



**NIST** United States Department of Commerce  
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**Thermodynamic Properties of Water:  
Tabulation from the IAPWS Formulation 1995  
for the Thermodynamic Properties of  
Ordinary Water Substance for General  
and Scientific Use**

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Allan H. Harvey

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**TECHNOLOGY ADMINISTRATION**, Gary R. Bachula, Acting Under Secretary for Technology  
**NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY**, Raymond G. Kammer, Director



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## List of Symbols

$h$	enthalpy, kJ/kg
$p$	pressure, MPa
$s$	entropy, kJ/(kg·K)
$t$	temperature, degrees Celsius
$v$	volume, cm <sup>3</sup> /g

## Subscripts

L	liquid at saturation
V	vapor at saturation
s	saturation

## Greek Letters

$\Delta$	property change on vaporization
$\rho$	density, kg/m <sup>3</sup>

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Tables are provided for the density, enthalpy, entropy, and volume of water and steam calculated from the IAPWS Formulation 1995 for the Thermodynamic Properties of Ordinary Water Substance for General and Scientific Use. This formulation is the current international standard for water's thermodynamic properties, and is implemented in NIST Standard Reference Database 10. The properties are tabulated along the vapor-liquid saturation curve as a function of both temperature and pressure. They are also tabulated for single-phase states on a grid of temperatures and pressures extending to 2000 °C and 1000 MPa.

Key words: density; enthalpy; entropy; steam; steam tables; thermodynamic properties; volume; water

## **1. Introduction**

The current international standard for the thermodynamic properties of ordinary water is the IAPWS Formulation 1995 for the Thermodynamic Properties of Ordinary Water Substance for General and Scientific Use [1,2]. We will refer to this formulation as IAPWS-95.

Unfortunately, the paper describing IAPWS-95 [2] has not yet been published, and there is to our knowledge no source of tabulated property values other than the small number of values given in the IAPWS Release [1] for the purpose of checking computer codes. While we anticipate that the needs of most users will be met by the software implementation of this formulation [3], there is still some demand for printed "Steam Tables." The purpose of this report is to meet that demand, though this report may be superseded at a later time by a more thorough Steam Tables book such as the one that was produced for the previous standard by Haar et al. [4].

## 2. Generation of the Tables

The numbers in these tables were generated from the Fortran code that implements the IAPWS-95 formulation in NIST Standard Reference Database 10, Version 2.1 [3]. They were then copied directly into tables in a word processing program. Most computed values were rounded to five significant digits. The number of digits printed for any value should not be taken as an indication of the accuracy of the formulation at that point; the IAPWS Release (reprinted as Appendix A) should be consulted for that information.

These tables largely follow the example of Haar et al. [4]. However, in the 14 years since that book was published, the purpose of printed Steam Tables has changed. Users who need high accuracy for scientific research or industrial design will use software, not printed tables. The printed tables are now mainly useful for quick estimates and therefore need not be as finely spaced in their coverage of pressures and temperatures. For this reason, the largest table in this report (the single-phase table, Table 3) is somewhat less than half the size of the corresponding table in the book of Haar et al. The tables for saturation properties are also somewhat shorter.

## 3. Notes on the Tables

In general, these tables should be self-explanatory. Standard notation (documented in the "List of Symbols") has been used, and traditional formatting has been followed. Here, a few specifics which may not be obvious are described.

In Table 3, the subcritical isobars cross the vapor-liquid saturation boundary. The first two lines printed for each isobar give the values of properties for the saturated liquid and saturated vapor, respectively. As is customary, a horizontal line is drawn between the points immediately above and below the phase boundary.

The IAPWS-95 formulation is recommended for fluid states at temperatures up to 1000 °C and 1000 MPa, and tests have shown it to extrapolate reasonably to higher temperatures and pressures and also to metastable liquid conditions at subfreezing temperatures at ambient pressures. (For more details on the range of validity and on extrapolation capabilities, consult the Release reprinted as Appendix A.) All points in Table 3 above 1000 °C should be considered extrapolations. Some of the low-temperature points in Table 3 correspond to conditions where the equilibrium phase would be a solid. For those points at low pressures, this is indicated by italicizing the values. At high pressures, these points are not printed at all since there is no way to verify the formulation's accuracy at those conditions. The solid-fluid equilibrium boundaries were determined from the formulas given by Wagner et al. [5].

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The author thanks the ASME Research and Technology Committee on Water and Steam in Thermal Power Systems, Subcommittee on Properties of Water and Steam, for advice and encouragement on this project.



#### 4. References

- [1] Release on the IAPWS Formulation 1995 for the Thermodynamic Properties of Ordinary Water Substance for General and Scientific Use, Fredericia, Denmark, 1996. This release is reproduced as Appendix A of this report; copies of this and other IAPWS releases may be obtained from the IAPWS Executive Secretary: Dr. R.B. Dooley, Electric Power Research Institute, 3412 Hillview Avenue, Palo Alto, CA, 94304, USA.
- [2] A. Pruß and W. Wagner, "The IAPWS Formulation 1995 for the Thermodynamic Properties of Ordinary Water Substance for General and Scientific Use," to be submitted to *J. Phys. Chem. Ref. Data*.
- [3] A.H. Harvey, A.P. Peskin, and S.A. Klein, NIST/ASME Steam Properties, Natl. Inst. Stand. Technol. Standard Reference Database 10, Version 2.1 (1997).
- [4] L. Haar, J.S. Gallagher, and G.S. Kell, *NBS/NRC Steam Tables*, Hemisphere, New York (1984).
- [5] W. Wagner, A. Saul, and A. Pruß, "International Equations for the Pressure along the Melting and along the Sublimation Curve of Ordinary Water Substance," *J. Phys. Chem. Ref. Data* 23, 515-527 (1994).

**Table 1. Saturation (Temperature)**

$t, ^\circ\text{C}$	$p, \text{MPa}$	Density, $\text{kg/m}^3$		Enthalpy, $\text{kJ/kg}$			Entropy, $\text{kJ/(kg}\cdot\text{K)}$			Volume, $\text{cm}^3/\text{g}$	
		$\rho_L$	$\rho_V$	$h_L$	$h_V$	$\Delta h$	$s_L$	$s_V$	$\Delta s$	$v_L$	$v_V$
0.01	0.000 611 7	999.79	0.004 855	0.00	2500.9	2500.9	0.000 00	9.1555	9.1555	1.000 21	205 991.
1	0.000 657 1	999.85	0.005 196	4.18	2502.7	2498.6	0.015 26	9.1291	9.1138	1.000 15	192 439.
2	0.000 706 0	999.89	0.005 563	8.39	2504.6	2496.2	0.030 61	9.1027	9.0720	1.000 11	179 758.
3	0.000 758 1	999.92	0.005 952	12.60	2506.4	2493.8	0.045 89	9.0765	9.0306	1.000 08	168 008.
4	0.000 813 5	999.93	0.006 365	16.81	2508.2	2491.4	0.061 10	9.0505	8.9894	1.000 07	157 116.
5	0.000 872 6	999.92	0.006 802	21.02	2510.1	2489.0	0.076 25	9.0248	8.9486	1.000 08	147 011.
6	0.000 935 4	999.89	0.007 266	25.22	2511.9	2486.7	0.091 34	8.9993	8.9080	1.000 11	137 633.
7	0.001 002 1	999.86	0.007 757	29.43	2513.7	2484.3	0.106 37	8.9741	8.8677	1.000 14	128 923.
8	0.001 073 0	999.80	0.008 276	33.63	2515.6	2481.9	0.121 33	8.9491	8.8278	1.000 20	120 829.
9	0.001 148 3	999.74	0.008 826	37.82	2517.4	2479.6	0.136 24	8.9243	8.7881	1.000 26	113 304.
10	0.001 228 2	999.65	0.009 407	42.02	2519.2	2477.2	0.151 09	8.8998	8.7487	1.000 35	106 303.
11	0.001 313 0	999.56	0.010 021	46.22	2521.0	2474.8	0.165 87	8.8754	8.7096	1.000 44	99 787.
12	0.001 402 8	999.45	0.010 670	50.41	2522.9	2472.5	0.180 61	8.8513	8.6707	1.000 55	93 719.
13	0.001 498 1	999.33	0.011 355	54.60	2524.7	2470.1	0.195 28	8.8274	8.6321	1.000 67	88 064.
14	0.001 599 0	999.20	0.012 078	58.79	2526.5	2467.7	0.209 90	8.8037	8.5938	1.000 80	82 793.
15	0.001 705 8	999.06	0.012 841	62.98	2528.3	2465.4	0.224 46	8.7803	8.5558	1.000 94	77 875.
16	0.001 818 8	998.90	0.013 645	67.17	2530.2	2463.0	0.238 97	8.7570	8.5180	1.001 10	73 286.
17	0.001 938 4	998.73	0.014 493	71.36	2532.0	2460.6	0.253 43	8.7339	8.4805	1.001 27	69 001.
18	0.002 064 7	998.55	0.015 385	75.54	2533.8	2458.3	0.267 83	8.7111	8.4433	1.001 45	64 998.
19	0.002 198 3	998.36	0.016 325	79.73	2535.6	2455.9	0.282 18	8.6884	8.4063	1.001 64	61 256.
20	0.002 339 3	998.16	0.017 314	83.91	2537.4	2453.5	0.296 48	8.6660	8.3695	1.001 84	57 757.
21	0.002 488 2	997.95	0.018 354	88.10	2539.3	2451.2	0.310 73	8.6437	8.3330	1.002 05	54 483.
22	0.002 645 3	997.73	0.019 448	92.28	2541.1	2448.8	0.324 93	8.6217	8.2967	1.002 28	51 418.
23	0.002 811 1	997.50	0.020 598	96.46	2542.9	2446.4	0.339 08	8.5998	8.2607	1.002 51	48 548.
24	0.002 985 8	997.25	0.021 806	100.65	2544.7	2444.0	0.353 18	8.5781	8.2250	1.002 75	45 858.
25	0.003 169 9	997.00	0.023 075	104.83	2546.5	2441.7	0.367 22	8.5566	8.1894	1.003 01	43 337.
26	0.003 363 9	996.74	0.024 406	109.01	2548.3	2439.3	0.381 23	8.5353	8.1541	1.003 27	40 973.
27	0.003 568 1	996.47	0.025 804	113.19	2550.1	2436.9	0.395 18	8.5142	8.1191	1.003 54	38 754.
28	0.003 783 1	996.19	0.027 269	117.37	2551.9	2434.6	0.409 08	8.4933	8.0842	1.003 82	36 672.
29	0.004 009 2	995.90	0.028 805	121.55	2553.7	2432.2	0.422 94	8.4725	8.0496	1.004 11	34 716.
30	0.004 247 0	995.61	0.030 415	125.73	2555.5	2429.8	0.436 75	8.4520	8.0152	1.004 41	32 878.
31	0.004 496 9	995.30	0.032 102	129.91	2557.3	2427.4	0.450 52	8.4316	7.9810	1.004 72	31 151.
32	0.004 759 6	994.99	0.033 868	134.09	2559.2	2425.1	0.464 24	8.4113	7.9471	1.005 04	29 526.
33	0.005 035 4	994.66	0.035 717	138.27	2561.0	2422.7	0.477 92	8.3913	7.9134	1.005 37	27 998.
34	0.005 325 1	994.33	0.037 651	142.45	2562.8	2420.3	0.491 55	8.3714	7.8799	1.005 70	26 560.
35	0.005 629 0	993.99	0.039 674	146.63	2564.5	2417.9	0.505 13	8.3517	7.8466	1.006 05	25 205.
36	0.005 947 9	993.64	0.041 790	150.81	2566.3	2415.5	0.518 67	8.3321	7.8135	1.006 40	23 929.
37	0.006 282 3	993.29	0.044 001	154.99	2568.1	2413.1	0.532 17	8.3127	7.7806	1.006 76	22 727.
38	0.006 632 8	992.92	0.046 311	159.17	2569.9	2410.8	0.545 62	8.2935	7.7479	1.007 13	21 593.
39	0.007 000 2	992.55	0.048 723	163.35	2571.7	2408.4	0.559 03	8.2745	7.7154	1.007 50	20 524.
40	0.007 384 9	992.18	0.051 242	167.53	2573.5	2406.0	0.572 40	8.2555	7.6831	1.007 89	19 515.
41	0.007 787 8	991.79	0.053 871	171.71	2575.3	2403.6	0.585 73	8.2368	7.6511	1.008 28	18 563.
42	0.008 209 6	991.40	0.056 614	175.89	2577.1	2401.2	0.599 01	8.2182	7.6192	1.008 68	17 664.
43	0.008 650 8	991.00	0.059 474	180.07	2578.9	2398.8	0.612 25	8.1998	7.5875	1.009 09	16 814.
44	0.009 112 4	990.59	0.062 457	184.25	2580.6	2396.4	0.625 45	8.1815	7.5560	1.009 50	16 011.
45	0.009 595 0	990.17	0.065 565	188.43	2582.4	2394.0	0.638 61	8.1633	7.5247	1.009 92	15 252.
46	0.010 099	989.75	0.068 803	192.62	2584.2	2391.6	0.651 73	8.1453	7.4936	1.010 36	14 534.
47	0.010 627	989.32	0.072 176	196.80	2586.0	2389.2	0.664 81	8.1275	7.4627	1.010 79	13 855.
48	0.011 177	988.89	0.075 688	200.98	2587.8	2386.8	0.677 85	8.1098	7.4320	1.011 24	13 212.
49	0.011 752	988.44	0.079 343	205.16	2589.5	2384.4	0.690 85	8.0922	7.4014	1.011 69	12 603.
50	0.012 352	988.00	0.083 147	209.34	2591.3	2381.9	0.703 81	8.0748	7.3710	1.012 15	12 027.
51	0.012 978	987.54	0.087 103	213.52	2593.1	2379.5	0.716 73	8.0576	7.3408	1.012 62	11 481.
52	0.013 631	987.08	0.091 217	217.71	2594.8	2377.1	0.729 61	8.0404	7.3108	1.013 09	10 963.
53	0.014 312	986.61	0.095 494	221.89	2596.6	2374.7	0.742 45	8.0234	7.2810	1.013 57	10 472.
54	0.015 022	986.14	0.099 938	226.07	2598.3	2372.3	0.755 26	8.0066	7.2513	1.014 06	10 006.

**Table 1. Saturation (Temperature) (continued)**

$t, ^\circ\text{C}$	$p, \text{MPa}$	Density, $\text{kg/m}^3$		Enthalpy, $\text{kJ/kg}$			Entropy, $\text{kJ/(kg}\cdot\text{K)}$			Volume, $\text{cm}^3/\text{g}$	
		$\rho_L$	$\rho_V$	$h_L$	$h_V$	$\Delta h$	$s_L$	$s_V$	$\Delta s$	$v_L$	$v_V$
55	0.015 762	985.66	0.104 56	230.26	2600.1	2369.8	0.768 02	7.9898	7.2218	1.014 55	9564.3
56	0.016 533	985.17	0.109 35	234.44	2601.8	2367.4	0.780 75	7.9732	7.1925	1.015 05	9144.8
57	0.017 336	984.68	0.114 33	238.62	2603.6	2365.0	0.793 44	7.9568	7.1633	1.015 56	8746.6
58	0.018 171	984.18	0.119 50	242.81	2605.3	2362.5	0.806 10	7.9404	7.1343	1.016 08	8368.3
59	0.019 041	983.67	0.124 86	246.99	2607.1	2360.1	0.818 71	7.9242	7.1055	1.016 60	8008.9
60	0.019 946	983.16	0.130 43	251.18	2608.8	2357.7	0.831 29	7.9081	7.0769	1.017 13	7667.2
61	0.020 888	982.64	0.136 20	255.37	2610.6	2355.2	0.843 84	7.8922	7.0484	1.017 66	7342.4
62	0.021 867	982.12	0.142 18	259.55	2612.3	2352.8	0.856 34	7.8764	7.0200	1.018 21	7033.5
63	0.022 885	981.59	0.148 38	263.74	2614.0	2350.3	0.868 82	7.8607	6.9918	1.018 75	6739.6
64	0.023 943	981.06	0.154 80	267.93	2615.8	2347.8	0.881 25	7.8451	6.9638	1.019 31	6459.8
65	0.025 042	980.52	0.161 46	272.12	2617.5	2345.4	0.893 65	7.8296	6.9359	1.019 87	6193.5
66	0.026 183	979.97	0.168 35	276.30	2619.2	2342.9	0.906 02	7.8142	6.9082	1.020 44	5939.9
67	0.027 368	979.42	0.175 49	280.49	2621.0	2340.5	0.918 35	7.7990	6.8807	1.021 01	5698.4
68	0.028 599	978.86	0.182 88	284.68	2622.7	2338.0	0.930 64	7.7839	6.8532	1.021 59	5468.2
69	0.029 876	978.30	0.190 52	288.87	2624.4	2335.5	0.942 91	7.7689	6.8260	1.022 18	5248.8
70	0.031 201	977.73	0.198 43	293.07	2626.1	2333.0	0.955 13	7.7540	6.7989	1.022 77	5039.5
71	0.032 575	977.16	0.206 61	297.26	2627.8	2330.5	0.967 33	7.7392	6.7719	1.023 37	4840.0
72	0.034 000	976.58	0.215 07	301.45	2629.5	2328.1	0.979 49	7.7246	6.7451	1.023 98	4649.6
73	0.035 478	976.00	0.223 82	305.64	2631.2	2325.6	0.991 61	7.7100	6.7184	1.024 59	4468.0
74	0.037 009	975.41	0.232 85	309.84	2632.9	2323.1	1.0037	7.6955	6.6918	1.025 21	4294.5
75	0.038 595	974.81	0.242 19	314.03	2634.6	2320.6	1.0158	7.6812	6.6654	1.025 84	4128.9
76	0.040 239	974.22	0.251 84	318.22	2636.3	2318.1	1.0278	7.6670	6.6392	1.026 47	3970.8
77	0.041 941	973.61	0.261 80	322.42	2638.0	2315.6	1.0398	7.6528	6.6130	1.027 10	3819.7
78	0.043 703	973.00	0.272 09	326.62	2639.7	2313.0	1.0517	7.6388	6.5871	1.027 75	3675.2
79	0.045 527	972.39	0.282 71	330.81	2641.3	2310.5	1.0637	7.6249	6.5612	1.028 40	3537.2
80	0.047 414	971.77	0.293 67	335.01	2643.0	2308.0	1.0756	7.6111	6.5355	1.029 05	3405.2
81	0.049 367	971.14	0.304 98	339.21	2644.7	2305.5	1.0874	7.5973	6.5099	1.029 72	3278.9
82	0.051 387	970.51	0.316 65	343.41	2646.4	2302.9	1.0993	7.5837	6.4844	1.030 38	3158.1
83	0.053 476	969.88	0.328 68	347.61	2648.0	2300.4	1.1111	7.5702	6.4591	1.031 06	3042.5
84	0.055 635	969.24	0.341 09	351.81	2649.7	2297.9	1.1229	7.5567	6.4339	1.031 74	2931.8
85	0.057 867	968.59	0.353 88	356.01	2651.3	2295.3	1.1346	7.5434	6.4088	1.032 43	2825.8
86	0.060 173	967.94	0.367 06	360.22	2653.0	2292.8	1.1463	7.5302	6.3838	1.033 12	2724.4
87	0.062 556	967.29	0.380 64	364.42	2654.6	2290.2	1.1580	7.5170	6.3590	1.033 82	2627.1
88	0.065 017	966.63	0.394 64	368.63	2656.3	2287.6	1.1696	7.5040	6.3343	1.034 52	2534.0
89	0.067 558	965.96	0.409 05	372.83	2657.9	2285.1	1.1813	7.4910	6.3097	1.035 24	2444.7
90	0.070 182	965.30	0.423 90	377.04	2659.5	2282.5	1.1929	7.4781	6.2853	1.035 95	2359.1
91	0.072 890	964.62	0.439 18	381.25	2661.2	2279.9	1.2044	7.4653	6.2609	1.036 68	2277.0
92	0.075 684	963.94	0.454 91	385.46	2662.8	2277.3	1.2160	7.4526	6.2367	1.037 41	2198.2
93	0.078 568	963.26	0.471 11	389.67	2664.4	2274.7	1.2275	7.4400	6.2126	1.038 14	2122.7
94	0.081 541	962.57	0.487 77	393.88	2666.0	2272.1	1.2389	7.4275	6.1886	1.038 88	2050.2
95	0.084 608	961.88	0.504 91	398.09	2667.6	2269.5	1.2504	7.4151	6.1647	1.039 63	1980.6
96	0.087 771	961.18	0.522 54	402.30	2669.2	2266.9	1.2618	7.4027	6.1409	1.040 38	1913.7
97	0.091 030	960.48	0.540 67	406.52	2670.8	2264.3	1.2732	7.3904	6.1172	1.041 14	1849.6
98	0.094 390	959.78	0.559 31	410.73	2672.4	2261.7	1.2846	7.3783	6.0937	1.041 91	1787.9
99	0.097 852	959.06	0.578 47	414.95	2674.0	2259.0	1.2959	7.3661	6.0702	1.042 68	1728.7
100	0.101 42	958.35	0.598 17	419.17	2675.6	2256.4	1.3072	7.3541	6.0469	1.043 46	1671.8
101	0.105 09	957.63	0.618 41	423.39	2677.1	2253.8	1.3185	7.3422	6.0237	1.044 25	1617.1
102	0.108 87	956.90	0.639 20	427.61	2678.7	2251.1	1.3297	7.3303	6.0006	1.045 04	1564.4
103	0.112 77	956.18	0.660 56	431.83	2680.3	2248.5	1.3410	7.3185	5.9775	1.045 83	1513.9
104	0.116 78	955.44	0.682 50	436.05	2681.8	2245.8	1.3522	7.3068	5.9546	1.046 64	1465.2
105	0.120 90	954.70	0.705 03	440.27	2683.4	2243.1	1.3633	7.2952	5.9318	1.047 44	1418.4
106	0.125 15	953.96	0.728 16	444.50	2684.9	2240.4	1.3745	7.2836	5.9091	1.048 26	1373.3
107	0.129 52	953.22	0.751 90	448.73	2686.5	2237.7	1.3856	7.2721	5.8865	1.049 08	1330.0
108	0.134 01	952.46	0.776 27	452.95	2688.0	2235.1	1.3967	7.2607	5.8640	1.049 91	1288.2
109	0.138 63	951.71	0.801 27	457.18	2689.5	2232.4	1.4078	7.2493	5.8416	1.050 74	1248.0

**Table 1. Saturation (Temperature) (continued)**

$t, ^\circ\text{C}$	$p, \text{MPa}$	Density, $\text{kg/m}^3$		Enthalpy, $\text{kJ/kg}$			Entropy, $\text{kJ/(kg}\cdot\text{K)}$			Volume, $\text{cm}^3/\text{g}$	
		$\rho_L$	$\rho_V$	$h_L$	$h_V$	$\Delta h$	$s_L$	$s_V$	$\Delta s$	$v_L$	$v_V$
110	0.143 38	950.95	0.826 93	461.42	2691.1	2229.6	1.4188	7.2381	5.8193	1.051 58	1209.3
111	0.148 26	950.18	0.853 25	465.65	2692.6	2226.9	1.4298	7.2269	5.7970	1.052 43	1172.0
112	0.153 28	949.41	0.880 24	469.88	2694.1	2224.2	1.4408	7.2157	5.7749	1.053 28	1136.1
113	0.158 44	948.64	0.907 92	474.12	2695.6	2221.5	1.4518	7.2047	5.7529	1.054 14	1101.4
114	0.163 74	947.86	0.936 30	478.35	2697.1	2218.7	1.4628	7.1937	5.7309	1.055 00	1068.0
115	0.169 18	947.08	0.965 40	482.59	2698.6	2216.0	1.4737	7.1828	5.7091	1.055 88	1035.8
116	0.174 77	946.30	0.995 22	486.83	2700.1	2213.2	1.4846	7.1719	5.6873	1.056 75	1004.8
117	0.180 52	945.50	1.0258	491.08	2701.5	2210.5	1.4954	7.1611	5.6657	1.057 64	974.86
118	0.186 41	944.71	1.0571	495.32	2703.0	2207.7	1.5063	7.1504	5.6441	1.058 53	945.98
119	0.192 46	943.91	1.0892	499.56	2704.5	2204.9	1.5171	7.1397	5.6226	1.059 42	918.11
120	0.198 67	943.11	1.1221	503.81	2705.9	2202.1	1.5279	7.1291	5.6012	1.060 33	891.21
121	0.205 05	942.30	1.1557	508.06	2707.4	2199.3	1.5387	7.1186	5.5799	1.061 23	865.25
122	0.211 59	941.49	1.1902	512.31	2708.8	2196.5	1.5494	7.1081	5.5587	1.062 15	840.19
123	0.218 30	940.67	1.2255	516.56	2710.3	2193.7	1.5602	7.0977	5.5375	1.063 07	815.98
124	0.225 18	939.85	1.2617	520.82	2711.7	2190.9	1.5709	7.0873	5.5165	1.064 00	792.61
125	0.232 24	939.02	1.2987	525.07	2713.1	2188.0	1.5816	7.0770	5.4955	1.064 94	770.03
126	0.239 47	938.19	1.3365	529.33	2714.5	2185.2	1.5922	7.0668	5.4746	1.065 88	748.21
127	0.246 89	937.36	1.3753	533.59	2715.9	2182.3	1.6029	7.0566	5.4538	1.066 83	727.13
128	0.254 50	936.52	1.4149	537.85	2717.3	2179.5	1.6135	7.0465	5.4330	1.067 78	706.75
129	0.262 29	935.68	1.4555	542.12	2718.7	2176.6	1.6241	7.0364	5.4124	1.068 74	687.05
130	0.270 28	934.83	1.4970	546.38	2720.1	2173.7	1.6346	7.0264	5.3918	1.069 71	668.00
131	0.278 46	933.98	1.5394	550.65	2721.5	2170.8	1.6452	7.0165	5.3713	1.070 68	649.59
132	0.286 85	933.13	1.5828	554.92	2722.8	2167.9	1.6557	7.0066	5.3509	1.071 66	631.77
133	0.295 43	932.27	1.6272	559.19	2724.2	2165.0	1.6662	6.9967	5.3305	1.072 65	614.54
134	0.304 23	931.41	1.6726	563.47	2725.5	2162.1	1.6767	6.9869	5.3102	1.073 65	597.86
135	0.313 23	930.54	1.7190	567.74	2726.9	2159.1	1.6872	6.9772	5.2900	1.074 65	581.73
136	0.322 45	929.67	1.7664	572.02	2728.2	2156.2	1.6976	6.9675	5.2699	1.075 66	566.11
137	0.331 88	928.79	1.8149	576.30	2729.5	2153.2	1.7081	6.9579	5.2498	1.076 67	550.99
138	0.341 54	927.91	1.8644	580.59	2730.8	2150.3	1.7185	6.9483	5.2298	1.077 69	536.36
139	0.351 43	927.02	1.9150	584.87	2732.1	2147.3	1.7289	6.9388	5.2099	1.078 72	522.18
140	0.361 54	926.13	1.9667	589.16	2733.4	2144.3	1.7392	6.9293	5.1901	1.079 76	508.45
141	0.371 89	925.24	2.0196	593.45	2734.7	2141.3	1.7496	6.9199	5.1703	1.080 80	495.16
142	0.382 47	924.34	2.0735	597.74	2736.0	2138.3	1.7599	6.9105	5.1506	1.081 85	482.27
143	0.393 29	923.44	2.1286	602.04	2737.3	2135.2	1.7702	6.9011	5.1309	1.082 91	469.79
144	0.404 37	922.54	2.1849	606.34	2738.5	2132.2	1.7805	6.8919	5.1114	1.083 97	457.69
145	0.415 68	921.62	2.2423	610.64	2739.8	2129.2	1.7907	6.8826	5.0919	1.085 04	445.96
146	0.427 26	920.71	2.3010	614.94	2741.0	2126.1	1.8010	6.8734	5.0724	1.086 12	434.59
147	0.439 09	919.79	2.3609	619.25	2742.3	2123.0	1.8112	6.8643	5.0530	1.087 20	423.57
148	0.451 18	918.87	2.4220	623.56	2743.5	2119.9	1.8214	6.8552	5.0337	1.088 30	412.88
149	0.463 54	917.94	2.4844	627.87	2744.7	2116.9	1.8316	6.8461	5.0145	1.089 40	402.51
150	0.476 16	917.01	2.5481	632.18	2745.9	2113.7	1.8418	6.8371	4.9953	1.090 50	392.45
151	0.489 07	916.07	2.6130	636.50	2747.1	2110.6	1.8520	6.8281	4.9761	1.091 62	382.69
152	0.502 25	915.13	2.6793	640.81	2748.3	2107.5	1.8621	6.8192	4.9571	1.092 74	373.23
153	0.515 71	914.19	2.7470	645.14	2749.5	2104.3	1.8722	6.8103	4.9380	1.093 87	364.04
154	0.529 46	913.24	2.8160	649.46	2750.7	2101.2	1.8823	6.8014	4.9191	1.095 01	355.12
155	0.543 50	912.28	2.8863	653.79	2751.8	2098.0	1.8924	6.7926	4.9002	1.096 15	346.46
156	0.557 84	911.33	2.9581	658.12	2753.0	2094.8	1.9025	6.7838	4.8814	1.097 30	338.05
157	0.572 47	910.36	3.0313	662.45	2754.1	2091.6	1.9125	6.7751	4.8626	1.098 46	329.89
158	0.587 42	909.40	3.1059	666.79	2755.2	2088.4	1.9225	6.7664	4.8439	1.099 63	321.96
159	0.602 67	908.42	3.1821	671.13	2756.3	2085.2	1.9326	6.7578	4.8252	1.100 81	314.26
160	0.618 23	907.45	3.2596	675.47	2757.4	2082.0	1.9426	6.7491	4.8066	1.101 99	306.78
161	0.634 12	906.47	3.3387	679.82	2758.5	2078.7	1.9525	6.7406	4.7880	1.103 18	299.51
162	0.650 33	905.49	3.4194	684.17	2759.6	2075.5	1.9625	6.7320	4.7695	1.104 38	292.45
163	0.666 86	904.50	3.5016	688.52	2760.7	2072.2	1.9725	6.7235	4.7511	1.105 59	285.59
164	0.683 73	903.50	3.5853	692.88	2761.8	2068.9	1.9824	6.7150	4.7327	1.106 80	278.92

**Table 1. Saturation (Temperature) (continued)**

$t, ^\circ\text{C}$	$p, \text{MPa}$	Density, $\text{kg/m}^3$		Enthalpy, $\text{kJ/kg}$			Entropy, $\text{kJ}/(\text{kg}\cdot\text{K})$			Volume, $\text{cm}^3/\text{g}$	
		$\rho_L$	$\rho_V$	$h_L$	$h_V$	$\Delta h$	$s_L$	$s_V$	$\Delta s$	$v_L$	$v_V$
165	0.700 93	902.51	3.6707	697.24	2762.8	2065.6	1.9923	6.7066	4.7143	1.108 03	272.43
166	0.718 48	901.50	3.7576	701.60	2763.9	2062.3	2.0022	6.6982	4.6960	1.109 26	266.12
167	0.736 38	900.50	3.8462	705.96	2764.9	2058.9	2.0121	6.6898	4.6778	1.110 50	259.99
168	0.754 62	899.49	3.9365	710.33	2765.9	2055.6	2.0220	6.6815	4.6596	1.111 75	254.03
169	0.773 22	898.47	4.0285	714.71	2766.9	2052.2	2.0318	6.6732	4.6414	1.113 00	248.23
170	0.792 19	897.45	4.1222	719.08	2767.9	2048.8	2.0417	6.6650	4.6233	1.114 27	242.59
171	0.811 52	896.43	4.2176	723.46	2768.9	2045.4	2.0515	6.6567	4.6053	1.115 54	237.10
172	0.831 22	895.40	4.3148	727.85	2769.9	2042.0	2.0613	6.6485	4.5872	1.116 82	231.76
173	0.851 30	894.36	4.4138	732.23	2770.8	2038.6	2.0711	6.6404	4.5693	1.118 11	226.56
174	0.871 76	893.33	4.5146	736.63	2771.8	2035.1	2.0809	6.6322	4.5514	1.119 41	221.50
175	0.892 60	892.28	4.6172	741.02	2772.7	2031.7	2.0906	6.6241	4.5335	1.120 72	216.58
176	0.913 84	891.24	4.7217	745.42	2773.6	2028.2	2.1004	6.6161	4.5157	1.122 04	211.79
177	0.935 47	890.18	4.8281	749.82	2774.5	2024.7	2.1101	6.6080	4.4979	1.123 36	207.12
178	0.957 51	889.13	4.9364	754.23	2775.4	2021.2	2.1198	6.6000	4.4802	1.124 70	202.58
179	0.979 95	888.07	5.0466	758.64	2776.3	2017.7	2.1296	6.5920	4.4625	1.126 04	198.15
180	1.0028	887.00	5.1588	763.05	2777.2	2014.2	2.1392	6.5840	4.4448	1.127 40	193.84
181	1.0261	885.93	5.2730	767.47	2778.1	2010.6	2.1489	6.5761	4.4272	1.128 76	189.64
182	1.0498	884.85	5.3893	771.90	2778.9	2007.0	2.1586	6.5682	4.4096	1.130 13	185.55
183	1.0739	883.77	5.5076	776.32	2779.8	2003.4	2.1683	6.5603	4.3921	1.131 51	181.57
184	1.0985	882.69	5.6279	780.75	2780.6	1999.8	2.1779	6.5525	4.3746	1.132 90	177.69
185	1.1235	881.60	5.7504	785.19	2781.4	1996.2	2.1875	6.5447	4.3571	1.134 30	173.90
186	1.1489	880.50	5.8750	789.63	2782.2	1992.6	2.1971	6.5369	4.3397	1.135 71	170.21
187	1.1748	879.40	6.0018	794.07	2783.0	1988.9	2.2067	6.5291	4.3223	1.137 13	166.62
188	1.2011	878.30	6.1308	798.52	2783.8	1985.3	2.2163	6.5213	4.3050	1.138 56	163.11
189	1.2280	877.19	6.2620	802.97	2784.5	1981.6	2.2259	6.5136	4.2877	1.140 00	159.69
190	1.2552	876.08	6.3954	807.43	2785.3	1977.9	2.2355	6.5059	4.2704	1.141 45	156.36
191	1.2830	874.96	6.5312	811.89	2786.0	1974.1	2.2450	6.4982	4.2532	1.142 91	153.11
192	1.3112	873.83	6.6692	816.36	2786.7	1970.4	2.2546	6.4906	4.2360	1.144 38	149.94
193	1.3399	872.70	6.8096	820.83	2787.4	1966.6	2.2641	6.4830	4.2188	1.145 86	146.85
194	1.3691	871.57	6.9524	825.31	2788.1	1962.8	2.2736	6.4754	4.2017	1.147 36	143.83
195	1.3988	870.43	7.0976	829.79	2788.8	1959.0	2.2832	6.4678	4.1846	1.148 86	140.89
196	1.4290	869.29	7.2453	834.28	2789.5	1955.2	2.2926	6.4602	4.1676	1.150 37	138.02
197	1.4597	868.14	7.3954	838.77	2790.1	1951.4	2.3021	6.4527	4.1505	1.151 89	135.22
198	1.4909	866.98	7.5480	843.26	2790.8	1947.5	2.3116	6.4451	4.1335	1.153 43	132.48
199	1.5227	865.82	7.7032	847.76	2791.4	1943.6	2.3211	6.4376	4.1166	1.154 97	129.82
200	1.5549	864.66	7.8610	852.27	2792.0	1939.7	2.3305	6.4302	4.0996	1.156 53	127.21
201	1.5877	863.49	8.0214	856.78	2792.6	1935.8	2.3400	6.4227	4.0827	1.158 09	124.67
202	1.6210	862.31	8.1844	861.30	2793.2	1931.9	2.3494	6.4152	4.0658	1.159 67	122.18
203	1.6549	861.13	8.3501	865.82	2793.7	1927.9	2.3588	6.4078	4.0490	1.161 26	119.76
204	1.6893	859.95	8.5186	870.35	2794.3	1923.9	2.3683	6.4004	4.0322	1.162 86	117.39
205	1.7243	858.76	8.6898	874.88	2794.8	1919.9	2.3777	6.3930	4.0154	1.164 48	115.08
206	1.7598	857.56	8.8638	879.42	2795.3	1915.9	2.3871	6.3856	3.9986	1.166 10	112.82
207	1.7959	856.36	9.0406	883.96	2795.9	1911.9	2.3964	6.3783	3.9819	1.167 74	110.61
208	1.8326	855.15	9.2203	888.51	2796.3	1907.8	2.4058	6.3710	3.9651	1.169 39	108.46
209	1.8698	853.94	9.4029	893.07	2796.8	1903.7	2.4152	6.3636	3.9484	1.171 05	106.35
210	1.9077	852.72	9.5885	897.63	2797.3	1899.6	2.4245	6.3563	3.9318	1.172 72	104.29
211	1.9461	851.49	9.7770	902.20	2797.7	1895.5	2.4339	6.3490	3.9151	1.174 41	102.28
212	1.9851	850.26	9.9686	906.77	2798.1	1891.4	2.4432	6.3417	3.8985	1.176 11	100.31
213	2.0247	849.03	10.163	911.35	2798.5	1887.2	2.4526	6.3345	3.8819	1.177 82	98.394
214	2.0650	847.79	10.361	915.94	2798.9	1883.0	2.4619	6.3272	3.8653	1.179 54	96.516
215	2.1058	846.54	10.562	920.53	2799.3	1878.8	2.4712	6.3200	3.8488	1.181 28	94.679
216	2.1473	845.29	10.766	925.12	2799.7	1874.6	2.4805	6.3128	3.8323	1.183 03	92.884
217	2.1894	844.03	10.973	929.73	2800.0	1870.3	2.4898	6.3056	3.8158	1.184 79	91.129
218	2.2322	842.77	11.184	934.34	2800.3	1866.0	2.4991	6.2984	3.7993	1.186 57	89.413
219	2.2756	841.50	11.398	938.96	2800.7	1861.7	2.5084	6.2912	3.7828	1.188 36	87.734

**Table 1. Saturation (Temperature) (continued)**

$t$ , °C	$p$ , MPa	Density, kg/m <sup>3</sup>		Enthalpy, kJ/kg			Entropy, kJ/(kg·K)			Volume, cm <sup>3</sup> /g	
		$\rho_L$	$\rho_V$	$h_L$	$h_V$	$\Delta h$	$s_L$	$s_V$	$\Delta s$	$v_L$	$v_V$
220	2.3196	840.22	11.615	943.58	2800.9	1857.4	2.5177	6.2840	3.7663	1.190 17	86.092
221	2.3643	838.94	11.836	948.21	2801.2	1853.0	2.5269	6.2768	3.7499	1.191 98	84.486
222	2.4096	837.65	12.060	952.85	2801.5	1848.6	2.5362	6.2697	3.7335	1.193 82	82.916
223	2.4556	836.35	12.288	957.49	2801.7	1844.2	2.5455	6.2625	3.7171	1.195 67	81.379
224	2.5023	835.05	12.520	962.14	2801.9	1839.8	2.5547	6.2554	3.7007	1.197 53	79.875
225	2.5497	833.75	12.755	966.80	2802.1	1835.4	2.5640	6.2483	3.6843	1.199 40	78.403
226	2.5978	832.43	12.993	971.46	2802.3	1830.9	2.5732	6.2412	3.6680	1.201 30	76.964
227	2.6466	831.12	13.235	976.13	2802.5	1826.4	2.5824	6.2341	3.6516	1.203 20	75.554
228	2.6960	829.79	13.482	980.81	2802.7	1821.8	2.5917	6.2270	3.6353	1.205 12	74.175
229	2.7462	828.46	13.732	985.50	2802.8	1817.3	2.6009	6.2199	3.6190	1.207 06	72.825
230	2.7971	827.12	13.985	990.19	2802.9	1812.7	2.6101	6.2128	3.6027	1.209 02	71.503
231	2.8487	825.77	14.243	994.89	2803.0	1808.1	2.6193	6.2057	3.5864	1.210 98	70.210
232	2.9010	824.42	14.505	999.60	2803.1	1803.5	2.6285	6.1987	3.5702	1.212 97	68.943
233	2.9541	823.06	14.771	1004.3	2803.1	1798.8	2.6377	6.1916	3.5539	1.214 97	67.702
234	3.0080	821.70	15.040	1009.0	2803.2	1794.1	2.6469	6.1845	3.5376	1.216 99	66.488
235	3.0625	820.33	15.314	1013.8	2803.2	1789.4	2.6561	6.1775	3.5214	1.219 02	65.298
236	3.1179	818.95	15.593	1018.5	2803.2	1784.7	2.6653	6.1704	3.5052	1.221 08	64.133
237	3.1740	817.56	15.875	1023.3	2803.1	1779.9	2.6745	6.1634	3.4890	1.223 15	62.991
238	3.2308	816.17	16.162	1028.0	2803.1	1775.1	2.6836	6.1564	3.4727	1.225 23	61.873
239	3.2885	814.77	16.453	1032.8	2803.0	1770.3	2.6928	6.1493	3.4565	1.227 34	60.778
240	3.3469	813.37	16.749	1037.6	2803.0	1765.4	2.7020	6.1423	3.4403	1.229 46	59.705
241	3.4062	811.95	17.049	1042.3	2802.9	1760.5	2.7111	6.1353	3.4241	1.231 60	58.654
242	3.4662	810.53	17.354	1047.1	2802.7	1755.6	2.7203	6.1282	3.4079	1.233 76	57.623
243	3.5270	809.10	17.664	1051.9	2802.6	1750.7	2.7295	6.1212	3.3918	1.235 94	56.613
244	3.5887	807.67	17.978	1056.7	2802.4	1745.7	2.7386	6.1142	3.3756	1.238 13	55.624
245	3.6512	806.22	18.297	1061.5	2802.2	1740.7	2.7478	6.1072	3.3594	1.240 35	54.654
246	3.7145	804.77	18.621	1066.4	2802.0	1735.6	2.7569	6.1002	3.3432	1.242 59	53.703
247	3.7786	803.32	18.950	1071.2	2801.8	1730.6	2.7661	6.0931	3.3270	1.244 84	52.771
248	3.8436	801.85	19.284	1076.1	2801.5	1725.5	2.7752	6.0861	3.3109	1.247 12	51.857
249	3.9095	800.38	19.623	1080.9	2801.2	1720.3	2.7844	6.0791	3.2947	1.249 41	50.961
250	3.9762	798.89	19.967	1085.8	2800.9	1715.2	2.7935	6.0721	3.2785	1.251 73	50.083
251	4.0438	797.40	20.316	1090.6	2800.6	1710.0	2.8027	6.0650	3.2624	1.254 07	49.222
252	4.1122	795.91	20.671	1095.5	2800.3	1704.7	2.8118	6.0580	3.2462	1.256 43	48.377
253	4.1815	794.40	21.031	1100.4	2799.9	1699.5	2.8210	6.0510	3.2300	1.258 81	47.548
254	4.2518	792.89	21.397	1105.3	2799.5	1694.2	2.8301	6.0439	3.2138	1.261 21	46.736
255	4.3229	791.37	21.768	1110.2	2799.1	1688.8	2.8392	6.0369	3.1977	1.263 64	45.938
256	4.3949	789.83	22.145	1115.2	2798.6	1683.5	2.8484	6.0298	3.1815	1.266 09	45.156
257	4.4679	788.30	22.528	1120.1	2798.2	1678.1	2.8575	6.0228	3.1653	1.268 56	44.389
258	4.5417	786.75	22.917	1125.0	2797.7	1672.6	2.8667	6.0157	3.1491	1.271 06	43.637
259	4.6165	785.19	23.311	1130.0	2797.1	1667.2	2.8758	6.0087	3.1329	1.273 58	42.898
260	4.6923	783.63	23.712	1135.0	2796.6	1661.6	2.8849	6.0016	3.1167	1.276 12	42.173
261	4.7689	782.05	24.118	1139.9	2796.0	1656.1	2.8941	5.9945	3.1004	1.278 69	41.462
262	4.8466	780.47	24.531	1144.9	2795.4	1650.5	2.9032	5.9874	3.0842	1.281 28	40.764
263	4.9252	778.88	24.951	1149.9	2794.8	1644.9	2.9124	5.9804	3.0680	1.283 90	40.079
264	5.0047	777.27	25.377	1154.9	2794.2	1639.2	2.9215	5.9732	3.0517	1.286 55	39.406
265	5.0853	775.66	25.809	1160.0	2793.5	1633.5	2.9307	5.9661	3.0354	1.289 22	38.746
266	5.1668	774.04	26.248	1165.0	2792.8	1627.8	2.9398	5.9590	3.0192	1.291 92	38.098
267	5.2494	772.41	26.694	1170.0	2792.1	1622.0	2.9490	5.9519	3.0029	1.294 65	37.462
268	5.3329	770.77	27.147	1175.1	2791.3	1616.2	2.9582	5.9447	2.9866	1.297 40	36.837
269	5.4174	769.12	27.606	1180.2	2790.5	1610.3	2.9673	5.9376	2.9703	1.300 19	36.223
270	5.5030	767.46	28.073	1185.3	2789.7	1604.4	2.9765	5.9304	2.9539	1.303 00	35.621
271	5.5896	765.79	28.548	1190.4	2788.8	1598.5	2.9857	5.9232	2.9376	1.305 84	35.029
272	5.6772	764.11	29.029	1195.5	2788.0	1592.5	2.9948	5.9160	2.9212	1.308 71	34.448
273	5.7659	762.42	29.518	1200.6	2787.1	1586.5	3.0040	5.9088	2.9048	1.311 61	33.877
274	5.8556	760.72	30.015	1205.7	2786.1	1580.4	3.0132	5.9016	2.8884	1.314 55	33.317

