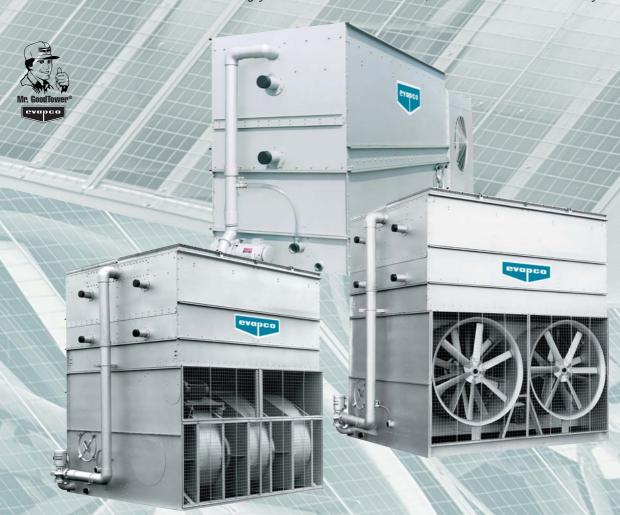


LSGB/LRG/PMGB

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











EVAPCO offers a variety of evaporative condenser designs in

Each unit is a reflection of Evapco's commitment to excellence in engineering and manufacturing. An emphasis on research and development has resulted in many condenser innovations.

All Evapco condensers have the following features as standard:

- Patented* Thermal-Pak® Coil resulting in the maximum thermal performance available per plan area.
- Heavy Gauge Hot Dip Galvanized Steel construction assuring long operating life.
- Totally Enclosed Fan and Pump Motors.





LSCB Series

LSCB centrifugal fan forced draft condensers are recommended for a wide range of applications. LSCB models are very quiet and ideal for applications where noise is a concern. In addition, sound attenuation packages are available to further reduce the sound levels.

The centrifugal fans can also operate against the static pressure loss of ductwork and are suitable for indoor installations, or those with inlet or outlet ductwork. These condensers are available in capacities from 155 to 6931 kW. Very quiet operation.

LRC Series

LRC condensers are forced draft, centrifugal fan models designed specifically for applications requiring low height. Their compact, yet user-friendly design makes them ideal for smaller applications from 108 to 1632 kW.



LSCB & LRC Design and Construction Features

The LSCB and LRC units are a result of EVAPCO's extensive experience in forced draft centrifugal fan designs. Both models are designed for easy maintenance and long, trouble free operation.

Efficient Drift Eliminators

- Advanced design removes mist from leaving airstream.
- Corrosion resistant PVC for long life.

Exclusive Thermal-Pak® Coil

· Providing Maximum Efficiency per Plan Area

Double-Brake Flange Joints

- Stronger than single-brake designs by others.
- · Minimizes water leaks at field joints.
- · Greater structural integrity.

Z-725 Heavy Mill-Dip Galvanized Steel Construction

 (Stainless steel available as affordable option)

Totally Enclosed Pump Motors

· Long, trouble-free operation.



Stainless Steel Strainers

· Resists corrosion better than other materials.



Totally Enclosed Fan Motors

- Assures long life
- All normal maintenance can be performed quickly from outside the unit.
- If required, motor may be easily removed.





The superior design offers:

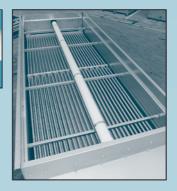
- Low Rigging Costs Low Installed Costs
- Low Silhouette
 Low Maintenance
 Low Sound





PVC Spray Distribution Header with ZM Nozzles

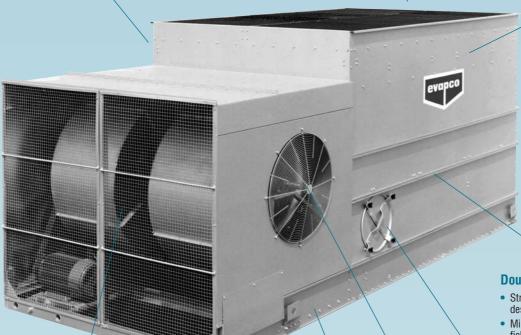
- · Nozzles are threaded to assure proper orientation.
- "Anti-Sludge Ring" reduces maintenance.
- · Large orifice nozzles prevent clogging.
- · Threaded end caps for ease of cleaning.





Efficient Drift Eliminators

- Advanced design removes mist from leaving airstream.
- Corrosion resistant PVC for long life.



