

Thermodynamic Properties of Saturated Steam

(condensed table)

| Gauge Pressure (psig) | Absolute Pressure (psia) | Steam Temp (°F) | Enthalpy of Sat. liquid (Btu/lb) | Latent Heat (Btu/lb) | Enthalpy of Steam (Btu/lb) | Specific Volume (ft ³ /lb) (density) ⁻¹ |
|-----------------------|--------------------------|-----------------|----------------------------------|----------------------|----------------------------|---|
| --- | --- | --- | In a Vacuum | --- | --- | --- |
| 29.74 | 0.0885 | 32 | 0.00 | 1075.8 | 1075.8 | 3306.00 |
| 29.52 | 0.2 | 53.14 | 21.21 | 1063.8 | 1085.0 | 1526.00 |
| 27.89 | 1.0 | 101.74 | 69.70 | 1036.3 | 1106.0 | 333.60 |
| 19.74 | 5.0 | 162.24 | 130.13 | 1001.0 | 1131.1 | 73.52 |
| 9.56 | 10.0 | 193.21 | 161.17 | 982.1 | 1143.3 | 38.42 |
| 7.54 | 11.0 | 197.75 | 165.73 | 979.3 | 1145.0 | 35.14 |
| 5.49 | 12.0 | 201.96 | 169.96 | 976.6 | 1146.6 | 32.40 |
| 3.45 | 13.0 | 205.88 | 173.91 | 974.2 | 1148.1 | 30.06 |
| 1.42 | 14.0 | 209.56 | 177.61 | 971.9 | 1149.5 | 28.04 |
| --Psig-- | --- | --- | --- | --- | --- | --- |
| 0.0 | 14.696 | 212.00 | 180.07 | 970.3 | 1150.4 | 26.80 |
| 1.3 | 16.0 | 216.32 | 184.42 | 967.6 | 1152.0 | 24.75 |
| 2.3 | 17.0 | 219.44 | 187.56 | 965.5 | 1153.1 | 23.39 |
| 5.3 | 20.0 | 227.96 | 196.16 | 960.1 | 1156.3 | 20.09 |
| 10.3 | 25.0 | 240.07 | 208.42 | 952.1 | 1160.6 | 16.30 |
| 15.3 | 30.0 | 250.33 | 218.82 | 945.3 | 1164.1 | 13.75 |
| 20.3 | 35.0 | 259.28 | 227.91 | 939.2 | 1167.1 | 11.90 |
| 25.3 | 40.0 | 267.25 | 236.03 | 933.7 | 1169.7 | 10.50 |
| 30.3 | 45.0 | 274.44 | 243.36 | 928.6 | 1172.0 | 9.40 |
| 40.3 | 55.0 | 287.07 | 256.30 | 919.6 | 1175.9 | 7.79 |
| 50.3 | 65.0 | 297.97 | 267.50 | 911.6 | 1179.1 | 6.66 |
| 60.3 | 75.0 | 307.60 | 277.43 | 904.5 | 1181.9 | 5.82 |
| 70.3 | 85.0 | 316.25 | 286.39 | 897.8 | 1184.2 | 5.17 |
| 80.3 | 95.0 | 324.12 | 294.56 | 891.7 | 1186.2 | 4.65 |
| 90.3 | 105.0 | 331.36 | 302.10 | 886.0 | 1188.1 | 4.23 |
| 100.0 | 114.7 | 337.90 | 308.80 | 880.0 | 1188.8 | 3.88 |
| 110.3 | 125.0 | 344.33 | 315.68 | 875.4 | 1191.1 | 3.59 |
| 120.3 | 135.0 | 350.21 | 321.85 | 870.6 | 1192.4 | 3.33 |
| 125.3 | 140.0 | 353.02 | 324.82 | 868.2 | 1193.0 | 3.22 |
| 130.3 | 145.0 | 355.76 | 327.70 | 865.8 | 1193.5 | 3.11 |
| 140.3 | 155.0 | 360.50 | 333.24 | 861.3 | 1194.6 | 2.92 |
| 150.3 | 165.0 | 365.99 | 338.53 | 857.1 | 1195.6 | 2.75 |
| 160.3 | 175.0 | 370.75 | 343.57 | 852.8 | 1196.5 | 2.60 |
| 180.3 | 195.0 | 379.67 | 353.10 | 844.9 | 1198.0 | 2.34 |
| 200.3 | 215.0 | 387.89 | 361.91 | 837.4 | 1199.3 | 2.13 |
| 225.3 | 240.0 | 397.37 | 372.12 | 828.5 | 1200.6 | 1.92 |
| 250.3 | 265.0 | 406.11 | 381.60 | 820.1 | 1201.7 | 1.74 |

| | | | | | | |
|---|--------|--------|--------|-------|--------|------|
| - | 300.0 | 417.33 | 393.84 | 809.0 | 1202.8 | 1.54 |
| - | 400.0 | 444.59 | 424.00 | 780.5 | 1204.5 | 1.16 |
| - | 450.0 | 456.28 | 437.20 | 767.4 | 1204.6 | 1.03 |
| - | 500.0 | 467.01 | 449.40 | 755.0 | 1204.4 | 0.93 |
| - | 600.0 | 486.21 | 471.60 | 731.6 | 1203.2 | 0.77 |
| - | 900.0 | 531.98 | 526.60 | 668.8 | 1195.4 | 0.50 |
| - | 1200.0 | 567.22 | 571.70 | 611.7 | 1183.4 | 0.36 |
| - | 1500.0 | 596.23 | 611.60 | 556.3 | 1167.9 | 0.28 |
| - | 1700.0 | 613.15 | 636.30 | 519.6 | 1155.9 | 0.24 |
| - | 2000.0 | 635.82 | 671.70 | 463.4 | 1135.1 | 0.19 |
| - | 2500.0 | 668.13 | 730.60 | 360.5 | 1091.1 | 0.13 |