**Table 1. Saturation (Temperature) (continued)**

$t, ^\circ\text{C}$	$p, \text{MPa}$	Density, $\text{kg/m}^3$		Enthalpy, $\text{kJ/kg}$			Entropy, $\text{kJ}/(\text{kg}\cdot\text{K})$			Volume, $\text{cm}^3/\text{g}$	
		$\rho_L$	$\rho_V$	$h_L$	$h_V$	$\Delta h$	$s_L$	$s_V$	$\Delta s$	$v_L$	$v_V$
275	5.9464	759.00	30.520	1210.9	2785.2	1574.3	3.0224	5.8944	2.8720	1.317 51	32.766
276	6.0383	757.28	31.032	1216.1	2784.2	1568.1	3.0316	5.8871	2.8555	1.320 51	32.225
277	6.1312	755.55	31.553	1221.3	2783.1	1561.9	3.0408	5.8798	2.8390	1.323 54	31.693
278	6.2252	753.80	32.082	1226.4	2782.1	1555.6	3.0500	5.8725	2.8225	1.326 61	31.171
279	6.3203	752.04	32.619	1231.7	2781.0	1549.3	3.0592	5.8652	2.8060	1.329 71	30.657
280	6.4166	750.28	33.165	1236.9	2779.9	1543.0	3.0685	5.8579	2.7894	1.332 84	30.153
281	6.5139	748.49	33.719	1242.1	2778.7	1536.6	3.0777	5.8506	2.7729	1.336 02	29.657
282	6.6124	746.70	34.283	1247.4	2777.5	1530.1	3.0869	5.8432	2.7563	1.339 22	29.169
283	6.7120	744.90	34.855	1252.7	2776.3	1523.6	3.0962	5.8358	2.7396	1.342 47	28.690
284	6.8128	743.08	35.437	1257.9	2775.0	1517.1	3.1054	5.8284	2.7229	1.345 75	28.219
285	6.9147	741.25	36.028	1263.2	2773.7	1510.5	3.1147	5.8209	2.7062	1.349 07	27.756
286	7.0177	739.41	36.629	1268.6	2772.4	1503.8	3.1240	5.8135	2.6895	1.352 43	27.301
287	7.1220	737.55	37.239	1273.9	2771.0	1497.1	3.1333	5.8060	2.6727	1.355 84	26.853
288	7.2274	735.68	37.860	1279.3	2769.6	1490.4	3.1426	5.7985	2.6559	1.359 28	26.413
289	7.3340	733.80	38.490	1284.6	2768.2	1483.5	3.1519	5.7909	2.6390	1.362 77	25.981
290	7.4418	731.91	39.132	1290.0	2766.7	1476.7	3.1612	5.7834	2.6222	1.366 30	25.555
291	7.5508	730.00	39.783	1295.4	2765.2	1469.7	3.1705	5.7758	2.6052	1.369 87	25.136
292	7.6610	728.07	40.446	1300.9	2763.6	1462.7	3.1799	5.7681	2.5883	1.373 49	24.724
293	7.7725	726.13	41.120	1306.3	2762.0	1455.7	3.1892	5.7605	2.5712	1.377 16	24.319
294	7.8852	724.18	41.805	1311.8	2760.4	1448.6	3.1986	5.7528	2.5542	1.380 87	23.921
295	7.9991	722.21	42.501	1317.3	2758.7	1441.4	3.2080	5.7451	2.5371	1.384 64	23.529
296	8.1143	720.23	43.210	1322.8	2757.0	1434.2	3.2174	5.7373	2.5199	1.388 45	23.143
297	8.2308	718.23	43.931	1328.3	2755.2	1426.9	3.2268	5.7295	2.5027	1.392 31	22.763
298	8.3485	716.21	44.664	1333.8	2753.4	1419.5	3.2362	5.7217	2.4854	1.396 23	22.390
299	8.4676	714.18	45.409	1339.4	2751.5	1412.1	3.2457	5.7138	2.4681	1.400 20	22.022
300	8.5879	712.14	46.168	1345.0	2749.6	1404.6	3.2552	5.7059	2.4507	1.404 23	21.660
301	8.7095	710.07	46.940	1350.6	2747.7	1397.1	3.2647	5.6979	2.4333	1.408 31	21.304
302	8.8325	707.99	47.725	1356.3	2745.7	1389.4	3.2742	5.6899	2.4158	1.412 45	20.953
303	8.9568	705.89	48.525	1361.9	2743.7	1381.7	3.2837	5.6819	2.3982	1.416 65	20.608
304	9.0824	703.77	49.338	1367.6	2741.6	1374.0	3.2932	5.6738	2.3806	1.420 91	20.268
305	9.2094	701.64	50.167	1373.3	2739.4	1366.1	3.3028	5.6657	2.3629	1.425 24	19.933
306	9.3378	699.48	51.010	1379.0	2737.2	1358.2	3.3124	5.6575	2.3452	1.429 63	19.604
307	9.4675	697.31	51.869	1384.8	2735.0	1350.2	3.3220	5.6493	2.3273	1.434 08	19.279
308	9.5986	695.12	52.743	1390.6	2732.7	1342.1	3.3316	5.6411	2.3094	1.438 61	18.960
309	9.7311	692.90	53.634	1396.4	2730.4	1334.0	3.3413	5.6327	2.2915	1.443 20	18.645
310	9.8651	690.67	54.541	1402.2	2727.9	1325.7	3.3510	5.6244	2.2734	1.447 87	18.335
311	10.000	688.42	55.466	1408.1	2725.5	1317.4	3.3607	5.6159	2.2553	1.452 61	18.029
312	10.137	686.14	56.408	1414.0	2723.0	1309.0	3.3704	5.6074	2.2370	1.457 43	17.728
313	10.275	683.84	57.368	1419.9	2720.4	1300.5	3.3802	5.5989	2.2187	1.462 32	17.431
314	10.415	681.52	58.346	1425.8	2717.8	1291.9	3.3900	5.5903	2.2003	1.467 30	17.139
315	10.556	679.18	59.344	1431.8	2715.1	1283.2	3.3998	5.5816	2.1818	1.472 36	16.851
316	10.699	676.81	60.361	1437.8	2712.3	1274.5	3.4097	5.5729	2.1632	1.477 51	16.567
317	10.843	674.42	61.398	1443.9	2709.5	1265.6	3.4195	5.5641	2.1445	1.482 75	16.287
318	10.989	672.00	62.457	1450.0	2706.6	1256.6	3.4295	5.5552	2.1257	1.488 09	16.011
319	11.136	669.56	63.537	1456.1	2703.6	1247.5	3.4394	5.5462	2.1068	1.493 51	15.739
320	11.284	667.09	64.638	1462.2	2700.6	1238.4	3.4494	5.5372	2.0878	1.499 04	15.471
321	11.434	664.60	65.763	1468.4	2697.5	1229.1	3.4595	5.5281	2.0686	1.504 67	15.206
322	11.586	662.07	66.912	1474.6	2694.3	1219.7	3.4695	5.5189	2.0494	1.510 40	14.945
323	11.740	659.52	68.084	1480.9	2691.1	1210.2	3.4797	5.5096	2.0300	1.516 25	14.688
324	11.895	656.94	69.282	1487.2	2687.7	1200.6	3.4898	5.5003	2.0105	1.522 21	14.434
325	12.051	654.33	70.506	1493.5	2684.3	1190.8	3.5000	5.4908	1.9908	1.528 29	14.183
326	12.209	651.68	71.757	1499.9	2680.8	1180.9	3.5103	5.4813	1.9710	1.534 49	13.936
327	12.369	649.01	73.036	1506.3	2677.3	1170.9	3.5206	5.4717	1.9511	1.540 81	13.692
328	12.530	646.30	74.344	1512.8	2673.6	1160.8	3.5309	5.4619	1.9310	1.547 27	13.451
329	12.693	643.55	75.682	1519.3	2669.9	1150.6	3.5413	5.4521	1.9108	1.553 87	13.213

**Table 1. Saturation (Temperature) (continued)**

$t$ , °C	$p$ , MPa	Density, kg/m <sup>3</sup>		Enthalpy, kJ/kg			Entropy, kJ/(kg·K)			Volume, cm <sup>3</sup> /g	
		$\rho_L$	$\rho_V$	$h_L$	$h_V$	$\Delta h$	$s_L$	$s_V$	$\Delta s$	$v_L$	$v_V$
330	12.858	640.77	77.050	1525.9	2666.0	1140.2	3.5518	5.4422	1.8903	1.560 61	12.979
331	13.024	637.96	78.452	1532.5	2662.1	1129.6	3.5623	5.4321	1.8698	1.567 51	12.747
332	13.193	635.10	79.887	1539.1	2658.1	1118.9	3.5729	5.4219	1.8490	1.574 56	12.518
333	13.362	632.20	81.356	1545.9	2653.9	1108.1	3.5835	5.4116	1.8281	1.581 77	12.292
334	13.534	629.27	82.863	1552.6	2649.7	1097.1	3.5943	5.4012	1.8069	1.589 15	12.068
335	13.707	626.29	84.407	1559.5	2645.4	1085.9	3.6050	5.3906	1.7856	1.596 71	11.847
336	13.882	623.26	85.991	1566.3	2640.9	1074.6	3.6159	5.3799	1.7640	1.604 47	11.629
337	14.059	620.19	87.616	1573.3	2636.3	1063.0	3.6268	5.3691	1.7422	1.612 41	11.413
338	14.238	617.07	89.284	1580.3	2631.6	1051.3	3.6378	5.3581	1.7202	1.620 57	11.200
339	14.418	613.89	90.998	1587.4	2626.8	1039.4	3.6489	5.3469	1.6980	1.628 95	10.989
340	14.601	610.67	92.759	1594.5	2621.8	1027.3	3.6601	5.3356	1.6755	1.637 55	10.781
341	14.785	607.38	94.570	1601.8	2616.8	1015.0	3.6714	5.3241	1.6527	1.646 40	10.574
342	14.971	604.04	96.433	1609.1	2611.5	1002.5	3.6828	5.3124	1.6296	1.655 51	10.370
343	15.159	600.64	98.351	1616.4	2606.1	989.7	3.6943	5.3005	1.6063	1.664 90	10.168
344	15.349	597.17	100.33	1623.9	2600.6	976.7	3.7059	5.2885	1.5826	1.674 57	9.9674
345	15.541	593.63	102.36	1631.5	2594.9	963.4	3.7176	5.2762	1.5586	1.684 56	9.7690
346	15.734	590.01	104.47	1639.1	2589.0	949.9	3.7295	5.2636	1.5342	1.694 88	9.5724
347	15.930	586.32	106.64	1646.9	2583.0	936.1	3.7414	5.2509	1.5094	1.705 56	9.3776
348	16.128	582.54	108.88	1654.8	2576.7	922.0	3.7536	5.2379	1.4843	1.716 62	9.1844
349	16.328	578.67	111.20	1662.8	2570.3	907.5	3.7659	5.2246	1.4587	1.728 10	8.9927
350	16.529	574.71	113.61	1670.9	2563.6	892.7	3.7784	5.2110	1.4326	1.740 02	8.8024
351	16.733	570.64	116.10	1679.1	2556.8	877.6	3.7910	5.1971	1.4061	1.752 43	8.6134
352	16.939	566.46	118.68	1687.5	2549.6	862.1	3.8039	5.1829	1.3790	1.765 36	8.4257
353	17.147	562.15	121.37	1696.1	2542.3	846.2	3.8170	5.1683	1.3514	1.778 88	8.2390
354	17.358	557.72	124.17	1704.8	2534.6	829.8	3.8303	5.1534	1.3231	1.793 02	8.0533
355	17.570	553.14	127.09	1713.7	2526.6	812.9	3.8439	5.1380	1.2942	1.807 86	7.8684
356	17.785	548.41	130.14	1722.8	2518.4	795.5	3.8577	5.1222	1.2645	1.823 47	7.6841
357	18.002	543.50	133.33	1732.2	2509.8	777.6	3.8719	5.1059	1.2340	1.839 93	7.5003
358	18.221	538.41	136.67	1741.7	2500.8	759.0	3.8864	5.0891	1.2026	1.857 33	7.3168
359	18.442	533.11	140.19	1751.5	2491.4	739.8	3.9014	5.0717	1.1703	1.875 78	7.1332
360	18.666	527.59	143.90	1761.7	2481.5	719.8	3.9167	5.0536	1.1369	1.895 41	6.9493
361	18.892	521.82	147.82	1772.1	2471.1	699.0	3.9325	5.0347	1.1023	1.916 35	6.7649
362	19.121	515.79	151.99	1782.9	2460.2	677.3	3.9488	5.0151	1.0663	1.938 79	6.5795
363	19.352	509.45	156.43	1794.1	2448.6	654.5	3.9656	4.9945	1.0288	1.962 90	6.3925
364	19.585	502.78	161.20	1805.7	2436.2	630.5	3.9831	4.9727	0.9896	1.988 94	6.2035
365	19.821	495.74	166.35	1817.8	2422.9	605.2	4.0014	4.9497	0.9483	2.0172	6.0115
366	20.060	488.27	171.95	1830.5	2408.7	578.2	4.0205	4.9251	0.9046	2.0480	5.8157
367	20.302	480.29	178.11	1843.8	2393.1	549.2	4.0406	4.8986	0.8580	2.0821	5.6145
368	20.546	471.67	184.98	1858.1	2375.9	517.8	4.0621	4.8697	0.8076	2.1201	5.4061
369	20.793	462.18	192.77	1873.5	2356.6	483.1	4.0853	4.8376	0.7523	2.1636	5.1875
370	21.044	451.43	201.84	1890.7	2334.5	443.8	4.1112	4.8012	0.6901	2.2152	4.9544
371	21.297	438.64	212.79	1910.6	2308.3	397.7	4.1412	4.7586	0.6175	2.2798	4.6995
372	21.554	422.26	226.84	1935.3	2275.5	340.3	4.1785	4.7059	0.5274	2.3682	4.4084
373	21.814	398.68	247.22	1969.7	2229.8	260.1	4.2308	4.6334	0.4026	2.5083	4.0450
$t_c$	22.064	322.00	322.00	2084.3	2084.3	0.	4.4070	4.4070	0.	3.1056	3.1056

( $t_c = 373.946$  °C)



**Table 2. Saturation (Pressure)**

$p$ , MPa	$t$ , °C	Density, kg/m <sup>3</sup>		Enthalpy, kJ/kg			Entropy, kJ/(kg·K)			Volume, cm <sup>3</sup> /g	
		$\rho_L$	$\rho_V$	$h_L$	$h_V$	$\Delta h$	$s_L$	$s_V$	$\Delta s$	$v_L$	$v_V$
<b>611.657 Pa</b>	0.01	999.79	0.004 855	0.00	2500.9	2500.9	0.000 00	9.1555	9.1555	1.000 21	205 991.
<b>0.0007</b>	1.881	999.89	0.005 518	7.89	2504.3	2496.5	0.028 78	9.1058	9.0770	1.000 11	181 217.
<b>0.0008</b>	3.761	999.92	0.006 264	15.81	2507.8	2492.0	0.057 48	9.0567	8.9992	1.000 08	159 640.
<b>0.0009</b>	5.444	999.91	0.007 005	22.89	2510.9	2488.0	0.082 97	9.0135	8.9305	1.000 09	142 757.
<b>0.0010</b>	6.970	999.86	0.007 741	29.30	2513.7	2484.4	0.105 91	8.9749	8.8690	1.000 14	129 178.
<b>0.0012</b>	9.654	999.68	0.009 202	40.57	2518.6	2478.0	0.145 95	8.9082	8.7623	1.000 32	108 670.
<b>0.0014</b>	11.969	999.46	0.010 650	50.28	2522.8	2472.5	0.180 15	8.8521	8.6719	1.000 54	93 899.
<b>0.0016</b>	14.010	999.20	0.012 086	58.83	2526.5	2467.7	0.210 04	8.8035	8.5935	1.000 80	82 743.
<b>0.0018</b>	15.837	998.93	0.013 511	66.49	2529.9	2463.4	0.236 62	8.7608	8.5241	1.001 08	74 011.
<b>0.0020</b>	17.495	998.64	0.014 928	73.43	2532.9	2459.4	0.260 56	8.7226	8.4620	1.001 36	66 987.
<b>0.0024</b>	20.414	998.08	0.017 738	85.65	2538.2	2452.5	0.302 39	8.6567	8.3544	1.001 93	56 375.
<b>0.0028</b>	22.935	997.51	0.020 522	96.19	2542.8	2446.6	0.338 16	8.6012	8.2631	1.002 49	48 729.
<b>0.0032</b>	25.158	996.96	0.023 282	105.49	2546.8	2441.3	0.369 45	8.5533	8.1838	1.003 05	42 952.
<b>0.0036</b>	27.152	996.43	0.026 021	113.83	2550.4	2436.6	0.397 29	8.5110	8.1138	1.003 58	38 430.
<b>0.0040</b>	28.960	995.92	0.028 743	121.39	2553.7	2432.3	0.422 39	8.4734	8.0510	1.004 10	34 791.
<b>0.0045</b>	31.012	995.30	0.032 122	129.96	2557.4	2427.4	0.450 69	8.4313	7.9806	1.004 73	31 131.
<b>0.0050</b>	32.874	994.70	0.035 480	137.75	2560.7	2423.0	0.476 20	8.3938	7.9176	1.005 33	28 185.
<b>0.0055</b>	34.581	994.13	0.038 816	144.88	2563.8	2418.9	0.499 45	8.3599	7.8605	1.005 90	25 762.
<b>0.0060</b>	36.159	993.59	0.042 135	151.48	2566.6	2415.2	0.520 82	8.3290	7.8082	1.006 45	23 733.
<b>0.0065</b>	37.627	993.06	0.045 436	157.61	2569.3	2411.6	0.540 60	8.3007	7.7601	1.006 99	22 009.
<b>0.0070</b>	39.000	992.55	0.048 722	163.35	2571.7	2408.4	0.559 03	8.2745	7.7154	1.007 50	20 524.
<b>0.0075</b>	40.290	992.06	0.051 994	168.75	2574.0	2405.3	0.576 27	8.2501	7.6738	1.008 00	19 233.
<b>0.0080</b>	41.509	991.59	0.055 252	173.84	2576.2	2402.4	0.592 49	8.2273	7.6348	1.008 48	18 099.
<b>0.0085</b>	42.663	991.13	0.058 498	178.67	2578.3	2399.6	0.607 80	8.2060	7.5982	1.008 95	17 095.
<b>0.0090</b>	43.761	990.69	0.061 731	183.25	2580.2	2397.0	0.622 30	8.1858	7.5635	1.009 40	16 199.
<b>0.0095</b>	44.807	990.25	0.064 954	187.63	2582.1	2394.5	0.636 07	8.1668	7.5308	1.009 84	15 396.
<b>0.010</b>	45.806	989.83	0.068 166	191.81	2583.9	2392.1	0.649 20	8.1488	7.4996	1.010 27	14 670.
<b>0.011</b>	47.683	989.03	0.074 560	199.65	2587.2	2387.5	0.673 72	8.1154	7.4417	1.011 10	13 412.
<b>0.012</b>	49.419	988.26	0.080 917	206.91	2590.3	2383.4	0.696 28	8.0849	7.3887	1.011 88	12 358.
<b>0.013</b>	51.034	987.53	0.087 242	213.67	2593.1	2379.4	0.717 17	8.0570	7.3398	1.012 63	11 462.
<b>0.014</b>	52.547	986.82	0.093 535	219.99	2595.8	2375.8	0.736 64	8.0311	7.2945	1.013 35	10 691.
<b>0.016</b>	55.313	985.50	0.106 04	231.57	2600.6	2369.1	0.772 01	7.9846	7.2126	1.014 71	9430.6
<b>0.018</b>	57.798	984.28	0.118 44	241.96	2605.0	2363.0	0.803 55	7.9437	7.1402	1.015 97	8443.1
<b>0.020</b>	60.058	983.13	0.130 75	251.42	2608.9	2357.5	0.832 02	7.9072	7.0752	1.017 16	7648.0
<b>0.024</b>	64.053	981.03	0.155 15	268.15	2615.9	2347.7	0.881 91	7.8442	6.9623	1.019 34	6445.3
<b>0.028</b>	67.518	979.13	0.179 28	282.66	2621.8	2339.2	0.924 72	7.7912	6.8664	1.021 31	5577.8
<b>0.032</b>	70.586	977.40	0.203 19	295.52	2627.1	2331.6	0.962 28	7.7453	6.7830	1.023 12	4921.5
<b>0.036</b>	73.345	975.80	0.226 90	307.09	2631.8	2324.7	0.995 79	7.7050	6.7092	1.024 80	4407.2
<b>0.040</b>	75.857	974.30	0.250 44	317.62	2636.1	2318.4	1.0261	7.6690	6.6429	1.026 38	3993.0
<b>0.045</b>	78.715	972.56	0.279 65	329.62	2640.9	2311.2	1.0603	7.6288	6.5686	1.028 21	3575.9
<b>0.050</b>	81.317	970.94	0.308 64	340.54	2645.2	2304.7	1.0912	7.5930	6.5018	1.029 93	3240.0
<b>0.055</b>	83.709	969.42	0.337 44	350.59	2649.2	2298.6	1.1194	7.5606	6.4412	1.031 54	2963.5
<b>0.060</b>	85.926	967.99	0.366 07	359.91	2652.9	2292.9	1.1454	7.5311	6.3857	1.033 07	2731.7
<b>0.065</b>	87.993	966.63	0.394 54	368.60	2656.3	2287.7	1.1696	7.5040	6.3345	1.034 52	2534.6
<b>0.070</b>	89.932	965.34	0.422 87	376.75	2659.4	2282.7	1.1921	7.4790	6.2869	1.035 90	2364.8
<b>0.075</b>	91.758	964.11	0.451 07	384.44	2662.4	2277.9	1.2132	7.4557	6.2425	1.037 23	2217.0
<b>0.080</b>	93.486	962.93	0.479 14	391.71	2665.2	2273.5	1.2330	7.4339	6.2009	1.038 50	2087.1
<b>0.085</b>	95.125	961.79	0.507 09	398.62	2667.8	2269.2	1.2518	7.4135	6.1617	1.039 72	1972.0
<b>0.090</b>	96.687	960.70	0.534 94	405.20	2670.3	2265.1	1.2696	7.3943	6.1246	1.040 91	1869.4
<b>0.095</b>	98.178	959.65	0.562 69	411.48	2672.7	2261.2	1.2866	7.3761	6.0895	1.042 05	1777.2
<b>0.10</b>	99.606	958.63	0.590 34	417.50	2674.9	2257.4	1.3028	7.3588	6.0561	1.043 15	1693.9
<b>0.11</b>	102.292	956.69	0.645 39	428.84	2679.2	2250.3	1.3330	7.3269	5.9938	1.045 27	1549.5
<b>0.12</b>	104.784	954.86	0.700 10	439.36	2683.1	2243.7	1.3609	7.2977	5.9367	1.047 27	1428.4
<b>0.13</b>	107.109	953.13	0.754 53	449.19	2686.6	2237.5	1.3868	7.2709	5.8840	1.049 17	1325.3
<b>0.14</b>	109.292	951.49	0.808 69	458.42	2690.0	2231.6	1.4110	7.2461	5.8351	1.050 99	1236.6

**Table 2. Saturation (Pressure) (continued)**

$p$ , MPa	$t$ , °C	Density, kg/m <sup>3</sup>		Enthalpy, kJ/kg			Entropy, kJ/(kg·K)			Volume, cm <sup>3</sup> /g	
		$\rho_L$	$\rho_V$	$h_L$	$h_V$	$\Delta h$	$s_L$	$s_V$	$\Delta s$	$v_L$	$v_V$
0.15	111.349	949.92	0.862 60	467.13	2693.1	2226.0	1.4337	7.2230	5.7893	1.052 73	1159.3
0.16	113.297	948.41	0.916 29	475.38	2696.0	2220.7	1.4551	7.2014	5.7463	1.054 40	1091.4
0.17	115.148	946.97	0.969 76	483.22	2698.8	2215.6	1.4753	7.1812	5.7059	1.056 00	1031.2
0.18	116.911	945.57	1.0230	490.70	2701.4	2210.7	1.4945	7.1621	5.6676	1.057 56	977.47
0.19	118.596	944.23	1.0761	497.85	2703.9	2206.0	1.5127	7.1440	5.6313	1.059 06	929.24
0.20	120.210	942.94	1.1291	504.70	2706.2	2201.5	1.5302	7.1269	5.5967	1.060 52	885.68
0.21	121.759	941.68	1.1818	511.29	2708.5	2197.2	1.5469	7.1106	5.5638	1.061 93	846.14
0.22	123.250	940.47	1.2345	517.63	2710.6	2193.0	1.5628	7.0951	5.5323	1.063 30	810.07
0.23	124.686	939.28	1.2869	523.74	2712.7	2188.9	1.5782	7.0803	5.5021	1.064 64	777.04
0.24	126.072	938.13	1.3393	529.64	2714.6	2185.0	1.5930	7.0661	5.4731	1.065 94	746.68
0.25	127.411	937.02	1.3915	535.34	2716.5	2181.1	1.6072	7.0524	5.4452	1.067 22	718.66
0.26	128.708	935.93	1.4436	540.87	2718.3	2177.4	1.6210	7.0394	5.4184	1.068 46	692.73
0.27	129.965	934.86	1.4955	546.24	2720.0	2173.8	1.6343	7.0268	5.3925	1.069 68	668.65
0.28	131.185	933.83	1.5474	551.44	2721.7	2170.3	1.6471	7.0146	5.3675	1.070 86	646.24
0.29	132.370	932.81	1.5992	556.50	2723.3	2166.8	1.6596	7.0029	5.3433	1.072 03	625.33
0.30	133.522	931.82	1.6508	561.43	2724.9	2163.5	1.6717	6.9916	5.3199	1.073 17	605.76
0.31	134.644	930.85	1.7024	566.22	2726.4	2160.2	1.6835	6.9807	5.2972	1.074 29	587.41
0.32	135.737	929.90	1.7539	570.90	2727.8	2157.0	1.6949	6.9701	5.2752	1.075 39	570.17
0.33	136.802	928.96	1.8052	575.46	2729.3	2153.8	1.7060	6.9598	5.2538	1.076 47	553.95
0.34	137.842	928.05	1.8565	579.91	2730.6	2150.7	1.7168	6.9498	5.2330	1.077 53	538.64
0.35	138.857	927.15	1.9077	584.26	2732.0	2147.7	1.7274	6.9401	5.2128	1.078 57	524.18
0.36	139.849	926.27	1.9589	588.52	2733.2	2144.7	1.7377	6.9307	5.1931	1.079 60	510.50
0.37	140.819	925.40	2.0099	592.68	2734.5	2141.8	1.7477	6.9216	5.1739	1.080 61	497.53
0.38	141.769	924.55	2.0609	596.75	2735.7	2139.0	1.7575	6.9126	5.1551	1.081 61	485.22
0.39	142.698	923.71	2.1119	600.74	2736.9	2136.2	1.7671	6.9040	5.1369	1.082 59	473.52
0.40	143.608	922.89	2.1627	604.65	2738.1	2133.4	1.7765	6.8955	5.1190	1.083 55	462.38
0.42	145.375	921.28	2.2642	612.25	2740.3	2128.0	1.7946	6.8791	5.0846	1.085 44	441.65
0.44	147.076	919.72	2.3655	619.58	2742.4	2122.8	1.8120	6.8636	5.0516	1.087 29	422.74
0.46	148.716	918.20	2.4666	626.64	2744.4	2117.7	1.8287	6.8487	5.0199	1.089 08	405.42
0.48	150.300	916.73	2.5674	633.47	2746.3	2112.8	1.8448	6.8344	4.9895	1.090 84	389.50
0.50	151.831	915.29	2.6680	640.09	2748.1	2108.0	1.8604	6.8207	4.9603	1.092 55	374.81
0.52	153.314	913.89	2.7685	646.50	2749.9	2103.4	1.8754	6.8075	4.9321	1.094 23	361.20
0.54	154.753	912.52	2.8688	652.72	2751.5	2098.8	1.8899	6.7948	4.9049	1.095 87	348.58
0.56	156.149	911.18	2.9689	658.77	2753.1	2094.4	1.9040	6.7825	4.8786	1.097 48	336.82
0.58	157.506	909.87	3.0689	664.65	2754.7	2090.0	1.9176	6.7707	4.8531	1.099 05	325.85
0.60	158.826	908.59	3.1687	670.38	2756.1	2085.8	1.9308	6.7592	4.8284	1.100 60	315.58
0.62	160.112	907.34	3.2684	675.96	2757.6	2081.6	1.9437	6.7482	4.8045	1.102 12	305.96
0.64	161.365	906.11	3.3680	681.41	2758.9	2077.5	1.9562	6.7374	4.7813	1.103 62	296.91
0.66	162.587	904.91	3.4675	686.73	2760.3	2073.5	1.9684	6.7270	4.7587	1.105 09	288.40
0.68	163.781	903.72	3.5668	691.92	2761.5	2069.6	1.9802	6.7169	4.7367	1.106 54	280.36
0.70	164.946	902.56	3.6660	697.00	2762.8	2065.8	1.9918	6.7071	4.7153	1.107 96	272.77
0.72	166.086	901.42	3.7652	701.97	2763.9	2062.0	2.0031	6.6975	4.6944	1.109 36	265.59
0.74	167.200	900.30	3.8642	706.84	2765.1	2058.2	2.0141	6.6882	4.6741	1.110 75	258.79
0.76	168.291	899.19	3.9631	711.61	2766.2	2054.6	2.0248	6.6791	4.6543	1.112 11	252.33
0.78	169.360	898.10	4.0620	716.28	2767.3	2051.0	2.0354	6.6703	4.6349	1.113 46	246.18
0.80	170.406	897.04	4.1608	720.86	2768.3	2047.4	2.0457	6.6616	4.6160	1.114 78	240.34
0.82	171.433	895.98	4.2595	725.36	2769.3	2043.9	2.0557	6.6532	4.5975	1.116 09	234.77
0.84	172.440	894.94	4.3581	729.78	2770.3	2040.5	2.0656	6.6449	4.5793	1.117 39	229.46
0.86	173.428	893.92	4.4567	734.11	2771.2	2037.1	2.0753	6.6369	4.5616	1.118 67	224.38
0.88	174.398	892.91	4.5552	738.37	2772.1	2033.8	2.0847	6.6290	4.5443	1.119 93	219.53
0.90	175.350	891.92	4.6536	742.56	2773.0	2030.5	2.0940	6.6213	4.5272	1.121 18	214.89
0.92	176.287	890.93	4.7520	746.68	2773.9	2027.2	2.1032	6.6137	4.5106	1.122 42	210.44
0.94	177.207	889.96	4.8503	750.73	2774.7	2024.0	2.1121	6.6063	4.4942	1.123 64	206.17
0.96	178.112	889.01	4.9486	754.72	2775.5	2020.8	2.1209	6.5991	4.4782	1.124 85	202.08
0.98	179.002	888.06	5.0468	758.65	2776.3	2017.7	2.1296	6.5920	4.4624	1.126 05	198.14

**Table 2. Saturation (Pressure) (continued)**

$p$ , MPa	$t$ , °C	Density, kg/m <sup>3</sup>		Enthalpy, kJ/kg			Entropy, kJ/(kg·K)			Volume, cm <sup>3</sup> /g	
		$\rho_L$	$\rho_V$	$h_L$	$h_V$	$\Delta h$	$s_L$	$s_V$	$\Delta s$	$v_L$	$v_V$
1.00	179.878	887.13	5.1450	762.52	2777.1	2014.6	2.1381	6.5850	4.4470	1.127 23	194.36
1.05	182.009	884.84	5.3903	771.94	2778.9	2007.0	2.1587	6.5681	4.4095	1.130 14	185.52
1.10	184.062	882.62	5.6354	781.03	2780.6	1999.6	2.1785	6.5520	4.3735	1.132 99	177.45
1.15	186.043	880.46	5.8804	789.82	2782.2	1992.4	2.1976	6.5365	4.3390	1.135 77	170.06
1.20	187.957	878.35	6.1251	798.33	2783.7	1985.4	2.2159	6.5217	4.3058	1.138 50	163.26
1.25	189.809	876.29	6.3698	806.58	2785.1	1978.6	2.2337	6.5074	4.2737	1.141 18	156.99
1.30	191.605	874.28	6.6144	814.60	2786.5	1971.9	2.2508	6.4936	4.2428	1.143 80	151.19
1.35	193.347	872.31	6.8589	822.39	2787.7	1965.3	2.2674	6.4803	4.2129	1.146 38	145.80
1.40	195.039	870.39	7.1034	829.97	2788.8	1958.9	2.2835	6.4675	4.1839	1.148 92	140.78
1.45	196.685	868.50	7.3479	837.35	2789.9	1952.6	2.2992	6.4550	4.1559	1.151 41	136.09
1.50	198.287	866.65	7.5924	844.56	2791.0	1946.4	2.3143	6.4430	4.1286	1.153 87	131.71
1.55	199.848	864.84	7.8369	851.59	2791.9	1940.3	2.3291	6.4313	4.1022	1.156 29	127.60
1.60	201.370	863.05	8.0815	858.46	2792.8	1934.4	2.3435	6.4199	4.0765	1.158 68	123.74
1.65	202.856	861.30	8.3261	865.17	2793.7	1928.5	2.3575	6.4089	4.0514	1.161 03	120.10
1.70	204.307	859.58	8.5708	871.74	2794.5	1922.7	2.3711	6.3981	4.0270	1.163 36	116.67
1.75	205.725	857.89	8.8156	878.17	2795.2	1917.0	2.3845	6.3877	4.0032	1.165 65	113.43
1.80	207.112	856.22	9.0606	884.47	2795.9	1911.4	2.3975	6.3775	3.9800	1.167 92	110.37
1.85	208.469	854.58	9.3056	890.65	2796.6	1905.9	2.4102	6.3675	3.9573	1.170 16	107.46
1.90	209.798	852.96	9.5508	896.71	2797.2	1900.5	2.4227	6.3578	3.9351	1.172 38	104.70
1.95	211.101	851.37	9.7962	902.66	2797.8	1895.1	2.4348	6.3483	3.9135	1.174 58	102.08
2.0	212.377	849.80	10.042	908.50	2798.3	1889.8	2.4468	6.3390	3.8923	1.176 75	99.585
2.1	214.858	846.72	10.533	919.87	2799.3	1879.4	2.4699	6.3210	3.8511	1.181 03	94.938
2.2	217.249	843.72	11.026	930.87	2800.1	1869.2	2.4921	6.3038	3.8116	1.185 23	90.698
2.3	219.557	840.79	11.519	941.53	2800.8	1859.3	2.5136	6.2872	3.7736	1.189 36	86.815
2.4	221.789	837.92	12.013	951.87	2801.4	1849.6	2.5343	6.2712	3.7369	1.193 43	83.244
2.5	223.950	835.12	12.508	961.91	2801.9	1840.0	2.5543	6.2558	3.7015	1.197 43	79.949
2.6	226.046	832.37	13.004	971.67	2802.3	1830.7	2.5736	6.2409	3.6672	1.201 38	76.899
2.7	228.080	829.68	13.501	981.18	2802.7	1821.5	2.5924	6.2264	3.6340	1.205 28	74.066
2.8	230.057	827.04	14.000	990.46	2802.9	1812.4	2.6106	6.2124	3.6018	1.209 13	71.429
2.9	231.980	824.45	14.500	999.51	2803.1	1803.6	2.6283	6.1988	3.5705	1.212 93	68.968
3.0	233.853	821.90	15.001	1008.3	2803.2	1794.8	2.6455	6.1856	3.5400	1.216 69	66.664
3.1	235.679	819.39	15.503	1017.0	2803.2	1786.2	2.6623	6.1727	3.5104	1.220 42	64.504
3.2	237.459	816.92	16.006	1025.4	2803.1	1777.7	2.6787	6.1602	3.4815	1.224 10	62.475
3.3	239.198	814.49	16.512	1033.7	2803.0	1769.3	2.6946	6.1479	3.4533	1.227 76	60.564
3.4	240.897	812.10	17.018	1041.8	2802.9	1761.0	2.7102	6.1360	3.4258	1.231 38	58.761
3.5	242.557	809.74	17.526	1049.8	2802.6	1752.8	2.7254	6.1243	3.3989	1.234 97	57.058
3.6	244.182	807.41	18.036	1057.6	2802.4	1744.8	2.7403	6.1129	3.3726	1.238 54	55.446
3.7	245.772	805.10	18.547	1065.3	2802.1	1736.8	2.7549	6.1018	3.3469	1.242 08	53.918
3.8	247.330	802.83	19.059	1072.8	2801.7	1728.9	2.7691	6.0908	3.3217	1.245 59	52.467
3.9	248.857	800.59	19.574	1080.2	2801.3	1721.1	2.7831	6.0801	3.2970	1.249 08	51.089
4.0	250.354	798.37	20.090	1087.5	2800.8	1713.3	2.7968	6.0696	3.2728	1.252 56	49.776
4.1	251.823	796.17	20.608	1094.7	2800.3	1705.7	2.8102	6.0592	3.2491	1.256 01	48.525
4.2	253.264	794.00	21.127	1101.7	2799.8	1698.1	2.8234	6.0491	3.2257	1.259 44	47.332
4.3	254.680	791.85	21.649	1108.7	2799.2	1690.6	2.8363	6.0391	3.2028	1.262 86	46.192
4.4	256.070	789.73	22.172	1115.5	2798.6	1683.1	2.8490	6.0293	3.1803	1.266 26	45.102
4.5	257.437	787.62	22.697	1122.2	2797.9	1675.7	2.8615	6.0197	3.1582	1.269 65	44.059
4.6	258.780	785.53	23.224	1128.9	2797.3	1668.4	2.8738	6.0102	3.1364	1.273 02	43.059
4.7	260.101	783.47	23.753	1135.5	2796.5	1661.1	2.8859	6.0009	3.1150	1.276 38	42.100
4.8	261.402	781.42	24.284	1141.9	2795.8	1653.9	2.8978	5.9917	3.0939	1.279 73	41.180
4.9	262.681	779.38	24.816	1148.3	2795.0	1646.7	2.9095	5.9826	3.0731	1.283 06	40.296
5.0	263.941	777.37	25.351	1154.6	2794.2	1639.6	2.9210	5.9737	3.0527	1.286 39	39.446
5.1	265.181	775.37	25.888	1160.9	2793.4	1632.5	2.9323	5.9648	3.0325	1.289 71	38.628
5.2	266.403	773.39	26.427	1167.0	2792.5	1625.5	2.9435	5.9561	3.0126	1.293 02	37.840
5.3	267.608	771.42	26.968	1173.1	2791.6	1618.5	2.9546	5.9475	2.9930	1.296 32	37.081
5.4	268.795	769.46	27.512	1179.1	2790.7	1611.5	2.9654	5.9391	2.9736	1.299 61	36.348

