

1	2	3	4	5	TOTAL COSTS			UNIT COSTS			12	13
REFRIGERATION TONS	FLOOR AREA SQ FT	AIR DISTRIBUTED CU FT	UNIT COSTS		6	7	8	UNIT COSTS			EVAPORATIVE CONDENSERS PER TON	COOLING TOWERS PER TON
			REFRIGERATION EQUIPMENT PER TON	DUCTS, FANS, HEATING COILS, ETC. PER CFM				REFRIGERATION EQUIPMENT	AIR HANDLING EQUIPMENT	TOTAL		
25	8,333	12,500	250	1.05	6,250	13,100	19,350	775.00	2.32	1.55	190.00	
50	16,666	25,000	224	.98	11,200	24,500	35,700	730.00	2.15	1.43	155.00	
75	25,000	37,500	212	.95	15,900	35,700	51,600	690.00	2.07	1.38	120.00	
100	33,332	50,000	204	.92	20,400	46,000	66,400	664.00	1.99	1.33	90.00	52.00
150	50,000	75,000	195	.91	29,200	68,200	97,400	650.00	1.95	1.30	60.00	50.00
200	66,664	100,000	192	.90	38,200	90,000	128,200	641.00	1.93	1.28		48.00
250	83,333	125,000	187	.88	46,800	110,000	156,800	628.00	1.88	1.25		46.00
300	100,000	150,000	182	.86	54,600	129,000	183,600	612.00	1.84	1.23		44.00
400	133,328	200,000	165	.84	66,000	168,000	234,000	585.00	1.76	1.17		42.00
500	166,666	250,000	158	.82	79,000	205,000	284,000	568.00	1.71	1.14		40.00

* These cost figures (based on 1980 prices) cover only the average type of comfort air conditioning in open spaces as in department stores, or for industrial air conditioning involving large areas. Where a multiplicity of small spaces must be individually controlled, as in office buildings, hotels and apartment houses, these costs do not apply.

a Includes only final water, drain and electrical connections within the equipment room.

b Columns 9, 10, and 11 represent costs where well water or city water is available for condensing purposes. Where conservation of water is required, add column 12 or 13 to column 9 to obtain total cost per ton.

c Does not include cost of structural reinforcing if required to support the weight of cooling towers or evaporative condensers.

951

TABLE 2. PROBABLE USEFUL LIFE OF EQUIPMENT^a

	LIFE IN YEARS
1. HEAT PRODUCING EQUIPMENT	
(a) Boilers	20
(b) Stokers and burners	20
2. HEAT DISTRIBUTING EQUIPMENT	
(a) Piping—copper	same as bldg.
(b) Piping—iron	20
(c) Radiation—concealed	25
(d) Radiation—direct	25
(e) Valves and specialties	10
3. AIR HANDLING EQUIPMENT	
(a) Filters—automatic	20
(b) Heating and cooling coils	20
(c) Spray humidifiers and dehumidifiers	10
(d) Fans	15
(e) Air conditioning units	10
(f) Motors	20
(g) Electrical starting equipment	20
(h) Pneumatic control systems	15
(i) Electric control systems	15
4. AIR DISTRIBUTING EQUIPMENT	
(a) Ductwork	same as bldg.
(b) Outlets, grilles	20
(c) Duct insulation	15
5. REFRIGERATING EQUIPMENT	
(a) Centrifugal refrigerating machines	20
(b) Reciprocating refrigerating machines	20
(c) Motors and starters	20
(d) Piping—copper	20
(e) Piping—steel	20
(f) Pumps	20
6. WATER SAVING DEVICES	
(a) Evaporative condensers	15
(b) Cooling towers	15
(c) Wells	25

* Taken from U. S. Bureau of Internal Revenue Schedule of Probable Useful Life, revised 1942.

In Table 1 an attempt has been made to give approximate averages of the cost of air conditioning systems where the refrigeration requirement is one ton for every 333 sq ft of floor area, and where the air quantity to be distributed is $1\frac{1}{2}$ cfm per sq ft of floor area. This table should be used with caution, as the floor area per ton of refrigeration and the cfm per square foot of floor area may vary between wide limits.

Other first costs, incurred because of the installation of the air condition-