure longer equipment life without motor failures, which result in costly downtime.

Alternate Materials of Construction

For particularly corrosive environments, EVAPCO condensers are available with Type 304 Stainless Steel construction for basins and/or casings. Model LR condensers are provided with type 304 stainless steel basins as standard equipment. Contact the factory for details on available options.



Forced Draft Axial Fan Design Features - PMCB Models

Energy Efficient for Lowest Operating Cost

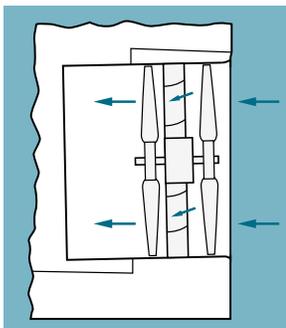
Cut Operating kW up to 50%

The Power-Mizer models use effective axial flow fans which can reduce power requirements by up to 50%. This results in significant energy savings.



Vane Axial Fan Assembly

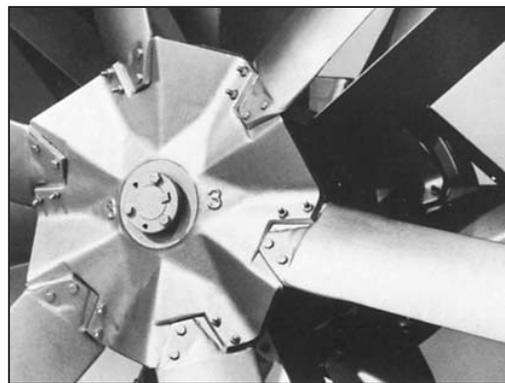
The PMCB models utilize two stage vane-axial fans for highly efficient operation. The fans are installed in a closely fitted cowl with a venturi inlet and advanced design guide vanes between stages, which help direct the flow and increase efficiency.



Two Stage Fan

Cast Aluminum Alloy Fans

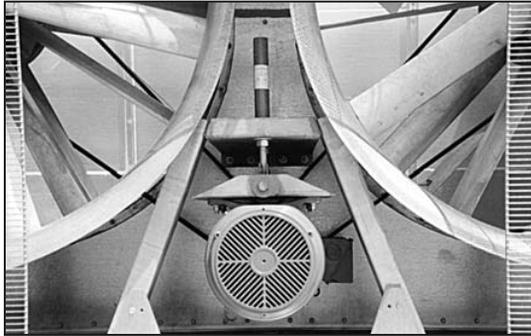
The fans are heavy-duty cast aluminum alloy that are virtually corrosion free.



Vane-Axial Fan

PMCB Fan Motor Mount

EVAPCO's tandem TEFC motor mount assembly allows for two fans to be operated with one motor for simplicity. Routine maintenance is easily performed. If redundancy is a concern, individual fan motor drives are available as an option on PMCB models.



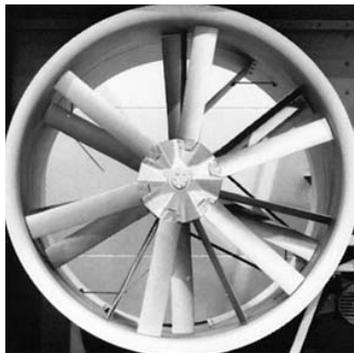
Tandem Fan Drive Motor Mount

Accessibility

The fan section is completely open and accessible at waist level where each part may be carefully checked by simply removing the safety screens.

Bearing grease fittings are extended to the outside of the unit to ease of lubrication.

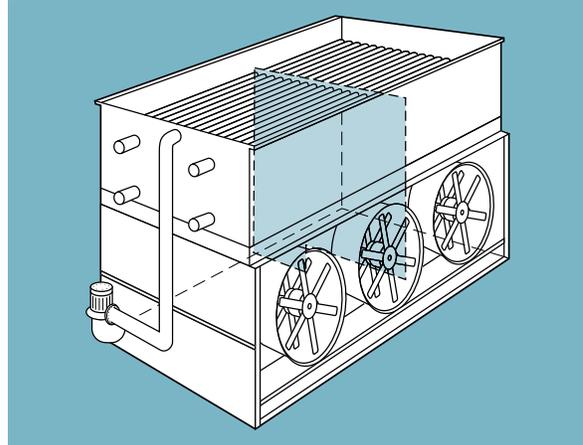
The basin is also open and easy to access for inspection or cleaning. There is a depressed sump area to catch the dirt accumulated and it may be easily flushed out with a hose through the access door on either end.