**Table 2. Saturation (Pressure) (continued)**

$p$ , MPa	$t$ , °C	Density, kg/m <sup>3</sup>		Enthalpy, kJ/kg			Entropy, kJ/(kg·K)			Volume, cm <sup>3</sup> /g	
		$\rho_L$	$\rho_V$	$h_L$	$h_V$	$\Delta h$	$s_L$	$s_V$	$\Delta s$	$v_L$	$v_V$
5.5	269.965	767.52	28.057	1185.1	2789.7	1604.6	2.9762	5.9307	2.9545	1.302 90	35.642
5.6	271.120	765.59	28.605	1191.0	2788.7	1597.8	2.9868	5.9224	2.9356	1.306 18	34.959
5.7	272.258	763.67	29.155	1196.8	2787.7	1590.9	2.9972	5.9142	2.9170	1.309 46	34.300
5.8	273.382	761.77	29.707	1202.6	2786.7	1584.1	3.0075	5.9061	2.8985	1.312 73	33.662
5.9	274.490	759.88	30.262	1208.3	2785.7	1577.4	3.0177	5.8981	2.8803	1.316 00	33.045
6.0	275.585	758.00	30.818	1213.9	2784.6	1570.7	3.0278	5.8901	2.8623	1.319 26	32.448
6.1	276.666	756.13	31.378	1219.5	2783.5	1564.0	3.0377	5.8823	2.8445	1.322 53	31.870
6.2	277.733	754.27	31.940	1225.1	2782.4	1557.3	3.0476	5.8745	2.8269	1.325 79	31.309
6.3	278.787	752.42	32.504	1230.5	2781.2	1550.7	3.0573	5.8668	2.8095	1.329 05	30.766
6.4	279.829	750.58	33.070	1236.0	2780.1	1544.1	3.0669	5.8592	2.7923	1.332 30	30.238
6.5	280.858	748.75	33.640	1241.4	2778.9	1537.5	3.0764	5.8516	2.7752	1.335 56	29.727
6.6	281.875	746.93	34.211	1246.7	2777.7	1530.9	3.0858	5.8441	2.7583	1.338 82	29.230
6.7	282.880	745.11	34.786	1252.0	2776.4	1524.4	3.0951	5.8367	2.7416	1.342 08	28.747
6.8	283.874	743.31	35.363	1257.3	2775.2	1517.9	3.1043	5.8293	2.7250	1.345 33	28.278
6.9	284.857	741.51	35.943	1262.5	2773.9	1511.4	3.1134	5.8220	2.7086	1.348 59	27.822
7.0	285.829	739.72	36.525	1267.7	2772.6	1505.0	3.1224	5.8148	2.6924	1.351 86	27.378
7.1	286.790	737.94	37.110	1272.8	2771.3	1498.5	3.1313	5.8076	2.6762	1.355 12	26.947
7.2	287.741	736.17	37.698	1277.9	2770.0	1492.1	3.1402	5.8004	2.6603	1.358 39	26.526
7.3	288.682	734.40	38.289	1282.9	2768.6	1485.7	3.1489	5.7933	2.6444	1.361 66	26.117
7.4	289.614	732.64	38.883	1287.9	2767.3	1479.3	3.1576	5.7863	2.6287	1.364 93	25.718
7.5	290.535	730.88	39.479	1292.9	2765.9	1473.0	3.1662	5.7793	2.6131	1.368 21	25.330
7.6	291.448	729.14	40.079	1297.9	2764.5	1466.6	3.1747	5.7723	2.5976	1.371 49	24.951
7.7	292.351	727.39	40.681	1302.8	2763.1	1460.3	3.1832	5.7654	2.5823	1.374 77	24.581
7.8	293.245	725.66	41.287	1307.7	2761.6	1454.0	3.1915	5.7586	2.5671	1.378 06	24.221
7.9	294.131	723.92	41.895	1312.5	2760.2	1447.7	3.1998	5.7518	2.5519	1.381 36	23.869
8.0	295.008	722.20	42.507	1317.3	2758.7	1441.4	3.2081	5.7450	2.5369	1.384 67	23.526
8.1	295.876	720.47	43.122	1322.1	2757.2	1435.1	3.2162	5.7383	2.5220	1.387 97	23.190
8.2	296.737	718.76	43.740	1326.8	2755.7	1428.8	3.2243	5.7316	2.5072	1.391 29	22.863
8.3	297.589	717.04	44.361	1331.6	2754.1	1422.6	3.2324	5.7249	2.4925	1.394 61	22.542
8.4	298.434	715.34	44.985	1336.3	2752.6	1416.3	3.2403	5.7183	2.4779	1.397 95	22.229
8.5	299.271	713.63	45.613	1340.9	2751.0	1410.1	3.2483	5.7117	2.4634	1.401 28	21.923
8.6	300.100	711.93	46.244	1345.6	2749.4	1403.9	3.2561	5.7051	2.4490	1.404 63	21.624
8.7	300.922	710.23	46.879	1350.2	2747.8	1397.7	3.2639	5.6986	2.4347	1.407 99	21.332
8.8	301.737	708.54	47.517	1354.8	2746.2	1391.5	3.2717	5.6921	2.4204	1.411 35	21.045
8.9	302.544	706.85	48.159	1359.3	2744.6	1385.3	3.2793	5.6856	2.4062	1.414 73	20.765
9.0	303.345	705.16	48.804	1363.9	2742.9	1379.1	3.2870	5.6791	2.3922	1.418 11	20.490
9.1	304.139	703.48	49.453	1368.4	2741.3	1372.9	3.2946	5.6727	2.3782	1.421 51	20.221
9.2	304.926	701.80	50.105	1372.9	2739.6	1366.7	3.3021	5.6663	2.3642	1.424 91	19.958
9.3	305.707	700.12	50.761	1377.4	2737.9	1360.5	3.3096	5.6599	2.3504	1.428 33	19.700
9.4	306.481	698.44	51.421	1381.8	2736.2	1354.4	3.3170	5.6536	2.3366	1.431 76	19.447
9.5	307.249	696.77	52.085	1386.2	2734.4	1348.2	3.3244	5.6473	2.3229	1.435 20	19.199
9.6	308.010	695.09	52.753	1390.6	2732.7	1342.0	3.3317	5.6410	2.3092	1.438 65	18.956
9.7	308.766	693.42	53.424	1395.0	2730.9	1335.9	3.3390	5.6347	2.2957	1.442 12	18.718
9.8	309.516	691.76	54.100	1399.4	2729.1	1329.7	3.3463	5.6284	2.2822	1.445 60	18.484
9.9	310.259	690.09	54.779	1403.7	2727.3	1323.6	3.3535	5.6222	2.2687	1.449 09	18.255
10.0	310.997	688.42	55.463	1408.1	2725.5	1317.4	3.3606	5.6160	2.2553	1.452 59	18.030
10.2	312.456	685.10	56.843	1416.7	2721.8	1305.1	3.3749	5.6035	2.2287	1.459 65	17.592
10.4	313.893	681.77	58.240	1425.2	2718.0	1292.8	3.3889	5.5912	2.2023	1.466 76	17.170
10.6	315.308	678.45	59.655	1433.7	2714.2	1280.5	3.4028	5.5789	2.1761	1.473 94	16.763
10.8	316.703	675.13	61.089	1442.1	2710.3	1268.2	3.4166	5.5667	2.1501	1.481 19	16.370
11.0	318.079	671.81	62.541	1450.4	2706.3	1255.9	3.4303	5.5545	2.1242	1.488 51	15.990
11.2	319.434	668.49	64.012	1458.7	2702.3	1243.6	3.4438	5.5423	2.0985	1.495 90	15.622
11.4	320.771	665.17	65.504	1467.0	2698.2	1231.2	3.4572	5.5302	2.0730	1.503 37	15.266
11.6	322.090	661.85	67.016	1475.2	2694.0	1218.8	3.4705	5.5181	2.0476	1.510 93	14.922
11.8	323.391	658.52	68.550	1483.3	2689.8	1206.4	3.4836	5.5060	2.0224	1.518 57	14.588

**Table 2. Saturation (Pressure) (continued)**

$p$ , MPa	$t$ , °C	Density, kg/m <sup>3</sup>		Enthalpy, kJ/kg			Entropy, kJ/(kg·K)			Volume, cm <sup>3</sup> /g	
		$\rho_L$	$\rho_V$	$h_L$	$h_V$	$\Delta h$	$s_L$	$s_V$	$\Delta s$	$v_L$	$v_V$
12.0	324.675	655.18	70.106	1491.5	2685.4	1194.0	3.4967	5.4939	1.9972	1.526 30	14.264
12.2	325.942	651.84	71.684	1499.5	2681.0	1181.5	3.5097	5.4819	1.9722	1.534 13	13.950
12.4	327.194	648.49	73.287	1507.6	2676.6	1169.0	3.5226	5.4698	1.9472	1.542 05	13.645
12.6	328.429	645.13	74.914	1515.6	2672.0	1156.4	3.5354	5.4577	1.9223	1.550 09	13.349
12.8	329.649	641.75	76.566	1523.6	2667.4	1143.8	3.5481	5.4457	1.8975	1.558 23	13.061
13.0	330.854	638.37	78.245	1531.5	2662.7	1131.2	3.5608	5.4336	1.8728	1.566 49	12.780
13.2	332.044	634.97	79.950	1539.4	2657.9	1118.5	3.5734	5.4215	1.8481	1.574 87	12.508
13.4	333.220	631.56	81.685	1547.3	2653.0	1105.7	3.5859	5.4093	1.8234	1.583 38	12.242
13.6	334.382	628.13	83.448	1555.2	2648.0	1092.8	3.5984	5.3972	1.7988	1.592 02	11.983
13.8	335.531	624.69	85.243	1563.1	2643.0	1079.9	3.6108	5.3850	1.7742	1.600 81	11.731
14.0	336.666	621.22	87.069	1571.0	2637.9	1066.9	3.6232	5.3727	1.7495	1.609 74	11.485
14.2	337.789	617.73	88.928	1578.8	2632.6	1053.8	3.6355	5.3604	1.7249	1.618 83	11.245
14.4	338.899	614.22	90.822	1586.7	2627.3	1040.6	3.6478	5.3481	1.7002	1.628 09	11.011
14.6	339.996	610.68	92.752	1594.5	2621.9	1027.4	3.6601	5.3356	1.6756	1.637 52	10.781
14.8	341.082	607.11	94.720	1602.3	2616.3	1014.0	3.6723	5.3231	1.6508	1.647 14	10.557
15.0	342.155	603.52	96.727	1610.2	2610.7	1000.5	3.6846	5.3106	1.6260	1.656 95	10.338
15.2	343.217	599.89	98.776	1618.1	2605.0	986.9	3.6968	5.2979	1.6011	1.666 97	10.124
15.4	344.268	596.23	100.87	1625.9	2599.1	973.2	3.7090	5.2852	1.5762	1.677 22	9.9140
15.6	345.308	592.52	103.00	1633.8	2593.1	959.3	3.7212	5.2723	1.5511	1.687 70	9.7083
15.8	346.337	588.78	105.19	1641.7	2587.0	945.3	3.7335	5.2594	1.5259	1.698 43	9.5067
16.0	347.355	584.99	107.42	1649.7	2580.8	931.1	3.7457	5.2463	1.5006	1.709 44	9.3088
16.2	348.362	581.15	109.71	1657.7	2574.4	916.8	3.7580	5.2331	1.4750	1.720 73	9.1147
16.4	349.360	577.26	112.06	1665.7	2567.9	902.2	3.7704	5.2197	1.4494	1.732 33	8.9240
16.6	350.347	573.31	114.46	1673.7	2561.3	887.5	3.7827	5.2062	1.4235	1.744 27	8.7366
16.8	351.325	569.29	116.93	1681.9	2554.5	872.6	3.7952	5.1925	1.3974	1.756 57	8.5523
17.0	352.293	565.21	119.46	1690.0	2547.5	857.5	3.8077	5.1787	1.3710	1.769 26	8.3709
17.2	353.251	561.05	122.07	1698.3	2540.4	842.1	3.8203	5.1646	1.3443	1.782 37	8.1923
17.4	354.200	556.81	124.75	1706.6	2533.0	826.5	3.8330	5.1504	1.3174	1.795 93	8.0163
17.6	355.140	552.49	127.51	1715.0	2525.5	810.5	3.8458	5.1359	1.2901	1.810 00	7.8426
17.8	356.071	548.06	130.36	1723.5	2517.8	794.3	3.8587	5.1211	1.2624	1.824 60	7.6712
18.0	356.992	543.54	133.30	1732.1	2509.8	777.7	3.8718	5.1061	1.2342	1.839 80	7.5017
18.2	357.906	538.90	136.35	1740.8	2501.6	760.8	3.8851	5.0907	1.2056	1.855 64	7.3341
18.4	358.810	534.13	139.51	1749.7	2493.2	743.5	3.8985	5.0750	1.1765	1.872 19	7.1681
18.6	359.706	529.24	142.79	1758.7	2484.4	725.8	3.9121	5.0590	1.1468	1.889 51	7.0034
18.8	360.594	524.20	146.20	1767.8	2475.4	707.6	3.9260	5.0425	1.1165	1.907 67	6.8399
19.0	361.473	519.00	149.76	1777.2	2466.0	688.9	3.9401	5.0256	1.0855	1.926 77	6.6773
19.2	362.344	513.64	153.49	1786.7	2456.2	669.6	3.9545	5.0081	1.0536	1.946 89	6.5153
19.4	363.208	508.09	157.39	1796.4	2446.1	649.6	3.9692	4.9901	1.0208	1.968 14	6.3535
19.6	364.063	502.35	161.51	1806.4	2435.4	629.0	3.9843	4.9713	0.9871	1.990 64	6.1915
19.8	364.910	496.39	165.87	1816.7	2424.2	607.5	3.9997	4.9518	0.9521	2.0145	6.0290
20.0	365.749	490.19	170.50	1827.2	2412.3	585.1	4.0156	4.9314	0.9158	2.0400	5.8652
20.2	366.581	483.71	175.45	1838.1	2399.8	561.7	4.0320	4.9100	0.8780	2.0674	5.6996
20.4	367.404	476.90	180.79	1849.5	2386.3	536.9	4.0491	4.8872	0.8381	2.0969	5.5313
20.6	368.220	469.67	186.60	1861.4	2371.9	510.5	4.0670	4.8629	0.7959	2.1291	5.3590
20.8	369.027	461.91	193.00	1874.0	2356.1	482.1	4.0860	4.8367	0.7507	2.1649	5.1814
21.0	369.827	453.41	200.16	1887.6	2338.6	451.0	4.1064	4.8079	0.7015	2.2055	4.9961
21.2	370.619	443.83	208.33	1902.6	2318.9	416.3	4.1291	4.7758	0.6467	2.2531	4.8000
21.4	371.402	432.62	217.96	1919.7	2296.1	376.4	4.1550	4.7390	0.5839	2.3115	4.5880
21.6	372.178	418.75	229.84	1940.4	2268.6	328.2	4.1864	4.6950	0.5086	2.3880	4.3508
21.8	372.946	400.26	245.82	1967.4	2232.9	265.5	4.2274	4.6383	0.4109	2.4983	4.0680
22.0	373.705	369.77	274.16	2011.3	2173.1	161.7	4.2945	4.5446	0.2501	2.7044	3.6475
22.064	373.946	322.00	322.00	2084.3	2084.3	0.	4.4070	4.4070	0.	3.1056	3.1056

**Table 3. Compressed Water and Superheated Steam**

0.01 MPa ( $t_s = 45.806\text{ }^\circ\text{C}$ )				$t_s, ^\circ\text{C}$	0.02 MPa ( $t_s = 60.058\text{ }^\circ\text{C}$ )				$t_s, ^\circ\text{C}$	0.03 MPa ( $t_s = 69.095\text{ }^\circ\text{C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
1.010 27	989.83	191.81	0.649 20	$t_s(\text{L})$	1.017 16	983.13	251.42	0.832 02	$t_s(\text{L})$	1.022 24	978.25	289.27	0.944 07
14 670.	0.068 166	2583.9	8.1488	$t_s(\text{V})$	7648.0	0.130 75	2608.9	7.9072	$t_s(\text{V})$	5228.4	0.191 26	2624.5	7.7675
<i>*1.000 20</i>	<i>999.80</i>	<i>-0.03</i>	<i>-0.000 15</i>	<b>0</b>	<i>1.000 20</i>	<i>999.80</i>	<i>-0.02</i>	<i>-0.000 15</i>	<b>0</b>	<i>1.000 19</i>	<i>999.81</i>	<i>-0.01</i>	<i>-0.000 15</i>
1.000 08	999.92	21.03	0.076 25	<b>5</b>	1.000 07	999.93	21.04	0.076 25	<b>5</b>	1.000 07	999.93	21.05	0.076 25
1.000 34	999.66	42.03	0.151 09	<b>10</b>	1.000 34	999.66	42.04	0.151 08	<b>10</b>	1.000 33	999.67	42.05	0.151 08
1.000 94	999.06	62.99	0.224 46	<b>15</b>	1.000 94	999.06	63.00	0.224 46	<b>15</b>	1.000 93	999.07	63.01	0.224 46
1.001 84	998.17	83.92	0.296 48	<b>20</b>	1.001 83	998.17	83.93	0.296 48	<b>20</b>	1.001 83	998.17	83.94	0.296 48
1.003 00	997.01	104.84	0.367 22	<b>25</b>	1.003 00	997.01	104.84	0.367 22	<b>25</b>	1.002 99	997.02	104.85	0.367 22
1.004 41	995.61	125.74	0.436 75	<b>30</b>	1.004 41	995.61	125.75	0.436 75	<b>30</b>	1.004 40	995.62	125.76	0.436 75
1.006 04	993.99	146.64	0.505 13	<b>35</b>	1.006 04	994.00	146.65	0.505 13	<b>35</b>	1.006 03	994.00	146.66	0.505 12
1.007 89	992.18	167.54	0.572 40	<b>40</b>	1.007 88	992.18	167.54	0.572 40	<b>40</b>	1.007 88	992.19	167.55	0.572 39
1.009 92	990.17	188.44	0.638 61	<b>45</b>	1.009 92	990.18	188.44	0.638 61	<b>45</b>	1.009 92	990.18	188.45	0.638 61
14 867.	0.067 263	2592.0	8.1741	<b>50</b>	1.012 15	988.00	209.35	0.703 81	<b>50</b>	1.012 14	988.00	209.36	0.703 80
15 101.	0.066 220	2601.6	8.2036	<b>55</b>	1.014 55	985.66	230.26	0.768 02	<b>55</b>	1.014 55	985.66	230.27	0.768 02
15 335.	0.065 211	2611.2	8.2326	<b>60</b>	1.017 13	983.16	251.18	0.831 29	<b>60</b>	1.017 12	983.16	251.19	0.831 29
15 568.	0.064 233	2620.7	8.2611	<b>65</b>	7764.8	0.128 79	2618.6	7.9360	<b>65</b>	1.019 87	980.52	272.12	0.893 65
15 801.	0.063 285	2630.3	8.2891	<b>70</b>	7882.6	0.126 86	2628.3	7.9646	<b>70</b>	5242.8	0.190 74	2626.3	7.7727
16 034.	0.062 366	2639.8	8.3167	<b>75</b>	8000.2	0.125 00	2638.0	7.9927	<b>75</b>	5322.0	0.187 90	2636.2	7.8013
16 267.	0.061 474	2649.3	8.3439	<b>80</b>	8117.6	0.123 19	2647.7	8.0202	<b>80</b>	5401.0	0.185 15	2646.0	7.8292
16 500.	0.060 607	2658.9	8.3707	<b>85</b>	8234.8	0.121 44	2657.4	8.0474	<b>85</b>	5479.7	0.182 49	2655.8	7.8567
16 732.	0.059 766	2668.4	8.3971	<b>90</b>	8351.8	0.119 73	2667.0	8.0741	<b>90</b>	5558.3	0.179 91	2665.5	7.8837
16 964.	0.058 947	2677.9	8.4232	<b>95</b>	8468.7	0.118 08	2676.6	8.1004	<b>95</b>	5636.8	0.177 41	2675.3	7.9103
17 196.	0.058 152	2687.5	8.4489	<b>100</b>	8585.5	0.116 48	2686.2	8.1263	<b>100</b>	5715.1	0.174 97	2685.0	7.9365
17 428.	0.057 378	2697.0	8.4742	<b>105</b>	8702.2	0.114 91	2695.8	8.1519	<b>105</b>	5793.3	0.172 61	2694.7	7.9623
17 660.	0.056 624	2706.5	8.4993	<b>110</b>	8818.7	0.113 40	2705.4	8.1771	<b>110</b>	5871.4	0.170 32	2704.3	7.9877
17 892.	0.055 890	2716.1	8.5240	<b>115</b>	8935.2	0.111 92	2715.0	8.2020	<b>115</b>	5949.5	0.168 08	2714.0	8.0128
18 124.	0.055 176	2725.6	8.5484	<b>120</b>	9051.6	0.110 48	2724.6	8.2266	<b>120</b>	6027.4	0.165 91	2723.7	8.0375
18 356.	0.054 479	2735.2	8.5726	<b>125</b>	9167.9	0.109 08	2734.2	8.2509	<b>125</b>	6105.3	0.163 79	2733.3	8.0620
18 587.	0.053 800	2744.7	8.5964	<b>130</b>	9284.1	0.107 71	2743.9	8.2749	<b>130</b>	6183.0	0.161 73	2743.0	8.0861
18 819.	0.053 138	2754.3	8.6200	<b>135</b>	9400.3	0.106 38	2753.5	8.2986	<b>135</b>	6260.8	0.159 72	2752.6	8.1099
19 050.	0.052 493	2763.9	8.6434	<b>140</b>	9516.4	0.105 08	2763.1	8.3220	<b>140</b>	6338.5	0.157 77	2762.3	8.1334
19 282.	0.051 863	2773.4	8.6664	<b>145</b>	9632.5	0.103 81	2772.7	8.3451	<b>145</b>	6416.1	0.155 86	2772.0	8.1566
19 513.	0.051 247	2783.0	8.6892	<b>150</b>	9748.6	0.102 58	2782.3	8.3680	<b>150</b>	6493.7	0.154 00	2781.6	8.1796
19 745.	0.050 647	2792.6	8.7118	<b>155</b>	9864.6	0.101 37	2792.0	8.3907	<b>155</b>	6571.2	0.152 18	2791.3	8.2023
19 976.	0.050 060	2802.3	8.7341	<b>160</b>	9980.5	0.100 20	2801.6	8.4131	<b>160</b>	6648.7	0.150 40	2801.0	8.2248
20 207.	0.049 487	2811.9	8.7562	<b>165</b>	10 096.	0.099 045	2811.3	8.4352	<b>165</b>	6726.2	0.148 67	2810.7	8.2470
20 438.	0.048 927	2821.5	8.7781	<b>170</b>	10 212.	0.097 921	2820.9	8.4572	<b>170</b>	6803.6	0.146 98	2820.4	8.2690
20 670.	0.048 380	2831.2	8.7997	<b>175</b>	10 328.	0.096 822	2830.6	8.4789	<b>175</b>	6881.1	0.145 33	2830.1	8.2908
20 901.	0.047 845	2840.8	8.8212	<b>180</b>	10 444.	0.095 748	2840.3	8.5004	<b>180</b>	6958.4	0.143 71	2839.8	8.3123
21 132.	0.047 321	2850.5	8.8424	<b>185</b>	10 560.	0.094 698	2850.0	8.5216	<b>185</b>	7035.8	0.142 13	2849.5	8.3337
21 363.	0.046 809	2860.2	8.8634	<b>190</b>	10 676.	0.093 671	2859.7	8.5427	<b>190</b>	7113.1	0.140 58	2859.2	8.3548
21 594.	0.046 308	2869.9	8.8843	<b>195</b>	10 791.	0.092 666	2869.4	8.5636	<b>195</b>	7190.5	0.139 07	2868.9	8.3757
21 826.	0.045 818	2879.6	8.9049	<b>200</b>	10 907.	0.091 682	2879.1	8.5843	<b>200</b>	7267.7	0.137 59	2878.7	8.3964
22 288.	0.044 868	2889.1	8.9456	<b>210</b>	11 139.	0.089 777	2898.6	8.6250	<b>210</b>	7422.3	0.134 73	2898.2	8.4372
22 750.	0.043 956	2918.6	8.9856	<b>220</b>	11 370.	0.087 950	2918.2	8.6651	<b>220</b>	7576.8	0.131 98	2917.8	8.4773
23 212.	0.043 081	2938.1	9.0248	<b>230</b>	11 601.	0.086 197	2937.8	8.7044	<b>230</b>	7731.2	0.129 35	2937.4	8.5167
23 674.	0.042 240	2957.8	9.0635	<b>240</b>	11 833.	0.084 512	2957.4	8.7431	<b>240</b>	7885.5	0.126 81	2957.1	8.5554
24 136.	0.041 432	2977.4	9.1015	<b>250</b>	12 064.	0.082 892	2977.1	8.7811	<b>250</b>	8039.9	0.124 38	2976.8	8.5935
24 598.	0.040 654	2997.2	9.1388	<b>260</b>	12 295.	0.081 333	2996.9	8.8185	<b>260</b>	8194.1	0.122 04	2996.6	8.6309
25 060.	0.039 904	3017.0	9.1756	<b>270</b>	12 526.	0.079 832	3016.7	8.8553	<b>270</b>	8348.4	0.119 78	3016.4	8.6678
25 522.	0.039 182	3036.8	9.2118	<b>280</b>	12 757.	0.078 386	3036.6	8.8916	<b>280</b>	8502.6	0.117 61	3036.3	8.7041
25 984.	0.038 486	3056.8	9.2475	<b>290</b>	12 989.	0.076 991	3056.5	8.9273	<b>290</b>	8656.8	0.115 52	3056.2	8.7398

\*Values in italics indicate points where the thermodynamic equilibrium state would be a solid; the computed values are for the metastable liquid.

**Table 3. Compressed Water and Superheated Steam (continued)**

0.01 MPa ( $t_s = 45.806\text{ }^\circ\text{C}$ )				$t_s, \text{ }^\circ\text{C}$	0.02 MPa ( $t_s = 60.058\text{ }^\circ\text{C}$ )				$t_s, \text{ }^\circ\text{C}$	0.03 MPa ( $t_s = 69.095\text{ }^\circ\text{C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
26 446.	0.037 814	3076.7	9.2827	<b>300</b>	13 220.	0.075 645	3076.5	8.9625	<b>300</b>	8811.0	0.113 49	3076.2	8.7750
26 907.	0.037 164	3096.8	9.3173	<b>310</b>	13 451.	0.074 346	3096.5	8.9972	<b>310</b>	8965.1	0.111 54	3096.3	8.8097
27 369.	0.036 537	3116.9	9.3515	<b>320</b>	13 682.	0.073 090	3116.7	9.0314	<b>320</b>	9119.2	0.109 66	3116.4	8.8439
27 831.	0.035 931	3137.0	9.3852	<b>330</b>	13 913.	0.071 876	3136.8	9.0651	<b>330</b>	9273.3	0.107 84	3136.6	8.8777
28 293.	0.035 345	3157.3	9.4185	<b>340</b>	14 144.	0.070 703	3157.1	9.0983	<b>340</b>	9427.4	0.106 07	3156.9	8.9110
28 755.	0.034 777	3177.5	9.4513	<b>350</b>	14 375.	0.069 566	3177.4	9.1312	<b>350</b>	9581.5	0.104 37	3177.2	8.9438
29 216.	0.034 228	3197.9	9.4837	<b>360</b>	14 606.	0.068 466	3197.7	9.1636	<b>360</b>	9735.6	0.102 72	3197.5	8.9763
29 678.	0.033 695	3218.3	9.5157	<b>370</b>	14 837.	0.067 400	3218.1	9.1956	<b>370</b>	9889.6	0.101 12	3218.0	9.0083
30 140.	0.033 179	3238.8	9.5473	<b>380</b>	15 068.	0.066 367	3238.6	9.2272	<b>380</b>	10 044.	0.099 565	3238.5	9.0399
30 601.	0.032 678	3259.3	9.5785	<b>390</b>	15 299.	0.065 365	3259.2	9.2584	<b>390</b>	10 198.	0.098 062	3259.0	9.0711
31 063.	0.032 193	3279.9	9.6094	<b>400</b>	15 530.	0.064 393	3279.8	9.2893	<b>400</b>	10 352.	0.096 603	3279.6	9.1020
31 525.	0.031 721	3300.6	9.6398	<b>410</b>	15 760.	0.063 450	3300.5	9.3198	<b>410</b>	10 506.	0.095 187	3300.3	9.1325
31 986.	0.031 263	3321.4	9.6700	<b>420</b>	15 991.	0.062 534	3321.2	9.3499	<b>420</b>	10 660.	0.093 811	3321.1	9.1627
32 448.	0.030 818	3342.2	9.6998	<b>430</b>	16 222.	0.061 644	3342.0	9.3797	<b>430</b>	10 814.	0.092 476	3341.9	9.1925
32 910.	0.030 386	3363.0	9.7293	<b>440</b>	16 453.	0.060 779	3362.9	9.4092	<b>440</b>	10 968.	0.091 177	3362.8	9.2220
33 371.	0.029 966	3384.0	9.7584	<b>450</b>	16 684.	0.059 937	3383.9	9.4384	<b>450</b>	11 122.	0.089 915	3383.7	9.2511
33 833.	0.029 557	3405.0	9.7873	<b>460</b>	16 915.	0.059 119	3404.9	9.4672	<b>460</b>	11 276.	0.088 687	3404.7	9.2800
34 295.	0.029 159	3426.1	9.8158	<b>470</b>	17 146.	0.058 323	3425.9	9.4958	<b>470</b>	11 430.	0.087 493	3425.8	9.3086
34 756.	0.028 772	3447.2	9.8441	<b>480</b>	17 377.	0.057 548	3447.1	9.5241	<b>480</b>	11 584.	0.086 330	3447.0	9.3368
35 218.	0.028 395	3468.4	9.8721	<b>490</b>	17 608.	0.056 794	3468.3	9.5520	<b>490</b>	11 737.	0.085 197	3468.2	9.3648
35 680.	0.028 027	3489.7	9.8998	<b>500</b>	17 838.	0.056 059	3489.6	9.5798	<b>500</b>	11 891.	0.084 094	3489.5	9.3925
36 603.	0.027 320	3532.5	9.9544	<b>520</b>	18 300.	0.054 644	3532.4	9.6344	<b>520</b>	12 199.	0.081 972	3532.3	9.4471
37 526.	0.026 648	3575.5	10.008	<b>540</b>	18 762.	0.053 300	3575.4	9.6880	<b>540</b>	12 507.	0.079 954	3575.3	9.5007
38 449.	0.026 008	3618.8	10.061	<b>560</b>	19 224.	0.052 020	3618.7	9.7406	<b>560</b>	12 815.	0.078 034	3618.6	9.5534
39 372.	0.025 398	3662.4	10.112	<b>580</b>	19 685.	0.050 800	3662.3	9.7923	<b>580</b>	13 123.	0.076 203	3662.2	9.6051
40 296.	0.024 817	3706.3	10.163	<b>600</b>	20 147.	0.049 636	3706.2	9.8431	<b>600</b>	13 431.	0.074 457	3706.1	9.6559
41 219.	0.024 261	3750.4	10.213	<b>620</b>	20 609.	0.048 524	3750.4	9.8932	<b>620</b>	13 738.	0.072 789	3750.3	9.7060
42 142.	0.023 729	3794.9	10.262	<b>640</b>	21 070.	0.047 461	3794.8	9.9424	<b>640</b>	14 046.	0.071 193	3794.7	9.7552
43 065.	0.023 221	3839.6	10.311	<b>660</b>	21 532.	0.046 443	3839.5	9.9908	<b>660</b>	14 354.	0.069 667	3839.5	9.8036
43 988.	0.022 733	3884.6	10.358	<b>680</b>	21 993.	0.045 468	3884.5	10.039	<b>680</b>	14 662.	0.068 204	3884.5	9.8514
44 911.	0.022 266	3929.9	10.406	<b>700</b>	22 455.	0.044 533	3929.8	10.086	<b>700</b>	14 970.	0.066 802	3929.8	9.8984
45 834.	0.021 818	3975.5	10.452	<b>720</b>	22 917.	0.043 636	3975.4	10.132	<b>720</b>	15 277.	0.065 456	3975.4	9.9448
46 758.	0.021 387	4021.3	10.498	<b>740</b>	23 378.	0.042 775	4021.3	10.178	<b>740</b>	15 585.	0.064 164	4021.2	9.9905
47 681.	0.020 973	4067.5	10.543	<b>760</b>	23 840.	0.041 947	4067.4	10.223	<b>760</b>	15 893.	0.062 921	4067.4	10.036
48 604.	0.020 575	4113.9	10.587	<b>780</b>	24 301.	0.041 150	4113.9	10.267	<b>780</b>	16 201.	0.061 726	4113.8	10.080
49 527.	0.020 191	4160.6	10.631	<b>800</b>	24 763.	0.040 383	4160.6	10.311	<b>800</b>	16 508.	0.060 575	4160.5	10.124
50 450.	0.019 822	4207.6	10.675	<b>820</b>	25 225.	0.039 644	4207.6	10.355	<b>820</b>	16 816.	0.059 467	4207.5	10.167
51 373.	0.019 465	4254.9	10.717	<b>840</b>	25 686.	0.038 931	4254.8	10.397	<b>840</b>	17 124.	0.058 398	4254.8	10.210
52 296.	0.019 122	4302.4	10.760	<b>860</b>	26 148.	0.038 244	4302.4	10.440	<b>860</b>	17 432.	0.057 367	4302.3	10.253
53 219.	0.018 790	4350.2	10.802	<b>880</b>	26 609.	0.037 581	4350.2	10.482	<b>880</b>	17 739.	0.056 372	4350.2	10.294
54 142.	0.018 470	4398.3	10.843	<b>900</b>	27 071.	0.036 940	4398.3	10.523	<b>900</b>	18 047.	0.055 411	4398.3	10.336
55 065.	0.018 160	4446.7	10.884	<b>920</b>	27 532.	0.036 321	4446.7	10.564	<b>920</b>	18 355.	0.054 482	4446.6	10.377
55 989.	0.017 861	4495.3	10.924	<b>940</b>	27 994.	0.035 722	4495.3	10.604	<b>940</b>	18 663.	0.053 583	4495.3	10.417
56 912.	0.017 571	4544.2	10.964	<b>960</b>	28 456.	0.035 142	4544.2	10.644	<b>960</b>	18 970.	0.052 714	4544.2	10.457
57 835.	0.017 291	4593.4	11.004	<b>980</b>	28 917.	0.034 582	4593.4	10.684	<b>980</b>	19 278.	0.051 873	4593.3	10.497
58 758.	0.017 019	4642.8	11.043	<b>1000</b>	29 379.	0.034 038	4642.8	10.723	<b>1000</b>	19 586.	0.051 058	4642.8	10.536
63 373.	0.015 780	4893.7	11.233	<b>1100</b>	31 686.	0.031 559	4893.7	10.913	<b>1100</b>	21 124.	0.047 339	4893.7	10.725
67 988.	0.014 708	5150.7	11.413	<b>1200</b>	33 994.	0.029 417	5150.7	11.093	<b>1200</b>	22 663.	0.044 125	5150.7	10.906
72 604.	0.013 773	5413.4	11.586	<b>1300</b>	36 302.	0.027 547	5413.4	11.266	<b>1300</b>	24 201.	0.041 320	5413.4	11.079
77 219.	0.012 950	5681.3	11.751	<b>1400</b>	38 610.	0.025 900	5681.3	11.431	<b>1400</b>	25 740.	0.038 850	5681.2	11.244
81 834.	0.012 220	5954.0	11.909	<b>1500</b>	40 917.	0.024 440	5954.0	11.589	<b>1500</b>	27 278.	0.036 659	5953.9	11.402
86 450.	0.011 567	6231.1	12.061	<b>1600</b>	43 225.	0.023 135	6231.1	11.741	<b>1600</b>	28 817.	0.034 702	6231.1	11.554
95 680.	0.010 452	6797.2	12.348	<b>1800</b>	47 840.	0.020 903	6797.2	12.028	<b>1800</b>	31 894.	0.031 354	6797.2	11.841
104 910.	0.009 532	7377.0	12.615	<b>2000</b>	52 455.	0.019 064	7377.0	12.295	<b>2000</b>	34 970.	0.028 596	7377.0	12.108

**Table 3. Compressed Water and Superheated Steam (continued)**

0.04 MPa ( $t_s = 75.857\text{ }^\circ\text{C}$ )				$t_s, \text{ }^\circ\text{C}$	0.05 MPa ( $t_s = 81.317\text{ }^\circ\text{C}$ )				$t_s, \text{ }^\circ\text{C}$	0.06 MPa ( $t_s = 85.926\text{ }^\circ\text{C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
1.026 38	974.30	317.62	1.0261	$t_s(\text{L})$	1.029 93	970.94	340.54	1.0912	$t_s(\text{L})$	1.033 07	967.99	359.91	1.1454
3993.0	0.250 44	2636.1	7.6690	$t_s(\text{V})$	3240.0	0.308 64	2645.2	7.5930	$t_s(\text{V})$	2731.7	0.366 07	2652.9	7.5311
<i>1.000 19</i>	<i>999.81</i>	<i>0.00</i>	<i>-0.000 15</i>	<b>0</b>	<i>1.000 18</i>	<i>999.82</i>	<i>0.01</i>	<i>-0.000 15</i>	<b>0</b>	<i>1.000 18</i>	<i>999.82</i>	<i>0.02</i>	<i>-0.000 15</i>
1.000 06	999.94	21.06	0.076 25	<b>5</b>	1.000 06	999.94	21.07	0.076 25	<b>5</b>	1.000 05	999.95	21.08	0.076 25
1.000 33	999.67	42.06	0.151 08	<b>10</b>	1.000 32	999.68	42.07	0.151 08	<b>10</b>	1.000 32	999.68	42.08	0.151 08
1.000 93	999.07	63.02	0.224 46	<b>15</b>	1.000 92	999.08	63.03	0.224 46	<b>15</b>	1.000 92	999.08	63.04	0.224 45
1.001 82	998.18	83.95	0.296 48	<b>20</b>	1.001 82	998.18	83.96	0.296 47	<b>20</b>	1.001 82	998.19	83.97	0.296 47
1.002 99	997.02	104.86	0.367 22	<b>25</b>	1.002 98	997.02	104.87	0.367 21	<b>25</b>	1.002 98	997.03	104.88	0.367 21
1.004 40	995.62	125.77	0.436 74	<b>30</b>	1.004 39	995.63	125.78	0.436 74	<b>30</b>	1.004 39	995.63	125.78	0.436 74
1.006 03	994.01	146.66	0.505 12	<b>35</b>	1.006 03	994.01	146.67	0.505 11	<b>35</b>	1.006 02	994.02	146.68	0.505 11
1.007 87	992.19	167.56	0.572 39	<b>40</b>	1.007 87	992.19	167.57	0.572 39	<b>40</b>	1.007 86	992.20	167.58	0.572 38
1.009 91	990.19	188.46	0.638 60	<b>45</b>	1.009 91	990.19	188.47	0.638 60	<b>45</b>	1.009 90	990.19	188.48	0.638 59
1.012 14	988.01	209.37	0.703 80	<b>50</b>	1.012 13	988.01	209.37	0.703 79	<b>50</b>	1.012 13	988.02	209.38	0.703 79
1.014 54	985.67	230.28	0.768 01	<b>55</b>	1.014 54	985.67	230.29	0.768 01	<b>55</b>	1.014 53	985.68	230.29	0.768 00
1.017 12	983.17	251.20	0.831 28	<b>60</b>	1.017 11	983.17	251.21	0.831 28	<b>60</b>	1.017 11	983.18	251.21	0.831 27
1.019 86	980.52	272.13	0.893 64	<b>65</b>	1.019 86	980.53	272.14	0.893 64	<b>65</b>	1.019 85	980.53	272.14	0.893 63
1.022 77	977.74	293.07	0.955 13	<b>70</b>	1.022 76	977.74	293.08	0.955 12	<b>70</b>	1.022 76	977.75	293.09	0.955 12
1.025 84	974.82	314.03	1.0158	<b>75</b>	1.025 83	974.82	314.04	1.0158	<b>75</b>	1.025 83	974.82	314.05	1.0158
4042.5	0.247 37	2644.3	7.6925	<b>80</b>	1.029 05	971.77	335.01	1.0756	<b>80</b>	1.029 05	971.77	335.02	1.0756
4102.1	0.243 78	2654.2	7.7204	<b>85</b>	3275.4	0.305 30	2652.6	7.6138	<b>85</b>	1.032 43	968.59	356.02	1.1346
4161.5	0.240 30	2664.1	7.7477	<b>90</b>	3323.3	0.300 90	2662.6	7.6415	<b>90</b>	2764.5	0.361 73	2661.1	7.5540
4220.8	0.236 92	2673.9	7.7746	<b>95</b>	3371.1	0.296 64	2672.5	7.6686	<b>95</b>	2804.6	0.356 56	2671.1	7.5814
4279.9	0.233 65	2683.7	7.8010	<b>100</b>	3418.7	0.292 51	2682.4	7.6953	<b>100</b>	2844.5	0.351 56	2681.1	7.6084
4338.9	0.230 47	2693.5	7.8270	<b>105</b>	3466.1	0.288 50	2692.3	7.7215	<b>105</b>	2884.3	0.346 70	2691.1	7.6348
4397.8	0.227 39	2703.2	7.8527	<b>110</b>	3513.5	0.284 62	2702.1	7.7474	<b>110</b>	2924.0	0.342 00	2701.0	7.6609
4456.6	0.224 39	2713.0	7.8779	<b>115</b>	3560.8	0.280 84	2711.9	7.7728	<b>115</b>	2963.6	0.337 43	2710.9	7.6865
4515.3	0.221 47	2722.7	7.9028	<b>120</b>	3608.0	0.277 16	2721.7	7.7978	<b>120</b>	3003.1	0.332 99	2720.7	7.7117
4573.9	0.218 63	2732.4	7.9274	<b>125</b>	3655.1	0.273 59	2731.5	7.8225	<b>125</b>	3042.5	0.328 68	2730.5	7.7365
4632.5	0.215 87	2742.1	7.9516	<b>130</b>	3702.1	0.270 12	2741.2	7.8469	<b>130</b>	3081.9	0.324 48	2740.3	7.7610
4691.0	0.213 17	2751.8	7.9755	<b>135</b>	3749.1	0.266 73	2751.0	7.8710	<b>135</b>	3121.2	0.320 39	2750.1	7.7852
4749.5	0.210 55	2761.5	7.9992	<b>140</b>	3796.0	0.263 43	2760.7	7.8947	<b>140</b>	3160.4	0.316 42	2759.9	7.8090
4807.9	0.207 99	2771.2	8.0225	<b>145</b>	3842.9	0.260 22	2770.5	7.9181	<b>145</b>	3199.6	0.312 54	2769.7	7.8326
4866.2	0.205 50	2780.9	8.0456	<b>150</b>	3889.7	0.257 09	2780.2	7.9413	<b>150</b>	3238.7	0.308 76	2779.5	7.8558
4924.5	0.203 06	2790.6	8.0684	<b>155</b>	3936.5	0.254 03	2790.0	7.9642	<b>155</b>	3277.8	0.305 08	2789.3	7.8788
4982.8	0.200 69	2800.3	8.0909	<b>160</b>	3983.3	0.251 05	2799.7	7.9868	<b>160</b>	3316.9	0.301 49	2799.0	7.9015
5041.1	0.198 37	2810.1	8.1132	<b>165</b>	4030.0	0.248 14	2809.4	8.0091	<b>165</b>	3355.9	0.297 98	2808.8	7.9239
5099.3	0.196 11	2819.8	8.1353	<b>170</b>	4076.6	0.245 30	2819.2	8.0312	<b>170</b>	3394.9	0.294 56	2818.6	7.9461
5157.5	0.193 89	2829.5	8.1571	<b>175</b>	4123.3	0.242 52	2828.9	8.0531	<b>175</b>	3433.8	0.291 22	2828.4	7.9680
5215.6	0.191 73	2839.2	8.1787	<b>180</b>	4169.9	0.239 81	2838.7	8.0748	<b>180</b>	3472.8	0.287 95	2838.1	7.9897
5273.7	0.189 62	2849.0	8.2000	<b>185</b>	4216.5	0.237 16	2848.4	8.0962	<b>185</b>	3511.7	0.284 76	2847.9	8.0112
5331.9	0.187 55	2858.7	8.2212	<b>190</b>	4263.1	0.234 57	2858.2	8.1174	<b>190</b>	3550.6	0.281 65	2857.7	8.0324
5389.9	0.185 53	2868.5	8.2421	<b>195</b>	4309.6	0.232 04	2868.0	8.1384	<b>195</b>	3589.4	0.278 60	2867.5	8.0535
5448.0	0.183 55	2878.2	8.2629	<b>200</b>	4356.2	0.229 56	2877.8	8.1592	<b>200</b>	3628.3	0.275 61	2877.3	8.0743
5506.1	0.181 62	2887.8	8.2838	<b>205</b>	4402.8	0.227 14	2887.4	8.1801	<b>205</b>	3667.1	0.272 71	2886.9	8.0952
5564.1	0.179 72	2897.8	8.3038	<b>210</b>	4449.2	0.224 76	2897.4	8.2001	<b>210</b>	3705.9	0.269 84	2896.9	8.1153
5622.1	0.177 85	2907.8	8.3238	<b>215</b>	4495.5	0.222 43	2907.4	8.2201	<b>215</b>	3744.7	0.267 01	2906.9	8.1354
5680.1	0.176 05	2917.4	8.3440	<b>220</b>	4542.1	0.220 16	2917.0	8.2404	<b>220</b>	3783.4	0.264 31	2916.6	8.1556
5738.1	0.174 28	2927.0	8.3642	<b>225</b>	4588.4	0.217 93	2926.9	8.2607	<b>225</b>	3822.1	0.261 61	2926.6	8.1757
5796.1	0.172 53	2937.0	8.3834	<b>230</b>	4635.0	0.215 75	2936.7	8.2799	<b>230</b>	3860.9	0.259 00	2936.3	8.1952
5854.1	0.170 81	2946.9	8.4026	<b>235</b>	4681.3	0.213 61	2946.6	8.2992	<b>235</b>	3899.6	0.256 40	2946.3	8.2153
5912.0	0.169 15	2956.7	8.4222	<b>240</b>	4727.8	0.211 51	2956.4	8.3187	<b>240</b>	3938.4	0.253 91	2956.0	8.2340
6027.8	0.165 90	2976.5	8.4603	<b>245</b>	4774.1	0.209 44	2976.1	8.3381	<b>245</b>	3977.1	0.251 41	2976.0	8.2531
6143.7	0.162 77	2996.3	8.4977	<b>250</b>	4820.6	0.207 44	2976.1	8.3568	<b>250</b>	4015.8	0.249 02	2975.8	8.2722
6259.4	0.159 76	3016.1	8.5346	<b>255</b>	4913.4	0.205 53	2996.0	8.3943	<b>255</b>	4093.2	0.244 31	2995.7	8.3098
6375.2	0.156 86	3036.0	8.5709	<b>260</b>	5006.1	0.199 76	3015.8	8.4313	<b>260</b>	4170.5	0.239 78	3015.5	8.3467
6490.9	0.154 06	3056.0	8.6067	<b>265</b>	5098.8	0.196 13	3035.8	8.4676	<b>265</b>	4247.8	0.235 42	3035.5	8.3831
				<b>270</b>	5191.4	0.192 63	3055.7	8.5034	<b>270</b>	4325.1	0.231 21	3055.5	8.4189



