

1 atmosphere	=	$\begin{cases} 14.7 \text{ lb per square inch} \\ 2116.3 \text{ lb per square foot} \\ 33.974 \text{ ft water at } 62^\circ\text{F} \\ 30 \text{ in. mercury at } 62^\circ\text{F} \\ 29.921 \text{ in. mercury at } 32^\circ\text{F} \end{cases}$
1 in. water at 62 F	=	$\begin{cases} 0.03609 \text{ lb per square inch} \\ 0.5774 \text{ oz per square inch} \\ 5.196 \text{ lb per square foot} \end{cases}$
1 ft water at 62 F	=	$\begin{cases} 0.433 \text{ lb per square inch} \\ 62.355 \text{ lb per square foot} \end{cases}$
1 in. mercury at 62 F	=	$\begin{cases} 0.491 \text{ lb per square inch} \\ 7.86 \text{ oz per square inch} \\ 1.131 \text{ ft water at } 62^\circ\text{F} \\ 13.57 \text{ in. water at } 62^\circ\text{F} \end{cases}$

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	=	$\begin{cases} 0.0290 \text{ in. mercury, at } 0^\circ\text{C} \\ 0.394 \text{ in. water, at } 15^\circ\text{C} \end{cases}$
1 kg per square centimeter (metric atmosphere)	=	14.22 lb per square inch
1 gram per cubic centimeter	=	$\begin{cases} 0.03614 \text{ lb per cubic inch} \\ 62.43 \text{ lb per cubic foot} \end{cases}$
1 dyne	=	0.00007233 poundals
1 joule	=	$\begin{cases} 10,000,000 \text{ ergs} \\ 0.73767 \text{ ft-lb} \end{cases}$
1 metric horsepower	=	$\begin{cases} 75 \text{ kg-m per second} \\ 0.986 \text{ hp (U. S.)} \end{cases}$
1 kilogram-calorie (large calorie)	=	$\begin{cases} 1000 \text{ gram-calories (small calorie)} \\ 3.97 \text{ Btu} \end{cases}$
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	=	$\begin{cases} 2903 \text{ Btu per hour per square foot} \\ \text{for a temperature graduation of } 1^\circ\text{F per inch of thickness.} \end{cases}$

SYMBOLS FOR HEATING, VENTILATING AND AIR CONDITIONING DRAWINGS⁵

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.

1. General Piping		6. Air Piping	
2. Steam Piping		7. Vacuum Piping	
3. Condensate Piping		8. Gas Piping	
4. Cold Water Piping		9. Refrigerant Piping	
5. Hot Water Piping		10. Oil Piping	
11. Lock and Shield Valve		23. Indirect Radiator Plan	
12. Reducing Valve		24. Indirect Radiator Elevation	
13. Diaphragm Valve		25. Supply Duct, Section	
14. Thermostat		26. Exhaust Duct, Section	
15. Radiator Trap Elevation		27. Butterfly Damper Plan (or Elevation)	
16. Radiator Trap Plan		28. Butterfly Damper Elevation (or Plan)	
17. Tube Radiator Plan		29. Deflecting Damper Rectangular Pipe	
18. Tube Radiator Elevation		30. Vanes	
19. Wall Radiator Plan		31. Air Supply Outlet	
20. Wall Radiator Elevation		32. Exhaust Inlet	
21. Pipe Coil Plan			
22. Pipe Coil Elevation			

⁵From A.S.H.V.E. Code of Minimum Requirements for the Heating and Ventilation of Buildings, edition of 1929, and American Standard Drawings and Drafting Room Practice Graphical Symbols (American Standards Association, Z14.2—1935).