1 Btu	=	777.5 ft-lb 0.293 watthours 252.02 mean calories
1 watthour	=	2,655.2 ft-lb 3.415 Btu 3600 joules 860.648 mean calories
1 mean calorie	=	0.003968 Btu 3.085 ft-lb 0.0011619 watthours
1 kilowatt (1000 watts)	=	1.3405 horsepower 56.92 Btu per minute 44,252.7 ft-lb per minute
1 horsepower	=	0.746 kilowatt 42.44 Btu per minute 33,000 ft-lb per minute 550 ft-lb per second
1 boiler horsepower	=	33,471.9 Btu per hour

Weight and Volume

1 gal (U. S.)	=	231 cu in. 0.13368 cu ft
1 British or Imperial gallon	=	277.274 cu in.
1 cu ft	=	7.4805 gal 1728 cu in.
1 cu ft water at 60 F	=	62.37 lb
1 cu ft water at 212 F	=	59.76 lb
1 gal water at 60 F	=	8.34 lb
1 gal water at 212 F	=	7.99 lb
1 lb (avdp)	=	16 oz 7000 grains
1 bushel	=	1.244 cu ft
1 short ton	=	2000 lb
1 long ton	=	2240 lb

Pressure

1 lb per square inch	=	144 lb per square foot 2.0416 in. mercury at 62 F 2.309 ft water at 62 F 27.71 in. water at 62 F
1 oz per square inch	=	0.1276 in. mercury at 62 F 1.732 in. water at 62 F
1 atmosphere	=	14.7 lb per square inch 2116.3 lb per square foot 33.974 ft water at 62 F 30 in. mercury at 62 F 29.921 in. mercury at 32 F
1 in. water at 62 F	=	0.03609 lb per square inch 0.5774 oz per square inch 5.196 lb per square foot
1 ft water at 62 F	=	0.433 lb per square inch 62.355 lb per square foot
1 in. mercury at 62 F	=	0.491 lb per square inch 7.86 oz per square inch 1.131 ft water at 62 F 13.57 in. water at 62 F

Metric Units

1 cm	=	0.3937 in.
1 in.	=	2.54 cm
1 m	=	3.281 ft
1 ft	=	0.3048 m
1 sq cm	=	0.155 sq in.
1 sq in.	=	6.45 sq cm
1 sq m	=	10.765 sq ft
1 sq ft	=	0.0929 sq m
1 cu cm	=	0.061 cu in.
1 cu in.	=	16.39 cu cm
1 cu m	=	35.32 cu ft
1 cu ft	=	0.0283 cu m
1 liter	=	1000 cu cm = 0.264 gal
1 kg	=	2.2046 lb
1 lb	=	0.4536 kg
1 metric ton	=	2205 lb (avdp)
1 gram	=	980.59 dynes = 0.002205 lb
1 kilometer per hour	=	0.6214 mph
1 gram per square centimeter	=	0.0290 in. mercury, at 0 deg C 0.394 in. water, at 15 C
1 kg per square centimeter (metric atmosphere)	=	14.22 lb per square inch
1 gram per cubic centimeter	=	0.03614 lb per cubic inch 62.43 lb per cubic foot
1 dyne	=	0.00007233 poundals
1 joule	=	10,000,000 ergs 0.73767 ft-lb
1 metric horsepower	=	75 kg-m per second 0.986 hp (U. S.)
1 kilogram-calorie (large calorie)	=	1000 gram-calories (small calorie) 3.97 Btu
1 kilogram-calorie per kilogram	=	1.8 Btu per pound
1 gram-calorie per square centimeter	=	3.687 Btu per square foot
1 gram-calorie per square centimeter per centimeter	=	1.451 Btu per square foot per inch
1 gram-calorie per second per square centimeter for a temperature graduation of 1 deg C per centimeter	=	2903 Btu per hour per square foot for a temperature graduation of 1 deg F per inch of thickness.

SYMBOLS FOR HEATING AND VENTILATING DRAWINGS[5]

1. The objects of this standard set of symbols are to insure the correct interpretation of drawings and to conserve drafting room time by establishing simple and unmistakable symbols for the component parts of the heating and ventilating systems. In preparing the list of symbols an effort has been made to follow existing practice in so far as possible but the list cannot be expected to match exactly the existing practice of every drafting room.

2. Simplicity, ease of execution and unmistakable identification were carefully considered in selecting the symbols. Uncommon fittings and appliances such as vacuum pumps, separators, etc., have purposely been omitted in order to produce a list which can be easily remembered. It is assumed that when the scale of the drawing permits, the valves and fittings will be drawn to scale and a conventional representation is then unnecessary.

[5]From A.S.H.V.E. Code of Minimum Requirements for the Heating and Ventilation of Buildings, edition of 1929.