Curtis Manufacturing Company

Refrigeration Division

1959 Kienlen Ave.
St. Louis 20, Missouri, U. S. A.

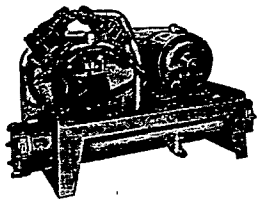
over 100 years Since 1854

NEW YORK OFFICE
30 VESEY ST.

CHICAGO OFFICE
9 S. CLINTON ST.

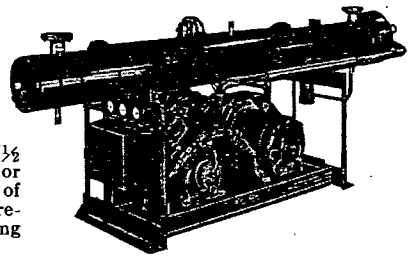
ESTABLISHED 1854

Products: Full line of Packaged Air Conditioners from 3 through 50 ton, Condensing Units from ¼ through 100 hp with Cooling Towers, Air Handling Units to match. Packaged Water Chillers 7½ through 100 hp. Waterless Air Cooled Packaged Condensing Units, 3 through 7½ hp, Residential and Commercial.



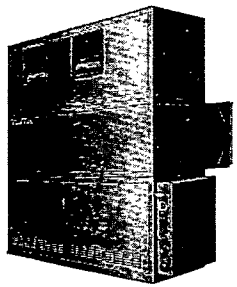
COMMERCIAL REFRIGERATION

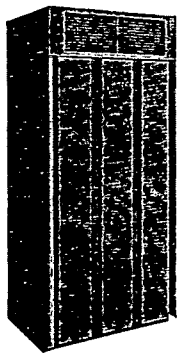
Air cooled condensing units from ¼ to 3 hp, inclusive, and water cooled units from ½ to 50 hp, inclusive. All models charged with "Freon 12" refrigerant. 2 hp and larger available with "F-22" refrigerant. Mechanical advantages include Timken Bearings, positive pressure lubrication.



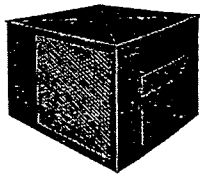
PACKAGED LIQUID CHILLER 7½ through 100 ton. For air conditioning or industrial processing and other types of liquid application. "F-12" or "F-22" refrigerant. Uses same piping as heating system.

PACKAGED AIR CONDITIONERS 25 through 50 ton. Line assembled at factory. Eliminates expensive field labor. Tested before delivery to assure balanced system. Integral evaporative condensor optional.





PACKAGED AIR CONDITIONERS in 3 through 20 ton.

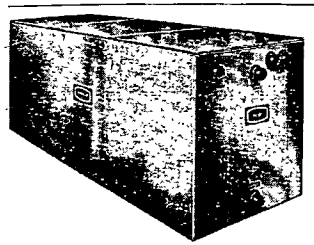


WATERLESS AIR COOLED PACKAGED CONDENSING UNIT for residential and commercial application, 3-5-7½ ton.

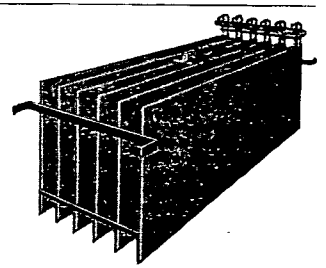
Dole Refrigerating Company

5918 N. Pulaski Road, **Chicago 30, Ill.**
103 Park Ave., **New York 17, N. Y.**
In Canada: Dole Refrigerating Products Limited, 44 Elgin St., Brantford, Ont.

Manufacturers of Air Conditioning and Refrigeration Equipment



Exterior of ICE-CEL Tank



ICE-CEL Interior X-Unit

ICE-CEL ACCUMULATOR UNITS

LATENT HEAT ICE STORAGE SYSTEMS FOR AIR CONDITIONING

APPLICATION: DOLE ICE-CELS are used wherever the air-conditioning load is high for a relatively short period of time, such as in churches, mortuaries, auditoriums, lodge halls, cafeterias, offices, theaters, motels, retail stores.

OPERATION

The ICE-CEL consists of an assembly of DOLE Vacuum Plates submerged in a tank of water. A condensing unit is connected to and refrigerates the plates, causing ice to build up on their surface. A control is available to stop the condensing unit when the ice has reached any desired thickness. When cooling is to begin, chilled water from the ICE-CEL is pumped through a water coil in the air stream. In passing over this coil, the air gives up its heat to the water which is then returned to the ICE-CEL for re-chilling and re-circulation.

COMPRESSOR REQUIREMENTS

Since the compressor capacity can be spread over the whole day, if necessary, rather than just for the duration of the actual cooling period, a much smaller condensing unit, together with a correspondingly smaller cooling tower or evaporative condenser, can be used. This eliminates the need for water economizers. Also a compressor used for other purposes and not needed full time can have its idle periods devoted to building up ice on the ICE-CEL to be used while the compressor is doing its regular job. As a result, operating costs are kept at a minimum, especially in areas where demand power rates are in effect. The existing power service to the building is usually adequate.

HOLDOVER CAPACITIES AND BUILD-UP TIME FOR STANDARD ICE-CEL UNITS

STANDARD ICE-CEL UNITS		LHS-12 or LHS 12x		LHS-21 or LHS 21x		LHS-31 or LHS 31x		LHS-51 or LHS 51x	
Hold-over capacity at given inlet water temp.	45°	18 T.H.		32 T.H.		48 T.H.		81 T.H.	
	40°	17 T.H.		31 T.H.		47 T.H.		77 T.H.	
	34°	13 T.H.		24 T.H.		36 T.H.		60 T.H.	
Comp. HP		Hrs.	S.T.	Hrs.	S.T.	Hrs.	S.T.	Hrs.	S.T.
¾ HP		26	19°						
1 HP		21	17°						
1½ HP		16	12°	25	19°				
2 HP		13	8°	20	16°	27	20°		
3 HP		11	3°	15	11°	20	16°	29	21°
5 HP				11	4°	14	10°	20	16°
7½ HP				10	1°	11	4°	15	11°
10 HP						10	0°	13	7°
15 HP								10	2°
20 HP								9	2°

NOTE: Add 10 percent if starting water over 50 deg. Add 5 percent if starting water between 40 deg-50 deg. S.T. indicates approximate suction temperature at end of ice buildup. Condensing units smaller or larger than shown not recommended.

ENGINEERING SERVICE

Complete Engineering Catalog BAE and further technical information available on request. A DOLE application engineer is located near you to give you prompt service. Write, wire, or phone.