Z-725 Heavy Mill-Dip Galvanized Steel Construction

(Stainless steel available as affordable option)

Double-Brake Flange Joints

- Stronger than single-brake designs by others.
- Minimizes water leaks at field joints.
- Greater structural integrity.



Easy to Service Motor Mount Design

- All normal maintenance can be performed quickly from outside the unit.
- If required, motor may be easily removed.
- Split fan housings allow removal of all mechanical equipment through the end of the unit.

Stainless Steel Basin

Bearing Lubrication

- Standard Construction
- Eliminates the need for unreliable epoxy coatings.



Stainless Steel Strainers

Resists corrosion better than other materials.

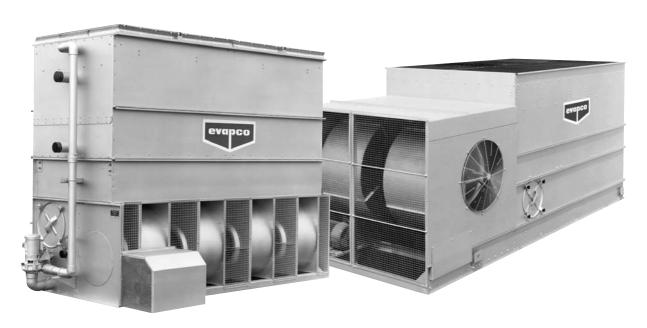


Forced Draft Centrifugal Design Features LSCB & LRC Models

Application versatility

Centrifugal units are recommended for a wide range of installations. They are guiet, can easily be hidden, and the increase in fan motor kW over propeller fan units is generally not significant in the small size range. They are also excellent for larger installations where very quiet operation is a must, such as residential neighborhoods.

In addition, centrifugal fan units can operate against the static pressure loss of ductwork and are therefore ideal for indoor installations.



Centrifugal Fan Assembly

Fans on LSCB & LRC condensers are of the forward curved centrifugal design with hot-dip galvanized steel construction. All fans are statically and dynamically balanced and are mounted in a hot-dip galvanized steel housing designed and manufactured by EVAPCO.



Centrifugal Fan

Very Quiet Operation

Centrifugal fan units operate at lower sound levels which make this design preferred for installations where noise is a concern. The sound they produce is primarily at high frequencies which is easily attenuated by building walls, windows, and natural barriers. Additionally, since the sound from the fans is directional, single sided air entry models can be turned away from critical areas avoiding a sound problem. When even quieter operation is necessary, centrifugal fan models can be equipped with optional sound attenuation packages. Consult the factory for details.

Capacity Control Dampers

Capacity control dampers are an excellent way to match unit capacity to system requirements. This option consists of dampers mounted in the air stream which modulate the air flow through the unit. They may also be supplied with an electric control package.



Fan Dampers

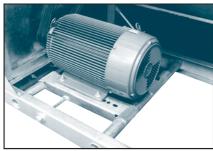


Fan Motor Mount

Fan motors are mounted in a convenient open area to make it easy to adjust belt tension, lubricate the motor, electrically connect it, or change the motor if necessary. The fan motor and drive are under a protective cover for safety and to protect them from the elements.



LSCB Fan Motor Mount



LRC Fan Motor Mount

Accessibility

The basin/fan section of a centrifugal fan unit is designed for accessibility and ease of maintenance. Fan and drive components are positioned to allow easy adjustment and cleaning. All grease fittings are in convenient locations for periodic lubrication.

Large circular access doors are provided on each section to allow entry into the basin. All float valve and strainer assemblies are located near the door for easy adjustment and cleaning. The basin sump is designed to catch the dirt accumulated and can be flushed out simply with a hose. The basin strainers may be easily removed for periodic cleaning.



Reduced Height and Improved Maintenance Accessibilty

The LRC unit has been designed to satisfy installation requirements where height limits must be observed. The lower profile design of the LRC does not, however, sacrifice maintenance accessibilty for reduced height. Its unique casing design allows the water distribution system, cold water basin, fan section and other unit components to be easily maintained.

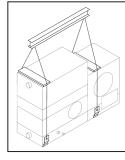
Small, light weight sections of the drift eliminators can be easily removed to access the water distribution system.

