TABLE 1. COST DOLLARS PER TON FOR A COMPLETE SYSTEM, INCLUDING HEATING AND COOLING COILS, FAN, DUCTS, REFRIGERATION EQUIPMENT, TEMPERATURE CONTROLS, ETC.

1	2	3	4	5	6	7	8	9	10	11	12	13
			Unit Costs		Total Cost[a]			Unit Costs[b]				
Refrigeration Tons	Floor Area sq ft	Air Distributed cu ft	Refrigeration Equipment per Ton	Ducts, Fans, Heating Coils, Etc. per cfm	Refrigeration Equipment	Air Handling Equipment	Total	Per Ton	Per Sq Ft Floor	Per cfm	Evaporative Condenser Per Ton[c]	Cooling Towers Per Ton[c]
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

[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.

the estimated unit costs of the component parts of the system. A reasonably precise estimate of the cost of the components may be obtained from cost records of recent installations of a comparable design, or may be obtained from manufacturers or contractors.

TABLE 2. APPROXIMATE LIFE OF EQUIPMENT

(Including Obsolescence and Deterioration)[a]

	Life in Years
1. HEAT PRODUCING EQUIPMENT	
(a) Boilers	15
(b) Stokers and burners	10
2. HEAT DISTRIBUTING EQUIPMENT	
(a) Piping—copper	20
(b) Piping—iron	10
(c) Radiation—concealed	12
(d) Radiation—direct	10
(e) Valves and specialties	5
3. AIR HANDLING EQUIPMENT	
(a) Filters—automatic	8
(b) Heating and cooling coils	10
(c) Spray humidifiers and dehumidifiers	10
(d) Fans	10
(e) Air conditioning units	10
(f) Motors	15
(g) Electrical starting equipment	8
(h) Pneumatic control systems	10
(i) Electric control systems	8
4. AIR DISTRIBUTING EQUIPMENT	
(a) Ductwork	20
(b) Outlets, grilles	20
(c) Duct insulation	10
(d) Painting	
5. REFRIGERATING EQUIPMENT	
(a) Centrifugal refrigerating machines	15
(b) Reciprocating refrigerating machines	10
(c) Motors and starters (see Item 3 above)	
(d) Piping—copper	20
(e) Piping—steel	15
(f) Pumps	15
6. WATER SAVING DEVICES	
(a) Evaporative condensers	10
(b) Cooling towers	10
(c) Wells	Varies Widely

[a] Modern Air Conditioning, Heating and Ventilating, W. H. Carrier, R. E. Cherne and W. A. Grant (*Pitman Publishing Corp.* 1940, p. 66).

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 1½ 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-