Vane-Axial Fan

Internal Baffles

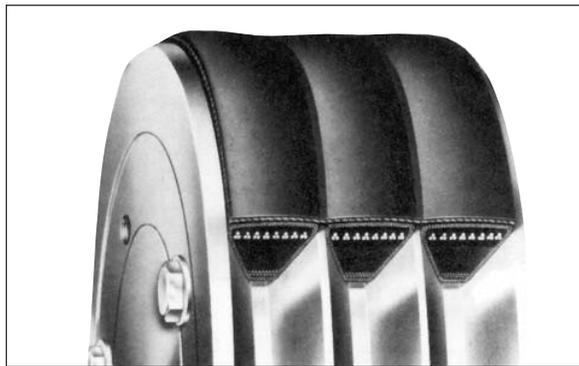
As a standard feature, all EVAPCO condensers with multiple motors are provided with an internal baffle system which extends from the pan bottom vertically through the coil bundle. This allows the user to cycle fan motors independently to match system load without the harmful effects of air by-pass.



Internal Baffles

Power-Band Drive

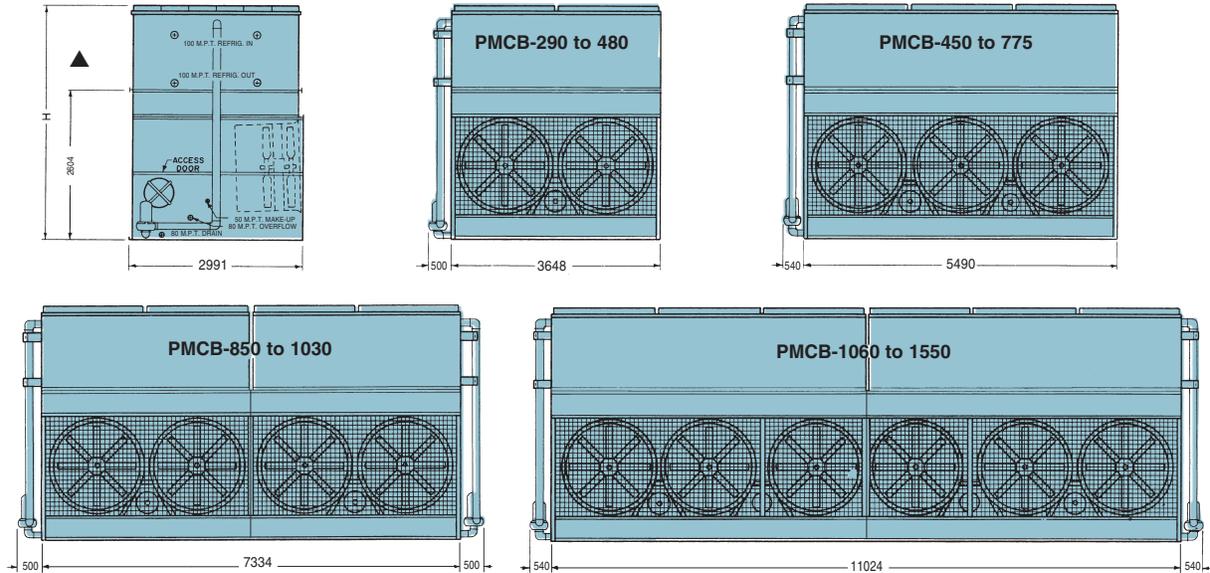
The Power-Band drive is a solid backed belt system that has a high lateral rigidity. This eliminates the problem of mismatched belts and prevents belts from jumping pulleys, a common problem with other designs.



Power-Band

Engineering Dimensions & Data

Power Mizer Models PMCB 290 to 1550



▲ NOTE: Coil connection(s) and other unit dimensions may vary to match application requirements and/or shipping regulations. Consult the EVAPCO plant or certified drawings for detailed information.