Large circular access doors are located on both sides of the cold water basin to allow adjustment of the float assembly, removal of the stainless steel strainers and cleaning of the basin. The fan motor and drive system are located at one end of the unit and are completely accessible by removing the inlet screens. Although, routine maintenance can be performed from the exterior of the unit without removing the inlet screens



Low Installed Costs

The compact, unitary design of the LRC units allows them to be shipped completely assembled. This results in lower transportation costs and no assembly requirments at the job site. Note: Options such as sound attenuation and discharge hoods will require



additional lifts and some minor assembly.

Transport of a Pre-Assembled Unit

The LRC ships fully assembled. This means lower transport costs and no further expenses at the job site for assembly. LRC units are ideal for truck-mounted applications for remote sites or temporary installations.





Optional Equipment for Evaporative Condensers

Two Speed Motors

Two speed fan motors can provide an excellent means of capacity control. In periods of lightened loads or reduced wet bulb temperatures, the fans can operate at low speed, which will provide about 60% of full speed capacity, yet consume only about 15% of the power compared with high speed. In addition to the energy savings, the sound levels of the units will be greatly reduced at low speed.

LSCB & LRC Models

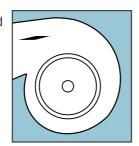
Capacity Control Dampers & Pony Motors

In addition to two speed fan motors, variable frequency drives (VFD's) or cycling fan motor on multiple motor units, centrifugal fan condensers have two other types of capacity control options available to them: Pony motors and capacity control fan dampers.

Pony motors utilize a smaller fan motor in conjunction with the primary motor for use in times of reduced loading.

This pony motor is typically 1/4 the kW of the primary motor, and can significantly reduce energy requirements.

Capacity control fan dampers are located directly in the fan housings. They control head pressure by modulating the air flow through the unit to match the capacity of the condenser to the system load.

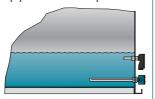


Fan Dampers

Basin Heater Package

If a remote sump configuration is not practical, electric basin heater packages are available to help prevent freeze-up of the

basin water. The packages include electric heater elements and a combination with thermostat and low water cutoff. (See page 25 for heater size and application)



Electric Water Level Control

EVAPCO evaporative condensers are available with an optional electric water level control system in place of the standard mechanical makeup valve and float assembly. This package provides very accurate control of the pan water level and does not require field adjustment, even under widely variable operating conditions.

The control was designed by EVAPCO and consists of multiple heavy duty stainless steel electrodes. These electrodes are mounted external to the unit.

The weather protected slow closing solenoid valve for the makeup water connection is factory supplied and is ready for piping to a water supply with a pressure between 140 kPa (minimum) and 340 kPa (maximum).

Multiple Circuit Coils

Condensers may be supplied with multiple circuit coils to match various system requirements such as split systems, or if a glycol or water circuit is desired for compressor head cooling.

Extended Surface Coil

Condensers can be provided with spiral fins on the heat exchanger coil to increase the dry performance of the unit. Dry performance is accomplished by rejecting heat to the atmosphere without the use of the spray pump and the evaporation process. Dry operation can be practical in cold climates and/or when reduced winter loads exist. The number of fins per inch and and quantity of rows finned can be varied to obtain different dry performances. Dry operation often requires the next larger size fan motor. Consult the factory for sizing.

Sub-Cooling Coils

EVAPCO's standard subcooling coil is designed to provide 5.5°C of refrigerant liquid subcooling on halocarbon refrigerants. The subcooling coil section is mounted between the condensing coil and the pan section

Solid Bottom Panels for Ductwork

When centrifugal fan units are installed indoors and intake air is ducted to the unit, a solid bottom panel is required to completely enclose the fan section and prevent the unit from drawing room air into the fan intakes. When this is ordered, air inlet screens are omitted and the fan bearings are provided with extended lubrication fittings to facilitate maintenance from outside the duct.

Access Ladders

Access ladders are available to provide access for water distribution system inspection and maintanance.

Stainless Steel Basin (Option)

LSCA and PMCB condensers are available with an inexpensive all stainless steel basin section. This provides superior corrosion resistance over other materials of construction. (Standard on all LRC models)



Optional Equipment for Sound Reduction

LSCB & LRC Models

Sound Attenuation Packages

The centrifugal fan design of the LSCB and LRC models operate at lower sound level which make these units preferred for installations where noise is a concern. The sound they produce is primarily at high frequencies which is easily attenuated by building walls, windows and natural barriers. For extremely noise sensitive applications, the LSCB and LRC centrifugal fan models may be supplied with various stages of intake and/or discharge attenuation packages which greatly reduce sound levels.