**Table 3. Compressed Water and Superheated Steam (continued)**

0.04 MPa ( $t_s = 75.857\text{ }^\circ\text{C}$ )				$t, \text{ }^\circ\text{C}$	0.05 MPa ( $t_s = 81.317\text{ }^\circ\text{C}$ )				$t, \text{ }^\circ\text{C}$	0.06 MPa ( $t_s = 85.926\text{ }^\circ\text{C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
6606.6	0.151 36	3076.0	8.6419	<b>300</b>	5284.0	0.189 25	3075.8	8.5386	<b>300</b>	4402.3	0.227 15	3075.5	8.4542
6722.3	0.148 76	3096.1	8.6767	<b>310</b>	5376.7	0.185 99	3095.8	8.5734	<b>310</b>	4479.5	0.223 24	3095.6	8.4889
6838.0	0.146 24	3116.2	8.7109	<b>320</b>	5469.2	0.182 84	3116.0	8.6076	<b>320</b>	4556.7	0.219 45	3115.8	8.5232
6953.6	0.143 81	3136.4	8.7447	<b>330</b>	5561.8	0.179 80	3136.2	8.6414	<b>330</b>	4633.9	0.215 80	3136.0	8.5570
7069.3	0.141 46	3156.7	8.7780	<b>340</b>	5654.4	0.176 85	3156.5	8.6747	<b>340</b>	4711.1	0.212 26	3156.3	8.5904
7184.9	0.139 18	3177.0	8.8108	<b>350</b>	5746.9	0.174 01	3176.8	8.7076	<b>350</b>	4788.3	0.208 84	3176.6	8.6232
7300.5	0.136 98	3197.4	8.8433	<b>360</b>	5839.4	0.171 25	3197.2	8.7401	<b>360</b>	4865.4	0.205 53	3197.0	8.6557
7416.1	0.134 84	3217.8	8.8753	<b>370</b>	5931.9	0.168 58	3217.6	8.7721	<b>370</b>	4942.5	0.202 33	3217.4	8.6878
7531.6	0.132 77	3238.3	8.9069	<b>380</b>	6024.4	0.165 99	3238.1	8.8038	<b>380</b>	5019.6	0.199 22	3238.0	8.7194
7647.2	0.130 77	3258.9	8.9382	<b>390</b>	6116.9	0.163 48	3258.7	8.8350	<b>390</b>	5096.7	0.196 20	3258.5	8.7507
7762.8	0.128 82	3279.5	8.9691	<b>400</b>	6209.4	0.161 05	3279.3	8.8659	<b>400</b>	5173.8	0.193 28	3279.2	8.7816
7878.3	0.126 93	3300.2	8.9996	<b>410</b>	6301.9	0.158 68	3300.0	8.8964	<b>410</b>	5250.9	0.190 44	3299.9	8.8121
7993.8	0.125 10	3320.9	9.0297	<b>420</b>	6394.3	0.156 39	3320.8	8.9266	<b>420</b>	5328.0	0.187 69	3320.7	8.8423
8109.4	0.123 31	3341.8	9.0596	<b>430</b>	6486.8	0.154 16	3341.6	8.9564	<b>430</b>	5405.1	0.185 01	3341.5	8.8721
8224.9	0.121 58	3362.6	9.0891	<b>440</b>	6579.2	0.151 99	3362.5	8.9859	<b>440</b>	5482.1	0.182 41	3362.4	8.9017
8340.4	0.119 90	3383.6	9.1182	<b>450</b>	6671.7	0.149 89	3383.5	9.0151	<b>450</b>	5559.2	0.179 88	3383.3	8.9308
8455.9	0.118 26	3404.6	9.1471	<b>460</b>	6764.1	0.147 84	3404.5	9.0440	<b>460</b>	5636.2	0.177 42	3404.4	8.9597
8571.4	0.116 67	3425.7	9.1757	<b>470</b>	6856.5	0.145 85	3425.6	9.0726	<b>470</b>	5713.3	0.175 03	3425.5	8.9883
8686.9	0.115 12	3446.9	9.2039	<b>480</b>	6948.9	0.143 91	3446.7	9.1008	<b>480</b>	5790.3	0.172 70	3446.6	9.0166
8802.4	0.113 61	3468.1	9.2319	<b>490</b>	7041.4	0.142 02	3468.0	9.1288	<b>490</b>	5867.3	0.170 44	3467.9	9.0446
8917.9	0.112 13	3489.4	9.2596	<b>500</b>	7133.8	0.140 18	3489.3	9.1566	<b>500</b>	5944.4	0.168 23	3489.2	9.0723
9148.8	0.109 30	3532.2	9.3143	<b>520</b>	7318.6	0.136 64	3532.1	9.2112	<b>520</b>	6098.4	0.163 98	3532.0	9.1270
9379.8	0.106 61	3575.2	9.3679	<b>540</b>	7503.4	0.133 27	3575.1	9.2648	<b>540</b>	6252.4	0.159 94	3575.0	9.1806
9610.7	0.104 05	3618.5	9.4205	<b>560</b>	7688.1	0.130 07	3618.5	9.3175	<b>560</b>	6406.4	0.156 09	3618.4	9.2332
9841.6	0.101 61	3662.2	9.4723	<b>580</b>	7872.9	0.127 02	3662.1	9.3692	<b>580</b>	6560.4	0.152 43	3662.0	9.2850
10 073.	0.099 280	3706.0	9.5231	<b>600</b>	8057.6	0.124 11	3706.0	9.4201	<b>600</b>	6714.4	0.148 93	3705.9	9.3358
10 303.	0.097 055	3750.2	9.5731	<b>620</b>	8242.4	0.121 32	3750.1	9.4701	<b>620</b>	6868.4	0.145 60	3750.1	9.3859
10 534.	0.094 928	3794.7	9.6223	<b>640</b>	8427.1	0.118 66	3794.6	9.5193	<b>640</b>	7022.3	0.142 40	3794.5	9.4351
10 765.	0.092 892	3839.4	9.6708	<b>660</b>	8611.8	0.116 12	3839.3	9.5678	<b>660</b>	7176.3	0.139 35	3839.3	9.4836
10 996.	0.090 942	3884.4	9.7185	<b>680</b>	8796.5	0.113 68	3884.4	9.6155	<b>680</b>	7330.2	0.136 42	3884.3	9.5313
11 227.	0.089 072	3929.7	9.7656	<b>700</b>	8981.2	0.111 34	3929.7	9.6625	<b>700</b>	7484.1	0.133 62	3929.6	9.5784
11 458.	0.087 277	3975.3	9.8119	<b>720</b>	9165.9	0.109 10	3975.3	9.7089	<b>720</b>	7638.1	0.130 92	3975.2	9.6247
11 689.	0.085 554	4021.2	9.8577	<b>740</b>	9350.6	0.106 94	4021.1	9.7546	<b>740</b>	7792.0	0.128 34	4021.1	9.6705
11 919.	0.083 897	4067.3	9.9028	<b>760</b>	9535.3	0.104 87	4067.3	9.7998	<b>760</b>	7945.9	0.125 85	4067.2	9.7156
12 150.	0.082 303	4113.8	9.9473	<b>780</b>	9720.0	0.102 88	4113.7	9.8443	<b>780</b>	8099.8	0.123 46	4113.7	9.7601
12 381.	0.080 769	4160.5	9.9912	<b>800</b>	9904.7	0.100 96	4160.4	9.8882	<b>800</b>	8253.7	0.121 16	4160.4	9.8040
12 612.	0.079 290	4207.5	10.035	<b>820</b>	10 089.	0.099 115	4207.4	9.9316	<b>820</b>	8407.6	0.118 94	4207.4	9.8474
12 843.	0.077 865	4254.8	10.077	<b>840</b>	10 274.	0.097 333	4254.7	9.9745	<b>840</b>	8561.5	0.116 80	4254.7	9.8903
13 074.	0.076 490	4302.3	10.120	<b>860</b>	10 459.	0.095 614	4302.3	10.017	<b>860</b>	8715.4	0.114 74	4302.2	9.9326
13 304.	0.075 163	4350.1	10.162	<b>880</b>	10 643.	0.093 955	4350.1	10.059	<b>880</b>	8869.3	0.112 75	4350.1	9.9745
13 535.	0.073 882	4398.2	10.203	<b>900</b>	10 828.	0.092 353	4398.2	10.100	<b>900</b>	9023.2	0.110 83	4398.2	10.016
13 766.	0.072 643	4446.6	10.244	<b>920</b>	11 013.	0.090 805	4446.6	10.141	<b>920</b>	9177.1	0.108 97	4446.5	10.057
13 997.	0.071 445	4495.2	10.284	<b>940</b>	11 197.	0.089 307	4495.2	10.181	<b>940</b>	9331.0	0.107 17	4495.2	10.097
14 228.	0.070 286	4544.1	10.324	<b>960</b>	11 382.	0.087 858	4544.1	10.221	<b>960</b>	9484.9	0.105 43	4544.1	10.137
14 458.	0.069 164	4593.3	10.364	<b>980</b>	11 567.	0.086 456	4593.3	10.261	<b>980</b>	9638.8	0.103 75	4593.2	10.177
14 689.	0.068 077	4642.7	10.403	<b>1000</b>	11 751.	0.085 097	4642.7	10.300	<b>1000</b>	9792.7	0.102 12	4642.7	10.216
15 843.	0.063 119	4893.7	10.593	<b>1100</b>	12 674.	0.078 899	4893.7	10.490	<b>1100</b>	10 562.	0.094 679	4893.6	10.406
16 997.	0.058 834	5150.7	10.773	<b>1200</b>	13 598.	0.073 542	5150.7	10.670	<b>1200</b>	11 331.	0.088 251	5150.6	10.586
18 151.	0.055 093	5413.3	10.946	<b>1300</b>	14 521.	0.068 867	5413.3	10.843	<b>1300</b>	12 101.	0.082 640	5413.3	10.759
19 305.	0.051 800	5681.2	11.111	<b>1400</b>	15 444.	0.064 750	5681.2	11.008	<b>1400</b>	12 870.	0.077 700	5681.2	10.924
20 459.	0.048 879	5953.9	11.269	<b>1500</b>	16 367.	0.061 098	5953.9	11.166	<b>1500</b>	13 639.	0.073 318	5953.9	11.082
21 613.	0.046 269	6231.1	11.421	<b>1600</b>	17 290.	0.057 836	6231.1	11.318	<b>1600</b>	14 409.	0.069 403	6231.0	11.234
23 920.	0.041 806	6797.2	11.708	<b>1800</b>	19 136.	0.052 257	6797.2	11.605	<b>1800</b>	15 947.	0.062 708	6797.2	11.521
26 228.	0.038 127	7377.0	11.975	<b>2000</b>	20 982.	0.047 659	7377.0	11.872	<b>2000</b>	17 485.	0.057 190	7377.0	11.788

**Table 3. Compressed Water and Superheated Steam (continued)**

0.07 MPa ( $t_s = 89.932\text{ }^\circ\text{C}$ )				$t_s, \text{ }^\circ\text{C}$	0.08 MPa ( $t_s = 93.486\text{ }^\circ\text{C}$ )				$t_s, \text{ }^\circ\text{C}$	0.09 MPa ( $t_s = 96.687\text{ }^\circ\text{C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
1.035 90	965.34	376.75	1.1921	$t_s(\text{L})$	1.038 50	962.93	391.71	1.2330	$t_s(\text{L})$	1.040 91	960.70	405.20	1.2696
2364.8	0.422 87	2659.4	7.4790	$t_s(\text{V})$	2087.1	0.479 14	2665.2	7.4339	$t_s(\text{V})$	1869.4	0.534 94	2670.3	7.3943
<i>1.000 17</i>	<i>999.83</i>	<i>0.03</i>	<i>-0.000 15</i>	<b>0</b>	<i>1.000 17</i>	<i>999.83</i>	<i>0.04</i>	<i>-0.000 15</i>	<b>0</b>	<i>1.000 16</i>	<i>999.84</i>	<i>0.05</i>	<i>-0.000 15</i>
1.000 05	999.95	21.09	0.076 25	<b>5</b>	1.000 04	999.96	21.10	0.076 25	<b>5</b>	1.000 04	999.96	21.11	0.076 25
1.000 31	999.69	42.09	0.151 08	<b>10</b>	1.000 31	999.69	42.10	0.151 08	<b>10</b>	1.000 30	999.70	42.11	0.151 08
1.000 91	999.09	63.05	0.224 45	<b>15</b>	1.000 91	999.09	63.06	0.224 45	<b>15</b>	1.000 90	999.10	63.07	0.224 45
1.001 81	998.19	83.98	0.296 47	<b>20</b>	1.001 81	998.20	83.99	0.296 47	<b>20</b>	1.001 80	998.20	84.00	0.296 47
1.002 98	997.03	104.89	0.367 21	<b>25</b>	1.002 97	997.04	104.90	0.367 21	<b>25</b>	1.002 97	997.04	104.91	0.367 20
1.004 38	995.64	125.79	0.436 73	<b>30</b>	1.004 38	995.64	125.80	0.436 73	<b>30</b>	1.004 37	995.64	125.81	0.436 73
1.006 02	994.02	146.69	0.505 11	<b>35</b>	1.006 01	994.02	146.70	0.505 10	<b>35</b>	1.006 01	994.03	146.71	0.505 10
1.007 86	992.20	167.59	0.572 38	<b>40</b>	1.007 85	992.21	167.60	0.572 37	<b>40</b>	1.007 85	992.21	167.61	0.572 37
1.009 90	990.20	188.49	0.638 59	<b>45</b>	1.009 89	990.20	188.50	0.638 58	<b>45</b>	1.009 89	990.21	188.51	0.638 58
1.012 12	988.02	209.39	0.703 78	<b>50</b>	1.012 12	988.03	209.40	0.703 78	<b>50</b>	1.012 11	988.03	209.41	0.703 77
1.014 53	985.68	230.30	0.768 00	<b>55</b>	1.014 52	985.68	230.31	0.767 99	<b>55</b>	1.014 52	985.69	230.32	0.767 99
1.017 11	983.18	251.22	0.831 27	<b>60</b>	1.017 10	983.19	251.23	0.831 26	<b>60</b>	1.017 10	983.19	251.24	0.831 26
1.019 85	980.54	272.15	0.893 63	<b>65</b>	1.019 84	980.54	272.16	0.893 62	<b>65</b>	1.019 84	980.55	272.17	0.893 62
1.022 76	977.75	293.10	0.955 11	<b>70</b>	1.022 75	977.76	293.11	0.955 10	<b>70</b>	1.022 75	977.76	293.11	0.955 10
1.025 82	974.83	314.06	1.0157	<b>75</b>	1.025 82	974.83	314.06	1.0157	<b>75</b>	1.025 81	974.84	314.07	1.0157
1.029 04	971.78	335.03	1.0756	<b>80</b>	1.029 04	971.78	335.04	1.0756	<b>80</b>	1.029 03	971.79	335.05	1.0756
1.032 42	968.60	356.02	1.1346	<b>85</b>	1.032 42	968.60	356.03	1.1346	<b>85</b>	1.032 41	968.61	356.04	1.1346
2365.3	0.422 79	2659.6	7.4794	<b>90</b>	1.035 95	965.30	377.05	1.1929	<b>90</b>	1.035 94	965.30	377.05	1.1929
2399.9	0.416 69	2669.7	7.5072	<b>95</b>	2096.3	0.477 03	2668.3	7.4424	<b>95</b>	1.039 63	961.88	398.09	1.2504
2434.3	0.410 79	2679.8	7.5344	<b>100</b>	2126.7	0.470 22	2678.5	7.4699	<b>100</b>	1887.4	0.529 84	2677.1	7.4126
2468.7	0.405 08	2689.8	7.5611	<b>105</b>	2156.9	0.463 63	2688.6	7.4969	<b>105</b>	1914.4	0.522 36	2687.4	7.4399
2502.9	0.399 54	2699.8	7.5874	<b>110</b>	2187.0	0.457 25	2698.7	7.5233	<b>110</b>	1941.3	0.515 11	2697.5	7.4665
2537.0	0.394 17	2709.8	7.6132	<b>115</b>	2217.0	0.451 06	2708.7	7.5493	<b>115</b>	1968.1	0.508 10	2707.6	7.4927
2571.0	0.388 95	2719.7	7.6385	<b>120</b>	2246.9	0.445 05	2718.7	7.5749	<b>120</b>	1994.8	0.501 29	2717.7	7.5185
2604.9	0.383 89	2729.6	7.6635	<b>125</b>	2276.8	0.439 22	2728.6	7.6000	<b>125</b>	2021.5	0.494 69	2727.7	7.5438
2638.8	0.378 96	2739.5	7.6882	<b>130</b>	2306.5	0.433 56	2738.6	7.6248	<b>130</b>	2048.0	0.488 27	2737.7	7.5687
2672.6	0.374 16	2749.3	7.7124	<b>135</b>	2336.2	0.428 05	2748.5	7.6492	<b>135</b>	2074.5	0.482 04	2747.6	7.5932
2706.4	0.369 50	2759.1	7.7364	<b>140</b>	2365.8	0.422 68	2758.3	7.6733	<b>140</b>	2101.0	0.475 97	2757.5	7.6174
2740.1	0.364 95	2769.0	7.7600	<b>145</b>	2395.4	0.417 46	2768.2	7.6970	<b>145</b>	2127.3	0.470 07	2767.4	7.6412
2773.7	0.360 53	2778.8	7.7834	<b>150</b>	2424.9	0.412 38	2778.1	7.7204	<b>150</b>	2153.7	0.464 32	2777.3	7.6647
2807.3	0.356 21	2788.6	7.8064	<b>155</b>	2454.4	0.407 43	2787.9	7.7435	<b>155</b>	2180.0	0.458 72	2787.2	7.6879
2840.9	0.352 00	2798.4	7.8292	<b>160</b>	2483.9	0.402 60	2797.7	7.7664	<b>160</b>	2206.2	0.453 27	2797.1	7.7108
2874.4	0.347 90	2808.2	7.8517	<b>165</b>	2513.3	0.397 88	2807.6	7.7889	<b>165</b>	2232.4	0.447 95	2806.9	7.7335
2907.9	0.343 89	2818.0	7.8739	<b>170</b>	2542.7	0.393 29	2817.4	7.8113	<b>170</b>	2258.6	0.442 75	2816.8	7.7559
2941.4	0.339 98	2827.8	7.8959	<b>175</b>	2572.0	0.388 80	2827.2	7.8333	<b>175</b>	2284.7	0.437 69	2826.7	7.7780
2974.8	0.336 16	2837.6	7.9177	<b>180</b>	2601.3	0.384 42	2837.1	7.8551	<b>180</b>	2310.9	0.432 74	2836.5	7.7998
3008.2	0.332 42	2847.4	7.9392	<b>185</b>	2630.6	0.380 14	2846.9	7.8767	<b>185</b>	2336.9	0.427 91	2846.4	7.8214
3041.6	0.328 77	2857.2	7.9605	<b>190</b>	2659.9	0.375 95	2856.7	7.8980	<b>190</b>	2363.0	0.423 19	2856.2	7.8428
3075.0	0.325 21	2867.0	7.9815	<b>195</b>	2689.1	0.371 87	2866.5	7.9191	<b>195</b>	2389.1	0.418 58	2866.1	7.8640
3108.3	0.321 72	2876.8	8.0024	<b>200</b>	2718.4	0.367 87	2876.4	7.9400	<b>200</b>	2415.1	0.414 07	2875.9	7.8849
3175.0	0.314 96	2886.5	8.0435	<b>210</b>	2776.8	0.360 13	2896.1	7.9812	<b>210</b>	2467.1	0.405 34	2895.6	7.9262
3241.5	0.308 50	2916.2	8.0839	<b>220</b>	2835.1	0.352 72	2915.8	8.0216	<b>220</b>	2519.0	0.396 99	2915.4	7.9667
3308.0	0.302 29	2935.9	8.1235	<b>230</b>	2893.4	0.345 62	2935.5	8.0613	<b>230</b>	2570.8	0.388 98	2935.2	8.0064
3374.5	0.296 34	2955.7	8.1624	<b>240</b>	2951.6	0.338 80	2955.3	8.1002	<b>240</b>	2622.7	0.381 29	2955.0	8.0454
3440.9	0.290 62	2975.5	8.2006	<b>250</b>	3009.8	0.332 25	2975.2	8.1385	<b>250</b>	2674.4	0.373 91	2974.8	8.0837
3507.3	0.285 12	2995.4	8.2382	<b>260</b>	3067.9	0.325 95	2995.0	8.1761	<b>260</b>	2726.2	0.366 82	2994.7	8.1213
3573.6	0.279 83	3015.3	8.2752	<b>270</b>	3126.0	0.319 90	3015.0	8.2131	<b>270</b>	2777.9	0.359 99	3014.7	8.1584
3640.0	0.274 73	3035.2	8.3116	<b>280</b>	3184.1	0.314 06	3034.9	8.2496	<b>280</b>	2829.5	0.353 42	3034.7	8.1949
3706.2	0.269 81	3055.2	8.3474	<b>290</b>	3242.1	0.308 44	3055.0	8.2854	<b>290</b>	2881.1	0.347 08	3054.7	8.2307

**Table 3. Compressed Water and Superheated Steam (continued)**

0.07 MPa ( $t_s = 89.932\text{ }^\circ\text{C}$ )				$t_s, ^\circ\text{C}$	0.08 MPa ( $t_s = 93.486\text{ }^\circ\text{C}$ )				$t_s, ^\circ\text{C}$	0.09 MPa ( $t_s = 96.687\text{ }^\circ\text{C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
3772.5	0.265 08	3075.3	8.3827	<b>300</b>	3300.1	0.303 02	3075.0	8.3208	<b>300</b>	2932.8	0.340 98	3074.8	8.2661
3838.7	0.260 50	3095.4	8.4175	<b>310</b>	3358.1	0.297 78	3095.1	8.3556	<b>310</b>	2984.3	0.335 08	3094.9	8.3009
3905.0	0.256 08	3115.6	8.4518	<b>320</b>	3416.1	0.292 73	3115.3	8.3899	<b>320</b>	3035.9	0.329 39	3115.1	8.3353
3971.2	0.251 82	3135.8	8.4856	<b>330</b>	3474.1	0.287 85	3135.6	8.4237	<b>330</b>	3087.5	0.323 89	3135.4	8.3691
4037.3	0.247 69	3156.1	8.5190	<b>340</b>	3532.0	0.283 12	3155.9	8.4571	<b>340</b>	3139.0	0.318 57	3155.7	8.4025
4103.5	0.243 69	3176.4	8.5519	<b>350</b>	3589.9	0.278 56	3176.2	8.4900	<b>350</b>	3190.5	0.313 43	3176.0	8.4354
4169.7	0.239 83	3196.8	8.5844	<b>360</b>	3647.8	0.274 13	3196.6	8.5225	<b>360</b>	3242.0	0.308 45	3196.4	8.4679
4235.8	0.236 08	3217.3	8.6164	<b>370</b>	3705.7	0.269 85	3217.1	8.5546	<b>370</b>	3293.5	0.303 63	3216.9	8.5000
4301.9	0.232 45	3237.8	8.6481	<b>380</b>	3763.6	0.265 70	3237.6	8.5863	<b>380</b>	3345.0	0.298 96	3237.5	8.5317
4368.0	0.228 94	3258.4	8.6794	<b>390</b>	3821.5	0.261 68	3258.2	8.6176	<b>390</b>	3396.4	0.294 43	3258.1	8.5630
4434.1	0.225 52	3279.0	8.7103	<b>400</b>	3879.4	0.257 77	3278.9	8.6485	<b>400</b>	3447.9	0.290 03	3278.7	8.5939
4500.2	0.222 21	3299.7	8.7408	<b>410</b>	3937.2	0.253 99	3299.6	8.6790	<b>410</b>	3499.3	0.285 77	3299.4	8.6245
4566.3	0.218 99	3320.5	8.7710	<b>420</b>	3995.1	0.250 31	3320.4	8.7092	<b>420</b>	3550.8	0.281 63	3320.2	8.6547
4632.4	0.215 87	3341.3	8.8009	<b>430</b>	4052.9	0.246 74	3341.2	8.7391	<b>430</b>	3602.2	0.277 61	3341.1	8.6846
4698.5	0.212 84	3362.3	8.8304	<b>440</b>	4110.7	0.243 27	3362.1	8.7686	<b>440</b>	3653.6	0.273 70	3362.0	8.7141
4764.5	0.209 88	3383.2	8.8596	<b>450</b>	4168.6	0.239 89	3383.1	8.7978	<b>450</b>	3705.0	0.269 90	3383.0	8.7433
4830.6	0.207 01	3404.3	8.8885	<b>460</b>	4226.4	0.236 61	3404.1	8.8267	<b>460</b>	3756.4	0.266 21	3404.0	8.7722
4896.6	0.204 22	3425.4	8.9170	<b>470</b>	4284.2	0.233 42	3425.2	8.8553	<b>470</b>	3807.8	0.262 62	3425.1	8.8008
4962.7	0.201 50	3446.5	8.9453	<b>480</b>	4342.0	0.230 31	3446.4	8.8836	<b>480</b>	3859.2	0.259 12	3446.3	8.8291
5028.7	0.198 86	3467.8	8.9733	<b>490</b>	4399.8	0.227 28	3467.6	8.9116	<b>490</b>	3910.6	0.255 71	3467.5	8.8571
5094.8	0.196 28	3489.1	9.0011	<b>500</b>	4457.6	0.224 34	3488.9	8.9393	<b>500</b>	3962.0	0.252 40	3488.8	8.8849
5226.8	0.191 32	3531.9	9.0557	<b>520</b>	4573.2	0.218 67	3531.8	8.9940	<b>520</b>	4064.8	0.246 02	3531.7	8.9396
5358.9	0.186 61	3574.9	9.1094	<b>540</b>	4688.7	0.213 28	3574.8	9.0476	<b>540</b>	4167.5	0.239 95	3574.7	8.9932
5490.9	0.182 12	3618.3	9.1620	<b>560</b>	4804.3	0.208 15	3618.2	9.1003	<b>560</b>	4270.2	0.234 18	3618.1	9.0459
5622.9	0.177 84	3661.9	9.2138	<b>580</b>	4919.8	0.203 26	3661.8	9.1521	<b>580</b>	4372.9	0.228 68	3661.7	9.0976
5754.9	0.173 76	3705.8	9.2646	<b>600</b>	5035.3	0.198 60	3705.7	9.2029	<b>600</b>	4475.6	0.223 43	3705.7	9.1485
5886.9	0.169 87	3750.0	9.3147	<b>620</b>	5150.8	0.194 14	3749.9	9.2530	<b>620</b>	4578.3	0.218 42	3749.8	9.1986
6018.9	0.166 14	3794.5	9.3639	<b>640</b>	5266.3	0.189 89	3794.4	9.3022	<b>640</b>	4681.0	0.213 63	3794.3	9.2478
6150.9	0.162 58	3839.2	9.4124	<b>660</b>	5381.8	0.185 81	3839.1	9.3507	<b>660</b>	4783.7	0.209 04	3839.1	9.2963
6282.8	0.159 16	3884.2	9.4601	<b>680</b>	5497.3	0.181 91	3884.2	9.3984	<b>680</b>	4886.3	0.204 65	3884.1	9.3440
6414.8	0.155 89	3929.5	9.5072	<b>700</b>	5612.8	0.178 16	3929.5	9.4455	<b>700</b>	4989.0	0.200 44	3929.4	9.3911
6546.7	0.152 75	3975.1	9.5535	<b>720</b>	5728.3	0.174 57	3975.1	9.4919	<b>720</b>	5091.6	0.196 40	3975.0	9.4375
6678.7	0.149 73	4021.0	9.5993	<b>740</b>	5843.7	0.171 12	4021.0	9.5376	<b>740</b>	5194.3	0.192 52	4020.9	9.4832
6810.6	0.146 83	4067.2	9.6444	<b>760</b>	5959.2	0.167 81	4067.1	9.5827	<b>760</b>	5296.9	0.188 79	4067.1	9.5283
6942.6	0.144 04	4113.6	9.6889	<b>780</b>	6074.6	0.164 62	4113.6	9.6273	<b>780</b>	5399.6	0.185 20	4113.5	9.5729
7074.5	0.141 35	4160.3	9.7329	<b>800</b>	6190.1	0.161 55	4160.3	9.6712	<b>800</b>	5502.2	0.181 75	4160.3	9.6168
7206.4	0.138 76	4207.3	9.7763	<b>820</b>	6305.5	0.158 59	4207.3	9.7146	<b>820</b>	5604.8	0.178 42	4207.3	9.6602
7338.4	0.136 27	4254.6	9.8191	<b>840</b>	6421.0	0.155 74	4254.6	9.7575	<b>840</b>	5707.4	0.175 21	4254.5	9.7031
7470.3	0.133 86	4302.2	9.8615	<b>860</b>	6536.4	0.152 99	4302.1	9.7998	<b>860</b>	5810.1	0.172 12	4302.1	9.7454
7602.2	0.131 54	4350.0	9.9033	<b>880</b>	6651.8	0.150 33	4350.0	9.8416	<b>880</b>	5912.7	0.169 13	4349.9	9.7873
7734.1	0.129 30	4398.1	9.9447	<b>900</b>	6767.3	0.147 77	4398.1	9.8830	<b>900</b>	6015.3	0.166 24	4398.0	9.8286
7866.0	0.127 13	4446.5	9.9855	<b>920</b>	6882.7	0.145 29	4446.5	9.9239	<b>920</b>	6117.9	0.163 45	4446.4	9.8695
7997.9	0.125 03	4495.1	10.026	<b>940</b>	6998.1	0.142 90	4495.1	9.9643	<b>940</b>	6220.5	0.160 76	4495.1	9.9099
8129.8	0.123 00	4544.0	10.066	<b>960</b>	7113.6	0.140 58	4544.0	10.004	<b>960</b>	6323.1	0.158 15	4544.0	9.9499
8261.7	0.121 04	4593.2	10.106	<b>980</b>	7229.0	0.138 33	4593.2	10.044	<b>980</b>	6425.7	0.155 62	4593.2	9.9895
8393.7	0.119 14	4642.6	10.145	<b>1000</b>	7344.4	0.136 16	4642.6	10.083	<b>1000</b>	6528.3	0.153 18	4642.6	10.029
9053.1	0.110 46	4893.6	10.334	<b>1100</b>	7921.5	0.126 24	4893.6	10.273	<b>1100</b>	7041.3	0.142 02	4893.6	10.218
9712.6	0.102 96	5150.6	10.515	<b>1200</b>	8498.5	0.117 67	5150.6	10.453	<b>1200</b>	7554.2	0.132 38	5150.6	10.399
10 372.	0.096 413	5413.3	10.688	<b>1300</b>	9075.5	0.110 19	5413.3	10.626	<b>1300</b>	8067.1	0.123 96	5413.3	10.572
11 031.	0.090 650	5681.2	10.853	<b>1400</b>	9652.5	0.103 60	5681.2	10.791	<b>1400</b>	8580.0	0.116 55	5681.2	10.737
11 691.	0.085 537	5953.9	11.011	<b>1500</b>	10 229.	0.097 757	5953.9	10.949	<b>1500</b>	9092.9	0.109 98	5953.9	10.895
12 350.	0.080 970	6231.0	11.163	<b>1600</b>	10 806.	0.092 537	6231.0	11.101	<b>1600</b>	9605.8	0.104 10	6231.0	11.047
13 669.	0.073 159	6797.2	11.450	<b>1800</b>	11 960.	0.083 610	6797.2	11.388	<b>1800</b>	10 631.	0.094 060	6797.2	11.334
14 988.	0.066 722	7377.0	11.717	<b>2000</b>	13 114.	0.076 253	7377.0	11.655	<b>2000</b>	11 657.	0.085 784	7377.0	11.601

**Table 3. Compressed Water and Superheated Steam (continued)**

0.10 MPa ( $t_s = 99.606\text{ }^\circ\text{C}$ )				$t, \text{ }^\circ\text{C}$	0.11 MPa ( $t_s = 102.292\text{ }^\circ\text{C}$ )				$t, \text{ }^\circ\text{C}$	0.12 MPa ( $t_s = 104.784\text{ }^\circ\text{C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
1.043 15	958.63	417.50	1.3028	$t_s(\text{L})$	1.045 27	956.69	428.84	1.3330	$t_s(\text{L})$	1.047 27	954.86	439.36	1.3609
1693.9	0.590 34	2674.9	7.3588	$t_s(\text{V})$	1549.5	0.645 39	2679.2	7.3269	$t_s(\text{V})$	1428.4	0.700 10	2683.1	7.2977
<i>1.000 16</i>	<i>999.84</i>	<i>0.06</i>	<i>-0.000 15</i>	<b>0</b>	<i>1.000 15</i>	<i>999.85</i>	<i>0.07</i>	<i>-0.000 15</i>	<b>0</b>	<i>1.000 15</i>	<i>999.85</i>	<i>0.08</i>	<i>-0.000 15</i>
1.000 03	999.97	21.12	0.076 25	<b>5</b>	1.000 03	999.97	21.13	0.076 25	<b>5</b>	1.000 02	999.98	21.14	0.076 25
1.000 30	999.70	42.12	0.151 08	<b>10</b>	1.000 29	999.71	42.13	0.151 08	<b>10</b>	1.000 29	999.71	42.14	0.151 08
1.000 90	999.10	63.08	0.224 45	<b>15</b>	1.000 89	999.11	63.09	0.224 45	<b>15</b>	1.000 89	999.11	63.09	0.224 45
1.001 80	998.21	84.01	0.296 46	<b>20</b>	1.001 79	998.21	84.02	0.296 46	<b>20</b>	1.001 79	998.22	84.02	0.296 46
1.002 96	997.05	104.92	0.367 20	<b>25</b>	1.002 96	997.05	104.93	0.367 20	<b>25</b>	1.002 95	997.06	104.94	0.367 19
1.004 37	995.65	125.82	0.436 73	<b>30</b>	1.004 37	995.65	125.83	0.436 72	<b>30</b>	1.004 36	995.66	125.84	0.436 72
1.006 00	994.03	146.72	0.505 10	<b>35</b>	1.006 00	994.04	146.73	0.505 09	<b>35</b>	1.005 99	994.04	146.74	0.505 09
1.007 85	992.22	167.62	0.572 37	<b>40</b>	1.007 84	992.22	167.62	0.572 36	<b>40</b>	1.007 84	992.22	167.63	0.572 36
1.009 88	990.21	188.51	0.638 58	<b>45</b>	1.009 88	990.22	188.52	0.638 57	<b>45</b>	1.009 88	990.22	188.53	0.638 57
1.012 11	988.03	209.42	0.703 77	<b>50</b>	1.012 11	988.04	209.43	0.703 76	<b>50</b>	1.012 10	988.04	209.43	0.703 76
1.014 52	985.69	230.33	0.767 98	<b>55</b>	1.014 51	985.70	230.34	0.767 98	<b>55</b>	1.014 51	985.70	230.34	0.767 97
1.017 09	983.20	251.25	0.831 25	<b>60</b>	1.017 09	983.20	251.26	0.831 25	<b>60</b>	1.017 08	983.20	251.26	0.831 24
1.019 84	980.55	272.18	0.893 61	<b>65</b>	1.019 83	980.55	272.19	0.893 60	<b>65</b>	1.019 83	980.56	272.19	0.893 60
1.022 74	977.76	293.12	0.955 09	<b>70</b>	1.022 74	977.77	293.13	0.955 09	<b>70</b>	1.022 73	977.77	293.14	0.955 08
1.025 81	974.84	314.08	1.0157	<b>75</b>	1.025 80	974.85	314.09	1.0157	<b>75</b>	1.025 80	974.85	314.10	1.0157
1.029 03	971.79	335.05	1.0755	<b>80</b>	1.029 02	971.79	335.06	1.0755	<b>80</b>	1.029 02	971.80	335.07	1.0755
1.032 41	968.61	356.05	1.1346	<b>85</b>	1.032 40	968.62	356.06	1.1346	<b>85</b>	1.032 40	968.62	356.06	1.1346
1.035 94	965.31	377.06	1.1928	<b>90</b>	1.035 93	965.31	377.07	1.1928	<b>90</b>	1.035 93	965.32	377.08	1.1928
1.039 62	961.89	398.10	1.2504	<b>95</b>	1.039 62	961.89	398.11	1.2504	<b>95</b>	1.039 61	961.90	398.12	1.2504
1695.9	0.589 67	2675.8	7.3610	<b>100</b>	1.043 46	958.35	419.17	1.3072	<b>100</b>	1.043 45	958.36	419.18	1.3072
1720.4	0.581 27	2686.1	7.3885	<b>105</b>	1561.6	0.640 37	2684.8	7.3418	<b>105</b>	1429.3	0.699 67	2683.5	7.2989
1744.7	0.573 15	2696.3	7.4155	<b>110</b>	1583.9	0.631 36	2695.2	7.3690	<b>110</b>	1449.8	0.689 74	2693.9	7.3263
1769.0	0.565 29	2706.5	7.4418	<b>115</b>	1606.1	0.622 64	2705.4	7.3956	<b>115</b>	1470.3	0.680 15	2704.3	7.3531
1793.2	0.557 67	2716.6	7.4678	<b>120</b>	1628.1	0.614 20	2715.6	7.4217	<b>120</b>	1490.6	0.670 87	2714.6	7.3794
1817.2	0.550 28	2726.7	7.4932	<b>125</b>	1650.1	0.606 01	2725.7	7.4473	<b>125</b>	1510.9	0.661 87	2724.8	7.4052
1841.2	0.543 11	2736.7	7.5183	<b>130</b>	1672.0	0.598 07	2735.8	7.4725	<b>130</b>	1531.0	0.653 15	2734.9	7.4305
1865.2	0.536 14	2746.7	7.5429	<b>135</b>	1693.9	0.590 36	2745.9	7.4973	<b>135</b>	1551.1	0.644 69	2745.0	7.4554
1889.1	0.529 36	2756.7	7.5672	<b>140</b>	1715.7	0.582 86	2755.9	7.5217	<b>140</b>	1571.2	0.636 46	2755.1	7.4800
1912.9	0.522 77	2766.7	7.5911	<b>145</b>	1737.4	0.575 57	2765.9	7.5457	<b>145</b>	1591.2	0.628 47	2765.1	7.5041
1936.7	0.516 36	2776.6	7.6148	<b>150</b>	1759.1	0.568 48	2775.9	7.5694	<b>150</b>	1611.1	0.620 69	2775.1	7.5279
1960.4	0.510 11	2786.5	7.6380	<b>155</b>	1780.7	0.561 57	2785.8	7.5928	<b>155</b>	1631.0	0.613 13	2785.1	7.5514
1984.1	0.504 02	2796.4	7.6610	<b>160</b>	1802.3	0.554 85	2795.8	7.6159	<b>160</b>	1650.8	0.605 76	2795.1	7.5745
2007.7	0.498 08	2806.3	7.6838	<b>165</b>	1823.9	0.548 29	2805.7	7.6387	<b>165</b>	1670.6	0.598 57	2805.0	7.5974
2031.3	0.492 29	2816.2	7.7062	<b>170</b>	1845.4	0.541 90	2815.6	7.6612	<b>170</b>	1690.4	0.591 57	2815.0	7.6199
2054.9	0.486 64	2826.1	7.7284	<b>175</b>	1866.9	0.535 66	2825.5	7.6834	<b>175</b>	1710.2	0.584 74	2824.9	7.6422
2078.5	0.481 13	2836.0	7.7503	<b>180</b>	1888.3	0.529 57	2835.4	7.7054	<b>180</b>	1729.9	0.578 08	2834.9	7.6643
2102.0	0.475 74	2845.8	7.7719	<b>185</b>	1909.8	0.523 63	2845.3	7.7271	<b>185</b>	1749.6	0.571 58	2844.8	7.6860
2125.5	0.470 48	2855.7	7.7934	<b>190</b>	1931.2	0.517 82	2855.2	7.7486	<b>190</b>	1769.2	0.565 22	2854.7	7.7076
2149.0	0.465 34	2865.6	7.8146	<b>195</b>	1952.5	0.512 15	2865.1	7.7698	<b>195</b>	1788.8	0.559 02	2864.6	7.7289
2172.4	0.460 31	2875.5	7.8356	<b>200</b>	1973.9	0.506 61	2875.0	7.7908	<b>200</b>	1808.5	0.552 96	2874.5	7.7499
2219.3	0.450 59	2895.2	7.8769	<b>210</b>	2016.6	0.495 89	2894.8	7.8322	<b>210</b>	1847.6	0.541 23	2894.3	7.7914
2266.1	0.441 29	2915.0	7.9174	<b>220</b>	2059.2	0.485 63	2914.6	7.8728	<b>220</b>	1886.7	0.530 01	2914.2	7.8320
2312.8	0.432 37	2934.8	7.9572	<b>230</b>	2101.7	0.475 80	2934.4	7.9126	<b>230</b>	1925.8	0.519 27	2934.1	7.8719
2359.5	0.423 82	2954.6	7.9962	<b>240</b>	2144.2	0.466 37	2954.3	7.9517	<b>240</b>	1964.8	0.508 96	2953.9	7.9111
2406.2	0.415 60	2974.5	8.0346	<b>250</b>	2186.7	0.457 32	2974.2	7.9901	<b>250</b>	2003.7	0.499 07	2973.9	7.9495
2452.8	0.407 70	2994.4	8.0723	<b>260</b>	2229.1	0.448 62	2994.1	8.0279	<b>260</b>	2042.7	0.489 56	2993.8	7.9873
2499.3	0.400 11	3014.4	8.1094	<b>270</b>	2271.4	0.440 25	3014.1	8.0650	<b>270</b>	2081.5	0.480 42	3013.8	8.0244
2545.9	0.392 80	3034.4	8.1459	<b>280</b>	2313.8	0.432 19	3034.1	8.1015	<b>280</b>	2120.4	0.471 62	3033.8	8.0610
2592.4	0.385 75	3054.4	8.1818	<b>290</b>	2356.1	0.424 43	3054.2	8.1374	<b>290</b>	2159.2	0.463 14	3053.9	8.0970