TABLE 10 Engineering Data

UNIT NO.	FANS		WEIGHTS (KG)			R-717 Operating Charge	SPRAY PUMP		REMOTE SUMP		HEIGHT (mm)
	kW	m ³ /s	Shipping	Operating	Heaviest Section†		kW	l/s	Liters Req'd**	Conn. Size	
PMCB-290	7,5	29,4	5840	8405	3870	150	4,0	43,2	1590	250	3817
330	5,5	26,7	6755	9410	4870	200	4,0	43,2	1590	250	4033
350	7,5	29,1	6795	9450	4870	200	4,0	43,2	1590	250	4033
385	7,5	28,5	7750	10510	5870	250	4,0	43,2	1590	250	4249
390	11,0	32,0	6865	9515	4870	200	4,0	43,2	1590	250	4033
415	15,0	34,9	6915	9570	4870	200	4,0	43,2	1590	250	4033
425	11,0	31,2	7820	10580	5870	250	4,0	43,2	1590	250	4249
455	15,0	34,2	7875	10630	5870	250	4,0	43,2	1590	250	4249
480	18,5	36,1	7940	10695	5870	250	4,0	43,2	1590	250	4249
PMCB-450	7,5 & 4,0	45,5	8630	12330	5615	222	5,5	65,0	2347	300	3817
585	7,5 & 4,0	43,7	11600	15615	8475	372	5,5	65,0	2347	300	4249
630	15,0 & 7,5	53,2	10300	14155	7030	300	5,5	65,0	2347	300	4033
645	11,0 & 5,5	48,1	11685	15700	8475	372	5,5	65,0	2347	300	4249
690	15,0 & 7,5	51,6	11755	15765	8475	372	5,5	65,0	2347	300	4249
725	18,5 & 11,0	54,2	12000	16010	8475	372	5,5	65,0	2347	300	4248
755	18,5 & 11,0	53,8	13330	17505	9920	450	5,5	65,0	2347	300	4465
775	22,0 & 11,0	55,2	13575	17750	9920	450	5,5	65,0	2347	300	4465
PMCB-850	(2)11,0	62,4	15640	21160	5870	500	(2)4,0	86,4	3217	(2) 250	4249
910	(2)15,0	68,4	15750	21260	5870	500	(2)4,0	86,4	3217	(2) 250	4249
950	(2)15,0	67,2	17625	23385	6870	600	(2)4,0	86,4	3217	(2) 250	4465
960	(2)18,5	72,2	15880	21390	5870	500	(2)4,0	86,4	3217	(2) 250	4249
1000	(2)18,5	70,8	17750	23510	6870	600	(2)4,0	86,4	3217	(2) 250	4465
1030	(2)22,0	72,8	17895	23655	6870	600	(2)4,0	86,4	3217	(2) 250	4465
PMCB-1060	(2) 7,5 & (2) 4,0	87,6	20280	27990	7030	600	(2)5,5	130,0	6132	(2) 300	4033
1175	(2) 11,0 & (2) 5,5	98,6	20455	28165	7030	600	(2)5,5	130,0	6132	(2) 300	4033
1260	(2) 15,0 & (2) 7,5	106,4	20600	28310	7030	600	(2)5,5	130,0	6132	(2) 300	4033
1380	(2) 15,0 & (2) 7,5	103,2	23510	31530	8475	744	(2)5,5	130,0	6132	(2) 300	4249
1510	(2) 18,5 & (2) 11,0	107,6	26660	35010	9920	900	(2)5,5	130,0	6132	(2) 300	4465
1550	(2) 22,0 & (2) 11,0	110,4	27150	35500	9920	900	(2)5,5	130,0	6132	(2) 300	4465

**Liters shown is water in suspension in unit and piping. Allow for additional water in bottom of remote sump to cover pump suction and strainer during operation. (300 mm would normally be sufficient.)

† Heaviest section is the coil section.
Refrigerant charge is shown for R-717. Multiply by 1,93 for R-22 and 1,98 for R-134a.
Dimensions are subject to change. Do not use for pre-fabrication.