The sound attenuation options can be provided in stages to provide varying degrees of attenuation while economically matching the project sound requirements.

Oversize fan motors are required for many of these options in order to overcome the additional static pressure. Consult the factory for Certified Sound Data for each sound attenuation option.

Fan Side Inlet Attenuation (LRC only)

Reduces sound radiated from the fan side air intakes and has an open bottom to allow for air entry. This attenuation package ships loose to be mounted in the field on each side of the cooling tower over the fan intakes.

Fan End Inlet Attenuation (LSCB and LRC)

Reduces sound radiated through the end air intakes. It consists of baffled panels to change the path of the air entry and to capture the radiated noise thus reducing the overall sound levels generated. In addition, the external belt adjustment mechanism is extended through the inlet attenuator to allow easy belt adjustment without having to enter the unit.

Discharge Attenuation (LSCB and LRC)

The discharge attenuation hood features a straight sided design with insulated baffles to reduce the overall sound levels of the discharge air. The discharge attenuation incorporates a large access panel to allow entry to the drift eliminators and water distribution system. If a higher discharge velocity is required with minimal sound attenuation, a tapered discharge hood is available.

PMCB Models

Wide Blade Fans

Wide blade fans are available for PMCB forced draft units. The cast aluminum fans operate at lower tip speeds to significantly reduce sound levels.

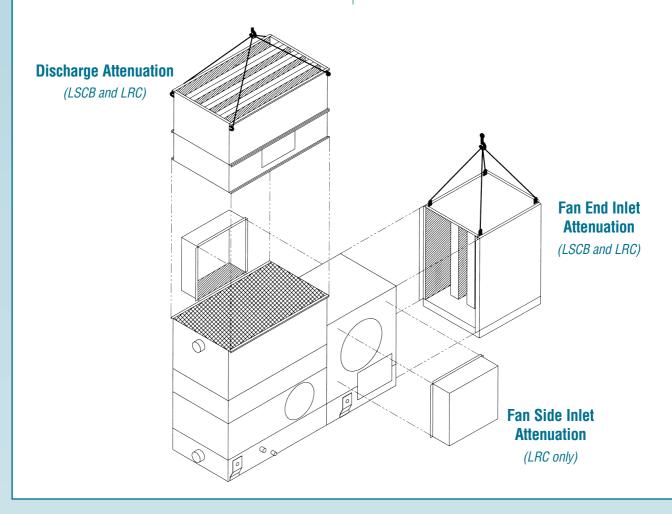


TABLE 3 Unit Heat Rejection Capacity

	LSCB - Centrifugal Fan Models								
Model No.	kW Base	Model No.	kW Base	Model No.	kW Base	Model No.	kW Base	Model No.	kW Base
LSCB-36 41 48 54 65 70 75	155 177 207 232 280 301 323 344	LSCB-210 225 240 250 280 281 295 300	904 969 1033 1076 1205 1206 1270 1292	LSCB-400 410 430 431 450 460 475 480	1722 1766 1851 1855 1937 1980 2045 2066	LSCB-620 625 650 660 690 691 720 721	2669 2691 2798 2841 2970 2972 3100 3102	LSCB-950 960 980 1000 1020 1030 1060 1080	4090 4133 4219 4305 4391 4434 4563 4649
90 100 110 120 135 150 155 170 <mark>185</mark> 200	387 431 474 517 581 646 667 732 796 861	310 315 330 335 345 355 360 370 385 386	1335 1356 1421 1442 1485 1528 1550 1593 1657 1662	490 500 510 515 530 540 550 560 590 591	2109 2153 2196 2217 2282 2325 2368 2411 2540 2544	755 770 800 805 820 860 861 900 920	3250 3315 3444 3466 3532 3702 3704 3875 3961	1100 1120 1180 1250 1310 1380 1440 1510	4736 4822 5080 5381 5640 5941 6199 6501 6931

	LRC - Centrifugal Fan Models								
Model No.	Model No. kW Base Model No. kW Base Model No. kW Base Model No. kW Base Model No.								
LRC - 25 27 29 35 38 42 48 51 58	108 116 125 151 164 181 207 220 250	LRC - 65 72 76 84 91 101 114 108 116	280 310 327 362 392 435 491 465 500	LRC - 128 131 140 155 174 183 190 201 213	551 564 603 667 749 788 818 865	LRC - 225 233 246 188 211 227 240 255 269	969 1003 1059 809 908 977 1033 1098 1158	LRC - 249 287 300 321 336 361 379	1072 1236 1292 1382 1446 1554 1632

