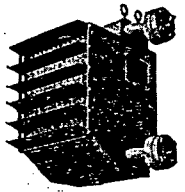
NIAGARA FAN COOLER

Niagara Fan Cooler
Illustration of 3-fan unit. Manufactured also in 1, 2 and 4 fan units.

Recommended for comfort cooling, process cooling for photographic films, laboratories, dairies, chemical and pharmaceutical plants, confectionery manufacturing, low temperature storage for fruits, meats, food products, fur storage vaults, etc. Gives complete circulation of air at desired temperature with even temperature at all points. Saves space and weight. Refrigerant expands into *aluminum coils which save space and weight* over steel pipe coil. Manufactured in seven sizes. See table for capacities.

Write for Bulletin 17 for engineering data.

NIAGARA DISK FAN COOLER



Niagara Disk Fan Cooler
Manufactured in 7 sizes including 2-fan unit.

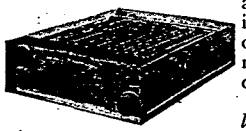
A dependable efficient aluminum cooler for overhead suspension, saving floor space and providing the efficiency of moving air cooling for small storage areas, market coolers, etc. Manufactured in seven sizes. See table for capacities.

Write for Bulletin 25 for engineering data.

NIAGARA COOLING COILS

Tested Cooling Coils as used in Niagara Fan Coolers and Air Conditioners are available encased in standard sizes for blast cooling installations. Seven sizes—20 in. and 30 in. widths. Steel coils in steel cases or aluminum coils in aluminum cases are furnished as required.

Write for Bulletin 16.



Niagara Cooling Coils

Basic Rating* of Niagara Fan Coolers

Model No.	R.P.M.	C.F.M.	H.P.	Basic Rating
1 N	1730	2040	¾	23,400
2 N	1730	3860	1	45,850
3 N	1730	5220	1½	68,600
4 N	1730	7500	2	92,700
1 W	1160	4060	1	43,000
2 W	1160	7900	2	86,200
3 W	1160	11,630	3	129,200

Basic Ratings—Niagara Spray Coolers

Model No.	Fan Motor R.P.M.	Fan Motor H.P.	Pump Motor R.P.M.	Pump Motor H.P.	Cu. Ft. Air Per Min.	Basic Rating
1 N	1730	1	1730	2	1850	49,500
2 N	1730	1½	1730	2	3400	89,100
3 N	1730	2	1730	2	5000	128,000
4 N	1730	3	1730	2	6700	172,000
1 W	1160	1½	1730	2	3650	97,700
2 W	1160	3	1730	2	7350	189,000
3 W	1160	5	1730	2	10,600	262,000

Note—Ratings are based on coils full flooded with ammonia. These ratings make no allowance for heat generated by motors

Basic Rating* of Niagara Disk Fan Coolers

Model No.	Motor H.P.	R.P.M.	C.F.M.	Basic Rating
129	⅛	1730	1100	6,100
1218	⅛	1730	1060	10,800
1913	1/6	1160	2850	12,200
2215	¼	1160	2900	15,400
1926	1/6	1160	2770	20,300
2230	¼	1160	2810	28,100
2636	2½	1160	6000	52,000

Model No. 2636 is a dual fan with horizontal tubes.
*These ratings for ammonia only.

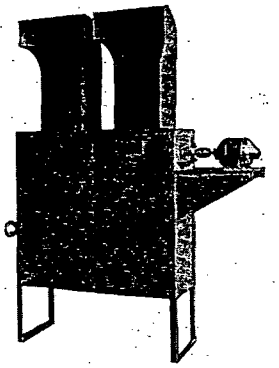
FACTORS FOR OBTAINING B.T.U. CAPACITY

Room Temp. °F.	Temperature of Refrigerant (Brine or Ammonia) +50	+45	+40	+35	+30	+25	+20	+15	+10	+5	0	−5	−10
70	.500	.625	.750	.875	1.000	1.125	1.250	1.375	1.500	1.625	1.750	1.875	2.000
65	.375	.500	.625	.750	.875	1.000	1.125	1.250	1.375	1.500	1.625	1.750	1.875
60	.250	.375	.500	.625	.750	.875	1.000	1.125	1.250	1.375	1.500	1.625	1.750
55	.125	.250	.375	.500	.625	.750	.875	1.000	1.125	1.250	1.375	1.500	1.625
50		.125	.250	.375	.500	.625	.750	.875	1.000	1.125	1.250	1.375	1.500
45			.125	.250	.375	.500	.625	.750	.875	1.000	1.125	1.250	1.375
40				.125	.250	.375	.500	.625	.750	.875	1.000	1.125	1.250
35					.125	.250	.375	.500	.625	.750	.875	1.000	1.125
30						.125	.250	.375	.500	.625	.750	.875	1.000
25							.125	.250	.375	.500	.625	.750	.875
20								.125	.250	.375	.500	.625	.750
15									.125	.250	.375	.500	.625
10										.125	.250	.375	.500
5											.125	.250	.375
0												.125	.250

To obtain B.t.u. per hour capacity of a Niagara Cooler, select the factor at desired room temperature and refrigerant temperature and multiply by the basic rating from the table above.