**Table 3. Compressed Water and Superheated Steam (continued)**

0.10 MPa ( $t_s = 99.606\text{ }^\circ\text{C}$ )				$t, \text{ }^\circ\text{C}$	0.11 MPa ( $t_s = 102.292\text{ }^\circ\text{C}$ )				$t, \text{ }^\circ\text{C}$	0.12 MPa ( $t_s = 104.784\text{ }^\circ\text{C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
2638.8	0.378 95	3074.5	8.2172	<b>300</b>	2398.4	0.416 95	3074.3	8.1729	<b>300</b>	2198.0	0.454 96	3074.0	8.1324
2685.3	0.372 40	3094.7	8.2520	<b>310</b>	2440.6	0.409 73	3094.5	8.2077	<b>310</b>	2236.7	0.447 08	3094.2	8.1673
2731.7	0.366 07	3114.9	8.2864	<b>320</b>	2482.9	0.402 76	3114.7	8.2421	<b>320</b>	2275.5	0.439 47	3114.4	8.2017
2778.2	0.359 95	3135.1	8.3202	<b>330</b>	2525.1	0.396 02	3134.9	8.2760	<b>330</b>	2314.2	0.432 11	3134.7	8.2356
2824.6	0.354 04	3155.5	8.3536	<b>340</b>	2567.3	0.389 51	3155.3	8.3094	<b>340</b>	2352.9	0.425 00	3155.1	8.2690
2871.0	0.348 32	3175.8	8.3866	<b>350</b>	2609.5	0.383 22	3175.6	8.3424	<b>350</b>	2391.6	0.418 13	3175.4	8.3020
2917.3	0.342 78	3196.3	8.4191	<b>360</b>	2651.7	0.377 12	3196.1	8.3749	<b>360</b>	2430.3	0.411 47	3195.9	8.3345
2963.7	0.337 42	3216.7	8.4512	<b>370</b>	2693.8	0.371 22	3216.6	8.4070	<b>370</b>	2469.0	0.405 03	3216.4	8.3667
3010.0	0.332 22	3237.3	8.4829	<b>380</b>	2736.0	0.365 50	3237.1	8.4387	<b>380</b>	2507.6	0.398 78	3237.0	8.3984
3056.4	0.327 19	3257.9	8.5142	<b>390</b>	2778.1	0.359 95	3257.7	8.4701	<b>390</b>	2546.3	0.392 73	3257.6	8.4297
3102.7	0.322 30	3278.6	8.5452	<b>400</b>	2820.3	0.354 58	3278.4	8.5010	<b>400</b>	2584.9	0.386 86	3278.3	8.4607
3149.0	0.317 56	3299.3	8.5757	<b>410</b>	2862.4	0.349 36	3299.1	8.5316	<b>410</b>	2623.5	0.381 17	3299.0	8.4913
3195.3	0.312 96	3320.1	8.6059	<b>420</b>	2904.5	0.344 29	3319.9	8.5618	<b>420</b>	2662.1	0.375 64	3319.8	8.5215
3241.6	0.308 49	3340.9	8.6358	<b>430</b>	2946.6	0.339 37	3340.8	8.5917	<b>430</b>	2700.8	0.370 27	3340.7	8.5514
3287.9	0.304 14	3361.9	8.6653	<b>440</b>	2988.7	0.334 59	3361.7	8.6212	<b>440</b>	2739.4	0.365 05	3361.6	8.5809
3334.2	0.299 92	3382.8	8.6946	<b>450</b>	3030.8	0.329 95	3382.7	8.6504	<b>450</b>	2777.9	0.359 98	3382.6	8.6102
3380.5	0.295 82	3403.9	8.7235	<b>460</b>	3072.9	0.325 43	3403.8	8.6794	<b>460</b>	2816.5	0.355 05	3403.6	8.6391
3426.7	0.291 82	3425.0	8.7521	<b>470</b>	3114.9	0.321 03	3424.9	8.7080	<b>470</b>	2855.1	0.350 25	3424.8	8.6677
3473.0	0.287 93	3446.2	8.7804	<b>480</b>	3157.0	0.316 75	3446.1	8.7363	<b>480</b>	2893.7	0.345 58	3446.0	8.6960
3519.3	0.284 15	3467.4	8.8084	<b>490</b>	3199.1	0.312 59	3467.3	8.7643	<b>490</b>	2932.3	0.341 03	3467.2	8.7240
3565.5	0.280 46	3488.7	8.8361	<b>500</b>	3241.1	0.308 53	3488.6	8.7921	<b>500</b>	2970.8	0.336 61	3488.5	8.7518
3658.0	0.273 37	3531.6	8.8908	<b>520</b>	3325.3	0.300 73	3531.5	8.8467	<b>520</b>	3047.9	0.328 09	3531.4	8.8065
3750.5	0.266 63	3574.7	8.9445	<b>540</b>	3409.3	0.293 31	3574.6	8.9004	<b>540</b>	3125.0	0.320 00	3574.5	8.8602
3843.0	0.260 21	3618.0	8.9972	<b>560</b>	3493.4	0.286 25	3617.9	8.9531	<b>560</b>	3202.1	0.312 29	3617.8	8.9129
3935.4	0.254 10	3661.7	9.0489	<b>580</b>	3577.5	0.279 53	3661.6	9.0049	<b>580</b>	3279.2	0.304 95	3661.5	8.9646
4027.9	0.248 27	3705.6	9.0998	<b>600</b>	3661.5	0.273 11	3705.5	9.0558	<b>600</b>	3356.3	0.297 95	3705.4	9.0155
4120.3	0.242 70	3749.8	9.1499	<b>620</b>	3745.6	0.266 98	3749.7	9.1058	<b>620</b>	3433.3	0.291 26	3749.6	9.0656
4212.7	0.237 38	3794.3	9.1991	<b>640</b>	3829.6	0.261 12	3794.2	9.1551	<b>640</b>	3510.4	0.284 87	3794.1	9.1149
4305.2	0.232 28	3839.0	9.2476	<b>660</b>	3913.6	0.255 52	3838.9	9.2036	<b>660</b>	3587.4	0.278 75	3838.9	9.1633
4397.6	0.227 40	3884.0	9.2954	<b>680</b>	3997.7	0.250 15	3884.0	9.2513	<b>680</b>	3664.4	0.272 90	3883.9	9.2111
4490.0	0.222 72	3929.4	9.3424	<b>700</b>	4081.7	0.245 00	3929.3	9.2984	<b>700</b>	3741.4	0.267 28	3929.3	9.2582
4582.4	0.218 23	3975.0	9.3888	<b>720</b>	4165.7	0.240 06	3974.9	9.3448	<b>720</b>	3818.4	0.261 89	3974.9	9.3046
4674.7	0.213 92	4020.9	9.4345	<b>740</b>	4249.7	0.235 31	4020.8	9.3905	<b>740</b>	3895.4	0.256 71	4020.8	9.3503
4767.1	0.209 77	4067.0	9.4797	<b>760</b>	4333.7	0.230 75	4067.0	9.4356	<b>760</b>	3972.4	0.251 73	4066.9	9.3954
4859.5	0.205 78	4113.5	9.5242	<b>780</b>	4417.7	0.226 36	4113.4	9.4802	<b>780</b>	4049.4	0.246 95	4113.4	9.4400
4951.9	0.201 94	4160.2	9.5681	<b>800</b>	4501.6	0.222 14	4160.2	9.5241	<b>800</b>	4126.4	0.242 34	4160.1	9.4839
5044.3	0.198 25	4207.2	9.6115	<b>820</b>	4585.6	0.218 07	4207.2	9.5675	<b>820</b>	4203.4	0.237 90	4207.1	9.5273
5136.6	0.194 68	4254.5	9.6544	<b>840</b>	4669.6	0.214 15	4254.5	9.6104	<b>840</b>	4280.4	0.233 62	4254.4	9.5702
5229.0	0.191 24	4302.1	9.6968	<b>860</b>	4753.6	0.210 37	4302.0	9.6527	<b>860</b>	4357.4	0.229 50	4302.0	9.6126
5321.3	0.187 92	4349.9	9.7386	<b>880</b>	4837.5	0.206 72	4349.9	9.6946	<b>880</b>	4434.3	0.225 51	4349.8	9.6544
5413.7	0.184 72	4398.0	9.7800	<b>900</b>	4921.5	0.203 19	4398.0	9.7360	<b>900</b>	4511.3	0.221 66	4397.9	9.6958
5506.1	0.181 62	4446.4	9.8209	<b>920</b>	5005.5	0.199 78	4446.4	9.7768	<b>920</b>	4588.3	0.217 95	4446.3	9.7367
5598.4	0.178 62	4495.0	9.8613	<b>940</b>	5089.4	0.196 49	4495.0	9.8173	<b>940</b>	4665.3	0.214 35	4495.0	9.7771
5690.8	0.175 72	4543.9	9.9013	<b>960</b>	5173.4	0.193 30	4543.9	9.8573	<b>960</b>	4742.2	0.210 87	4543.9	9.8171
5783.1	0.172 92	4593.1	9.9408	<b>980</b>	5257.3	0.190 21	4593.1	9.8968	<b>980</b>	4819.2	0.207 50	4593.1	9.8567
5875.4	0.170 20	4642.6	9.9800	<b>1000</b>	5341.3	0.187 22	4642.5	9.9360	<b>1000</b>	4896.1	0.204 24	4642.5	9.8958
6337.1	0.157 80	4893.5	10.170	<b>1100</b>	5761.0	0.173 58	4893.5	10.126	<b>1100</b>	5280.9	0.189 36	4893.5	10.086
6798.8	0.147 08	5150.6	10.350	<b>1200</b>	6180.7	0.161 79	5150.6	10.306	<b>1200</b>	5665.7	0.176 50	5150.5	10.266
7260.4	0.137 73	5413.2	10.523	<b>1300</b>	6600.4	0.151 51	5413.2	10.479	<b>1300</b>	6050.4	0.165 28	5413.2	10.439
7722.0	0.129 50	5681.2	10.688	<b>1400</b>	7020.1	0.142 45	5681.1	10.644	<b>1400</b>	6435.1	0.155 40	5681.1	10.604
8183.6	0.122 20	5953.9	10.846	<b>1500</b>	7439.7	0.134 41	5953.9	10.802	<b>1500</b>	6819.7	0.146 63	5953.9	10.762
8645.2	0.115 67	6231.0	10.998	<b>1600</b>	7859.3	0.127 24	6231.0	10.954	<b>1600</b>	7204.4	0.138 80	6231.0	10.914
9568.4	0.104 51	6797.2	11.285	<b>1800</b>	8698.5	0.114 96	6797.1	11.241	<b>1800</b>	7973.7	0.125 41	6797.1	11.201
10 491.	0.095 316	7377.0	11.552	<b>2000</b>	9537.7	0.104 85	7377.0	11.508	<b>2000</b>	8743.0	0.114 38	7377.0	11.468

**Table 3. Compressed Water and Superheated Steam (continued)**

0.13 MPa ( $t_s = 107.109\text{ }^\circ\text{C}$ )				$t_s, ^\circ\text{C}$	0.14 MPa ( $t_s = 109.292\text{ }^\circ\text{C}$ )				$t_s, ^\circ\text{C}$	0.15 MPa ( $t_s = 111.349\text{ }^\circ\text{C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
1.049 17	953.13	449.19	1.3868	$t_s(L)$	1.050 99	951.49	458.42	1.4110	$t_s(L)$	1.052 73	949.92	467.13	1.4337
1325.3	0.754 53	2686.6	7.2709	$t_s(V)$	1236.6	0.808 69	2690.0	7.2461	$t_s(V)$	1159.3	0.862 60	2693.1	7.2230
<i>1.000 14</i>	<i>999.86</i>	<i>0.09</i>	<i>-0.000 15</i>	<b>0</b>	1.000 14	999.86	0.10	-0.000 15	<b>0</b>	1.000 13	999.87	0.11	-0.000 14
1.000 02	999.98	21.15	0.076 25	<b>5</b>	1.000 01	999.99	21.16	0.076 25	<b>5</b>	1.000 01	999.99	21.17	0.076 25
1.000 28	999.72	42.15	0.151 07	<b>10</b>	1.000 28	999.72	42.16	0.151 07	<b>10</b>	1.000 27	999.73	42.17	0.151 07
1.000 88	999.12	63.10	0.224 44	<b>15</b>	1.000 88	999.12	63.11	0.224 44	<b>15</b>	1.000 88	999.13	63.12	0.224 44
1.001 78	998.22	84.03	0.296 46	<b>20</b>	1.001 78	998.22	84.04	0.296 45	<b>20</b>	1.001 77	998.23	84.05	0.296 45
1.002 95	997.06	104.95	0.367 19	<b>25</b>	1.002 94	997.07	104.96	0.367 19	<b>25</b>	1.002 94	997.07	104.97	0.367 19
1.004 36	995.66	125.85	0.436 72	<b>30</b>	1.004 35	995.67	125.86	0.436 71	<b>30</b>	1.004 35	995.67	125.87	0.436 71
1.005 99	994.05	146.75	0.505 09	<b>35</b>	1.005 99	994.05	146.75	0.505 08	<b>35</b>	1.005 98	994.05	146.76	0.505 08
1.007 83	992.23	167.64	0.572 35	<b>40</b>	1.007 83	992.23	167.65	0.572 35	<b>40</b>	1.007 82	992.24	167.66	0.572 35
1.009 87	990.23	188.54	0.638 56	<b>45</b>	1.009 87	990.23	188.55	0.638 56	<b>45</b>	1.009 86	990.23	188.56	0.638 55
1.012 10	988.05	209.44	0.703 75	<b>50</b>	1.012 09	988.05	209.45	0.703 75	<b>50</b>	1.012 09	988.06	209.46	0.703 74
1.014 50	985.71	230.35	0.767 97	<b>55</b>	1.014 50	985.71	230.36	0.767 96	<b>55</b>	1.014 49	985.71	230.37	0.767 96
1.017 08	983.21	251.27	0.831 23	<b>60</b>	1.017 07	983.21	251.28	0.831 23	<b>60</b>	1.017 07	983.22	251.29	0.831 22
1.019 82	980.56	272.20	0.893 59	<b>65</b>	1.019 82	980.57	272.21	0.893 59	<b>65</b>	1.019 81	980.57	272.22	0.893 58
1.022 73	977.78	293.15	0.955 07	<b>70</b>	1.022 72	977.78	293.15	0.955 07	<b>70</b>	1.022 72	977.79	293.16	0.955 06
1.025 79	974.86	314.10	1.0157	<b>75</b>	1.025 79	974.86	314.11	1.0157	<b>75</b>	1.025 78	974.86	314.12	1.0157
1.029 01	971.80	335.08	1.0755	<b>80</b>	1.029 01	971.81	335.09	1.0755	<b>80</b>	1.029 01	971.81	335.09	1.0755
1.032 39	968.62	356.07	1.1346	<b>85</b>	1.032 39	968.63	356.08	1.1345	<b>85</b>	1.032 38	968.63	356.09	1.1345
1.035 92	965.32	377.09	1.1928	<b>90</b>	1.035 92	965.33	377.09	1.1928	<b>90</b>	1.035 91	965.33	377.10	1.1928
1.039 61	961.90	398.12	1.2504	<b>95</b>	1.039 60	961.91	398.13	1.2504	<b>95</b>	1.039 60	961.91	398.14	1.2503
1.043 45	958.36	419.19	1.3072	<b>100</b>	1.043 44	958.37	419.20	1.3072	<b>100</b>	1.043 44	958.37	419.20	1.3072
1.047 44	954.71	440.28	1.3633	<b>105</b>	1.047 43	954.71	440.29	1.3633	<b>105</b>	1.047 43	954.72	440.30	1.3633
1336.4	0.748 30	2692.7	7.2868	<b>110</b>	1239.1	0.807 04	2691.5	7.2500	<b>110</b>	1.051 58	950.95	461.42	1.4188
1355.3	0.737 82	2703.2	7.3138	<b>115</b>	1256.8	0.795 65	2702.0	7.2773	<b>115</b>	1171.4	0.853 65	2700.8	7.2430
1374.2	0.727 68	2713.5	7.3403	<b>120</b>	1274.5	0.784 65	2712.4	7.3039	<b>120</b>	1188.0	0.841 77	2711.4	7.2699
1393.0	0.717 87	2723.8	7.3663	<b>125</b>	1292.0	0.774 01	2722.8	7.3301	<b>125</b>	1204.4	0.830 28	2721.8	7.2962
1411.7	0.708 36	2734.0	7.3917	<b>130</b>	1309.4	0.763 70	2733.0	7.3557	<b>130</b>	1220.8	0.819 16	2732.1	7.3220
1430.3	0.699 13	2744.1	7.4168	<b>135</b>	1326.8	0.753 70	2743.3	7.3809	<b>135</b>	1237.0	0.808 38	2742.4	7.3473
1448.9	0.690 17	2754.3	7.4414	<b>140</b>	1344.1	0.743 99	2753.4	7.4057	<b>140</b>	1253.3	0.797 92	2752.6	7.3722
1467.4	0.681 47	2764.3	7.4657	<b>145</b>	1361.3	0.734 57	2763.6	7.4300	<b>145</b>	1269.4	0.787 77	2762.8	7.3967
1485.9	0.673 00	2774.4	7.4896	<b>150</b>	1378.5	0.725 40	2773.6	7.4540	<b>150</b>	1285.5	0.777 90	2772.9	7.4208
1504.3	0.664 77	2784.4	7.5132	<b>155</b>	1395.7	0.716 49	2783.7	7.4777	<b>155</b>	1301.6	0.768 31	2783.0	7.4445
1522.7	0.656 75	2794.4	7.5364	<b>160</b>	1412.8	0.707 82	2793.8	7.5010	<b>160</b>	1317.6	0.758 97	2793.1	7.4679
1541.0	0.648 93	2804.4	7.5593	<b>165</b>	1429.9	0.699 37	2803.8	7.5240	<b>165</b>	1333.5	0.749 88	2803.1	7.4910
1559.3	0.641 32	2814.4	7.5819	<b>170</b>	1446.9	0.691 14	2813.8	7.5467	<b>170</b>	1349.5	0.741 03	2813.2	7.5138
1577.6	0.633 89	2824.3	7.6043	<b>175</b>	1463.9	0.683 11	2823.8	7.5691	<b>175</b>	1365.4	0.732 40	2823.2	7.5363
1595.8	0.626 65	2834.3	7.6264	<b>180</b>	1480.9	0.675 28	2833.7	7.5912	<b>180</b>	1381.3	0.723 98	2833.2	7.5585
1614.0	0.619 58	2844.2	7.6482	<b>185</b>	1497.8	0.667 65	2843.7	7.6131	<b>185</b>	1397.1	0.715 77	2843.2	7.5804
1632.2	0.612 68	2854.2	7.6698	<b>190</b>	1514.7	0.660 19	2853.7	7.6347	<b>190</b>	1412.9	0.707 76	2853.2	7.6021
1650.3	0.605 94	2864.1	7.6911	<b>195</b>	1531.6	0.652 91	2863.6	7.6561	<b>195</b>	1428.7	0.699 93	2863.1	7.6235
1668.5	0.599 35	2874.0	7.7122	<b>200</b>	1548.5	0.645 79	2873.6	7.6773	<b>200</b>	1444.5	0.692 29	2873.1	7.6447
1704.7	0.586 62	2893.9	7.7538	<b>210</b>	1582.2	0.632 05	2893.5	7.7189	<b>210</b>	1476.0	0.677 52	2893.0	7.6864
1740.8	0.574 43	2913.8	7.7945	<b>220</b>	1615.8	0.618 90	2913.4	7.7597	<b>220</b>	1507.4	0.663 40	2913.0	7.7272
1776.9	0.562 77	2933.7	7.8344	<b>230</b>	1649.3	0.606 30	2933.3	7.7996	<b>230</b>	1538.8	0.649 88	2932.9	7.7672
1813.0	0.551 58	2953.6	7.8736	<b>240</b>	1682.8	0.594 23	2953.2	7.8389	<b>240</b>	1570.1	0.636 92	2952.9	7.8065
1849.0	0.540 84	2973.5	7.9121	<b>250</b>	1716.3	0.582 65	2973.2	7.8774	<b>250</b>	1601.3	0.624 48	2972.9	7.8451
1884.9	0.530 53	2993.5	7.9499	<b>260</b>	1749.7	0.571 52	2993.2	7.9153	<b>260</b>	1632.5	0.612 54	2992.9	7.8830
1920.8	0.520 61	3013.5	7.9871	<b>270</b>	1783.1	0.560 82	3013.2	7.9525	<b>270</b>	1663.7	0.601 06	3012.9	7.9202
1956.7	0.511 06	3033.6	8.0237	<b>280</b>	1816.4	0.550 52	3033.3	7.9891	<b>280</b>	1694.9	0.590 01	3033.0	7.9569
1992.6	0.501 86	3053.7	8.0597	<b>290</b>	1849.8	0.540 61	3053.4	8.0251	<b>290</b>	1726.0	0.579 37	3053.1	7.9929

**Table 3. Compressed Water and Superheated Steam (continued)**

0.13 MPa ( $t_s = 107.109\text{ }^\circ\text{C}$ )				$t, \text{ }^\circ\text{C}$	0.14 MPa ( $t_s = 109.292\text{ }^\circ\text{C}$ )				$t, \text{ }^\circ\text{C}$	0.15 MPa ( $t_s = 111.349\text{ }^\circ\text{C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
2028.4	0.493 00	3073.8	8.0951	<b>300</b>	1883.1	0.531 05	3073.5	8.0606	<b>300</b>	1757.1	0.569 12	3073.3	8.0284
2064.2	0.484 44	3094.0	8.1300	<b>310</b>	1916.3	0.521 83	3093.7	8.0955	<b>310</b>	1788.2	0.559 23	3093.5	8.0634
2100.0	0.476 19	3114.2	8.1644	<b>320</b>	1949.6	0.512 93	3114.0	8.1300	<b>320</b>	1819.2	0.549 68	3113.8	8.0978
2135.8	0.468 21	3134.5	8.1984	<b>330</b>	1982.8	0.504 33	3134.3	8.1639	<b>330</b>	1850.3	0.540 46	3134.1	8.1318
2171.5	0.460 50	3154.9	8.2318	<b>340</b>	2016.0	0.496 02	3154.7	8.1974	<b>340</b>	1881.3	0.531 55	3154.5	8.1653
2207.3	0.453 05	3175.3	8.2648	<b>350</b>	2049.2	0.487 98	3175.1	8.2304	<b>350</b>	1912.3	0.522 93	3174.9	8.1983
2243.0	0.445 83	3195.7	8.2974	<b>360</b>	2082.4	0.480 21	3195.5	8.2630	<b>360</b>	1943.3	0.514 59	3195.3	8.2309
2278.7	0.438 85	3216.2	8.3295	<b>370</b>	2115.6	0.472 68	3216.0	8.2951	<b>370</b>	1974.3	0.506 52	3215.9	8.2631
2314.4	0.432 08	3236.8	8.3613	<b>380</b>	2148.8	0.465 38	3236.6	8.3269	<b>380</b>	2005.2	0.498 70	3236.4	8.2948
2350.1	0.425 52	3257.4	8.3926	<b>390</b>	2181.9	0.458 31	3257.3	8.3582	<b>390</b>	2036.2	0.491 12	3257.1	8.3262
2385.8	0.419 15	3278.1	8.4236	<b>400</b>	2215.1	0.451 46	3277.9	8.3892	<b>400</b>	2067.1	0.483 76	3277.8	8.3572
2421.4	0.412 98	3298.8	8.4542	<b>410</b>	2248.2	0.444 80	3298.7	8.4198	<b>410</b>	2098.1	0.476 63	3298.5	8.3878
2457.1	0.406 99	3319.7	8.4844	<b>420</b>	2281.3	0.438 34	3319.5	8.4500	<b>420</b>	2129.0	0.469 71	3319.4	8.4180
2492.7	0.401 17	3340.5	8.5143	<b>430</b>	2314.4	0.432 07	3340.4	8.4799	<b>430</b>	2159.9	0.462 99	3340.3	8.4480
2528.4	0.395 51	3361.5	8.5439	<b>440</b>	2347.5	0.425 98	3361.3	8.5095	<b>440</b>	2190.8	0.456 45	3361.2	8.4775
2564.0	0.390 01	3382.5	8.5731	<b>450</b>	2380.6	0.420 06	3382.3	8.5388	<b>450</b>	2221.7	0.450 10	3382.2	8.5068
2599.6	0.384 67	3403.5	8.6020	<b>460</b>	2413.7	0.414 30	3403.4	8.5677	<b>460</b>	2252.6	0.443 93	3403.3	8.5357
2635.3	0.379 47	3424.6	8.6306	<b>470</b>	2446.8	0.408 70	3424.5	8.5963	<b>470</b>	2283.5	0.437 93	3424.4	8.5644
2670.9	0.374 41	3445.8	8.6590	<b>480</b>	2479.9	0.403 24	3445.7	8.6246	<b>480</b>	2314.4	0.432 08	3445.6	8.5927
2706.5	0.369 48	3467.1	8.6870	<b>490</b>	2513.0	0.397 94	3467.0	8.6527	<b>490</b>	2345.3	0.426 39	3466.9	8.6207
2742.1	0.364 68	3488.4	8.7148	<b>500</b>	2546.0	0.392 77	3488.3	8.6804	<b>500</b>	2376.1	0.420 85	3488.2	8.6485
2813.3	0.355 46	3531.3	8.7695	<b>520</b>	2612.2	0.382 82	3531.2	8.7352	<b>520</b>	2437.9	0.410 20	3531.1	8.7032
2884.5	0.346 68	3574.4	8.8231	<b>540</b>	2678.3	0.373 37	3574.3	8.7889	<b>540</b>	2499.6	0.400 07	3574.2	8.7569
2955.6	0.338 34	3617.8	8.8759	<b>560</b>	2744.4	0.364 38	3617.7	8.8416	<b>560</b>	2561.3	0.390 43	3617.6	8.8096
3026.8	0.330 38	3661.4	8.9276	<b>580</b>	2810.5	0.355 81	3661.3	8.8934	<b>580</b>	2623.0	0.381 25	3661.2	8.8614
3097.9	0.322 79	3705.3	8.9785	<b>600</b>	2876.5	0.347 64	3705.3	8.9443	<b>600</b>	2684.6	0.372 49	3705.2	8.9124
3169.1	0.315 55	3749.6	9.0286	<b>620</b>	2942.6	0.339 84	3749.5	8.9943	<b>620</b>	2746.3	0.364 13	3749.4	8.9624
3240.2	0.308 62	3794.0	9.0779	<b>640</b>	3008.6	0.332 38	3794.0	9.0436	<b>640</b>	2808.0	0.356 13	3793.9	9.0117
3311.3	0.301 99	3838.8	9.1264	<b>660</b>	3074.7	0.325 24	3838.7	9.0921	<b>660</b>	2869.6	0.348 48	3838.7	9.0602
3382.4	0.295 65	3883.9	9.1741	<b>680</b>	3140.7	0.318 40	3883.8	9.1399	<b>680</b>	2931.2	0.341 15	3883.7	9.1080
3453.5	0.289 56	3929.2	9.2212	<b>700</b>	3206.7	0.311 84	3929.1	9.1869	<b>700</b>	2992.9	0.334 13	3929.1	9.1550
3524.6	0.283 72	3974.8	9.2676	<b>720</b>	3272.8	0.305 55	3974.8	9.2333	<b>720</b>	3054.5	0.327 39	3974.7	9.2014
3595.7	0.278 11	4020.7	9.3133	<b>740</b>	3338.8	0.299 51	4020.6	9.2791	<b>740</b>	3116.1	0.320 91	4020.6	9.2472
3666.8	0.272 72	4066.9	9.3585	<b>760</b>	3404.8	0.293 70	4066.8	9.3242	<b>760</b>	3177.7	0.314 69	4066.8	9.2923
3737.9	0.267 53	4113.3	9.4030	<b>780</b>	3470.8	0.288 12	4113.3	9.3688	<b>780</b>	3239.4	0.308 70	4113.2	9.3369
3808.9	0.262 54	4160.1	9.4470	<b>800</b>	3536.8	0.282 74	4160.0	9.4127	<b>800</b>	3301.0	0.302 94	4160.0	9.3808
3880.0	0.257 73	4207.1	9.4904	<b>820</b>	3602.8	0.277 56	4207.0	9.4561	<b>820</b>	3362.6	0.297 39	4207.0	9.4243
3951.1	0.253 10	4254.4	9.5332	<b>840</b>	3668.8	0.272 57	4254.3	9.4990	<b>840</b>	3424.2	0.292 04	4254.3	9.4671
4022.1	0.248 62	4301.9	9.5756	<b>860</b>	3734.8	0.267 75	4301.9	9.5414	<b>860</b>	3485.8	0.286 88	4301.9	9.5095
4093.2	0.244 31	4349.8	9.6174	<b>880</b>	3800.8	0.263 10	4349.7	9.5832	<b>880</b>	3547.3	0.281 90	4349.7	9.5513
4164.2	0.240 14	4397.9	9.6588	<b>900</b>	3866.8	0.258 61	4397.9	9.6246	<b>900</b>	3608.9	0.277 09	4397.8	9.5927
4235.3	0.236 11	4446.3	9.6997	<b>920</b>	3932.7	0.254 28	4446.2	9.6655	<b>920</b>	3670.5	0.272 44	4446.2	9.6336
4306.4	0.232 22	4494.9	9.7401	<b>940</b>	3998.7	0.250 08	4494.9	9.7059	<b>940</b>	3732.1	0.267 95	4494.9	9.6740
4377.4	0.228 45	4543.9	9.7801	<b>960</b>	4064.7	0.246 02	4543.8	9.7459	<b>960</b>	3793.7	0.263 60	4543.8	9.7140
4448.4	0.224 80	4593.0	9.8197	<b>980</b>	4130.7	0.242 09	4593.0	9.7855	<b>980</b>	3855.3	0.259 39	4593.0	9.7536
4519.5	0.221 26	4642.5	9.8588	<b>1000</b>	4196.6	0.238 29	4642.4	9.8246	<b>1000</b>	3916.8	0.255 31	4642.4	9.7927
4874.7	0.205 14	4893.5	10.049	<b>1100</b>	4526.5	0.220 92	4893.4	10.014	<b>1100</b>	4224.7	0.236 70	4893.4	9.9825
5229.8	0.191 21	5150.5	10.229	<b>1200</b>	4856.3	0.205 92	5150.5	10.195	<b>1200</b>	4532.5	0.220 63	5150.5	10.163
5585.0	0.179 05	5413.2	10.402	<b>1300</b>	5186.0	0.192 83	5413.2	10.368	<b>1300</b>	4840.3	0.206 60	5413.2	10.336
5940.1	0.168 35	5681.1	10.567	<b>1400</b>	5515.8	0.181 30	5681.1	10.533	<b>1400</b>	5148.1	0.194 25	5681.1	10.501
6295.2	0.158 85	5953.8	10.725	<b>1500</b>	5845.5	0.171 07	5953.8	10.691	<b>1500</b>	5455.8	0.183 29	5953.8	10.659
6650.2	0.150 37	6231.0	10.877	<b>1600</b>	6175.2	0.161 94	6231.0	10.843	<b>1600</b>	5763.6	0.173 50	6231.0	10.811
7360.4	0.135 86	6797.1	11.164	<b>1800</b>	6834.7	0.146 31	6797.1	11.130	<b>1800</b>	6379.0	0.156 76	6797.1	11.098
8070.5	0.123 91	7377.0	11.431	<b>2000</b>	7494.0	0.133 44	7377.0	11.397	<b>2000</b>	6994.5	0.142 97	7377.0	11.365

**Table 3. Compressed Water and Superheated Steam (continued)**

0.16 MPa ( $t_s = 113.297\text{ }^\circ\text{C}$ )					0.18 MPa ( $t_s = 116.911\text{ }^\circ\text{C}$ )					0.20 MPa ( $t_s = 120.210\text{ }^\circ\text{C}$ )				
$v$	$\rho$	$h$	$s$	$t_s, \text{ }^\circ\text{C}$	$v$	$\rho$	$h$	$s$	$t_s, \text{ }^\circ\text{C}$	$v$	$\rho$	$h$	$s$	$t_s, \text{ }^\circ\text{C}$
1.054 40	948.41	475.38	1.4551	$t_s(\text{L})$	1.057 56	945.57	490.70	1.4945	$t_s(\text{L})$	1.060 52	942.94	504.70	1.5302	
1091.4	0.916 29	2696.0	7.2014	$t_s(\text{V})$	977.47	1.0230	2701.4	7.1621	$t_s(\text{V})$	885.68	1.1291	2706.2	7.1269	
1.000 13	999.87	0.12	-0.000 14	<b>0</b>	1.000 12	999.88	0.14	-0.000 14	<b>0</b>	1.000 11	999.89	0.16	-0.000 14	
1.000 00	1000.00	21.18	0.076 25	<b>5</b>	0.999 99	1000.01	21.20	0.076 25	<b>5</b>	0.999 98	1000.02	21.22	0.076 25	
1.000 27	999.73	42.18	0.151 07	<b>10</b>	1.000 26	999.74	42.20	0.151 07	<b>10</b>	1.000 25	999.75	42.22	0.151 07	
1.000 87	999.13	63.13	0.224 44	<b>15</b>	1.000 86	999.14	63.15	0.224 44	<b>15</b>	1.000 85	999.15	63.17	0.224 43	
1.001 77	998.23	84.06	0.296 45	<b>20</b>	1.001 76	998.24	84.08	0.296 45	<b>20</b>	1.001 75	998.25	84.10	0.296 44	
1.002 93	997.07	104.97	0.367 18	<b>25</b>	1.002 93	997.08	104.99	0.367 18	<b>25</b>	1.002 92	997.09	105.01	0.367 17	
1.004 34	995.68	125.88	0.436 71	<b>30</b>	1.004 33	995.68	125.89	0.436 70	<b>30</b>	1.004 33	995.69	125.91	0.436 70	
1.005 98	994.06	146.77	0.505 08	<b>35</b>	1.005 97	994.07	146.79	0.505 07	<b>35</b>	1.005 96	994.08	146.81	0.505 06	
1.007 82	992.24	167.67	0.572 34	<b>40</b>	1.007 81	992.25	167.69	0.572 33	<b>40</b>	1.007 80	992.26	167.70	0.572 33	
1.009 86	990.24	188.57	0.638 55	<b>45</b>	1.009 85	990.25	188.58	0.638 54	<b>45</b>	1.009 84	990.26	188.60	0.638 53	
1.012 08	988.06	209.47	0.703 74	<b>50</b>	1.012 07	988.07	209.49	0.703 73	<b>50</b>	1.012 07	988.08	209.50	0.703 72	
1.014 49	985.72	230.38	0.767 95	<b>55</b>	1.014 48	985.73	230.40	0.767 94	<b>55</b>	1.014 47	985.74	230.41	0.767 93	
1.017 06	983.22	251.30	0.831 22	<b>60</b>	1.017 06	983.23	251.31	0.831 21	<b>60</b>	1.017 05	983.24	251.33	0.831 20	
1.019 81	980.58	272.23	0.893 58	<b>65</b>	1.019 80	980.59	272.24	0.893 56	<b>65</b>	1.019 79	980.59	272.26	0.893 55	
1.022 71	977.79	293.17	0.955 06	<b>70</b>	1.022 70	977.80	293.19	0.955 04	<b>70</b>	1.022 70	977.81	293.20	0.955 03	
1.025 78	974.87	314.13	1.0157	<b>75</b>	1.025 77	974.88	314.14	1.0157	<b>75</b>	1.025 76	974.89	314.16	1.0157	
1.029 00	971.82	335.10	1.0755	<b>80</b>	1.028 99	971.83	335.12	1.0755	<b>80</b>	1.028 98	971.83	335.13	1.0755	
1.032 38	968.64	356.09	1.1345	<b>85</b>	1.032 37	968.65	356.11	1.1345	<b>85</b>	1.032 36	968.66	356.13	1.1345	
1.035 91	965.34	377.11	1.1928	<b>90</b>	1.035 90	965.35	377.12	1.1928	<b>90</b>	1.035 89	965.35	377.14	1.1928	
1.039 59	961.92	398.15	1.2503	<b>95</b>	1.039 58	961.92	398.16	1.2503	<b>95</b>	1.039 57	961.93	398.18	1.2503	
1.043 43	958.38	419.21	1.3072	<b>100</b>	1.043 42	958.39	419.23	1.3071	<b>100</b>	1.043 41	958.40	419.24	1.3071	
1.047 42	954.72	440.30	1.3633	<b>105</b>	1.047 41	954.73	440.32	1.3633	<b>105</b>	1.047 40	954.74	440.33	1.3633	
1.051 57	950.96	461.43	1.4188	<b>110</b>	1.051 56	950.97	461.44	1.4188	<b>110</b>	1.051 55	950.98	461.46	1.4188	
1096.7	0.911 83	2699.7	7.2108	<b>115</b>	1.055 87	947.09	482.60	1.4737	<b>115</b>	1.055 86	947.10	482.62	1.4736	
1112.3	0.899 04	2710.3	7.2379	<b>120</b>	986.12	1.0141	2708.0	7.1790	<b>120</b>	1.060 32	943.11	503.81	1.5279	
1127.8	0.886 70	2720.7	7.2644	<b>125</b>	1000.0	0.999 96	2718.7	7.2059	<b>125</b>	897.81	1.1138	2716.6	7.1531	
1143.2	0.874 75	2731.1	7.2904	<b>130</b>	1013.9	0.986 33	2729.2	7.2322	<b>130</b>	910.37	1.0985	2727.3	7.1797	
1158.5	0.863 18	2741.5	7.3158	<b>135</b>	1027.6	0.973 15	2739.7	7.2580	<b>135</b>	922.84	1.0836	2737.8	7.2058	
1173.8	0.851 96	2751.7	7.3408	<b>140</b>	1041.3	0.960 37	2750.0	7.2832	<b>140</b>	935.24	1.0692	2748.3	7.2313	
1189.0	0.841 07	2762.0	7.3654	<b>145</b>	1054.9	0.947 99	2760.4	7.3081	<b>145</b>	947.58	1.0553	2758.7	7.2564	
1204.1	0.830 49	2772.1	7.3896	<b>150</b>	1068.4	0.935 96	2770.6	7.3325	<b>150</b>	959.86	1.0418	2769.1	7.2810	
1219.2	0.820 21	2782.3	7.4135	<b>155</b>	1081.9	0.924 28	2780.9	7.3565	<b>155</b>	972.08	1.0287	2779.4	7.3052	
1234.3	0.810 21	2792.4	7.4369	<b>160</b>	1095.4	0.912 93	2791.0	7.3801	<b>160</b>	984.26	1.0160	2789.7	7.3290	
1249.3	0.800 47	2802.5	7.4601	<b>165</b>	1108.8	0.901 88	2801.2	7.4034	<b>165</b>	996.40	1.0036	2799.9	7.3525	
1264.2	0.790 99	2812.5	7.4829	<b>170</b>	1122.2	0.891 13	2811.3	7.4264	<b>170</b>	1008.5	0.991 57	2810.1	7.3756	
1279.2	0.781 75	2822.6	7.5055	<b>175</b>	1135.5	0.880 66	2821.4	7.4491	<b>175</b>	1020.6	0.979 84	2820.2	7.3984	
1294.1	0.772 74	2832.6	7.5277	<b>180</b>	1148.8	0.870 45	2831.5	7.4714	<b>180</b>	1032.6	0.968 42	2830.4	7.4209	
1309.0	0.763 95	2842.6	7.5497	<b>185</b>	1162.1	0.860 50	2841.6	7.4935	<b>185</b>	1044.6	0.957 29	2840.5	7.4431	
1323.8	0.755 38	2852.6	7.5714	<b>190</b>	1175.4	0.850 79	2851.6	7.5154	<b>190</b>	1056.6	0.946 44	2850.6	7.4650	
1338.7	0.747 01	2862.6	7.5929	<b>195</b>	1188.6	0.841 32	2861.7	7.5369	<b>195</b>	1068.5	0.935 85	2860.7	7.4867	
1353.5	0.738 83	2872.6	7.6141	<b>200</b>	1201.8	0.832 07	2871.7	7.5582	<b>200</b>	1080.5	0.925 51	2870.7	7.5081	
1368.1	0.730 04	2882.6	7.6359	<b>205</b>	1215.1	0.823 00	2881.7	7.5795	<b>205</b>	1092.4	0.915 22	2880.7	7.5294	
1382.6	0.721 59	2892.6	7.6578	<b>210</b>	1228.2	0.814 21	2891.7	7.6002	<b>210</b>	1104.3	0.905 56	2890.8	7.5501	
1397.1	0.713 44	2902.6	7.6797	<b>215</b>	1241.3	0.805 72	2901.7	7.6210	<b>215</b>	1116.2	0.896 04	2900.8	7.5708	
1411.6	0.705 54	2912.6	7.7016	<b>220</b>	1254.5	0.797 14	2911.8	7.6412	<b>220</b>	1128.0	0.886 50	2910.9	7.5913	
1426.1	0.697 84	2922.6	7.7235	<b>225</b>	1267.6	0.788 77	2921.8	7.6614	<b>225</b>	1139.8	0.877 19	2920.9	7.6118	
1440.6	0.690 30	2932.5	7.7454	<b>230</b>	1280.7	0.780 81	2931.8	7.6814	<b>230</b>	1151.7	0.868 28	2931.0	7.6316	
1455.1	0.682 90	2942.5	7.7673	<b>235</b>	1293.8	0.773 06	2941.8	7.7014	<b>235</b>	1163.5	0.859 00	2941.0	7.6514	
1469.6	0.675 64	2952.5	7.7892	<b>240</b>	1306.9	0.765 17	2951.8	7.7208	<b>240</b>	1175.3	0.850 83	2951.1	7.6712	
1484.1	0.668 50	2962.5	7.8111	<b>245</b>	1320.0	0.757 47	2961.8	7.7402	<b>245</b>	1187.1	0.842 81	2961.1	7.6910	
1498.6	0.661 47	2972.5	7.8330	<b>250</b>	1333.0	0.750 17	2971.9	7.7595	<b>250</b>	1198.9	0.834 10	2971.2	7.7100	
1513.1	0.654 53	2982.6	7.8548	<b>255</b>	1346.1	0.742 96	2981.9	7.7788	<b>255</b>	1210.6	0.826 04	2981.2	7.7293	
1527.6	0.647 71	2992.6	7.8767	<b>260</b>	1359.1	0.735 76	2991.9	7.7975	<b>260</b>	1222.4	0.818 05	2991.3	7.7480	
1542.1	0.641 00	3002.6	7.8986	<b>265</b>	1372.2	0.728 77	3001.9	7.8162	<b>265</b>	1234.1	0.810 14	3001.3	7.7667	
1556.6	0.634 48	3012.6	7.9205	<b>270</b>	1385.2	0.721 92	3011.9	7.8349	<b>270</b>	1245.9	0.802 62	3011.5	7.7855	
1571.1	0.628 04	3022.6	7.9424	<b>275</b>	1398.3	0.715 23	3021.9	7.8536	<b>275</b>	1257.6	0.795 29	3021.5	7.8042	
1585.6	0.621 67	3032.6	7.9643	<b>280</b>	1411.2	0.708 61	3031.9	7.8716	<b>280</b>	1269.4	0.787 78	3031.6	7.8223	
1600.1	0.615 37	3042.6	7.9862	<b>285</b>	1424.2	0.702 06	3041.9	7.8895	<b>285</b>	1281.1	0.780 44	3041.6	7.8404	
1614.6	0.609 13	3052.6	7.9981	<b>290</b>	1437.2	0.695 79	3051.9	7.9078	<b>290</b>	1292.8	0.773 50	3051.8	7.8584	