	Power-Mizer Models								
Model No.	kW Base	Model No.	kW Base	Model No.	kW Base	Model No.	kW Base	Model No.	kW Base
PMCB-190 210 220 235 240 250 275 295 325 350	818 904 947 1012 1033 1076 1184 1270 1399 1507	PMCB-360 375 390 415 435 455 480 510 535 560	1550 1614 1679 1787 1873 1959 2066 2196 2303 2411	PMCB-580 600 630 660 690 725 755 775 815 855	2497 2583 2712 2841 2970 3121 3250 3336 3509 3681	PMCB-885 960 1000 1015 1030 1080 1120 1175 1260 1320	3810 4133 4305 4370 4434 4649 4822 5058 5424 5683	PMCB-1380 1410 1485 1540 1630 1710 1770	5941 6070 6393 6630 7017 7362 7620

Alternate Power-Mizer Models*									
Model No.	kW Base	Model No.	kW Base	Model No.	kW Base	Model No.	kW Base	Model No.	kW Base
PMCB-175 290 330 335 385	753 1248 1421 1442 1657	PMCB-425 450 475 495 540	1830 1937 2045 2131 2325	PMCB-585 645 705 770	2518 2777 3035 3315	PMCB-805 850 910 950	3466 3659 3918 4090	PMCB-1060 1110 1510 1550	4563 4779 6501 6673

Unit Selections

Selections for all evaporative condensers can be made by using EVAPCO's IES computer selection software.

IES provides quick and accurate selections at the click of a button. In addition to selections, the program displays unit drawings, dimensional and shipping information. Please contact your local sales representative or visit the EVAPCO Europe web.

NOTE: For applications requiring layout or fan kW combinations not shown above, please consult the factory or your EVAPCO representative.

* Alternate Power-Mizer models represent selections for alternate plan area or low fan kW applications. Standard models should be used for the lowest first-cost selection.





▲ 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 6 Engineering Data

INDLE	Linginiconing Date					1					
	FANS			WEIGHTS (KG)		R-717	SPRAY	PUMP	REMOTI		
UNIT NO.	kW	m³/s	Shipping	Operating	Heaviest Section †	Operating Charge	kW	I/s	Liters Req'd**	Conn. Size	HEIGHT (mm)
LSCB-36 41 48 54	2,2 4,0 2,2 4,0	4,8 5,7 4,7 5,6	1005 1035 1230 1265	1440 1465 1610 1645	1005* 1035* 1230* 1265*	17 17 26 26	0,55 0,55 0,55 0,55	7,6 7,6 7,6 7,6	303 303 303 303	100 100 100 100	2048 2048 2238 2238
65 70 75 80	4,0 5,5 4,0 5,5	5,5 6,1 5,4 6,0	1405 1445 1550 1620	1795 1835 1950 2020	925 925 925 1100 1100	35 35 44 44	0,55 0,55 0,55 0,55 0,55	7,6 7,6 7,6 7,6 7,6	303 303 303 303	100 100 100 100	2429 2429 2619 2619
LSCB-90 100 110 120	4,0 5,5 7,5 7,5	7,2 8,2 9,1 8,9	1985 2050 2110 2290	2585 2650 2710 2900	1360 1360 1360 1630	52 52 52 52 65	0,75 0,75 0,75 0,75 0,75	11,4 11,4 11,4 11,4	454 454 454 454	150 150 150 150	2429 2429 2429 2619
LSCB-135 150 155 170	7,5 11,0 7,5 11,0	11,2 12,6 11,0 12,3	2595 2650 2950 3015	3440 3495 3815 3885	1795 1795 2155 2155	70 70 87 87	1,1 1,1 1,1 1,1	15,5 15,5 15,5 15,5	643 643 643 643	150 150 150 150	2429 2429 2619 2619
LSCB-185 200 210 225 240 250	7,5 11,0 15,0 11,0 15,0 15,0	15,5 16,8 17,7 16,4 17,6 17,4	3590 3655 3715 4115 4175 4630	4645 4715 4770 5205 5260 5745	2480 2480 2480 2985 2985 3495	100 100 100 125 125 150	1,5 1,5 1,5 1,5 1,5 1,5	21,8 21,8 21,8 21,8 21,8 21,8	871 871 871 871 871 871	200 200 200 200 200 200 200	2979 2979 2979 3194 3194 3410
LSCB-280 300 315 335 355 370 385	11,0 15,0 18,5 15,0 18,5 22,0 22,0	22,3 24,5 26,2 23,8 25,6 27,2 26,7	5475 5535 5625 6245 6335 6405 7070	6865 6920 7015 7665 7755 7825 8530	3780 3780 3780 4530 4530 4530 5290	150 150 150 186 186 186 225	2,2 2,2 2,2 2,2 2,2 2,2 2,2	32,5 32,5 32,5 32,5 32,5 32,5 32,5	1287 1287 1287 1287 1287 1287 1287	200 200 200 200 200 200 200	2979 2979 2979 3194 3194 3194 3410

