

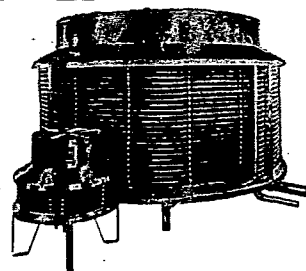


f5 AIR CONDITIONING CORP.

Manufacturers of Air Cooled Fandaire Air Conditioners & Condensers

1815 South Maybelle • Tulsa, Oklahoma • CHerry 2-9266

Representatives and Distributors in Principal Cities



Fandaire condensers above are the 3 and 80 ton units

FANDAIRE AIR COOLED CONDENSERS

Available in 2 through 80 ton capacity

Conservatively rated, these condensers can be used on any application... either for new installation or as a replacement for outmoded equipment. While designed for outside installation, they work equally well inside. Their unique circular coil design delivers far greater operating efficiency than rectangular units. As standard equipment they incorporate many features normally sold as "extras."

FANDAIRE AIR COOLED AIR CONDITIONERS

Available in 2 through 10 ton capacity

Fandaire air cooled air conditioners are very good for commercial, residential and industrial installation. The unique circular coil construction delivers far greater operating efficiency than rectangular units. They can easily be combined with existing heating systems. Fandaire advanced design incorporates, without extra charge, many features normally sold as "extras." Available with a full five year warranty.

FANDAIRE FEATURES

on both the air conditioning and condenser units

GREATER FIN SURFACE EFFICIENCY

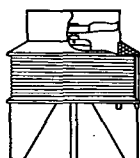
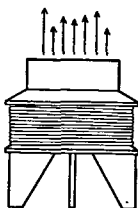
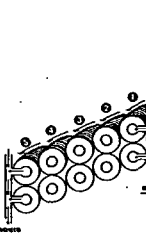
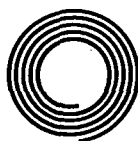
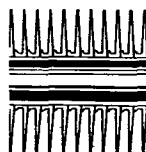
The fins are helically formed around a heavy-wall copper tube with a spacing of eight fins per inch to permit the free passage of fin and dust carrying air. This self-cleaning action helps maintain a higher operating efficiency. The shoulder of each fin is firmly swaged to the tube and to the adjoining fin. No foreign matter or corrosion can form between the tube and the shoulder to cause loss of heat transfer even after years of exposure to the elements. In addition, the shoulder provides a full 100 percent contact with the tube, guaranteeing the maximum amount of heat will be transferred to the fin. The fins are pyramidal in shape for sturdiness and to permit the best possible dissipation of the heat.

TRUE COUNTER FLOW

True counter flow is an action in which the hot refrigerant is gradually cooled by flowing against (or counter to) the cooling medium. In other words, the refrigerant flows hot to cool, or counter to the cooling medium which flows cool to hot. In Fandaire units, the hot gas enters the condenser tubes at the inlet header inside the condenser and makes five complete circles before leaving the tube at the outlet header. Since the cool air enters the condenser around the periphery of the coil and is pulled through the bank of tubes, the coolest gas is always in closest contact with the tubes carrying the coolest gas. This provides the best possible counterflow and assures a greater mean temperature at all times, giving a higher rate of heat transfer, lower condensing temperature and a greater degree of sub-cooling.

POSITIVE CONDENSATE DRAINAGE

Each row or layer of tubes slopes downward at a 30 deg angle. This means the tubes at the outlet header are lower than the tubes at the inlet header. This slope assures a better drainage of all condensate as fast as it forms on the tube wall. No pockets of compressor oil can form to act as an insulator between the hot gas and the air cooled tube walls.



STRAIGHT THROUGH FLOW

Each circuit consists of one continuous length of a single tube which completely eliminates ALL pressure drop caused by return bends. Laboratory tests have shown that up to 60 percent of the pressure drop normally found in rectangular units is due to the short radius return bends necessary in their construction. Fandaire's long-sweeping, one-circuit construction approaches the almost non-existent pressure drop of a single pass unit while retaining all the advantages of a five-pass unit.

VERTICAL AIR DISCHARGE

Vertical air discharge is part of the standard construction. No air scoop or wind deflector is necessary. This vertical air discharge eliminates any tendency to re-circulate hot air and is a "must" in multiple installations. With Fandaire units there are no dead spots to be found on the face of the coil since the air is drawn around the circumference of the coil. Wind from any direction can be used, it is not necessary to face the units in the direction of the prevailing wind.

HOUSING

All Fandaire models are weatherproof. They are housed in attractive, corrosion resistant housings of a spun construction. Models up to 7 1/2 ton are made of aluminum alloy—all other models are galvanized after construction for a durable, maintenance free finish. The air conditioners are supplied with a two-piece, wrap-around skirt. Many other features, normally sold as "extras" on other units, are incorporated in the standard Fandaire design. These include legs, mounting brackets, fan guards.