**Table 3. Compressed Water and Superheated Steam (continued)**

0.16 MPa ( $t_s = 113.297\text{ }^\circ\text{C}$ )				$t, \text{ }^\circ\text{C}$	0.18 MPa ( $t_s = 116.911\text{ }^\circ\text{C}$ )				$t, \text{ }^\circ\text{C}$	0.20 MPa ( $t_s = 120.210\text{ }^\circ\text{C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
1646.9	0.607 21	3073.1	7.9983	<b>300</b>	1463.2	0.683 44	3072.6	7.9433	<b>300</b>	1316.2	0.759 75	3072.1	7.8941
1676.0	0.596 64	3093.3	8.0333	<b>310</b>	1489.1	0.671 53	3092.8	7.9784	<b>310</b>	1339.6	0.746 48	3092.3	7.9291
1705.2	0.586 45	3113.6	8.0678	<b>320</b>	1515.1	0.660 04	3113.1	8.0129	<b>320</b>	1363.0	0.733 69	3112.7	7.9637
1734.3	0.576 61	3133.9	8.1018	<b>330</b>	1541.0	0.648 94	3133.5	8.0469	<b>330</b>	1386.3	0.721 33	3133.0	7.9977
1763.4	0.567 09	3154.2	8.1353	<b>340</b>	1566.9	0.638 22	3153.8	8.0804	<b>340</b>	1409.7	0.709 39	3153.4	8.0313
1792.5	0.557 89	3174.7	8.1683	<b>350</b>	1592.7	0.627 85	3174.3	8.1135	<b>350</b>	1433.0	0.697 85	3173.9	8.0644
1821.5	0.548 99	3195.2	8.2009	<b>360</b>	1618.6	0.617 82	3194.8	8.1461	<b>360</b>	1456.3	0.686 69	3194.4	8.0971
1850.6	0.540 37	3215.7	8.2331	<b>370</b>	1644.5	0.608 11	3215.3	8.1783	<b>370</b>	1479.5	0.675 88	3215.0	8.1293
1879.6	0.532 02	3236.3	8.2649	<b>380</b>	1670.3	0.598 70	3235.9	8.2101	<b>380</b>	1502.8	0.665 42	3235.6	8.1611
1908.7	0.523 93	3256.9	8.2962	<b>390</b>	1696.1	0.589 58	3256.6	8.2415	<b>390</b>	1526.1	0.655 27	3256.3	8.1925
1937.7	0.516 08	3277.6	8.3272	<b>400</b>	1721.9	0.580 74	3277.3	8.2725	<b>400</b>	1549.3	0.645 44	3277.0	8.2236
1966.7	0.508 47	3298.4	8.3578	<b>410</b>	1747.7	0.572 17	3298.1	8.3032	<b>410</b>	1572.6	0.635 90	3297.8	8.2542
1995.7	0.501 08	3319.2	8.3881	<b>420</b>	1773.5	0.563 85	3318.9	8.3334	<b>420</b>	1595.8	0.626 64	3318.7	8.2845
2024.7	0.493 91	3340.1	8.4180	<b>430</b>	1799.3	0.555 77	3339.8	8.3634	<b>430</b>	1619.0	0.617 65	3339.6	8.3145
2053.7	0.486 93	3361.1	8.4476	<b>440</b>	1825.1	0.547 92	3360.8	8.3930	<b>440</b>	1642.2	0.608 92	3360.5	8.3441
2082.6	0.480 16	3382.1	8.4769	<b>450</b>	1850.9	0.540 29	3381.8	8.4222	<b>450</b>	1665.5	0.600 44	3381.6	8.3734
2111.6	0.473 57	3403.2	8.5058	<b>460</b>	1876.6	0.532 87	3402.9	8.4512	<b>460</b>	1688.7	0.592 18	3402.7	8.4023
2140.6	0.467 16	3424.3	8.5344	<b>470</b>	1902.4	0.525 65	3424.1	8.4799	<b>470</b>	1711.9	0.584 16	3423.8	8.4310
2169.5	0.460 93	3445.5	8.5628	<b>480</b>	1928.2	0.518 63	3445.3	8.5082	<b>480</b>	1735.1	0.576 35	3445.0	8.4594
2198.5	0.454 86	3466.8	8.5908	<b>490</b>	1953.9	0.511 79	3466.5	8.5363	<b>490</b>	1758.2	0.568 75	3466.3	8.4874
2227.4	0.448 94	3488.1	8.6186	<b>500</b>	1979.7	0.505 14	3487.9	8.5641	<b>500</b>	1781.4	0.561 35	3487.7	8.5152
2285.3	0.437 57	3531.0	8.6734	<b>520</b>	2031.1	0.492 34	3530.8	8.6188	<b>520</b>	1827.8	0.547 12	3530.6	8.5700
2343.2	0.426 77	3574.1	8.7271	<b>540</b>	2082.6	0.480 17	3573.9	8.6725	<b>540</b>	1874.1	0.533 59	3573.7	8.6237
2401.1	0.416 48	3617.5	8.7798	<b>560</b>	2134.0	0.468 60	3617.3	8.7253	<b>560</b>	1920.4	0.520 72	3617.1	8.6765
2458.9	0.406 69	3661.2	8.8316	<b>580</b>	2185.5	0.457 57	3661.0	8.7771	<b>580</b>	1966.7	0.508 46	3660.8	8.7283
2516.7	0.397 34	3705.1	8.8825	<b>600</b>	2236.9	0.447 05	3705.0	8.8280	<b>600</b>	2013.0	0.496 77	3704.8	8.7792
2574.5	0.388 42	3749.3	8.9326	<b>620</b>	2288.3	0.437 01	3749.2	8.8781	<b>620</b>	2059.3	0.485 60	3749.0	8.8293
2632.4	0.379 89	3793.8	8.9819	<b>640</b>	2339.7	0.427 41	3793.7	8.9274	<b>640</b>	2105.6	0.474 93	3793.6	8.8786
2690.2	0.371 72	3838.6	9.0304	<b>660</b>	2391.1	0.418 22	3838.5	8.9759	<b>660</b>	2151.8	0.464 72	3838.4	8.9272
2748.0	0.363 91	3883.7	9.0781	<b>680</b>	2442.5	0.409 42	3883.6	9.0237	<b>680</b>	2198.1	0.454 94	3883.4	8.9750
2805.7	0.356 41	3929.0	9.1252	<b>700</b>	2493.8	0.400 99	3928.9	9.0708	<b>700</b>	2244.3	0.445 57	3928.8	9.0220
2863.5	0.349 22	3974.6	9.1716	<b>720</b>	2545.2	0.392 89	3974.5	9.1172	<b>720</b>	2290.6	0.436 57	3974.4	9.0685
2921.3	0.342 31	4020.5	9.2174	<b>740</b>	2596.6	0.385 12	4020.4	9.1629	<b>740</b>	2336.8	0.427 93	4020.3	9.1142
2979.1	0.335 68	4066.7	9.2625	<b>760</b>	2647.9	0.377 65	4066.6	9.2081	<b>760</b>	2383.0	0.419 63	4066.5	9.1594
3036.8	0.329 29	4113.2	9.3071	<b>780</b>	2699.3	0.370 47	4113.1	9.2526	<b>780</b>	2429.3	0.411 65	4113.0	9.2039
3094.6	0.323 14	4159.9	9.3510	<b>800</b>	2750.6	0.363 55	4159.8	9.2966	<b>800</b>	2475.5	0.403 96	4159.8	9.2479
3152.3	0.317 22	4207.0	9.3944	<b>820</b>	2802.0	0.356 89	4206.9	9.3400	<b>820</b>	2521.7	0.396 56	4206.8	9.2913
3210.1	0.311 52	4254.3	9.4373	<b>840</b>	2853.3	0.350 47	4254.2	9.3829	<b>840</b>	2567.9	0.389 42	4254.1	9.3342
3267.9	0.306 01	4301.8	9.4797	<b>860</b>	2904.7	0.344 27	4301.7	9.4253	<b>860</b>	2614.1	0.382 54	4301.7	9.3766
3325.6	0.300 70	4349.7	9.5215	<b>880</b>	2956.0	0.338 29	4349.6	9.4671	<b>880</b>	2660.3	0.375 89	4349.5	9.4184
3383.3	0.295 57	4397.8	9.5629	<b>900</b>	3007.3	0.332 52	4397.7	9.5085	<b>900</b>	2706.6	0.369 47	4397.6	9.4598
3441.1	0.290 61	4446.2	9.6038	<b>920</b>	3058.7	0.326 94	4446.1	9.5494	<b>920</b>	2752.8	0.363 27	4446.0	9.5007
3498.8	0.285 81	4494.8	9.6442	<b>940</b>	3110.0	0.321 54	4494.8	9.5898	<b>940</b>	2799.0	0.357 28	4494.7	9.5412
3556.6	0.281 17	4543.8	9.6842	<b>960</b>	3161.3	0.316 32	4543.7	9.6298	<b>960</b>	2845.1	0.351 48	4543.6	9.5812
3614.3	0.276 68	4592.9	9.7238	<b>980</b>	3212.7	0.311 27	4592.9	9.6694	<b>980</b>	2891.3	0.345 86	4592.8	9.6207
3672.0	0.272 33	4642.4	9.7629	<b>1000</b>	3264.0	0.306 38	4642.3	9.7085	<b>1000</b>	2937.5	0.340 42	4642.3	9.6599
3960.6	0.252 48	4893.4	9.9527	<b>1100</b>	3520.5	0.284 05	4893.3	9.8983	<b>1100</b>	3168.5	0.315 61	4893.3	9.8497
4249.2	0.235 34	5150.5	10.133	<b>1200</b>	3777.1	0.264 75	5150.4	10.079	<b>1200</b>	3399.4	0.294 17	5150.4	10.030
4537.8	0.220 37	5413.2	10.306	<b>1300</b>	4033.6	0.247 92	5413.1	10.252	<b>1300</b>	3630.2	0.275 46	5413.1	10.203
4826.3	0.207 20	5681.1	10.471	<b>1400</b>	4290.1	0.233 10	5681.1	10.417	<b>1400</b>	3861.1	0.258 99	5681.0	10.368
5114.9	0.195 51	5953.8	10.629	<b>1500</b>	4546.6	0.219 95	5953.8	10.575	<b>1500</b>	4091.9	0.244 38	5953.8	10.526
5403.4	0.185 07	6231.0	10.781	<b>1600</b>	4803.0	0.208 20	6231.0	10.727	<b>1600</b>	4322.8	0.231 33	6230.9	10.678
5980.4	0.167 21	6797.1	11.068	<b>1800</b>	5315.9	0.188 11	6797.1	11.014	<b>1800</b>	4784.4	0.209 01	6797.1	10.965
6557.3	0.152 50	7377.0	11.335	<b>2000</b>	5828.8	0.171 56	7376.9	11.281	<b>2000</b>	5246.0	0.190 62	7376.9	11.232

**Table 3. Compressed Water and Superheated Steam (continued)**

0.22 MPa ( $t_s = 123.250\text{ }^\circ\text{C}$ )				$t_s, \text{ }^\circ\text{C}$	0.24 MPa ( $t_s = 126.072\text{ }^\circ\text{C}$ )				$t_s, \text{ }^\circ\text{C}$	0.26 MPa ( $t_s = 128.708\text{ }^\circ\text{C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
1.063 30	940.47	517.63	1.5628	$t_s(\text{L})$	1.065 94	938.13	529.64	1.5930	$t_s(\text{L})$	1.068 46	935.93	540.87	1.6210
810.07	1.2345	2710.6	7.0951	$t_s(\text{V})$	746.68	1.3393	2714.6	7.0661	$t_s(\text{V})$	692.73	1.4436	2718.3	7.0394
1.000 10	999.90	0.18	-0.000 14	<b>0</b>	1.000 09	999.91	0.20	-0.000 14	<b>0</b>	1.000 08	999.92	0.22	-0.000 14
0.999 98	1000.02	21.24	0.076 25	<b>5</b>	0.999 97	1000.03	21.26	0.076 25	<b>5</b>	0.999 96	1000.04	21.28	0.076 25
1.000 24	999.76	42.23	0.151 07	<b>10</b>	1.000 23	999.77	42.25	0.151 06	<b>10</b>	1.000 22	999.78	42.27	0.151 06
1.000 84	999.16	63.19	0.224 43	<b>15</b>	1.000 83	999.17	63.21	0.224 43	<b>15</b>	1.000 82	999.18	63.23	0.224 42
1.001 74	998.26	84.12	0.296 44	<b>20</b>	1.001 73	998.27	84.14	0.296 43	<b>20</b>	1.001 72	998.28	84.16	0.296 43
1.002 91	997.10	105.03	0.367 17	<b>25</b>	1.002 90	997.11	105.05	0.367 16	<b>25</b>	1.002 89	997.12	105.07	0.367 16
1.004 32	995.70	125.93	0.436 69	<b>30</b>	1.004 31	995.71	125.95	0.436 68	<b>30</b>	1.004 30	995.72	125.97	0.436 68
1.005 95	994.09	146.83	0.505 06	<b>35</b>	1.005 94	994.09	146.84	0.505 05	<b>35</b>	1.005 93	994.10	146.86	0.505 04
1.007 79	992.27	167.72	0.572 32	<b>40</b>	1.007 78	992.28	167.74	0.572 31	<b>40</b>	1.007 77	992.29	167.76	0.572 30
1.009 83	990.26	188.62	0.638 52	<b>45</b>	1.009 82	990.27	188.64	0.638 52	<b>45</b>	1.009 81	990.28	188.65	0.638 51
1.012 06	988.09	209.52	0.703 71	<b>50</b>	1.012 05	988.10	209.54	0.703 70	<b>50</b>	1.012 04	988.10	209.56	0.703 69
1.014 46	985.74	230.43	0.767 92	<b>55</b>	1.014 45	985.75	230.45	0.767 91	<b>55</b>	1.014 44	985.76	230.46	0.767 90
1.017 04	983.25	251.35	0.831 19	<b>60</b>	1.017 03	983.26	251.37	0.831 18	<b>60</b>	1.017 02	983.27	251.38	0.831 17
1.019 78	980.60	272.28	0.893 54	<b>65</b>	1.019 77	980.61	272.29	0.893 53	<b>65</b>	1.019 76	980.62	272.31	0.893 52
1.022 69	977.82	293.22	0.955 02	<b>70</b>	1.022 68	977.83	293.24	0.955 01	<b>70</b>	1.022 67	977.83	293.25	0.955 00
1.025 75	974.90	314.18	1.0157	<b>75</b>	1.025 74	974.90	314.19	1.0156	<b>75</b>	1.025 73	974.91	314.21	1.0156
1.028 97	971.84	335.15	1.0755	<b>80</b>	1.028 96	971.85	335.17	1.0755	<b>80</b>	1.028 95	971.86	335.18	1.0754
1.032 35	968.67	356.14	1.1345	<b>85</b>	1.032 34	968.67	356.16	1.1345	<b>85</b>	1.032 33	968.68	356.17	1.1345
1.035 88	965.36	377.16	1.1928	<b>90</b>	1.035 87	965.37	377.17	1.1927	<b>90</b>	1.035 86	965.38	377.19	1.1927
1.039 56	961.94	398.19	1.2503	<b>95</b>	1.039 55	961.95	398.21	1.2503	<b>95</b>	1.039 54	961.96	398.22	1.2503
1.043 40	958.40	419.26	1.3071	<b>100</b>	1.043 39	958.41	419.27	1.3071	<b>100</b>	1.043 38	958.42	419.29	1.3071
1.047 39	954.75	440.35	1.3633	<b>105</b>	1.047 38	954.76	440.36	1.3633	<b>105</b>	1.047 37	954.77	440.38	1.3632
1.051 54	950.99	461.47	1.4188	<b>110</b>	1.051 53	950.99	461.49	1.4187	<b>110</b>	1.051 52	951.00	461.50	1.4187
1.055 85	947.11	482.63	1.4736	<b>115</b>	1.055 84	947.12	482.64	1.4736	<b>115</b>	1.055 83	947.13	482.66	1.4736
1.060 31	943.12	503.83	1.5279	<b>120</b>	1.060 30	943.13	503.84	1.5279	<b>120</b>	1.060 29	943.14	503.85	1.5279
814.14	1.2283	2714.4	7.1047	<b>125</b>	1.064 93	939.03	525.08	1.5816	<b>125</b>	1.064 92	939.04	525.09	1.5815
825.67	1.2111	2725.3	7.1318	<b>130</b>	755.07	1.3244	2723.2	7.0876	<b>130</b>	695.30	1.4382	2721.2	7.0465
837.12	1.1946	2736.0	7.1582	<b>135</b>	765.66	1.3061	2734.1	7.1143	<b>135</b>	705.17	1.4181	2732.2	7.0736
848.48	1.1786	2746.6	7.1840	<b>140</b>	776.16	1.2884	2744.8	7.1405	<b>140</b>	714.95	1.3987	2743.0	7.1001
859.78	1.1631	2757.1	7.2093	<b>145</b>	786.60	1.2713	2755.4	7.1660	<b>145</b>	724.66	1.3800	2753.8	7.1259
871.02	1.1481	2767.6	7.2341	<b>150</b>	796.97	1.2547	2766.0	7.1911	<b>150</b>	734.31	1.3618	2764.4	7.1512
882.20	1.1335	2777.9	7.2585	<b>155</b>	807.29	1.2387	2776.5	7.2157	<b>155</b>	743.90	1.3443	2775.0	7.1760
893.34	1.1194	2788.3	7.2825	<b>160</b>	817.57	1.2231	2786.9	7.2399	<b>160</b>	753.44	1.3273	2785.5	7.2004
904.44	1.1057	2798.6	7.3062	<b>165</b>	827.79	1.2080	2797.2	7.2636	<b>165</b>	762.93	1.3107	2795.9	7.2243
915.50	1.0923	2808.8	7.3294	<b>170</b>	837.98	1.1933	2807.6	7.2871	<b>170</b>	772.39	1.2947	2806.3	7.2479
926.52	1.0793	2819.0	7.3524	<b>175</b>	848.14	1.1791	2817.8	7.3101	<b>175</b>	781.81	1.2791	2816.6	7.2711
937.51	1.0667	2829.2	7.3750	<b>180</b>	858.26	1.1652	2828.1	7.3329	<b>180</b>	791.19	1.2639	2826.9	7.2940
948.47	1.0543	2839.4	7.3973	<b>185</b>	868.35	1.1516	2838.3	7.3553	<b>185</b>	800.55	1.2491	2837.2	7.3165
959.41	1.0423	2849.5	7.4193	<b>190</b>	878.41	1.1384	2848.5	7.3774	<b>190</b>	809.87	1.2348	2847.4	7.3387
970.32	1.0306	2859.7	7.4411	<b>195</b>	888.45	1.1256	2858.7	7.3993	<b>195</b>	819.17	1.2207	2857.6	7.3607
981.20	1.0192	2869.8	7.4625	<b>200</b>	898.47	1.1130	2868.8	7.4208	<b>200</b>	828.45	1.2071	2867.8	7.3823
1002.9	0.997 09	2890.0	7.5048	<b>210</b>	918.43	1.0888	2889.1	7.4632	<b>210</b>	846.95	1.1807	2888.2	7.4249
1024.6	0.976 03	2910.1	7.5461	<b>220</b>	938.33	1.0657	2909.3	7.5046	<b>220</b>	865.37	1.1556	2908.5	7.4664
1046.1	0.955 90	2930.3	7.5865	<b>230</b>	958.16	1.0437	2929.5	7.5452	<b>230</b>	883.72	1.1316	2928.7	7.5071
1067.7	0.936 63	2950.4	7.6261	<b>240</b>	977.94	1.0226	2949.7	7.5849	<b>240</b>	902.03	1.1086	2949.0	7.5469
1089.1	0.918 16	2970.5	7.6650	<b>250</b>	997.67	1.0023	2969.9	7.6239	<b>250</b>	920.28	1.0866	2969.2	7.5860
1110.6	0.900 44	2990.7	7.7032	<b>260</b>	1017.4	0.982 93	2990.1	7.6621	<b>260</b>	938.49	1.0655	2989.4	7.6243
1132.0	0.883 41	3010.9	7.7407	<b>270</b>	1037.0	0.964 31	3010.3	7.6997	<b>270</b>	956.66	1.0453	3009.7	7.6619
1153.3	0.867 05	3031.1	7.7775	<b>280</b>	1056.6	0.946 40	3030.5	7.7366	<b>280</b>	974.81	1.0258	3030.0	7.6989
1174.7	0.851 30	3051.3	7.8138	<b>290</b>	1076.2	0.929 17	3050.8	7.7729	<b>290</b>	992.92	1.0071	3050.3	7.7353

**Table 3. Compressed Water and Superheated Steam (continued)**

0.22 MPa ( $t_s = 123.250\text{ }^\circ\text{C}$ )				$t_s, ^\circ\text{C}$	0.24 MPa ( $t_s = 126.072\text{ }^\circ\text{C}$ )				$t_s, ^\circ\text{C}$	0.26 MPa ( $t_s = 128.708\text{ }^\circ\text{C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
1196.0	0.836 13	3071.6	7.8494	<b>300</b>	1095.8	0.912 58	3071.1	7.8086	<b>300</b>	1011.0	0.989 12	3070.6	7.7710
1217.3	0.821 50	3091.9	7.8845	<b>310</b>	1115.3	0.896 60	3091.4	7.8438	<b>310</b>	1029.1	0.971 76	3090.9	7.8063
1238.5	0.807 40	3112.2	7.9191	<b>320</b>	1134.8	0.881 17	3111.8	7.8784	<b>320</b>	1047.1	0.955 01	3111.3	7.8409
1259.8	0.793 78	3132.6	7.9532	<b>330</b>	1154.3	0.866 29	3132.2	7.9125	<b>330</b>	1065.1	0.938 85	3131.8	7.8751
1281.0	0.780 63	3153.0	7.9868	<b>340</b>	1173.8	0.851 91	3152.6	7.9462	<b>340</b>	1083.1	0.923 25	3152.2	7.9087
1302.2	0.767 91	3173.5	8.0200	<b>350</b>	1193.3	0.838 01	3173.1	7.9793	<b>350</b>	1101.1	0.908 17	3172.7	7.9419
1323.4	0.755 61	3194.0	8.0526	<b>360</b>	1212.8	0.824 57	3193.7	8.0121	<b>360</b>	1119.1	0.893 58	3193.3	7.9747
1344.6	0.743 70	3214.6	8.0849	<b>370</b>	1232.2	0.811 56	3214.3	8.0443	<b>370</b>	1137.1	0.879 47	3213.9	8.0070
1365.8	0.732 17	3235.3	8.1167	<b>380</b>	1251.6	0.798 97	3234.9	8.0762	<b>380</b>	1155.0	0.865 80	3234.6	8.0389
1387.0	0.721 00	3256.0	8.1482	<b>390</b>	1271.0	0.786 76	3255.6	8.1077	<b>390</b>	1172.9	0.852 56	3255.3	8.0704
1408.1	0.710 17	3276.7	8.1792	<b>400</b>	1290.4	0.774 93	3276.4	8.1387	<b>400</b>	1190.9	0.839 73	3276.1	8.1014
1429.3	0.699 66	3297.5	8.2099	<b>410</b>	1309.8	0.763 46	3297.2	8.1694	<b>410</b>	1208.8	0.827 28	3296.9	8.1322
1450.4	0.689 47	3318.4	8.2402	<b>420</b>	1329.2	0.752 32	3318.1	8.1998	<b>420</b>	1226.7	0.815 20	3317.8	8.1625
1471.5	0.679 57	3339.3	8.2702	<b>430</b>	1348.6	0.741 51	3339.0	8.2297	<b>430</b>	1244.6	0.803 48	3338.7	8.1925
1492.6	0.669 95	3360.3	8.2998	<b>440</b>	1368.0	0.731 01	3360.0	8.2594	<b>440</b>	1262.5	0.792 09	3359.7	8.2222
1513.8	0.660 61	3381.3	8.3291	<b>450</b>	1387.3	0.720 81	3381.1	8.2887	<b>450</b>	1280.4	0.781 03	3380.8	8.2515
1534.9	0.651 53	3402.4	8.3581	<b>460</b>	1406.7	0.710 89	3402.2	8.3177	<b>460</b>	1298.2	0.770 27	3401.9	8.2805
1556.0	0.642 69	3423.6	8.3868	<b>470</b>	1426.0	0.701 24	3423.3	8.3464	<b>470</b>	1316.1	0.759 81	3423.1	8.3092
1577.1	0.634 09	3444.8	8.4151	<b>480</b>	1445.4	0.691 86	3444.6	8.3748	<b>480</b>	1334.0	0.749 64	3444.4	8.3376
1598.1	0.625 73	3466.1	8.4432	<b>490</b>	1464.7	0.682 72	3465.9	8.4029	<b>490</b>	1351.8	0.739 73	3465.7	8.3657
1619.2	0.617 58	3487.5	8.4710	<b>500</b>	1484.1	0.673 83	3487.2	8.4307	<b>500</b>	1369.7	0.730 09	3487.0	8.3935
1661.4	0.601 91	3530.4	8.5258	<b>520</b>	1522.7	0.656 72	3530.2	8.4855	<b>520</b>	1405.4	0.711 54	3530.0	8.4483
1703.5	0.587 02	3573.5	8.5796	<b>540</b>	1561.4	0.640 47	3573.3	8.5392	<b>540</b>	1441.1	0.693 92	3573.2	8.5021
1745.6	0.572 86	3617.0	8.6323	<b>560</b>	1600.0	0.625 01	3616.8	8.5920	<b>560</b>	1476.7	0.677 17	3616.6	8.5549
1787.7	0.559 36	3660.7	8.6842	<b>580</b>	1638.6	0.610 28	3660.5	8.6439	<b>580</b>	1512.4	0.661 20	3660.3	8.6068
1829.8	0.546 50	3704.6	8.7351	<b>600</b>	1677.2	0.596 23	3704.5	8.6948	<b>600</b>	1548.0	0.645 98	3704.3	8.6578
1871.9	0.534 21	3748.9	8.7852	<b>620</b>	1715.8	0.582 82	3748.7	8.7449	<b>620</b>	1583.7	0.631 44	3748.6	8.7079
1914.0	0.522 46	3793.4	8.8345	<b>640</b>	1754.4	0.570 01	3793.3	8.7943	<b>640</b>	1619.3	0.617 55	3793.1	8.7572
1956.1	0.511 23	3838.2	8.8831	<b>660</b>	1792.9	0.557 74	3838.1	8.8428	<b>660</b>	1654.9	0.604 26	3838.0	8.8057
1998.1	0.500 47	3883.3	8.9309	<b>680</b>	1831.5	0.546 00	3883.2	8.8906	<b>680</b>	1690.5	0.591 54	3883.1	8.8536
2040.2	0.490 15	3928.7	8.9780	<b>700</b>	1870.1	0.534 74	3928.5	8.9377	<b>700</b>	1726.1	0.579 34	3928.4	8.9007
2082.2	0.480 25	3974.3	9.0244	<b>720</b>	1908.6	0.523 94	3974.2	8.9841	<b>720</b>	1761.7	0.567 63	3974.1	8.9471
2124.3	0.470 75	4020.2	9.0702	<b>740</b>	1947.2	0.513 57	4020.1	9.0299	<b>740</b>	1797.3	0.556 39	4020.0	8.9929
2166.3	0.461 61	4066.4	9.1153	<b>760</b>	1985.7	0.503 60	4066.3	9.0751	<b>760</b>	1832.9	0.545 59	4066.2	9.0381
2208.3	0.452 83	4112.9	9.1599	<b>780</b>	2024.2	0.494 01	4112.8	9.1196	<b>780</b>	1868.4	0.535 20	4112.7	9.0826
2250.4	0.444 37	4159.7	9.2039	<b>800</b>	2062.8	0.484 79	4159.6	9.1636	<b>800</b>	1904.0	0.525 20	4159.5	9.1266
2292.4	0.436 23	4206.7	9.2473	<b>820</b>	2101.3	0.475 90	4206.6	9.2071	<b>820</b>	1939.6	0.515 57	4206.5	9.1700
2334.4	0.428 37	4254.0	9.2902	<b>840</b>	2139.8	0.467 33	4253.9	9.2499	<b>840</b>	1975.2	0.506 29	4253.8	9.2129
2376.4	0.420 80	4301.6	9.3325	<b>860</b>	2178.3	0.459 07	4301.5	9.2923	<b>860</b>	2010.7	0.497 34	4301.4	9.2553
2418.4	0.413 49	4349.4	9.3744	<b>880</b>	2216.8	0.451 09	4349.4	9.3342	<b>880</b>	2046.3	0.488 69	4349.3	9.2972
2460.4	0.406 43	4397.6	9.4158	<b>900</b>	2255.4	0.443 39	4397.5	9.3756	<b>900</b>	2081.8	0.480 35	4397.4	9.3386
2502.5	0.399 61	4446.0	9.4567	<b>920</b>	2293.9	0.435 94	4445.9	9.4165	<b>920</b>	2117.4	0.472 28	4445.8	9.3795
2544.5	0.393 01	4494.6	9.4971	<b>940</b>	2332.4	0.428 75	4494.6	9.4569	<b>940</b>	2152.9	0.464 48	4494.5	9.4199
2586.5	0.386 63	4543.6	9.5371	<b>960</b>	2370.9	0.421 78	4543.5	9.4969	<b>960</b>	2188.5	0.456 94	4543.4	9.4599
2628.5	0.380 45	4592.8	9.5767	<b>980</b>	2409.4	0.415 04	4592.7	9.5365	<b>980</b>	2224.0	0.449 64	4592.6	9.4995
2670.5	0.374 47	4642.2	9.6159	<b>1000</b>	2447.9	0.408 52	4642.2	9.5757	<b>1000</b>	2259.6	0.442 56	4642.1	9.5387
2880.4	0.347 17	4893.3	9.8056	<b>1100</b>	2640.4	0.378 74	4893.2	9.7655	<b>1100</b>	2437.2	0.410 30	4893.2	9.7285
3090.3	0.323 59	5150.3	9.9863	<b>1200</b>	2832.8	0.353 01	5150.3	9.9462	<b>1200</b>	2614.9	0.382 43	5150.3	9.9092
3300.2	0.303 01	5413.1	10.159	<b>1300</b>	3025.2	0.330 56	5413.0	10.119	<b>1300</b>	2792.5	0.358 10	5413.0	10.082
3510.1	0.284 89	5681.0	10.324	<b>1400</b>	3217.6	0.310 79	5681.0	10.284	<b>1400</b>	2970.1	0.336 69	5681.0	10.247
3720.0	0.268 82	5953.7	10.482	<b>1500</b>	3410.0	0.293 26	5953.7	10.442	<b>1500</b>	3147.7	0.317 69	5953.7	10.405
3929.8	0.254 47	6230.9	10.634	<b>1600</b>	3602.3	0.277 60	6230.9	10.594	<b>1600</b>	3325.3	0.300 73	6230.9	10.557
4349.5	0.229 91	6797.1	10.921	<b>1800</b>	3987.0	0.250 81	6797.1	10.881	<b>1800</b>	3680.4	0.271 71	6797.1	10.844
4769.1	0.209 68	7376.9	11.188	<b>2000</b>	4371.7	0.228 74	7376.9	11.148	<b>2000</b>	4035.5	0.247 80	7376.9	11.111

**Table 3. Compressed Water and Superheated Steam (continued)**

0.28 MPa ( $t_s = 131.185\text{ }^\circ\text{C}$ )				$t_s, ^\circ\text{C}$	0.30 MPa ( $t_s = 133.522\text{ }^\circ\text{C}$ )				$t_s, ^\circ\text{C}$	0.35 MPa ( $t_s = 138.857\text{ }^\circ\text{C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
1.070 86	933.83	551.44	1.6471	$t_s(L)$	1.073 17	931.82	561.43	1.6717	$t_s(L)$	1.078 57	927.15	584.26	1.7274
646.24	1.5474	2721.7	7.0146	$t_s(V)$	605.76	1.6508	2724.9	6.9916	$t_s(V)$	524.18	1.9077	2732.0	6.9401
1.000 07	999.93	0.24	-0.000 14	<b>0</b>	1.000 06	999.94	0.26	-0.000 13	<b>0</b>	1.000 03	999.97	0.31	-0.000 13
0.999 95	1000.05	21.30	0.076 25	<b>5</b>	0.999 94	1000.06	21.32	0.076 25	<b>5</b>	0.999 91	1000.09	21.37	0.076 25
1.000 21	999.79	42.29	0.151 06	<b>10</b>	1.000 20	999.80	42.31	0.151 06	<b>10</b>	1.000 18	999.82	42.36	0.151 06
1.000 81	999.19	63.25	0.224 42	<b>15</b>	1.000 81	999.20	63.27	0.224 42	<b>15</b>	1.000 78	999.22	63.31	0.224 41
1.001 71	998.29	84.18	0.296 43	<b>20</b>	1.001 70	998.30	84.19	0.296 42	<b>20</b>	1.001 68	998.32	84.24	0.296 41
1.002 88	997.13	105.09	0.367 15	<b>25</b>	1.002 87	997.14	105.10	0.367 15	<b>25</b>	1.002 85	997.16	105.15	0.367 14
1.004 29	995.73	125.99	0.436 67	<b>30</b>	1.004 28	995.74	126.00	0.436 66	<b>30</b>	1.004 26	995.76	126.05	0.436 65
1.005 92	994.11	146.88	0.505 03	<b>35</b>	1.005 91	994.12	146.90	0.505 03	<b>35</b>	1.005 89	994.14	146.94	0.505 01
1.007 77	992.29	167.77	0.572 30	<b>40</b>	1.007 76	992.30	167.79	0.572 29	<b>40</b>	1.007 73	992.33	167.84	0.572 27
1.009 80	990.29	188.67	0.638 50	<b>45</b>	1.009 80	990.30	188.69	0.638 49	<b>45</b>	1.009 77	990.32	188.73	0.638 47
1.012 03	988.11	209.57	0.703 68	<b>50</b>	1.012 02	988.12	209.59	0.703 68	<b>50</b>	1.012 00	988.14	209.63	0.703 65
1.014 43	985.77	230.48	0.767 89	<b>55</b>	1.014 43	985.78	230.50	0.767 88	<b>55</b>	1.014 40	985.80	230.54	0.767 86
1.017 01	983.27	251.40	0.831 15	<b>60</b>	1.017 00	983.28	251.42	0.831 14	<b>60</b>	1.016 98	983.30	251.46	0.831 12
1.019 75	980.63	272.33	0.893 51	<b>65</b>	1.019 74	980.64	272.34	0.893 50	<b>65</b>	1.019 72	980.66	272.39	0.893 47
1.022 66	977.84	293.27	0.954 98	<b>70</b>	1.022 65	977.85	293.29	0.954 97	<b>70</b>	1.022 63	977.87	293.33	0.954 94
1.025 72	974.92	314.22	1.0156	<b>75</b>	1.025 71	974.93	314.24	1.0156	<b>75</b>	1.025 69	974.95	314.28	1.0156
1.028 94	971.87	335.20	1.0754	<b>80</b>	1.028 93	971.88	335.21	1.0754	<b>80</b>	1.028 91	971.90	335.25	1.0754
1.032 32	968.69	356.19	1.1344	<b>85</b>	1.032 31	968.70	356.20	1.1344	<b>85</b>	1.032 29	968.72	356.24	1.1344
1.035 85	965.39	377.20	1.1927	<b>90</b>	1.035 84	965.40	377.22	1.1927	<b>90</b>	1.035 81	965.42	377.26	1.1927
1.039 53	961.97	398.24	1.2502	<b>95</b>	1.039 52	961.98	398.25	1.2502	<b>95</b>	1.039 50	962.00	398.29	1.2502
1.043 37	958.43	419.30	1.3071	<b>100</b>	1.043 36	958.44	419.32	1.3071	<b>100</b>	1.043 33	958.47	419.35	1.3070
1.047 36	954.78	440.39	1.3632	<b>105</b>	1.047 35	954.79	440.41	1.3632	<b>105</b>	1.047 32	954.81	440.44	1.3632
1.051 51	951.01	461.51	1.4187	<b>110</b>	1.051 50	951.02	461.53	1.4187	<b>110</b>	1.051 47	951.05	461.57	1.4187
1.055 81	947.14	482.67	1.4736	<b>115</b>	1.055 80	947.15	482.69	1.4736	<b>115</b>	1.055 78	947.17	482.72	1.4735
1.060 28	943.15	503.87	1.5278	<b>120</b>	1.060 27	943.16	503.88	1.5278	<b>120</b>	1.060 24	943.18	503.92	1.5278
1.064 91	939.05	525.11	1.5815	<b>125</b>	1.064 90	939.06	525.12	1.5815	<b>125</b>	1.064 87	939.08	525.16	1.5814
1.069 70	934.84	546.39	1.6346	<b>130</b>	1.069 69	934.85	546.40	1.6346	<b>130</b>	1.069 66	934.88	546.44	1.6346
653.30	1.5307	2730.2	7.0356	<b>135</b>	608.33	1.6438	2728.2	6.9998	<b>135</b>	1.074 63	930.56	567.77	1.6872
662.47	1.5095	2741.2	7.0624	<b>140</b>	616.97	1.6208	2739.4	7.0269	<b>140</b>	525.91	1.9015	2734.6	6.9465
671.56	1.4891	2752.1	7.0885	<b>145</b>	625.53	1.5986	2750.3	7.0533	<b>145</b>	533.41	1.8747	2745.9	6.9738
680.59	1.4693	2762.8	7.1140	<b>150</b>	634.01	1.5773	2761.2	7.0791	<b>150</b>	540.83	1.8490	2757.1	7.0003
689.55	1.4502	2773.5	7.1390	<b>155</b>	642.44	1.5566	2771.9	7.1044	<b>155</b>	548.18	1.8242	2768.1	7.0261
698.46	1.4317	2784.0	7.1636	<b>160</b>	650.81	1.5365	2782.6	7.1291	<b>160</b>	555.47	1.8003	2778.9	7.0514
707.33	1.4138	2794.5	7.1877	<b>165</b>	659.13	1.5171	2793.2	7.1534	<b>165</b>	562.72	1.7771	2789.7	7.0761
716.16	1.3963	2805.0	7.2114	<b>170</b>	667.42	1.4983	2803.7	7.1773	<b>170</b>	569.91	1.7547	2800.4	7.1004
724.94	1.3794	2815.4	7.2348	<b>175</b>	675.66	1.4800	2814.2	7.2008	<b>175</b>	577.07	1.7329	2811.1	7.1243
733.70	1.3630	2825.8	7.2578	<b>180</b>	683.87	1.4623	2824.6	7.2239	<b>180</b>	584.19	1.7118	2821.6	7.1477
742.42	1.3469	2836.1	7.2804	<b>185</b>	692.05	1.4450	2835.0	7.2467	<b>185</b>	591.28	1.6912	2832.1	7.1708
751.12	1.3313	2846.4	7.3028	<b>190</b>	700.20	1.4282	2845.3	7.2691	<b>190</b>	598.34	1.6713	2842.6	7.1935
759.79	1.3161	2856.6	7.3248	<b>195</b>	708.32	1.4118	2855.6	7.2913	<b>195</b>	605.37	1.6519	2853.0	7.2159
768.44	1.3013	2866.9	7.3465	<b>200</b>	716.42	1.3958	2865.9	7.3131	<b>200</b>	612.38	1.6330	2863.4	7.2380
785.67	1.2728	2887.3	7.3893	<b>210</b>	732.56	1.3651	2886.4	7.3560	<b>210</b>	626.33	1.5966	2884.1	7.2813
802.82	1.2456	2907.6	7.4310	<b>220</b>	748.62	1.3358	2906.8	7.3978	<b>220</b>	640.20	1.5620	2904.7	7.3235
819.92	1.2196	2928.0	7.4717	<b>230</b>	764.61	1.3078	2927.2	7.4387	<b>230</b>	654.00	1.5290	2925.2	7.3647
836.95	1.1948	2948.3	7.5117	<b>240</b>	780.55	1.2811	2947.5	7.4788	<b>240</b>	667.75	1.4976	2945.7	7.4050
853.94	1.1710	2968.5	7.5508	<b>250</b>	796.44	1.2556	2967.9	7.5180	<b>250</b>	681.45	1.4675	2966.2	7.4444
870.88	1.1483	2988.8	7.5892	<b>260</b>	812.29	1.2311	2988.2	7.5565	<b>260</b>	695.10	1.4386	2986.6	7.4831
887.79	1.1264	3009.1	7.6269	<b>270</b>	828.10	1.2076	3008.5	7.5943	<b>270</b>	708.72	1.4110	3007.0	7.5211
904.67	1.1054	3029.4	7.6640	<b>280</b>	843.88	1.1850	3028.8	7.6314	<b>280</b>	722.30	1.3845	3027.4	7.5583
921.51	1.0852	3049.7	7.7004	<b>290</b>	859.62	1.1633	3049.2	7.6678	<b>290</b>	735.85	1.3590	3047.9	7.5949