Unit ships in one piece.

^{**} 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.



Applications

Bleed-off

Each unit supplied with a pump mounted on the side is furnished with a clear bleed line for visual inspection and a valve which, when fully open, will bleed-off the proper amount of water. If the make-up water supplying to the unit is relatively free of impurities, it may be possible to cut back the bleed, but the unit must be checked frequently to make sure scale is not forming. Make-up water pressure should be maintained between 140 and 340 kPa.

Water Treatment

In some cases the make-up will be so high in mineral content that a normal bleed-off will not prevent scaling. In these cases water treatment will be required and a reputable water treatment company familiar with the local water conditions should be consulted.

Any chemical water treatment used must be compatible with the galvanized construction of the unit. If acid is used for treatment, it should be accurately metered and the concentration properly controlled. The pH of the water should be maintained between 6.5 and 8.0. Units constructed of galvanized steel operating with circulating water having a pH of 8.3 or higher will require periodic passivation of the galvanized steel to prevent the formation of "white rust". Batch chemical feeding is not recommended because it does not afford the proper degree of control. If acid cleaning is required extreme caution must be exercised and only inhibited acids recommended for use with galvanized construction should be used. For more information see EVAPCO Bulletin entitled "Maintenance Instructions".

Control of Biological Contamination

Water quality should be checked regularly for biological contamination, If biological contamination is detected, a more aggressive water treatment and mechanical cleaning program should be undertaken. The water treatment program should be performed in conjunction with a qualified water treatment company. It is important that all internal surfaces be kept clean of accumulated dirt and sludge. In addition, the drift eliminators should be maintained in good operating condition Note: The location of the evaporative condenser must be considered during the equipment layout stages of a project. It is important to prevent the discharge air (potential of biological contamination) from being introduced into the fresh air intakes of the building.

Recirculating Water System - Freeze Protection

Water lines to and from the unit, spray pump and related piping should be heat traced and insulated up to the overflow level in order to protect from freezing.

The unit should not be operated dry (fans on, pump off) unless the basin is completely drained and the unit has been designed for dry operation.

REMOTE SUMP

Whenever a condenser is idled during subfreezing weather, the water in the sump must be protected from freezing and damaging the pan. The simplest and most reliable method of accomplishing this is with a remote sump tank located in a heated space in the building under the condenser. The recirculating water pump is mounted at the remote sump and whenever it is shut-off, all of the water drains into the indoor tank. When a condenser is ordered for remote sump operation, the standard float valve and strainer are omitted, and the unit is provided with an oversized bottom water outlet connection. Where a remote sump is not possible, a supplementary means of heating the pan water must be provided.

ELECTRIC HEATERS

Electric immersion heaters are available factory installed in the basin of the condenser. They are sized to maintain a +4 or +5°C pan water temperature with -18°C ambient air temperature with the fans and pumps off. They are furnished with a thermostat and low water protection device to cycle the heater on when required and to prevent the heater elements from energizing unless they are completely submerged. Components are enclosed in rugged, weatherproof enclosures for outdoor use. The heater power contactors and electric wiring are not included as standard.

