

The SteamCalc Viewer is included for free in all AFT software.



Steam/Water Properties:

- Bulk Modulus of Elasticity
- Density
- Entropy
- Compressibility Factor
- Enthalpy
- Internal Energy
- Kinematic Viscosity
- Isentropic Expansion Coefficient, Gamma
- Phase
- Pressure
- Prandtl Number
- Quality
- Saturation Temperature
- Sonic Velocity
- Specific Heat, cp
- Specific Volume
- Specific Heat, cv
- Temperature Subcool
- Temperature Superheat
- Thermal Conductivity
- Temperature
- Viscosity

| Temperature (deg F) | Phase | Pressure (psia) | Temperature (deg F) | Density (lbm/ft ³) | Entropy (Btu/lbm) | Specific Heat cp (Btu/lbm-F) | Viscosity (lbm/ft-sec) | Thermal Cond. (Btu/hr-ft-F) |
|---------------------|--------|-----------------|---------------------|--------------------------------|-------------------|------------------------------|------------------------|-----------------------------|
| = 200 | Liquid | 100.000 | 200.000 | 80.138108 | 168.300 | 1.004904 | 0.7325016 | 0.3903049 |
| = 225 | Liquid | 100.000 | 225.000 | 59.513746 | 193.473 | 1.009124 | 0.6334978 | 0.3955873 |
| = 250 | Liquid | 100.000 | 250.000 | 58.835256 | 218.785 | 1.014381 | 0.5561280 | 0.3955225 |
| = 275 | Liquid | 100.000 | 275.000 | 58.103872 | 244.203 | 1.020831 | 0.4947043 | 0.3961638 |
| = 300 | Liquid | 100.000 | 300.000 | 57.319600 | 269.818 | 1.028634 | 0.4450730 | 0.3955759 |
| = 325 | Liquid | 100.000 | 325.000 | 56.480737 | 295.648 | 1.038059 | 0.4043173 | 0.3937750 |
| = 350 | Gas | 100.000 | 350.000 | 0.217754 | 1200.440 | 0.566972 | 0.0363031 | 0.0192960 |
| = 375 | Gas | 100.000 | 375.000 | 0.209808 | 1214.319 | 0.545282 | 0.0377214 | 0.0197624 |
| = 400 | Gas | 100.000 | 400.000 | 0.202602 | 1227.768 | 0.531385 | 0.0391401 | 0.0203328 |
| = 425 | Gas | 100.000 | 425.000 | 0.195999 | 1240.820 | 0.521440 | 0.0405584 | 0.0209757 |
| = 450 | Gas | 100.000 | 450.000 | 0.189905 | 1253.361 | 0.514206 | 0.0419798 | 0.0216709 |
| = 475 | Gas | 100.000 | 475.000 | 0.184248 | 1265.647 | 0.508950 | 0.0434004 | 0.0224026 |
| = 500 | Gas | 100.000 | 500.000 | 0.178970 | 1279.321 | 0.505192 | 0.0448218 | 0.0231712 |

Property Source: ASME Steam Tables (IAPWS-IF97)

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AFT SteamCalc Viewer provides three ways to calculate steam and water properties from a broad range of input parameters:

- **Single Point** - properties calculated at a single point
- **Two Points** - the difference in value between the two inputs for all selected output parameters
- **Range** - properties calculated over a range of points based on two inputs. The first input is a single value and the second input includes a start value, end value and increment. The output displays properties for each increment over the range. Range output may also be graphed.

| Parameter | Value |
|-------------------------------|-----------|
| Phase | Gas |
| Pressure (psia) | 100.000 |
| Temperature (deg. F) | 400.000 |
| Density (lbm/ft3) | 0.202602 |
| Enthalpy (Btu/lbm) | 1227.77 |
| Specific Heat, cp (Btu/lbm-R) | 0.531365 |
| Viscosity (lbm/hr-ft) | 0.0391401 |
| Thermal Cond. (Btu/hr-ft-R) | 0.0203328 |
| Quality (Percent) | N/A |

| Quality (Percent) | Phase | Pressure (psia) | Density (lbm/ft3) | Enthalpy (Btu/lbm) |
|-------------------|------------------|-----------------|-------------------|--------------------|
| = 0 | Saturated Liquid | 250.0 | 53.6116 | 376.2 |
| = 20 | Saturated | 250.0 | 2.6062 | 541.2 |
| = 40 | Saturated | 250.0 | 1.3356 | 706.3 |
| = 60 | Saturated | 250.0 | 0.8978 | 871.4 |
| = 80 | Saturated | 250.0 | 0.6762 | 1036.5 |
| = 100 | Saturated Vapor | 250.0 | 0.5423 | 1201.6 |

Output

- Configure parameters displayed, display order and number of digits
- Supports English and SI units
- Save or set your parameter and unit preferences as the default
- Save and reload input sets
- Customize your graphs using colors, axis scale, titles, markers and more
- Use your graphs in other documents