**Table 3. Compressed Water and Superheated Steam (continued)**

0.28 MPa ( $t_s = 131.185\text{ }^\circ\text{C}$ )				$t_s, ^\circ\text{C}$	0.30 MPa ( $t_s = 133.522\text{ }^\circ\text{C}$ )				$t_s, ^\circ\text{C}$	0.35 MPa ( $t_s = 138.857\text{ }^\circ\text{C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
938.33	1.0657	3070.1	7.7362	300	875.34	1.1424	3069.6	7.7037	300	749.37	1.3344	3068.3	7.6309
955.12	1.0470	3090.5	7.7714	310	891.04	1.1223	3090.0	7.7390	310	762.87	1.3108	3088.8	7.6664
971.90	1.0289	3110.9	7.8062	320	906.72	1.1029	3110.4	7.7738	320	776.35	1.2881	3109.3	7.7012
988.65	1.0115	3131.3	7.8404	330	922.37	1.0842	3130.9	7.8080	330	789.81	1.2661	3129.8	7.7355
1005.4	0.99464	3151.8	7.8741	340	938.01	1.0661	3151.4	7.8417	340	803.25	1.2449	3150.4	7.7693
1022.1	0.97837	3172.4	7.9073	350	953.63	1.0486	3172.0	7.8750	350	816.68	1.2245	3171.0	7.8027
1038.8	0.96264	3192.9	7.9400	360	969.24	1.0317	3192.6	7.9078	360	830.09	1.2047	3191.6	7.8355
1055.5	0.94741	3213.6	7.9724	370	984.83	1.0154	3213.2	7.9401	370	843.48	1.1856	3212.3	7.8680
1072.2	0.93267	3234.3	8.0043	380	1000.4	0.99959	3233.9	7.9721	380	856.87	1.1670	3233.1	7.9000
1088.9	0.91840	3255.0	8.0358	390	1016.0	0.98427	3254.7	8.0036	390	870.24	1.1491	3253.9	7.9315
1105.5	0.90456	3275.8	8.0669	400	1031.5	0.96942	3275.5	8.0347	400	883.60	1.1317	3274.7	7.9627
1122.2	0.89114	3296.6	8.0976	410	1047.1	0.95503	3296.3	8.0655	410	896.95	1.1149	3295.6	7.9935
1138.8	0.87812	3317.5	8.1280	420	1062.6	0.94106	3317.2	8.0959	420	910.30	1.0985	3316.5	8.0239
1155.4	0.86548	3338.5	8.1580	430	1078.2	0.92750	3338.2	8.1259	430	923.63	1.0827	3337.5	8.0540
1172.1	0.85320	3359.5	8.1877	440	1093.7	0.91433	3359.2	8.1556	440	936.96	1.0673	3358.6	8.0837
1188.7	0.84127	3380.5	8.2170	450	1109.2	0.90154	3380.3	8.1849	450	950.28	1.0523	3379.7	8.1131
1205.3	0.82968	3401.7	8.2460	460	1124.7	0.88911	3401.4	8.2140	460	963.60	1.0378	3400.8	8.1422
1221.9	0.81840	3422.9	8.2748	470	1140.2	0.87702	3422.6	8.2427	470	976.90	1.0236	3422.0	8.1709
1238.5	0.80744	3444.1	8.3032	480	1155.7	0.86526	3443.9	8.2711	480	990.21	1.0099	3443.3	8.1994
1255.1	0.79676	3465.4	8.3313	490	1171.2	0.85381	3465.2	8.2992	490	1003.5	0.99651	3464.7	8.2275
1271.7	0.78637	3486.8	8.3591	500	1186.7	0.84266	3486.6	8.3271	500	1016.8	0.98348	3486.1	8.2554
1304.8	0.76638	3529.8	8.4140	520	1217.7	0.82124	3529.6	8.3819	520	1043.4	0.95844	3529.1	8.3103
1338.0	0.74740	3573.0	8.4677	540	1248.6	0.80088	3572.8	8.4357	540	1069.9	0.93465	3572.3	8.3642
1371.1	0.72934	3616.4	8.5206	560	1279.6	0.78152	3616.3	8.4886	560	1096.5	0.91203	3615.8	8.4170
1404.2	0.71214	3660.2	8.5724	580	1310.5	0.76308	3660.0	8.5404	580	1123.0	0.89049	3659.6	8.4689
1437.3	0.69573	3704.2	8.6234	600	1341.4	0.74550	3704.0	8.5914	600	1149.5	0.86995	3703.6	8.5200
1470.4	0.68007	3748.5	8.6736	620	1372.3	0.72871	3748.3	8.6416	620	1176.0	0.85034	3747.9	8.5701
1503.5	0.66511	3793.0	8.7229	640	1403.2	0.71267	3792.9	8.6909	640	1202.5	0.83161	3792.5	8.6195
1536.6	0.65079	3837.8	8.7714	660	1434.1	0.69732	3837.7	8.7395	660	1229.0	0.81369	3837.4	8.6681
1569.7	0.63708	3882.9	8.8193	680	1464.9	0.68263	3882.8	8.7873	680	1255.5	0.79653	3882.5	8.7159
1602.7	0.62394	3928.3	8.8664	700	1495.8	0.66854	3928.2	8.8344	700	1281.9	0.78008	3927.9	8.7631
1635.8	0.61133	3974.0	8.9128	720	1526.6	0.65503	3973.9	8.8809	720	1308.4	0.76430	3973.6	8.8095
1668.8	0.59922	4019.9	8.9586	740	1557.5	0.64205	4019.8	8.9267	740	1334.8	0.74915	4019.5	8.8553
1701.9	0.58759	4066.1	9.0038	760	1588.4	0.62958	4066.0	8.9719	760	1361.3	0.73459	4065.8	8.9005
1734.9	0.57640	4112.6	9.0484	780	1619.2	0.61759	4112.5	9.0164	780	1387.7	0.72059	4112.3	8.9451
1768.0	0.56563	4159.4	9.0923	800	1650.0	0.60605	4159.3	9.0604	800	1414.2	0.70712	4159.1	8.9891
1801.0	0.55525	4206.4	9.1358	820	1680.9	0.59493	4206.3	9.1039	820	1440.6	0.69414	4206.1	9.0326
1834.0	0.54525	4253.8	9.1787	840	1711.7	0.58422	4253.7	9.1468	840	1467.1	0.68164	4253.5	9.0755
1867.0	0.53561	4301.3	9.2211	860	1742.5	0.57388	4301.3	9.1892	860	1493.5	0.66957	4301.1	9.1179
1900.1	0.52630	4349.2	9.2629	880	1773.3	0.56391	4349.1	9.2310	880	1519.9	0.65793	4349.0	9.1598
1933.1	0.51731	4397.4	9.3043	900	1804.2	0.55427	4397.3	9.2724	900	1546.3	0.64669	4397.1	9.2012
1966.1	0.50862	4445.8	9.3452	920	1835.0	0.54496	4445.7	9.3133	920	1572.8	0.63582	4445.5	9.2421
1999.1	0.50022	4494.4	9.3857	940	1865.8	0.53596	4494.4	9.3538	940	1599.2	0.62532	4494.2	9.2825
2032.1	0.49210	4543.4	9.4257	960	1896.6	0.52726	4543.3	9.3938	960	1625.6	0.61516	4543.2	9.3226
2065.1	0.48423	4592.6	9.4653	980	1927.4	0.51883	4592.5	9.4334	980	1652.0	0.60532	4592.4	9.3621
2098.1	0.47661	4642.0	9.5044	1000	1958.2	0.51066	4642.0	9.4726	1000	1678.4	0.59579	4641.8	9.4013
2263.1	0.44186	4893.1	9.6943	1100	2112.2	0.47343	4893.1	9.6624	1100	1810.5	0.55234	4893.0	9.5912
2428.1	0.41184	5150.2	9.8750	1200	2266.2	0.44126	5150.2	9.8431	1200	1942.5	0.51481	5150.1	9.7719
2593.0	0.38565	5413.0	10.048	1300	2420.2	0.41319	5412.9	10.016	1300	2074.5	0.48206	5412.9	9.9445
2758.0	0.36259	5680.9	10.213	1400	2574.1	0.38848	5680.9	10.181	1400	2206.4	0.45323	5680.8	10.110
2922.9	0.34213	5953.7	10.371	1500	2728.0	0.36656	5953.7	10.339	1500	2338.3	0.42765	5953.6	10.268
3087.8	0.32386	6230.9	10.523	1600	2881.9	0.34699	6230.9	10.491	1600	2470.3	0.40481	6230.8	10.420
3417.5	0.29261	6797.1	10.810	1800	3189.7	0.31351	6797.1	10.778	1800	2734.1	0.36575	6797.0	10.707
3747.2	0.26686	7376.9	11.077	2000	3497.5	0.28592	7376.9	11.045	2000	2997.9	0.33357	7376.9	10.974

**Table 3. Compressed Water and Superheated Steam (continued)**

0.40 MPa ( $t_s = 143.608\text{ }^\circ\text{C}$ )				$t_s, ^\circ\text{C}$	0.45 MPa ( $t_s = 147.903\text{ }^\circ\text{C}$ )				$t_s, ^\circ\text{C}$	0.50 MPa ( $t_s = 151.831\text{ }^\circ\text{C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
1.083 55	922.89	604.65	1.7765	$t_s(\text{L})$	1.088 19	918.96	623.14	1.8205	$t_s(\text{L})$	1.092 55	915.29	640.09	1.8604
462.38	2.1627	2738.1	6.8955	$t_s(\text{V})$	413.90	2.4161	2743.4	6.8560	$t_s(\text{V})$	374.81	2.6680	2748.1	6.8207
1.000 01	999.99	0.37	-0.000 13	<b>0</b>	0.999 98	1000.02	0.42	-0.000 12	<b>0</b>	0.999 95	1000.05	0.47	-0.000 12
0.999 89	1000.11	21.42	0.076 25	<b>5</b>	0.999 86	1000.14	21.47	0.076 25	<b>5</b>	0.999 84	1000.16	21.52	0.076 25
1.000 15	999.85	42.41	0.151 05	<b>10</b>	1.000 13	999.87	42.46	0.151 05	<b>10</b>	1.000 11	999.89	42.51	0.151 04
1.000 76	999.24	63.36	0.224 40	<b>15</b>	1.000 74	999.27	63.41	0.224 40	<b>15</b>	1.000 71	999.29	63.46	0.224 39
1.001 66	998.34	84.29	0.296 40	<b>20</b>	1.001 64	998.37	84.34	0.296 39	<b>20</b>	1.001 61	998.39	84.38	0.296 38
1.002 83	997.18	105.20	0.367 12	<b>25</b>	1.002 80	997.20	105.24	0.367 11	<b>25</b>	1.002 78	997.23	105.29	0.367 10
1.004 24	995.78	126.09	0.436 63	<b>30</b>	1.004 21	995.80	126.14	0.436 62	<b>30</b>	1.004 19	995.83	126.19	0.436 60
1.005 87	994.17	146.99	0.504 99	<b>35</b>	1.005 85	994.19	147.03	0.504 98	<b>35</b>	1.005 82	994.21	147.08	0.504 96
1.007 71	992.35	167.88	0.572 25	<b>40</b>	1.007 69	992.37	167.93	0.572 23	<b>40</b>	1.007 67	992.39	167.97	0.572 21
1.009 75	990.34	188.78	0.638 45	<b>45</b>	1.009 73	990.37	188.82	0.638 43	<b>45</b>	1.009 71	990.39	188.86	0.638 40
1.011 98	988.17	209.68	0.703 63	<b>50</b>	1.011 95	988.19	209.72	0.703 61	<b>50</b>	1.011 93	988.21	209.76	0.703 58
1.014 38	985.82	230.58	0.767 83	<b>55</b>	1.014 36	985.85	230.63	0.767 81	<b>55</b>	1.014 34	985.87	230.67	0.767 78
1.016 96	983.33	251.50	0.831 09	<b>60</b>	1.016 93	983.35	251.54	0.831 06	<b>60</b>	1.016 91	983.37	251.58	0.831 04
1.019 70	980.68	272.43	0.893 44	<b>65</b>	1.019 68	980.70	272.47	0.893 41	<b>65</b>	1.019 65	980.73	272.51	0.893 38
1.022 60	977.90	293.37	0.954 91	<b>70</b>	1.022 58	977.92	293.41	0.954 88	<b>70</b>	1.022 56	977.94	293.45	0.954 85
1.025 67	974.98	314.32	1.0155	<b>75</b>	1.025 64	975.00	314.36	1.0155	<b>75</b>	1.025 62	975.02	314.40	1.0155
1.028 89	971.92	335.29	1.0753	<b>80</b>	1.028 86	971.95	335.33	1.0753	<b>80</b>	1.028 84	971.97	335.37	1.0753
1.032 26	968.75	356.28	1.1344	<b>85</b>	1.032 24	968.77	356.32	1.1343	<b>85</b>	1.032 21	968.79	356.36	1.1343
1.035 79	965.45	377.29	1.1926	<b>90</b>	1.035 77	965.47	377.33	1.1926	<b>90</b>	1.035 74	965.49	377.37	1.1926
1.039 47	962.03	398.33	1.2502	<b>95</b>	1.039 45	962.05	398.37	1.2501	<b>95</b>	1.039 42	962.07	398.41	1.2501
1.043 31	958.49	419.39	1.3070	<b>100</b>	1.043 28	958.51	419.43	1.3069	<b>100</b>	1.043 26	958.54	419.47	1.3069
1.047 30	954.84	440.48	1.3631	<b>105</b>	1.047 27	954.86	440.52	1.3631	<b>105</b>	1.047 25	954.88	440.55	1.3630
1.051 44	951.07	461.60	1.4186	<b>110</b>	1.051 42	951.10	461.64	1.4186	<b>110</b>	1.051 39	951.12	461.67	1.4185
1.055 75	947.20	482.76	1.4735	<b>115</b>	1.055 72	947.22	482.79	1.4734	<b>115</b>	1.055 69	947.24	482.83	1.4734
1.060 21	943.21	503.95	1.5277	<b>120</b>	1.060 18	943.23	503.99	1.5277	<b>120</b>	1.060 16	943.26	504.02	1.5276
1.064 84	939.11	525.19	1.5814	<b>125</b>	1.064 81	939.13	525.22	1.5814	<b>125</b>	1.064 78	939.16	525.26	1.5813
1.069 63	934.90	546.47	1.6345	<b>130</b>	1.069 60	934.93	546.51	1.6345	<b>130</b>	1.069 57	934.95	546.54	1.6344
1.074 59	930.58	567.80	1.6871	<b>135</b>	1.074 56	930.61	567.84	1.6871	<b>135</b>	1.074 53	930.64	567.87	1.6870
1.079 73	926.16	589.19	1.7392	<b>140</b>	1.079 70	926.18	589.22	1.7391	<b>140</b>	1.079 67	926.21	589.25	1.7391
464.25	2.1540	2741.3	6.9033	<b>145</b>	1.085 02	921.64	610.66	1.7907	<b>145</b>	1.084 99	921.67	610.69	1.7907
470.88	2.1237	2752.8	6.9306	<b>150</b>	416.42	2.4014	2748.3	6.8678	<b>150</b>	1.090 49	917.02	632.19	1.8418
477.44	2.0945	2764.1	6.9571	<b>155</b>	422.37	2.3676	2759.9	6.8950	<b>155</b>	378.27	2.6436	2755.7	6.8384
483.93	2.0664	2775.2	6.9829	<b>160</b>	428.25	2.3351	2771.3	6.9215	<b>160</b>	383.66	2.6064	2767.4	6.8656
490.37	2.0393	2786.2	7.0081	<b>165</b>	434.06	2.3038	2782.6	6.9473	<b>165</b>	388.99	2.5708	2778.9	6.8919
496.76	2.0131	2797.1	7.0329	<b>170</b>	439.83	2.2736	2793.7	6.9725	<b>170</b>	394.26	2.5364	2790.2	6.9176
503.10	1.9877	2807.9	7.0571	<b>175</b>	445.55	2.2444	2804.7	6.9971	<b>175</b>	399.48	2.5033	2801.4	6.9427
509.41	1.9631	2818.6	7.0809	<b>180</b>	451.23	2.2162	2815.5	7.0213	<b>180</b>	404.66	2.4712	2812.4	6.9673
515.69	1.9392	2829.3	7.1043	<b>185</b>	456.87	2.1888	2826.4	7.0450	<b>185</b>	409.80	2.4402	2823.4	6.9913
521.93	1.9160	2839.9	7.1273	<b>190</b>	462.48	2.1623	2837.1	7.0683	<b>190</b>	414.91	2.4102	2834.3	7.0150
528.14	1.8934	2850.4	7.1500	<b>195</b>	468.06	2.1365	2847.8	7.0913	<b>195</b>	419.98	2.3811	2845.1	7.0382
534.33	1.8715	2860.9	7.1723	<b>200</b>	473.62	2.1114	2858.4	7.1138	<b>200</b>	425.03	2.3528	2855.8	7.0610
546.65	1.8293	2881.8	7.2160	<b>210</b>	484.66	2.0633	2879.5	7.1580	<b>210</b>	435.06	2.2986	2877.2	7.1056
558.88	1.7893	2902.6	7.2586	<b>220</b>	495.61	2.0177	2900.5	7.2009	<b>220</b>	445.00	2.2472	2898.3	7.1489
571.04	1.7512	2923.3	7.3001	<b>230</b>	506.50	1.9743	2921.3	7.2428	<b>230</b>	454.87	2.1984	2919.3	7.1911
583.14	1.7148	2943.9	7.3407	<b>240</b>	517.33	1.9330	2942.1	7.2836	<b>240</b>	464.67	2.1520	2940.2	7.2322
595.20	1.6801	2964.5	7.3804	<b>250</b>	528.11	1.8936	2962.8	7.3235	<b>250</b>	474.43	2.1078	2961.0	7.2724
607.20	1.6469	2985.0	7.4193	<b>260</b>	538.84	1.8559	2983.4	7.3626	<b>260</b>	484.14	2.0655	2981.8	7.3117
619.17	1.6151	3005.5	7.4574	<b>270</b>	549.53	1.8197	3004.0	7.4010	<b>270</b>	493.80	2.0251	3002.5	7.3502
631.11	1.5845	3026.0	7.4948	<b>280</b>	560.18	1.7851	3024.6	7.4385	<b>280</b>	503.44	1.9863	3023.2	7.3880
643.01	1.5552	3046.6	7.5316	<b>290</b>	570.81	1.7519	3045.2	7.4754	<b>290</b>	513.04	1.9492	3043.9	7.4250

**Table 3. Compressed Water and Superheated Steam (continued)**

0.40 MPa ( $t_s = 143.608\text{ }^\circ\text{C}$ )				$t_s, ^\circ\text{C}$	0.45 MPa ( $t_s = 147.903\text{ }^\circ\text{C}$ )				$t_s, ^\circ\text{C}$	0.50 MPa ( $t_s = 151.831\text{ }^\circ\text{C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
654.89	1.5270	3067.1	7.5677	300	581.40	1.7200	3065.8	7.5117	300	522.61	1.9135	3064.6	7.4614
666.74	1.4998	3087.6	7.6032	310	591.98	1.6893	3086.4	7.5473	310	532.16	1.8791	3085.2	7.4972
678.58	1.4737	3108.2	7.6382	320	602.53	1.6597	3107.0	7.5824	320	541.69	1.8461	3105.9	7.5323
690.39	1.4485	3128.8	7.6726	330	613.06	1.6312	3127.7	7.6169	330	551.19	1.8143	3126.6	7.5669
702.18	1.4241	3149.4	7.7065	340	623.57	1.6037	3148.4	7.6509	340	560.68	1.7836	3147.3	7.6010
713.96	1.4006	3170.0	7.7399	350	634.07	1.5771	3169.1	7.6844	350	570.15	1.7539	3168.1	7.6346
725.72	1.3779	3190.7	7.7728	360	644.55	1.5515	3189.8	7.7174	360	579.61	1.7253	3188.9	7.6677
737.47	1.3560	3211.5	7.8053	370	655.01	1.5267	3210.6	7.7499	370	589.05	1.6977	3209.7	7.7003
749.21	1.3347	3232.2	7.8374	380	665.47	1.5027	3231.4	7.7820	380	598.48	1.6709	3230.5	7.7325
760.93	1.3142	3253.0	7.8690	390	675.91	1.4795	3252.2	7.8137	390	607.90	1.6450	3251.4	7.7642
772.64	1.2943	3273.9	7.9002	400	686.34	1.4570	3273.1	7.8450	400	617.30	1.6199	3272.3	7.7955
784.35	1.2749	3294.8	7.9311	410	696.77	1.4352	3294.1	7.8759	410	626.70	1.5957	3293.3	7.8265
796.05	1.2562	3315.8	7.9615	420	707.18	1.4141	3315.1	7.9064	420	636.09	1.5721	3314.4	7.8570
807.73	1.2380	3336.8	7.9917	430	717.59	1.3936	3336.1	7.9366	430	645.47	1.5493	3335.4	7.8872
819.41	1.2204	3357.9	8.0214	440	727.99	1.3737	3357.2	7.9664	440	654.84	1.5271	3356.6	7.9170
831.09	1.2032	3379.0	8.0508	450	738.38	1.3543	3378.4	7.9958	450	664.21	1.5056	3377.7	7.9465
842.75	1.1866	3400.2	8.0799	460	748.76	1.3355	3399.6	8.0250	460	673.57	1.4846	3399.0	7.9757
854.41	1.1704	3421.4	8.1087	470	759.14	1.3173	3420.9	8.0538	470	682.92	1.4643	3420.3	8.0045
866.07	1.1546	3442.8	8.1372	480	769.51	1.2995	3442.2	8.0823	480	692.27	1.4445	3441.6	8.0331
877.71	1.1393	3464.1	8.1654	490	779.88	1.2823	3463.6	8.1105	490	701.61	1.4253	3463.0	8.0613
889.36	1.1244	3485.5	8.1933	500	790.24	1.2654	3485.0	8.1384	500	710.94	1.4066	3484.5	8.0892
912.63	1.0957	3528.6	8.2482	520	810.95	1.2331	3528.1	8.1934	520	729.60	1.3706	3527.6	8.1443
935.89	1.0685	3571.9	8.3021	540	831.64	1.2024	3571.4	8.2473	540	748.24	1.3365	3570.9	8.1983
959.13	1.0426	3615.4	8.3550	560	852.32	1.1733	3614.9	8.3002	560	766.87	1.3040	3614.5	8.2512
982.36	1.0180	3659.2	8.4069	580	872.98	1.1455	3658.8	8.3522	580	785.48	1.2731	3658.4	8.3032
1005.6	0.99446	3703.2	8.4580	600	893.64	1.1190	3702.9	8.4033	600	804.09	1.2436	3702.5	8.3543
1028.8	0.97202	3747.6	8.5082	620	914.28	1.0938	3747.2	8.4535	620	822.68	1.2155	3746.8	8.4046
1052.0	0.95059	3792.2	8.5576	640	934.91	1.0696	3791.8	8.5029	640	841.26	1.1887	3791.5	8.4540
1075.2	0.93009	3837.0	8.6062	660	955.54	1.0465	3836.7	8.5515	660	859.83	1.1630	3836.4	8.5027
1098.3	0.91046	3882.2	8.6540	680	976.15	1.0244	3881.9	8.5994	680	878.40	1.1384	3881.6	8.5506
1121.5	0.89165	3927.6	8.7012	700	996.76	1.0032	3927.3	8.6466	700	896.96	1.1149	3927.0	8.5977
1144.7	0.87360	3973.3	8.7477	720	1017.4	0.98293	3973.0	8.6931	720	915.51	1.0923	3972.7	8.6443
1167.8	0.85628	4019.3	8.7935	740	1038.0	0.96343	4019.0	8.7389	740	934.05	1.0706	4018.7	8.6901
1191.0	0.83963	4065.5	8.8387	760	1058.6	0.94469	4065.3	8.7842	760	952.59	1.0498	4065.0	8.7353
1214.2	0.82362	4112.0	8.8833	780	1079.1	0.92666	4111.8	8.8288	780	971.13	1.0297	4111.6	8.7800
1237.3	0.80821	4158.8	8.9273	800	1099.7	0.90932	4158.6	8.8728	800	989.66	1.0104	4158.4	8.8240
1260.4	0.79337	4205.9	8.9708	820	1120.3	0.89262	4205.7	8.9163	820	1008.2	0.99188	4205.5	8.8675
1283.6	0.77907	4253.3	9.0137	840	1140.9	0.87652	4253.0	8.9592	840	1026.7	0.97398	4252.8	8.9104
1306.7	0.76528	4300.9	9.0561	860	1161.4	0.86100	4300.7	9.0016	860	1045.2	0.95673	4300.5	8.9528
1329.8	0.75197	4348.8	9.0980	880	1182.0	0.84601	4348.6	9.0435	880	1063.7	0.94007	4348.4	8.9947
1353.0	0.73911	4396.9	9.1394	900	1202.6	0.83155	4396.7	9.0849	900	1082.3	0.92399	4396.6	9.0362
1376.1	0.72669	4445.3	9.1803	920	1223.1	0.81757	4445.2	9.1258	920	1100.8	0.90845	4445.0	9.0771
1399.2	0.71468	4494.0	9.2208	940	1243.7	0.80405	4493.9	9.1663	940	1119.3	0.89343	4493.7	9.1176
1422.3	0.70306	4543.0	9.2608	960	1264.3	0.79098	4542.8	9.2064	960	1137.8	0.87890	4542.7	9.1576
1445.5	0.69182	4592.2	9.3004	980	1284.8	0.77832	4592.1	9.2460	980	1156.3	0.86483	4591.9	9.1972
1468.6	0.68093	4641.7	9.3396	1000	1305.4	0.76607	4641.5	9.2851	1000	1174.8	0.85121	4641.4	9.2364
1584.1	0.63126	4892.8	9.5295	1100	1408.1	0.71018	4892.7	9.4750	1100	1267.3	0.78910	4892.6	9.4263
1699.7	0.58835	5150.0	9.7102	1200	1510.8	0.66190	5149.9	9.6558	1200	1359.7	0.73545	5149.8	9.6071
1815.2	0.55092	5412.8	9.8828	1300	1613.5	0.61978	5412.7	9.8284	1300	1452.1	0.68864	5412.6	9.7797
1930.6	0.51797	5680.8	10.048	1400	1716.1	0.58271	5680.7	9.9935	1400	1544.5	0.64745	5680.6	9.9448
2046.1	0.48874	5953.6	10.206	1500	1818.8	0.54982	5953.5	10.152	1500	1636.9	0.61091	5953.5	10.103
2161.5	0.46264	6230.8	10.358	1600	1921.4	0.52046	6230.7	10.304	1600	1729.3	0.57828	6230.7	10.255
2392.4	0.41799	6797.0	10.645	1800	2126.6	0.47023	6797.0	10.591	1800	1914.0	0.52247	6797.0	10.542
2623.2	0.38121	7376.9	10.912	2000	2331.8	0.42885	7376.9	10.858	2000	2098.7	0.47649	7376.9	10.809

**Table 3. Compressed Water and Superheated Steam (continued)**

0.55 MPa ( $t_s = 155.456\text{ }^\circ\text{C}$ )				$t, \text{ }^\circ\text{C}$	0.60 MPa ( $t_s = 158.826\text{ }^\circ\text{C}$ )				$t, \text{ }^\circ\text{C}$	0.65 MPa ( $t_s = 161.980\text{ }^\circ\text{C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
1.096 68	911.85	655.76	1.8970	$t_s(\text{L})$	1.100 60	908.59	670.38	1.9308	$t_s(\text{L})$	1.104 36	905.51	684.08	1.9623
342.60	2.9189	2752.3	6.7886	$t_s(\text{V})$	315.58	3.1687	2756.1	6.7592	$t_s(\text{V})$	292.59	3.4177	2759.6	6.7322
0.999 93	1000.07	0.52	-0.000 12	0	0.999 90	1000.10	0.57	-0.000 11	0	0.999 88	1000.12	0.62	-0.000 11
0.999 81	1000.19	21.57	0.076 24	5	0.999 79	1000.21	21.62	0.076 24	5	0.999 76	1000.24	21.67	0.076 24
1.000 08	999.92	42.56	0.151 04	10	1.000 06	999.94	42.61	0.151 03	10	1.000 04	999.96	42.65	0.151 03
1.000 69	999.31	63.51	0.224 38	15	1.000 67	999.34	63.55	0.224 37	15	1.000 64	999.36	63.60	0.224 37
1.001 59	998.41	84.43	0.296 37	20	1.001 57	998.44	84.48	0.296 36	20	1.001 54	998.46	84.52	0.296 35
1.002 76	997.25	105.34	0.367 08	25	1.002 73	997.27	105.38	0.367 07	25	1.002 71	997.30	105.43	0.367 06
1.004 17	995.85	126.23	0.436 59	30	1.004 15	995.87	126.28	0.436 57	30	1.004 12	995.89	126.32	0.436 56
1.005 80	994.23	147.12	0.504 94	35	1.005 78	994.25	147.17	0.504 92	35	1.005 76	994.28	147.21	0.504 91
1.007 64	992.41	168.01	0.572 19	40	1.007 62	992.44	168.06	0.572 17	40	1.007 60	992.46	168.10	0.572 15
1.009 68	990.41	188.91	0.638 38	45	1.009 66	990.43	188.95	0.638 36	45	1.009 64	990.45	188.99	0.638 34
1.011 91	988.23	209.81	0.703 56	50	1.011 89	988.25	209.85	0.703 54	50	1.011 86	988.27	209.89	0.703 51
1.014 31	985.89	230.71	0.767 76	55	1.014 29	985.91	230.75	0.767 73	55	1.014 27	985.93	230.80	0.767 71
1.016 89	983.39	251.63	0.831 01	60	1.016 87	983.41	251.67	0.830 98	60	1.016 84	983.44	251.71	0.830 96
1.019 63	980.75	272.55	0.893 36	65	1.019 61	980.77	272.59	0.893 33	65	1.019 58	980.79	272.63	0.893 30
1.022 53	977.96	293.49	0.954 82	70	1.022 51	977.98	293.53	0.954 79	70	1.022 49	978.01	293.57	0.954 76
1.025 60	975.04	314.44	1.0154	75	1.025 57	975.06	314.48	1.0154	75	1.025 55	975.09	314.52	1.0154
1.028 82	971.99	335.41	1.0752	80	1.028 79	972.01	335.45	1.0752	80	1.028 77	972.04	335.49	1.0752
1.032 19	968.81	356.40	1.1343	85	1.032 17	968.84	356.44	1.1342	85	1.032 14	968.86	356.48	1.1342
1.035 72	965.51	377.41	1.1925	90	1.035 69	965.54	377.45	1.1925	90	1.035 67	965.56	377.49	1.1924
1.039 40	962.10	398.44	1.2500	95	1.039 37	962.12	398.48	1.2500	95	1.039 35	962.14	398.52	1.2500
1.043 23	958.56	419.50	1.3069	100	1.043 21	958.58	419.54	1.3068	100	1.043 18	958.61	419.58	1.3068
1.047 22	954.91	440.59	1.3630	105	1.047 19	954.93	440.63	1.3630	105	1.047 17	954.96	440.67	1.3629
1.051 36	951.14	461.71	1.4185	110	1.051 34	951.17	461.75	1.4184	110	1.051 31	951.19	461.78	1.4184
1.055 67	947.27	482.87	1.4733	115	1.055 64	947.29	482.90	1.4733	115	1.055 61	947.32	482.94	1.4733
1.060 13	943.28	504.06	1.5276	120	1.060 10	943.31	504.09	1.5275	120	1.060 07	943.33	504.13	1.5275
1.064 75	939.19	525.29	1.5813	125	1.064 72	939.21	525.33	1.5812	125	1.064 69	939.24	525.36	1.5812
1.069 54	934.98	546.57	1.6344	130	1.069 51	935.01	546.61	1.6343	130	1.069 48	935.03	546.64	1.6343
1.074 50	930.66	567.90	1.6870	135	1.074 47	930.69	567.93	1.6869	135	1.074 44	930.72	567.97	1.6869
1.079 64	926.24	589.28	1.7390	140	1.079 61	926.26	589.32	1.7390	140	1.079 57	926.29	589.35	1.7389
1.084 95	921.70	610.72	1.7906	145	1.084 92	921.73	610.76	1.7905	145	1.084 89	921.75	610.79	1.7905
1.090 45	917.05	632.22	1.8417	150	1.090 42	917.08	632.26	1.8417	150	1.090 39	917.11	632.29	1.8416
1.096 15	912.29	653.79	1.8924	155	1.096 11	912.32	653.82	1.8923	155	1.096 08	912.35	653.85	1.8923
347.15	2.8806	2763.3	6.8140	160	316.68	3.1578	2759.0	6.7659	160	1.101 97	907.47	675.49	1.9425
352.08	2.8403	2775.1	6.8410	165	321.29	3.1124	2771.1	6.7937	165	295.21	3.3874	2767.1	6.7494
356.95	2.8015	2786.6	6.8673	170	325.83	3.0690	2783.0	6.8206	170	299.48	3.3391	2779.2	6.7769
361.77	2.7642	2798.0	6.8928	175	330.32	3.0274	2794.6	6.8466	175	303.69	3.2929	2791.1	6.8035
366.54	2.7282	2809.3	6.9178	180	334.75	2.9873	2806.0	6.8720	180	307.84	3.2484	2802.7	6.8293
371.27	2.6935	2820.4	6.9422	185	339.15	2.9486	2817.3	6.8968	185	311.95	3.2056	2814.2	6.8546
375.97	2.6598	2831.4	6.9662	190	343.50	2.9112	2828.5	6.9211	190	316.02	3.1643	2825.6	6.8792
380.63	2.6272	2842.4	6.9897	195	347.83	2.8750	2839.6	6.9449	195	320.06	3.1244	2836.8	6.9033
385.27	2.5956	2853.2	7.0128	200	352.12	2.8399	2850.6	6.9683	200	324.06	3.0858	2848.0	6.9270
394.47	2.5351	2874.8	7.0579	210	360.63	2.7729	2872.4	7.0139	210	331.99	3.0121	2870.0	6.9731
403.58	2.4778	2896.1	7.1016	220	369.05	2.7097	2893.9	7.0580	220	339.83	2.9426	2891.7	7.0176
412.61	2.4236	2917.3	7.1441	230	377.40	2.6497	2915.3	7.1008	230	347.59	2.8769	2913.2	7.0608
421.59	2.3720	2938.3	7.1855	240	385.68	2.5929	2936.5	7.1426	240	355.28	2.8146	2934.6	7.1028
430.51	2.3228	2959.3	7.2259	250	393.90	2.5387	2957.6	7.1832	250	362.92	2.7554	2955.8	7.1437
439.38	2.2759	2980.2	7.2655	260	402.08	2.4871	2978.5	7.2230	260	370.51	2.6990	2976.9	7.1837
448.21	2.2311	3001.0	7.3041	270	410.21	2.4378	2999.5	7.2619	270	378.06	2.6451	2997.9	7.2228
457.01	2.1882	3021.8	7.3421	280	418.31	2.3906	3020.3	7.3000	280	385.57	2.5936	3018.9	7.2611
465.77	2.1470	3042.5	7.3793	290	426.38	2.3453	3041.2	7.3373	290	393.05	2.5442	3039.8	7.2986