Electric Pan Heaters

Model No.		kW*
LSCB 36 to LSCB 90 to LSCB 185 to 3 LSCB 280 to 3 LSCB 281 to 3 LSCB 410 to 4 LSCB 591 to 3 LSCB 820 to 1 LSCB 400 to 3 LSCB 550 to 3 LSCB 800 to 1	80 170 250 385 386 560 770 120 515 805	2 3 4 (2) 3 5 (2) 4 (2) 5 (2) 8 (2) 5 (2) 8
LRC 25 to LRC 76 to LRC 108 to LRC 190 to 2 LRC 188 to 2	610 72 114 183 246 269 379	(2) 10 2 3 4 6 7 9
PMCB 250 to 6 PMCB 290 to 6 PMCB 450 to 7 PMCB 850 to 10 PMCB 1060 to 11 PMCB 435 to 6 PMCB 600 to 6 PMCB 1015 to 11	240 375 480 775 030 550 580 885 120 770	5 (2) 4 8 (2) 6 (2) 8 (4) 6 (2) 6 (2) 8 (2) 12 (2) 16

^{*} Electric heater selection based on -18°C ambient temperature. For alternate low ambient heater selections, consult the factory.



Steel Support

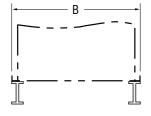
The recommended support for EVAPCO condensers is structural "I" beams located under the outer flanges and running the entire length of the unit. Mounting holes, 19mm in diameter are located in the bottom channels of the pan section to provide for bolting to the structural steel. (Refer to certified drawings from the factory for bolt hole locations.)

Beams should be level to within 3mm per 2m before setting the unit in place. Do not level the unit by shimming between it and the "I" beams as this will not provide proper longitudinal support.





End Elevations



LRC DIMENSIONS							
	Mod	els		Α	В		
LRC	25	to	72	3083	1029		
LRC	76 108 190	to to to	114 183 246	3731 4636 5553	1540 1540 1540		
LRC	188 249	to to	269 379	4629 5553	2388 2388		

			LSCB	DIMENSIONS	
	Mod	els		Α	В
LSCB	36	to	80	1826	1235
	90	to	120	2724	1235
	135	to	170	3651	1235
LSCB	185	to	250	3645	1664
	280	to	385	5490	1664
LSCB	281	to	386	3651	2388
	410	to	560	5486	2388
	581	to	770	7341	2388
	820	to	1120	11011	2388
LSCB	400	to	515	3648	2991
	550	to	805	5493	2991
	800	to	1030	7334	2991
	1100	to	1610	11024	2991

	PMCB DIMENSIONS								
	Mod	els		Α	В				
PMCB	175 250	to to	240 375	3648 5493	1927 1927				
PMCB	290 450 850 1060	to to to	480 775 1030 1550	3648 5490 7334 11024	2991 2991 2991 2991				
PMCB	435 600 1015 1110	to to to to	580 885 1120 1120	3651 5490 7341 11024	3620 3620 3620 3620				



Evaporative Condenser Specifications

Furnish and install as shown on the plan an Evapco						
Evaporative Condenser Modelhaving con-						
densing capacity	/ of	kW heat reje	ection operating			
with	Refrigerant at _		C condensing			
temperature and	°C d	esign wet bul	b temperature.			

Casing and Fan Section

The casing and fan section shall be constructed of Z-725 galvanized steel for long life and durability. Fan section shall include fans, motors and drives. The entire drive system (including fans, motors, pulleys and belts) shall be located in the dry entering airstream.

Cold Water Basin (only for LRC)

The complete cold water basin shall be constructed of Type 304 stainless steel for long life and durability. Standard cold water basin accessories shall include Type 304 stainless steel overflow, drain, anti-vortexing hood, strainers and brass make-up valve with unsinkable, foam filled plastic float. A circular access door shall be located above the basin to allow easy access to the pan interior. The outlet shall be Type 304 stainless steel beveled for welding or a threaded connection.

Model LSCB & LRC - Centrifugal Fans/Drives

Fans shall be forwardly curved centrifugal type of hot-dip galvanized construction. The fans shall be factory installed into the pan-fan section, and statically and dynamically balanced for vibration free operation. Fans shall be mounted on either a solid steel shaft or a hollow steel shaft with forged bearing journals. The fan shaft shall be supported by heavyduty, self-aligning bearings with cast-iron housings and lubrication fittings provided for maintenance.

The fan drive shall be V-belt type with taper lock pulleys designed for 150% of the motor nameplate kW. Drives are to be mounted and aligned at the factory.

Model PMCB - Power-Mizer Fans/Drives

Fans shall be vane-axial type constructed of cast aluminum alloy blades. They shall be arranged in a two-stage system installed in a closely fitted cowl with venturi air inlet and air stabilizing vanes. Fan shaft bearings shall be heavy-duty self aligning ball type with grease fittings extended to the outside of the unit.

The fan drive shall be solid backed Power-Band constructed of neoprene with polyester cords and designed for 150% of motor nameplate kW. Drives are to be mounted and aligned at the factory.