MOTORS AND FANS

Either direct drive or belt drive weather proof or totally enclosed, ball bearing, permanently lubricated motors are used on all Fandaire models. Fans are axial flow type and are constructed from plated, heavy-duty corrosion-resistant steel or aluminum.



GENERAL CHEMICAL DIVISION

40 Rector Street, New York 6, N. Y.

Manufacturer of **genetron**® Super-Dry Refrigerants

"Genetron" 12—White Label—CCLF₂—Dichlorodifluoromethane; and "Genetron" 22—Green Label—CHClF₂—Monochlorodifluoromethane. Used in virtually all types of refrigeration and air-conditioning equipment, large and small, household and industrial, direct and indirect expansion systems.

Typical units in which "Genetron" 12 and 22 are used: refrigerators, freezers,

frozen food lockers, window air conditioners, home or office console units, large custom-built units for commercial comfort or industrial process, large store units, mobile units for transportation equipment, large home units for addition to present hot air heating systems.

"Genetron" 11—Orange Label—CCI₃F—Trichloromonofluoromethane.

For industrial and commercial refrigeration and air-conditioning systems using single or multi-stage centrifugal compressors. Can also be used for either direct or indirect expansion-type systems.

"Genetron" 113—Purple Label—C₂ClF₅—Trichlorotrifluoroethane. Used in 50-ton and larger centrifugal compressors, primarily for large comfort cooling systems, brine cooling systems and other commercial and industrial air conditioning and refrigeration systems.

"Genetron" 114—Blue Label—C₂ClF₄—Dichlorotetrafluoroethane. Used in centrifugal and rotary compressors for commercial, industrial and household refrigeration.

QUICK FACTS on "Genetron" Super-Dry Refrigerants:

Guaranteed exceptionally low moisture content

Non-corrosive to standard equipment materials

Non-toxic, non-flammable, stable, safe

Critical and freezing points well outside range of operating uses

Solvent action on oil helps prevent solidification or congealing of lubricant

Freely interchangeable and may be mixed in any proportions with comparable fluorinated hydrocarbons meeting the same strict refrigerant specifications

Aid in lubrication of equipment; generally miscible with oil

Available everywhere from refrigeration wholesalers throughout the country

SELECTED PHYSICAL DATA

Selected Physical Data (Performance based on 5°F evaporator temperature and 85°F condenser temperature)	genetron 11	genetron 12	genetron 22	genetron 113	genetron 114
Chemical Formula	CCl ₃ F	CCLF ₂	CHClF ₂	C ₂ ClF ₅	C ₂ ClF ₄
Molecular Weight	137.4	120.9	86.5	187.4	170.9
Boiling Pt. (°F) at 1 Atm. Pressure	74.7	-21.6	-41.4	117.6	37.6
Evaporator Pressure at 5°F (psig)	34.0*	11.8	23.3	27.9*	15.0*
Condensing Pressure at 85°F (psig)	8.6	93.8	159.8	12.9*	22.7
Freezing Point (°F) at 1 Atm. Pressure	-168	-252	-256	-31	-78
Critical Temperature (°F)	338	234	305	417	294
Critical Pressure (psia absolute)	625	667	716	485	478
Compressor Discharge Temperature (°F)	113	101	131	86	88
Compression Ratio (85°F/5°F)	6.34	4.08	4.06	8.02	5.33
Specific Volume of Saturated Vapor at 5°F (cu ft/lb)	13.37	1.46	1.33	27.04	4.04
Latent Heat of Vaporization at 5°F (Btu/lb)	84.0	68.3	93.6	70.6	60.3
Net Refrig. Effect of Liquid—85°F/5°F (Btu/lb)	67.5	80.0	69.3	52.7	43.0
Specific Heat of Liquid at 85°F (Btu/lb°F)	0.21	0.34	0.34	0.23	0.23
Specific Heat of Vapor at Constant Pressure of 1 Atm. & 85°F (Btu/lb°F)	0.13	0.16	0.15	0.15	0.16
Specific Heat Ratio at 85°F & 1 Atm. (K = Cp/Cv)	1.14	1.14	1.18	1.06	1.01
Coefficient of Performance	5.09	4.70	4.66	4.93	4.60
Horsepower/Ton Refrigeration	0.277	1.002	1.011	0.960	1.025
Refrigerant Circulated/Ton Refrig. (lb/min.)	2.96	4.00	2.89	2.73	4.65
Liquid Circulated/Ton Refrig. (cu in./min.)	66.0	85.0	65.0	66.6	86.7
Compressor Displacement/Ton Refrig. (cfm)	35.23	8.83	3.60	100.76	15.78
Toxicity (Underwriters' Laboratories Group No.)	5A	6	5A	4-5	6
Flammability & Explosivity	None	None	None	None	None

* Inches of mercury vacuum.