To select the Niagara Coolers with capacity to maintain a given room temperature, take from factor table the factor at desired room temperature and refrigerant temperature. Then divide the required B.T.U. absorption by this factor which will give a required rating. The corresponding rating may be selected from the basic rating table.

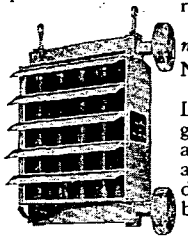
NIAGARA FAN HEATERS



Niagara Fan Heater
Illustration of 2-fan unit. Also manufactured in 1, 3 and 4 fan units.

For the heating and ventilating of large areas, industrial plants, storage buildings, etc. Especially recommended for packing plants, dye houses and wherever ventilation is required. Niagara Fan Heaters put the heat immediately where needed in the working zone, give quicker heating up to working temperatures, prevent cold floors, cold corners. Definitely built to the highest possible standards and to out-live other heating equipment. Niagara Fan Heaters have welded aluminum heating coils, welded frames, ball-bearing fan shafts and other improvements making for continuous, efficient service. Quiet in operation, they may be used to heat both office and industrial spaces. Ducts may be used for distribution to partitioned rooms. See tables for capacities.

Write for Bulletin No. 14 for engineering data.



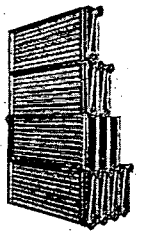
Niagara All Aluminum Disk Fan Heater

NIAGARA DISK FAN HEATERS

A most effective suspended heater. Lower resistance to air passage gives greater distance of discharge of warm air, effectively heating larger areas and keeping the heat down in the working zone. Operates with lower discharge temperature, cuts down roof and wall losses, diffuses heat better at lower cost, with fewer heaters.

Write for Bulletin No. 30 for capacities and engineering data.

NIAGARA ALUMINUM HEATING COILS



Niagara Aluminum Heating Coils

Designed for use with fan heating systems giving the advantage of aluminum, light weight and resistance to corrosion to this service. Manufactured in two widths 20 in. and 30 in. and in two types of three lengths, each in each width giving a complete range of sizes. Good for 150 lbs. working steam pressure. Completely encased ready for piping connections. Headers are cast aluminum welded by special process to U-bend aluminum tubes.

Write for Bulletins Nos. 20 and 14.

Niagara Booster Heaters, similar in construction to Niagara Aluminum Heating Coils are used for reheaters to control room temperature independently of the fan system.

RATED OUTPUT CAPACITIES—Niagara Fan Heaters

Model No.	R.P.M.	Motor H.P.	Cu. Ft. Air Per Min.	Entering Air 60° F. 5 lb. Steam: Outlet Temp. °F	BTU Per Hour	Lbs. Cond. Per Hour	Entering Air 0° F. 5 lb. Steam: Outlet Temp. °F	BTU Per Hour	Lbs. Cond. Per Hour	Equivalent Direct Rad. at 5 lb. Steam and 60° F. Entering Air
60 Cycle Motors										
160N	860	⅛	1315	134	95,700	99	100	128,000	133	416
	1160	¼	1775	129	121,000	125	94	165,000	171	526
	1730	½	2175	124	128,300	133	87	188,000	194	556
260N	860	¼	2500	134	182,000	188	100	244,000	252	790
	1160	¾	3330	129	226,000	234	94	309,000	407	965
	1730	1	4000	124	261,000	270	87	354,000	361	1135
360N	860	½	3620	134	263,000	272	100	353,000	360	1145
	1160	½	3970	132	269,000	277	98	364,000	371	1170
	1730	1½	5920	124	377,000	391	87	513,000	525	1640
460N	860	¼	4000	134	287,000	292	100	386,000	393	1250
	1160	¾	5360	126	348,500	360	89	468,000	480	1515
	1730	2	8000	120	480,000	492	82	653,000	666	2085
160W	860	1	4340	124	274,000	277	All steam pressures to 200 lbs. and entering air temperatures −20° to 160° F. are given in N. B. Co. Bulletin No. 3.			1190
	1160	1	4340	124	274,000	277				1190
260W	860	2	8680	124	542,000	554				2380
	1160	2	8680	124	542,000	554				2380
360W	860	3	12,600	124.5	800,000	808				3475
	1160	3	12,600	124.5	800,000	808				3475