Fan Motor

Fan motor(s) shall be _____ kW T.E.F.C. suitable for out-door installation on ___ volts, ___ hertz, and ___ phase electrical service. Motor(s) shall be mounted on an adjustable base.

Heat Transfer Coil

The coil(s) shall be all prime surface steel, encased in steel framework with the entire assembly hot-dip galvanized after fabrication. Coil(s) shall be designed with sloping tubes for free drainage of liquid and air pressure tested under water in accordance with the "Pressure Equipment Directive" (PED) 97/23/EC.

Water Recirculation Pump

The pump shall	be a close-coupled, centrifugal	type with a
mechanical seal	. Pump motor shall be	kW T.E.F.C.
design suitable	for outdoor installation on	volts,
hertz. and	phase electrical service.	

Water Distribution System

The system shall provide a water flow rate of not less than 4 l/s over each square meter of unit face area to ensure proper flooding of the coil. The spray header shall be constructed of polyvinyl chloride pipe for corrosion resistance. All spray branches shall be removable and include a threaded end plug for cleaning. The water shall be distributed over the entire coil surface by precision molded from heavyduty, glass reinforced nylon spray nozzles for long life and 100% corrosion resistance (34 mm diameter orifice and 38 mm clearance between the nozzle bottom and water diverter plate) with an internal sludge ring to eliminate clogging. Nozzles shall be threaded into the spray header to provide easy removal for maintenance.

Eliminators

The eliminators shall be constructed of inert polyvinyl chloride that has been specially treated to resist UV degredation. Assembled in easily handled sections, the eliminators shall incorporate three changes in air direction to assure removal of entrained moisture from the discharge airstream. The maximum drift rate shall not exceed 0.001% of the recirculated water rate.

Finish

The casing and fan section shall be constructed of Z-725 heavy gauge mill hot-dip galvanized steel. During fabrication, all panel edges shall be coated with a 95% pure zinc compound.





EVAPCO ... Specialists in Heat Transfer Products and Services

EVAPCO, Inc. - World Headquarters & Research / Development Center

EVAPCO, Inc. P.O. Box 1300 • Westminster, MD 21158 USA Phone: +1 410-756-2600 • Fax: +1 410-756-6450 • E-mail: marketing@evapco.com

EVAPCO Europe

EVAPCO Europe N.V. European Headquarters Heersterveldweg 19 Industriezone, Tongeren-Oost 3700 Tongeren, Belgium Phone: +32 12-395029 Fax: +32 12-238527 E-mail: evapco.europe@evapco.be EVAPCO Europe S.r.l.
Via Ciro Menotti 10
20017 Passirana di Rho
Milan, Italy
Phone: +39 02-939-9041
Fax: +39 02-935-00840
E-mail: evapcoeurope@evapco.it

EVAPCO Europe S.r.l. Via Dosso 2 23020 Piateda Sondrio, Italy EVAPCO Europe GmbH Bovert 22 40670 Meerbusch, Germany Phone: +49 2159-69560 Fax: +49 2159-695611 E-mail: info@evapco.de

EVAPCO Worldwide Facilities

EVAPCO, Inc. Westminster, MD 21158 USA

EVAPCO East Taneytown, MD 21787 USA

EVAPCO Midwest Greenup, IL 62428 USA

EVAPCO West Madera, CA 93637 USA **EVAPCO Iowa** Lake View, IA 51450 USA

EVAPCO Iowa Owatonna, MN 55060 USA

Refrigeration Valves & Systems Co. Bryan, TX 77808 USA

McCormack Coil Company, Inc. Lake Oswego, OR 97035 USA **EvapTech, Inc.** Lenexa, KS 66214 USA

Tower Components, Inc. Ramseur, NC 27316 USA

EVAPCO S.A. (Pty.) Ltd. Isando 1600, Republic of South Africa

Tiba Engineering Industries Co. Heliopolis, Cairo, Egypt

EVAPCO Asia/Pacific Headquarters Shanghai, P.R. China

EVAPCO Refriger. Equipm. Co., Ltd. Shanghai, P.R. China

EVAPCO Refriger. Equipm. Co., Ltd. Beijing, P.R. China

Aqua-Cool Towers (Pty.) Ltd. Riverstone, N.S.W. Australia 2765

Visit EVAPCO's Websites at:

http://www.evapco.com http://www.evapco.eu