**Table 3. Compressed Water and Superheated Steam (continued)**

0.55 MPa ( $t_s = 155.456\text{ }^\circ\text{C}$ )				$t, \text{ }^\circ\text{C}$	0.60 MPa ( $t_s = 158.826\text{ }^\circ\text{C}$ )				$t, \text{ }^\circ\text{C}$	0.65 MPa ( $t_s = 161.980\text{ }^\circ\text{C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
474.51	2.1075	3063.3	7.4158	<b>300</b>	434.42	2.3019	3062.0	7.3740	<b>300</b>	400.49	2.4969	3060.7	7.3353
483.22	2.0695	3084.0	7.4517	<b>310</b>	442.43	2.2602	3082.8	7.4100	<b>310</b>	407.92	2.4515	3081.6	7.3715
491.91	2.0329	3104.8	7.4869	<b>320</b>	450.42	2.2201	3103.6	7.4453	<b>320</b>	415.32	2.4078	3102.5	7.4070
500.57	1.9977	3125.5	7.5216	<b>330</b>	458.39	2.1815	3124.4	7.4801	<b>330</b>	422.70	2.3658	3123.4	7.4419
509.22	1.9638	3146.3	7.5558	<b>340</b>	466.34	2.1444	3145.3	7.5144	<b>340</b>	430.06	2.3253	3144.2	7.4762
517.86	1.9310	3167.1	7.5894	<b>350</b>	474.27	2.1085	3166.1	7.5481	<b>350</b>	437.40	2.2862	3165.1	7.5100
526.47	1.8994	3187.9	7.6226	<b>360</b>	482.19	2.0739	3187.0	7.5813	<b>360</b>	444.73	2.2486	3186.1	7.5433
535.08	1.8689	3208.8	7.6553	<b>370</b>	490.10	2.0404	3207.9	7.6141	<b>370</b>	452.04	2.2122	3207.0	7.5761
543.67	1.8394	3229.7	7.6875	<b>380</b>	497.99	2.0081	3228.8	7.6464	<b>380</b>	459.34	2.1770	3228.0	7.6085
552.25	1.8108	3250.6	7.7193	<b>390</b>	505.87	1.9768	3249.8	7.6782	<b>390</b>	466.63	2.1430	3249.0	7.6404
560.82	1.7831	3271.6	7.7507	<b>400</b>	513.74	1.9465	3270.8	7.7097	<b>400</b>	473.91	2.1101	3270.0	7.6719
569.37	1.7563	3292.6	7.7817	<b>410</b>	521.60	1.9172	3291.8	7.7407	<b>410</b>	481.18	2.0782	3291.1	7.7029
577.92	1.7303	3313.6	7.8123	<b>420</b>	529.45	1.8887	3312.9	7.7713	<b>420</b>	488.44	2.0473	3312.2	7.7336
586.47	1.7051	3334.7	7.8425	<b>430</b>	537.29	1.8612	3334.0	7.8016	<b>430</b>	495.69	2.0174	3333.4	7.7639
595.00	1.6807	3355.9	7.8724	<b>440</b>	545.13	1.8344	3355.2	7.8315	<b>440</b>	502.93	1.9883	3354.6	7.7939
603.53	1.6569	3377.1	7.9019	<b>450</b>	552.96	1.8085	3376.5	7.8611	<b>450</b>	510.17	1.9601	3375.8	7.8235
612.05	1.6339	3398.4	7.9311	<b>460</b>	560.78	1.7832	3397.7	7.8903	<b>460</b>	517.40	1.9328	3397.1	7.8527
620.56	1.6114	3419.7	7.9600	<b>470</b>	568.59	1.7587	3419.1	7.9192	<b>470</b>	524.62	1.9061	3418.5	7.8817
629.07	1.5897	3441.0	7.9885	<b>480</b>	576.40	1.7349	3440.5	7.9478	<b>480</b>	531.84	1.8803	3439.9	7.9103
637.57	1.5685	3462.5	8.0168	<b>490</b>	584.20	1.7117	3461.9	7.9761	<b>490</b>	539.05	1.8551	3461.3	7.9386
646.07	1.5478	3483.9	8.0447	<b>500</b>	592.00	1.6892	3483.4	8.0041	<b>500</b>	546.25	1.8306	3482.9	7.9666
663.05	1.5082	3527.1	8.0998	<b>520</b>	607.58	1.6459	3526.6	8.0592	<b>520</b>	560.65	1.7836	3526.1	8.0218
680.01	1.4706	3570.4	8.1538	<b>540</b>	623.15	1.6048	3570.0	8.1132	<b>540</b>	575.03	1.7390	3569.5	8.0759
696.96	1.4348	3614.1	8.2068	<b>560</b>	638.70	1.5657	3613.6	8.1663	<b>560</b>	589.40	1.6966	3613.2	8.1289
713.89	1.4008	3657.9	8.2589	<b>580</b>	654.24	1.5285	3657.5	8.2183	<b>580</b>	603.76	1.6563	3657.1	8.1810
730.82	1.3683	3702.1	8.3100	<b>600</b>	669.76	1.4931	3701.7	8.2695	<b>600</b>	618.10	1.6179	3701.3	8.2322
747.73	1.3374	3746.5	8.3603	<b>620</b>	685.28	1.4593	3746.1	8.3198	<b>620</b>	632.43	1.5812	3745.7	8.2825
764.63	1.3078	3791.1	8.4097	<b>640</b>	700.78	1.4270	3790.8	8.3693	<b>640</b>	646.75	1.5462	3790.4	8.3320
781.53	1.2795	3836.1	8.4584	<b>660</b>	716.28	1.3961	3835.7	8.4180	<b>660</b>	661.06	1.5127	3835.4	8.3808
798.42	1.2525	3881.3	8.5063	<b>680</b>	731.76	1.3666	3880.9	8.4659	<b>680</b>	675.37	1.4807	3880.6	8.4287
815.30	1.2265	3926.7	8.5535	<b>700</b>	747.25	1.3382	3926.4	8.5131	<b>700</b>	689.67	1.4500	3926.1	8.4760
832.17	1.2017	3972.5	8.6000	<b>720</b>	762.72	1.3111	3972.2	8.5597	<b>720</b>	703.96	1.4205	3971.9	8.5225
849.04	1.1778	4018.5	8.6459	<b>740</b>	778.19	1.2850	4018.2	8.6056	<b>740</b>	718.24	1.3923	4017.9	8.5684
865.90	1.1549	4064.8	8.6912	<b>760</b>	793.65	1.2600	4064.5	8.6508	<b>760</b>	732.52	1.3651	4064.3	8.6137
882.76	1.1328	4111.3	8.7358	<b>780</b>	809.11	1.2359	4111.1	8.6954	<b>780</b>	746.80	1.3390	4110.8	8.6583
899.61	1.1116	4158.2	8.7798	<b>800</b>	824.57	1.2128	4157.9	8.7395	<b>800</b>	761.07	1.3139	4157.7	8.7024
916.46	1.0912	4205.3	8.8233	<b>820</b>	840.02	1.1904	4205.0	8.7830	<b>820</b>	775.34	1.2898	4204.8	8.7459
933.30	1.0715	4252.6	8.8663	<b>840</b>	855.47	1.1690	4252.4	8.8260	<b>840</b>	789.60	1.2665	4252.2	8.7889
950.15	1.0525	4300.3	8.9087	<b>860</b>	870.91	1.1482	4300.1	8.8684	<b>860</b>	803.86	1.2440	4299.9	8.8313
966.98	1.0341	4348.2	8.9506	<b>880</b>	886.35	1.1282	4348.0	8.9103	<b>880</b>	818.12	1.2223	4347.8	8.8732
983.82	1.0164	4396.4	8.9920	<b>900</b>	901.78	1.1089	4396.2	8.9518	<b>900</b>	832.37	1.2014	4396.0	8.9147
1000.7	0.99935	4444.8	9.0330	<b>920</b>	917.22	1.0903	4444.7	8.9927	<b>920</b>	846.62	1.1812	4444.5	8.9556
1017.5	0.98282	4493.5	9.0735	<b>940</b>	932.65	1.0722	4493.4	9.0332	<b>940</b>	860.87	1.1616	4493.2	8.9962
1034.3	0.96683	4542.5	9.1135	<b>960</b>	948.08	1.0548	4542.4	9.0733	<b>960</b>	875.12	1.1427	4542.2	9.0362
1051.1	0.95135	4591.8	9.1531	<b>980</b>	963.51	1.0379	4591.6	9.1129	<b>980</b>	889.36	1.1244	4591.5	9.0758
1068.0	0.93637	4641.3	9.1923	<b>1000</b>	978.93	1.0215	4641.1	9.1521	<b>1000</b>	903.60	1.1067	4641.0	9.1150
1152.0	0.86802	4892.5	9.3822	<b>1100</b>	1056.0	0.94695	4892.4	9.3420	<b>1100</b>	974.78	1.0259	4892.2	9.3050
1236.1	0.80900	5149.7	9.5630	<b>1200</b>	1133.1	0.88254	5149.6	9.5228	<b>1200</b>	1045.9	0.95609	5149.5	9.4858
1320.1	0.75750	5412.6	9.7356	<b>1300</b>	1210.1	0.82636	5412.5	9.6954	<b>1300</b>	1117.0	0.89522	5412.4	9.6584
1404.1	0.71218	5680.6	9.9008	<b>1400</b>	1287.1	0.77692	5680.5	9.8606	<b>1400</b>	1188.1	0.84166	5680.5	9.8236
1488.1	0.67199	5953.4	10.059	<b>1500</b>	1364.1	0.73307	5953.4	10.019	<b>1500</b>	1259.2	0.79415	5953.3	9.9820
1572.1	0.63609	6230.7	10.211	<b>1600</b>	1441.1	0.69391	6230.6	10.171	<b>1600</b>	1330.3	0.75172	6230.6	10.134
1740.0	0.57471	6796.9	10.498	<b>1800</b>	1595.1	0.62694	6796.9	10.458	<b>1800</b>	1472.4	0.67917	6796.9	10.421
1907.9	0.52413	7376.9	10.765	<b>2000</b>	1749.0	0.57177	7376.8	10.725	<b>2000</b>	1614.5	0.61940	7376.8	10.688

**Table 3. Compressed Water and Superheated Steam (continued)**

0.70 MPa ( $t_s = 164.946\text{ }^\circ\text{C}$ )				$t, \text{ }^\circ\text{C}$	0.75 MPa ( $t_s = 167.749\text{ }^\circ\text{C}$ )				$t, \text{ }^\circ\text{C}$	0.80 MPa ( $t_s = 170.406\text{ }^\circ\text{C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
1.107 96	902.56	697.00	1.9918	$t_s(L)$	1.111 43	899.74	709.24	2.0195	$t_s(L)$	1.114 78	897.04	720.86	2.0457
272.77	3.6660	2762.8	6.7071	$t_s(V)$	255.51	3.9137	2765.6	6.6836	$t_s(V)$	240.34	4.1608	2768.3	6.6616
0.999 85	1000.15	0.67	-0.000 11	0	0.999 83	1000.17	0.72	-0.000 10	0	0.999 80	1000.20	0.77	-0.000 10
0.999 74	1000.26	21.72	0.076 24	5	0.999 71	1000.29	21.77	0.076 24	5	0.999 69	1000.31	21.82	0.076 24
1.000 01	999.99	42.70	0.151 02	10	0.999 99	1000.01	42.75	0.151 02	10	0.999 96	1000.04	42.80	0.151 01
1.000 62	999.38	63.65	0.224 36	15	1.000 60	999.41	63.70	0.224 35	15	1.000 57	999.43	63.75	0.224 34
1.001 52	998.48	84.57	0.296 34	20	1.001 50	998.50	84.62	0.296 33	20	1.001 48	998.53	84.66	0.296 32
1.002 69	997.32	105.47	0.367 04	25	1.002 67	997.34	105.52	0.367 03	25	1.002 64	997.36	105.57	0.367 02
1.004 10	995.92	126.37	0.436 54	30	1.004 08	995.94	126.41	0.436 53	30	1.004 06	995.96	126.46	0.436 51
1.005 74	994.30	147.26	0.504 89	35	1.005 71	994.32	147.30	0.504 87	35	1.005 69	994.34	147.35	0.504 85
1.007 58	992.48	168.15	0.572 13	40	1.007 56	992.50	168.19	0.572 11	40	1.007 53	992.52	168.24	0.572 09
1.009 62	990.47	189.04	0.638 32	45	1.009 59	990.50	189.08	0.638 30	45	1.009 57	990.52	189.13	0.638 28
1.011 84	988.30	209.93	0.703 49	50	1.011 82	988.32	209.98	0.703 47	50	1.011 80	988.34	210.02	0.703 44
1.014 25	985.95	230.84	0.767 68	55	1.014 22	985.98	230.88	0.767 66	55	1.014 20	986.00	230.92	0.767 63
1.016 82	983.46	251.75	0.830 93	60	1.016 80	983.48	251.79	0.830 90	60	1.016 78	983.50	251.84	0.830 88
1.019 56	980.81	272.68	0.893 27	65	1.019 54	980.84	272.72	0.893 24	65	1.019 52	980.86	272.76	0.893 21
1.022 46	978.03	293.61	0.954 73	70	1.022 44	978.05	293.65	0.954 70	70	1.022 42	978.07	293.69	0.954 67
1.025 53	975.11	314.56	1.0153	75	1.025 50	975.13	314.60	1.0153	75	1.025 48	975.15	314.64	1.0153
1.028 74	972.06	335.53	1.0751	80	1.028 72	972.08	335.57	1.0751	80	1.028 70	972.10	335.61	1.0751
1.032 12	968.88	356.52	1.1342	85	1.032 09	968.90	356.56	1.1341	85	1.032 07	968.93	356.60	1.1341
1.035 64	965.58	377.53	1.1924	90	1.035 62	965.61	377.57	1.1924	90	1.035 59	965.63	377.60	1.1923
1.039 32	962.17	398.56	1.2499	95	1.039 30	962.19	398.60	1.2499	95	1.039 27	962.21	398.63	1.2499
1.043 16	958.63	419.62	1.3067	100	1.043 13	958.65	419.65	1.3067	100	1.043 10	958.68	419.69	1.3067
1.047 14	954.98	440.70	1.3629	105	1.047 12	955.00	440.74	1.3628	105	1.047 09	955.03	440.78	1.3628
1.051 28	951.22	461.82	1.4184	110	1.051 26	951.24	461.86	1.4183	110	1.051 23	951.27	461.89	1.4183
1.055 58	947.34	482.97	1.4732	115	1.055 56	947.37	483.01	1.4732	115	1.055 53	947.39	483.04	1.4731
1.060 04	943.36	504.16	1.5275	120	1.060 02	943.38	504.20	1.5274	120	1.059 99	943.41	504.23	1.5274
1.064 67	939.26	525.40	1.5811	125	1.064 64	939.29	525.43	1.5811	125	1.064 61	939.31	525.47	1.5810
1.069 45	935.06	546.67	1.6342	130	1.069 42	935.08	546.71	1.6342	130	1.069 39	935.11	546.74	1.6341
1.074 41	930.74	568.00	1.6868	135	1.074 38	930.77	568.03	1.6868	135	1.074 35	930.80	568.07	1.6867
1.079 54	926.32	589.38	1.7389	140	1.079 51	926.35	589.41	1.7388	140	1.079 48	926.37	589.45	1.7388
1.084 85	921.78	610.82	1.7904	145	1.084 82	921.81	610.85	1.7904	145	1.084 79	921.84	610.88	1.7903
1.090 35	917.14	632.32	1.8416	150	1.090 32	917.16	632.35	1.8415	150	1.090 28	917.19	632.38	1.8414
1.096 04	912.37	653.88	1.8922	155	1.096 01	912.40	653.91	1.8922	155	1.095 97	912.43	653.94	1.8921
1.101 93	907.50	675.52	1.9425	160	1.101 89	907.53	675.55	1.9424	160	1.101 86	907.56	675.58	1.9423
272.82	3.6654	2762.9	6.7074	165	1.107 99	902.54	697.26	1.9922	165	1.107 95	902.57	697.29	1.9922
276.87	3.6118	2775.4	6.7357	170	257.24	3.8874	2771.4	6.6966	170	1.114 26	897.46	719.09	2.0416
280.84	3.5607	2787.5	6.7629	175	261.02	3.8311	2783.8	6.7245	175	243.66	4.1041	2780.0	6.6879
284.76	3.5118	2799.4	6.7893	180	264.74	3.7774	2795.9	6.7514	180	247.20	4.0453	2792.4	6.7154
288.63	3.4647	2811.1	6.8149	185	268.40	3.7258	2807.8	6.7775	185	250.68	3.9891	2804.6	6.7420
292.45	3.4193	2822.6	6.8399	190	272.02	3.6763	2819.5	6.8029	190	254.12	3.9351	2816.5	6.7679
296.24	3.3756	2834.0	6.8644	195	275.60	3.6285	2831.1	6.8277	195	257.52	3.8832	2828.2	6.7930
300.00	3.3333	2845.3	6.8884	200	279.14	3.5824	2842.5	6.8520	200	260.88	3.8332	2839.7	6.8176
307.44	3.2527	2867.5	6.9349	210	286.15	3.4947	2865.0	6.8991	210	267.52	3.7381	2862.5	6.8653
314.78	3.1768	2889.5	6.9799	220	293.06	3.4123	2887.2	6.9445	220	274.05	3.6489	2884.9	6.9111
322.04	3.1052	2911.2	7.0234	230	299.89	3.3346	2909.1	6.9884	230	280.50	3.5650	2907.0	6.9554
329.23	3.0374	2932.7	7.0658	240	306.65	3.2611	2930.7	7.0311	240	286.88	3.4857	2928.8	6.9984
336.37	2.9729	2954.0	7.1070	250	313.35	3.1913	2952.2	7.0725	250	293.20	3.4106	2950.4	7.0401
343.45	2.9116	2975.2	7.1472	260	320.00	3.1250	2973.6	7.1130	260	299.47	3.3392	2971.9	7.0808
350.50	2.8531	2996.4	7.1865	270	326.61	3.0618	2994.8	7.1525	270	305.70	3.2712	2993.3	7.1205
357.50	2.7972	3017.5	7.2249	280	333.17	3.0014	3016.0	7.1911	280	311.89	3.2063	3014.5	7.1593
364.47	2.7437	3038.5	7.2625	290	339.71	2.9437	3037.1	7.2289	290	318.04	3.1443	3035.7	7.1973

**Table 3. Compressed Water and Superheated Steam (continued)**

0.70 MPa ( $t_s = 164.946\text{ }^\circ\text{C}$ )				$t_s, ^\circ\text{C}$	0.75 MPa ( $t_s = 167.749\text{ }^\circ\text{C}$ )				$t_s, ^\circ\text{C}$	0.80 MPa ( $t_s = 170.406\text{ }^\circ\text{C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
371.42	2.6924	3059.4	7.2995	<b>300</b>	346.21	2.8884	3058.2	7.2659	<b>300</b>	324.16	3.0849	3056.9	7.2345
378.33	2.6432	3080.4	7.3357	<b>310</b>	352.69	2.8353	3079.2	7.3023	<b>310</b>	330.26	3.0280	3078.0	7.2710
385.23	2.5959	3101.3	7.3713	<b>320</b>	359.15	2.7844	3100.2	7.3380	<b>320</b>	336.33	2.9733	3099.0	7.3068
392.10	2.5504	3122.3	7.4063	<b>330</b>	365.58	2.7354	3121.2	7.3731	<b>330</b>	342.38	2.9207	3120.1	7.3420
398.95	2.5066	3143.2	7.4407	<b>340</b>	372.00	2.6882	3142.2	7.4076	<b>340</b>	348.41	2.8702	3141.1	7.3766
405.79	2.4643	3164.2	7.4746	<b>350</b>	378.39	2.6427	3163.2	7.4416	<b>350</b>	354.42	2.8215	3162.2	7.4106
412.61	2.4236	3185.1	7.5080	<b>360</b>	384.78	2.5989	3184.2	7.4750	<b>360</b>	360.42	2.7745	3183.2	7.4441
419.42	2.3843	3206.1	7.5409	<b>370</b>	391.15	2.5566	3205.2	7.5080	<b>370</b>	366.41	2.7292	3204.3	7.4772
426.21	2.3462	3227.1	7.5733	<b>380</b>	397.50	2.5157	3226.2	7.5405	<b>380</b>	372.38	2.6855	3225.4	7.5097
432.99	2.3095	3248.1	7.6053	<b>390</b>	403.84	2.4762	3247.3	7.5725	<b>390</b>	378.34	2.6432	3246.5	7.5418
439.77	2.2739	3269.2	7.6368	<b>400</b>	410.18	2.4380	3268.4	7.6041	<b>400</b>	384.28	2.6022	3267.6	7.5734
446.53	2.2395	3290.3	7.6679	<b>410</b>	416.50	2.4010	3289.6	7.6353	<b>410</b>	390.22	2.5626	3288.8	7.6046
453.28	2.2061	3311.5	7.6986	<b>420</b>	422.81	2.3651	3310.7	7.6660	<b>420</b>	396.15	2.5243	3310.0	7.6355
460.03	2.1738	3332.7	7.7290	<b>430</b>	429.12	2.3304	3332.0	7.6964	<b>430</b>	402.07	2.4871	3331.3	7.6659
466.76	2.1424	3353.9	7.7590	<b>440</b>	435.41	2.2967	3353.2	7.7264	<b>440</b>	407.98	2.4511	3352.6	7.6960
473.49	2.1120	3375.2	7.7886	<b>450</b>	441.70	2.2640	3374.5	7.7561	<b>450</b>	413.89	2.4161	3373.9	7.7257
480.21	2.0824	3396.5	7.8179	<b>460</b>	447.99	2.2322	3395.9	7.7854	<b>460</b>	419.79	2.3822	3395.3	7.7550
486.93	2.0537	3417.9	7.8469	<b>470</b>	454.26	2.2014	3417.3	7.8144	<b>470</b>	425.68	2.3492	3416.7	7.7840
493.64	2.0258	3439.3	7.8755	<b>480</b>	460.53	2.1714	3438.7	7.8431	<b>480</b>	431.57	2.3171	3438.2	7.8127
500.34	1.9986	3460.8	7.9038	<b>490</b>	466.80	2.1423	3460.2	7.8715	<b>490</b>	437.45	2.2860	3459.7	7.8411
507.04	1.9722	3482.3	7.9319	<b>500</b>	473.06	2.1139	3481.8	7.8995	<b>500</b>	443.32	2.2557	3481.3	7.8692
520.43	1.9215	3525.6	7.9871	<b>520</b>	485.56	2.0595	3525.1	7.9548	<b>520</b>	455.06	2.1975	3524.6	7.9245
533.79	1.8734	3569.0	8.0412	<b>540</b>	498.05	2.0078	3568.6	8.0090	<b>540</b>	466.78	2.1423	3568.1	7.9787
547.15	1.8277	3612.8	8.0943	<b>560</b>	510.53	1.9588	3612.3	8.0621	<b>560</b>	478.48	2.0899	3611.9	8.0319
560.49	1.7842	3656.7	8.1465	<b>580</b>	522.99	1.9121	3656.3	8.1143	<b>580</b>	490.17	2.0401	3655.9	8.0841
573.81	1.7427	3700.9	8.1977	<b>600</b>	535.43	1.8676	3700.5	8.1655	<b>600</b>	501.85	1.9926	3700.1	8.1354
587.13	1.7032	3745.4	8.2480	<b>620</b>	547.87	1.8252	3745.0	8.2159	<b>620</b>	513.52	1.9473	3744.6	8.1858
600.44	1.6655	3790.1	8.2976	<b>640</b>	560.30	1.7848	3789.8	8.2654	<b>640</b>	525.18	1.9041	3789.4	8.2353
613.74	1.6294	3835.1	8.3463	<b>660</b>	572.72	1.7461	3834.8	8.3142	<b>660</b>	536.83	1.8628	3834.4	8.2841
627.03	1.5948	3880.3	8.3943	<b>680</b>	585.13	1.7090	3880.0	8.3622	<b>680</b>	548.47	1.8232	3879.7	8.3321
640.31	1.5617	3925.8	8.4415	<b>700</b>	597.54	1.6735	3925.5	8.4094	<b>700</b>	560.11	1.7854	3925.3	8.3794
653.59	1.5300	3971.6	8.4881	<b>720</b>	609.94	1.6395	3971.3	8.4560	<b>720</b>	571.74	1.7490	3971.1	8.4260
666.86	1.4996	4017.7	8.5340	<b>740</b>	622.33	1.6069	4017.4	8.5019	<b>740</b>	583.36	1.7142	4017.2	8.4720
680.13	1.4703	4064.0	8.5793	<b>760</b>	634.72	1.5755	4063.8	8.5472	<b>760</b>	594.98	1.6807	4063.5	8.5173
693.39	1.4422	4110.6	8.6239	<b>780</b>	647.10	1.5454	4110.4	8.5919	<b>780</b>	606.59	1.6486	4110.1	8.5619
706.64	1.4151	4157.5	8.6680	<b>800</b>	659.48	1.5164	4157.2	8.6360	<b>800</b>	618.20	1.6176	4157.0	8.6061
719.90	1.3891	4204.6	8.7115	<b>820</b>	671.85	1.4884	4204.4	8.6795	<b>820</b>	629.81	1.5878	4204.2	8.6496
733.15	1.3640	4252.0	8.7545	<b>840</b>	684.22	1.4615	4251.8	8.7225	<b>840</b>	641.41	1.5591	4251.6	8.6926
746.39	1.3398	4299.7	8.7970	<b>860</b>	696.59	1.4356	4299.5	8.7650	<b>860</b>	653.00	1.5314	4299.3	8.7351
759.63	1.3164	4347.6	8.8389	<b>880</b>	708.95	1.4105	4347.4	8.8069	<b>880</b>	664.60	1.5047	4347.2	8.7770
772.87	1.2939	4395.8	8.8804	<b>900</b>	721.31	1.3864	4395.7	8.8484	<b>900</b>	676.19	1.4789	4395.5	8.8185
786.11	1.2721	4444.3	8.9213	<b>920</b>	733.67	1.3630	4444.1	8.8894	<b>920</b>	687.78	1.4540	4444.0	8.8595
799.34	1.2510	4493.0	8.9618	<b>940</b>	746.02	1.3404	4492.9	8.9299	<b>940</b>	699.36	1.4299	4492.7	8.9000
812.57	1.2307	4542.0	9.0019	<b>960</b>	758.37	1.3186	4541.9	8.9699	<b>960</b>	710.95	1.4066	4541.7	8.9400
825.80	1.2109	4591.3	9.0415	<b>980</b>	770.72	1.2975	4591.2	9.0096	<b>980</b>	722.53	1.3840	4591.0	8.9797
839.03	1.1919	4640.8	9.0807	<b>1000</b>	783.07	1.2770	4640.7	9.0488	<b>1000</b>	734.11	1.3622	4640.5	9.0189
905.14	1.1048	4892.1	9.2707	<b>1100</b>	844.78	1.1837	4892.0	9.2388	<b>1100</b>	791.97	1.2627	4891.9	9.2089
971.21	1.0296	5149.4	9.4516	<b>1200</b>	906.46	1.1032	5149.3	9.4197	<b>1200</b>	849.80	1.1767	5149.2	9.3898
1037.3	0.964 08	5412.3	9.6242	<b>1300</b>	968.11	1.0329	5412.2	9.5923	<b>1300</b>	907.60	1.1018	5412.2	9.5625
1103.3	0.906 39	5680.4	9.7894	<b>1400</b>	1029.7	0.971 12	5680.3	9.7575	<b>1400</b>	965.39	1.0359	5680.3	9.7277
1169.3	0.855 22	5953.3	9.9478	<b>1500</b>	1091.3	0.916 30	5953.2	9.9159	<b>1500</b>	1023.2	0.977 37	5953.2	9.8861
1235.3	0.809 53	6230.5	10.100	<b>1600</b>	1152.9	0.867 34	6230.5	10.068	<b>1600</b>	1080.9	0.925 15	6230.5	10.038
1367.2	0.731 40	6796.9	10.387	<b>1800</b>	1276.1	0.783 63	6796.8	10.355	<b>1800</b>	1196.4	0.835 85	6796.8	10.325
1499.2	0.667 03	7376.8	10.654	<b>2000</b>	1399.3	0.714 66	7376.8	10.622	<b>2000</b>	1311.8	0.762 29	7376.8	10.592

**Table 3. Compressed Water and Superheated Steam (continued)**

0.9 MPa ( $t_s = 175.350\text{ }^\circ\text{C}$ )				$t_s, \text{ }^\circ\text{C}$	1.0 MPa ( $t_s = 179.878\text{ }^\circ\text{C}$ )				$t_s, \text{ }^\circ\text{C}$	1.1 MPa ( $t_s = 184.062\text{ }^\circ\text{C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
1.121 18	891.92	742.56	2.0940	$t_s(\text{L})$	1.127 23	887.13	762.52	2.1381	$t_s(\text{L})$	1.132 99	882.62	781.03	2.1785
214.89	4.6536	2773.0	6.6213	$t_s(\text{V})$	194.36	5.1450	2777.1	6.5850	$t_s(\text{V})$	177.45	5.6354	2780.6	6.5520
0.999 75	1000.25	0.87	-0.000 09	<b>0</b>	0.999 70	1000.30	0.98	-0.000 09	<b>0</b>	0.999 65	1000.35	1.08	-0.000 08
0.999 64	1000.36	21.91	0.076 24	<b>5</b>	0.999 59	1000.41	22.01	0.076 24	<b>5</b>	0.999 54	1000.46	22.11	0.076 23
0.999 92	1000.08	42.90	0.151 01	<b>10</b>	0.999 87	1000.13	42.99	0.151 00	<b>10</b>	0.999 82	1000.18	43.09	0.150 99
1.000 53	999.48	63.84	0.224 33	<b>15</b>	1.000 48	999.52	63.94	0.224 31	<b>15</b>	1.000 43	999.57	64.03	0.224 30
1.001 43	998.57	84.76	0.296 30	<b>20</b>	1.001 38	998.62	84.85	0.296 28	<b>20</b>	1.001 34	998.66	84.95	0.296 26
1.002 60	997.41	105.66	0.366 99	<b>25</b>	1.002 55	997.45	105.75	0.366 97	<b>25</b>	1.002 51	997.50	105.84	0.366 94
1.004 01	996.01	126.55	0.436 48	<b>30</b>	1.003 97	996.05	126.64	0.436 45	<b>30</b>	1.003 92	996.09	126.73	0.436 42
1.005 65	994.39	147.44	0.504 82	<b>35</b>	1.005 60	994.43	147.53	0.504 78	<b>35</b>	1.005 56	994.47	147.62	0.504 75
1.007 49	992.57	168.32	0.572 05	<b>40</b>	1.007 44	992.61	168.41	0.572 02	<b>40</b>	1.007 40	992.65	168.50	0.571 98
1.009 53	990.56	189.21	0.638 23	<b>45</b>	1.009 48	990.61	189.30	0.638 19	<b>45</b>	1.009 44	990.65	189.39	0.638 15
1.011 75	988.38	210.11	0.703 40	<b>50</b>	1.011 71	988.43	210.19	0.703 35	<b>50</b>	1.011 66	988.47	210.28	0.703 30
1.014 16	986.04	231.01	0.767 58	<b>55</b>	1.014 11	986.09	231.09	0.767 53	<b>55</b>	1.014 07	986.13	231.18	0.767 48
1.016 73	983.54	251.92	0.830 82	<b>60</b>	1.016 69	983.59	252.00	0.830 77	<b>60</b>	1.016 64	983.63	252.09	0.830 72
1.019 47	980.90	272.84	0.893 16	<b>65</b>	1.019 43	980.95	272.92	0.893 10	<b>65</b>	1.019 38	980.99	273.01	0.893 05
1.022 37	978.12	293.78	0.954 61	<b>70</b>	1.022 33	978.16	293.86	0.954 55	<b>70</b>	1.022 28	978.21	293.94	0.954 49
1.025 43	975.20	314.72	1.0152	<b>75</b>	1.025 39	975.24	314.81	1.0152	<b>75</b>	1.025 34	975.29	314.89	1.0151
1.028 65	972.15	335.69	1.0750	<b>80</b>	1.028 60	972.19	335.77	1.0750	<b>80</b>	1.028 56	972.24	335.85	1.0749
1.032 02	968.97	356.68	1.1340	<b>85</b>	1.031 97	969.02	356.75	1.1340	<b>85</b>	1.031 92	969.06	356.83	1.1339
1.035 55	965.67	377.68	1.1923	<b>90</b>	1.035 50	965.72	377.76	1.1922	<b>90</b>	1.035 45	965.77	377.84	1.1921
1.039 22	962.26	398.71	1.2498	<b>95</b>	1.039 17	962.30	398.79	1.2497	<b>95</b>	1.039 12	962.35	398.86	1.2496
1.043 05	958.72	419.77	1.3066	<b>100</b>	1.043 00	958.77	419.84	1.3065	<b>100</b>	1.042 95	958.82	419.92	1.3064
1.047 04	955.08	440.85	1.3627	<b>105</b>	1.046 99	955.12	440.92	1.3626	<b>105</b>	1.046 93	955.17	441.00	1.3626
1.051 18	951.31	461.97	1.4182	<b>110</b>	1.051 12	951.36	462.04	1.4181	<b>110</b>	1.051 07	951.41	462.11	1.4180
1.055 47	947.44	483.12	1.4730	<b>115</b>	1.055 42	947.49	483.19	1.4729	<b>115</b>	1.055 37	947.54	483.26	1.4729
1.059 93	943.46	504.30	1.5273	<b>120</b>	1.059 87	943.51	504.38	1.5272	<b>120</b>	1.059 82	943.56	504.45	1.5271
1.064 55	939.36	525.53	1.5809	<b>125</b>	1.064 49	939.42	525.60	1.5808	<b>125</b>	1.064 43	939.47	525.67	1.5807
1.069 33	935.16	546.81	1.6340	<b>130</b>	1.069 27	935.21	546.88	1.6339	<b>130</b>	1.069 22	935.27	546.95	1.6338
1.074 29	930.85	568.13	1.6866	<b>135</b>	1.074 23	930.90	568.20	1.6865	<b>135</b>	1.074 17	930.96	568.27	1.6864
1.079 42	926.43	589.51	1.7387	<b>140</b>	1.079 35	926.48	589.58	1.7386	<b>140</b>	1.079 29	926.53	589.64	1.7384
1.084 72	921.89	610.94	1.7902	<b>145</b>	1.084 66	921.95	611.01	1.7901	<b>145</b>	1.084 59	922.00	611.07	1.7900
1.090 22	917.25	632.44	1.8413	<b>150</b>	1.090 15	917.31	632.50	1.8412	<b>150</b>	1.090 08	917.36	632.56	1.8411
1.095 90	912.49	654.00	1.8920	<b>155</b>	1.095 83	912.55	654.06	1.8919	<b>155</b>	1.095 76	912.61	654.12	1.8918
1.101 79	907.62	675.64	1.9422	<b>160</b>	1.101 71	907.68	675.70	1.9421	<b>160</b>	1.101 64	907.74	675.75	1.9420
1.107 88	902.63	697.35	1.9921	<b>165</b>	1.107 80	902.69	697.41	1.9919	<b>165</b>	1.107 73	902.75	697.46	1.9918
1.114 18	897.52	719.14	2.0415	<b>170</b>	1.114 10	897.58	719.20	2.0414	<b>170</b>	1.114 03	897.65	719.25	2.0413
1.120 72	892.29	741.02	2.0906	<b>175</b>	1.120 63	892.35	741.08	2.0905	<b>175</b>	1.120 55	892.42	741.13	2.0904
217.92	4.5888	2785.2	6.6482	<b>180</b>	194.44	5.1431	2777.4	6.5857	<b>180</b>	1.127 31	887.06	763.10	2.1391
221.12	4.5224	2797.8	6.6759	<b>185</b>	197.42	5.0653	2790.7	6.6148	<b>185</b>	177.97	5.6189	2783.2	6.5576
224.26	4.4590	2810.1	6.7027	<b>190</b>	200.34	4.9916	2803.5	6.6427	<b>190</b>	180.72	5.5336	2796.6	6.5868
227.36	4.3983	2822.2	6.7286	<b>195</b>	203.20	4.9212	2816.0	6.6695	<b>195</b>	183.40	5.4527	2809.6	6.6146
230.42	4.3399	2834.1	6.7539	<b>200</b>	206.02	4.8539	2828.3	6.6955	<b>200</b>	186.03	5.3755	2822.3	6.6415
236.44	4.2294	2857.4	6.8027	<b>210</b>	211.56	4.7268	2852.2	6.7456	<b>210</b>	191.18	5.2308	2846.8	6.6929
242.36	4.1262	2880.3	6.8495	<b>220</b>	216.98	4.6087	2875.5	6.7934	<b>220</b>	196.20	5.0968	2870.7	6.7417
248.18	4.0293	2902.7	6.8946	<b>230</b>	222.31	4.4983	2898.4	6.8393	<b>230</b>	201.13	4.9720	2894.0	6.7885
253.93	3.9380	2924.9	6.9382	<b>240</b>	227.56	4.3944	2920.9	6.8836	<b>240</b>	205.97	4.8551	2916.8	6.8335
259.62	3.8517	2946.8	6.9805	<b>250</b>	232.75	4.2965	2943.1	6.9265	<b>250</b>	210.75	4.7450	2939.4	6.8770
265.26	3.7699	2968.5	7.0216	<b>260</b>	237.88	4.2038	2965.1	6.9681	<b>260</b>	215.47	4.6411	2961.7	6.9192
270.85	3.6921	2990.1	7.0618	<b>270</b>	242.96	4.1159	2986.9	7.0087	<b>270</b>	220.14	4.5426	2983.7	6.9602
276.40	3.6179	3011.6	7.1009	<b>280</b>	248.01	4.0322	3008.6	7.0482	<b>280</b>	224.77	4.4490	3005.6	7.0001
281.92	3.5472	3033.0	7.1392	<b>290</b>	253.01	3.9524	3030.2	7.0868	<b>290</b>	229.36	4.3600	3027.4	7.0391

**Table 3. Compressed Water and Superheated Steam (continued)**

0.9 MPa ( $t_s = 175.350\text{ }^\circ\text{C}$ )				$t, \text{ }^\circ\text{C}$	1.0 MPa ( $t_s = 179.878\text{ }^\circ\text{C}$ )				$t, \text{ }^\circ\text{C}$	1.1 MPa ( $t_s = 184.062\text{ }^\circ\text{C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
287.40	3.4795	3054.3	7.1767	<b>300</b>	257.99	3.8762	3051.6	7.1246	<b>300</b>	233.92	4.2750	3049.0	7.0772
292.86	3.4146	3075.5	7.2134	<b>310</b>	262.94	3.8032	3073.0	7.1616	<b>310</b>	238.45	4.1937	3070.5	7.1144
298.29	3.3524	3096.7	7.2495	<b>320</b>	267.86	3.7333	3094.4	7.1979	<b>320</b>	242.96	4.1160	3092.0	7.1509
303.70	3.2927	3117.9	7.2849	<b>330</b>	272.76	3.6662	3115.7	7.2335	<b>330</b>	247.44	4.0414	3113.4	7.1868
309.09	3.2353	3139.0	7.3197	<b>340</b>	277.64	3.6018	3136.9	7.2685	<b>340</b>	251.90	3.9698	3134.8	7.2219
314.47	3.1800	3160.2	7.3539	<b>350</b>	282.50	3.5398	3158.2	7.3029	<b>350</b>	256.35	3.9009	3156.2	7.2565
319.83	3.1267	3181.3	7.3876	<b>360</b>	287.35	3.4801	3179.4	7.3367	<b>360</b>	260.78	3.8347	3177.5	7.2905
325.17	3.0753	3202.5	7.4207	<b>370</b>	292.18	3.4225	3200.7	7.3700	<b>370</b>	265.19	3.7709	3198.9	7.3239
330.50	3.0257	3223.7	7.4534	<b>380</b>	297.00	3.3670	3221.9	7.4028	<b>380</b>	269.59	3.7093	3220.2	7.3568
335.82	2.9778	3244.8	7.4856	<b>390</b>	301.81	3.3133	3243.2	7.4351	<b>390</b>	273.98	3.6499	3241.5	7.3892
341.13	2.9314	3266.1	7.5173	<b>400</b>	306.61	3.2615	3264.5	7.4669	<b>400</b>	278.36	3.5925	3262.9	7.4212
346.43	2.8866	3287.3	7.5486	<b>410</b>	311.39	3.2114	3285.8	7.4984	<b>410</b>	282.72	3.5370	3284.3	7.4527
351.72	2.8432	3308.6	7.5795	<b>420</b>	316.17	3.1629	3307.1	7.5294	<b>420</b>	287.08	3.4833	3305.6	7.4838
357.00	2.8011	3329.9	7.6101	<b>430</b>	320.94	3.1159	3328.5	7.5600	<b>430</b>	291.43	3.4314	3327.1	7.5145
362.27	2.7604	3351.2	7.6402	<b>440</b>	325.69	3.0704	3349.9	7.5902	<b>440</b>	295.77	3.3810	3348.5	7.5448
367.53	2.7208	3372.6	7.6700	<b>450</b>	330.45	3.0262	3371.3	7.6200	<b>450</b>	300.10	3.3322	3370.0	7.5747
372.79	2.6825	3394.0	7.6994	<b>460</b>	335.19	2.9834	3392.8	7.6495	<b>460</b>	304.43	3.2848	3391.5	7.6042
378.04	2.6452	3415.5	7.7285	<b>470</b>	339.93	2.9418	3414.3	7.6786	<b>470</b>	308.75	3.2389	3413.1	7.6335
383.29	2.6090	3437.0	7.7572	<b>480</b>	344.66	2.9014	3435.8	7.7075	<b>480</b>	313.06	3.1943	3434.7	7.6623
388.53	2.5738	3458.6	7.7857	<b>490</b>	349.39	2.8621	3457.4	7.7360	<b>490</b>	317.37	3.1509	3456.3	7.6909
393.76	2.5396	3480.2	7.8138	<b>500</b>	354.11	2.8240	3479.1	7.7641	<b>500</b>	321.67	3.1088	3478.0	7.7191
404.22	2.4739	3523.6	7.8692	<b>520</b>	363.54	2.7507	3522.6	7.8196	<b>520</b>	330.26	3.0279	3521.5	7.7747
414.65	2.4116	3567.2	7.9235	<b>540</b>	372.95	2.6813	3566.2	7.8740	<b>540</b>	338.84	2.9513	3565.3	7.8291
425.08	2.3525	3611.0	7.9768	<b>560</b>	382.35	2.6154	3610.1	7.9273	<b>560</b>	347.40	2.8786	3609.2	7.8825
435.49	2.2963	3655.1	8.0290	<b>580</b>	391.74	2.5527	3654.2	7.9796	<b>580</b>	355.94	2.8095	3653.4	7.9349
445.88	2.2427	3699.4	8.0803	<b>600</b>	401.11	2.4931	3698.6	8.0310	<b>600</b>	364.47	2.7437	3697.8	7.9864
456.27	2.1917	3743.9	8.1308	<b>620</b>	410.47	2.4362	3743.2	8.0815	<b>620</b>	373.00	2.6810	3742.4	8.0369
466.65	2.1429	3788.7	8.1804	<b>640</b>	419.82	2.3820	3788.0	8.1312	<b>640</b>	381.51	2.6212	3787.3	8.0866
477.02	2.0964	3833.8	8.2292	<b>660</b>	429.16	2.3301	3833.1	8.1800	<b>660</b>	390.01	2.5640	3832.5	8.1355
487.38	2.0518	3879.1	8.2773	<b>680</b>	438.50	2.2805	3878.5	8.2281	<b>680</b>	398.51	2.5094	3877.8	8.1836
497.73	2.0091	3924.7	8.3246	<b>700</b>	447.83	2.2330	3924.1	8.2755	<b>700</b>	407.00	2.4570	3923.5	8.2310
508.08	1.9682	3970.5	8.3712	<b>720</b>	457.15	2.1875	3970.0	8.3221	<b>720</b>	415.48	2.4069	3969.4	8.2777
518.42	1.9289	4016.6	8.4172	<b>740</b>	466.47	2.1438	4016.1	8.3681	<b>740</b>	423.96	2.3587	4015.6	8.3237
528.76	1.8912	4063.0	8.4625	<b>760</b>	475.78	2.1018	4062.5	8.4135	<b>760</b>	432.43	2.3125	4062.0	8.3691
539.09	1.8550	4109.6	8.5072	<b>780</b>	485.08	2.0615	4109.2	8.4582	<b>780</b>	440.90	2.2681	4108.7	8.4139
549.41	1.8201	4156.6	8.5514	<b>800</b>	494.38	2.0227	4156.1	8.5024	<b>800</b>	449.36	2.2254	4155.6	8.4581
559.74	1.7866	4203.7	8.5949	<b>820</b>	503.68	1.9854	4203.3	8.5460	<b>820</b>	457.81	2.1843	4202.9	8.5017
570.05	1.7542	4251.2	8.6379	<b>840</b>	512.97	1.9494	4250.8	8.5890	<b>840</b>	466.27	2.1447	4250.3	8.5447
580.37	1.7230	4298.9	8.6804	<b>860</b>	522.26	1.9147	4298.5	8.6315	<b>860</b>	474.72	2.1065	4298.1	8.5872
590.68	1.6930	4346.9	8.7224	<b>880</b>	531.55	1.8813	4346.5	8.6735	<b>880</b>	483.17	2.0697	4346.1	8.6292
600.99	1.6639	4395.1	8.7639	<b>900</b>	540.83	1.8490	4394.8	8.7150	<b>900</b>	491.61	2.0341	4394.4	8.6707
611.30	1.6359	4443.6	8.8049	<b>920</b>	550.11	1.8178	4443.3	8.7560	<b>920</b>	500.05	1.9998	4442.9	8.7117
621.60	1.6088	4492.4	8.8454	<b>940</b>	559.39	1.7877	4492.1	8.7965	<b>940</b>	508.49	1.9666	4491.7	8.7523
631.90	1.5825	4541.4	8.8855	<b>960</b>	568.67	1.7585	4541.1	8.8366	<b>960</b>	516.93	1.9345	4540.8	8.7924
642.20	1.5571	4590.7	8.9251	<b>980</b>	577.94	1.7303	4590.4	8.8763	<b>980</b>	525.36	1.9035	4590.1	8.8321
652.50	1.5326	4640.2	8.9643	<b>1000</b>	587.21	1.7030	4639.9	8.9155	<b>1000</b>	533.79	1.8734	4639.7	8.8713
703.95	1.4205	4891.7	9.1544	<b>1100</b>	633.54	1.5784	4891.4	9.1056	<b>1100</b>	575.93	1.7363	4891.2	9.0615
755.37	1.3238	5149.0	9.3353	<b>1200</b>	679.83	1.4710	5148.9	9.2866	<b>1200</b>	618.02	1.6181	5148.7	9.2425
806.77	1.2395	5412.0	9.5080	<b>1300</b>	726.10	1.3772	5411.9	9.4593	<b>1300</b>	660.09	1.5149	5411.7	9.4152
858.14	1.1653	5680.1	9.6732	<b>1400</b>	772.34	1.2948	5680.0	9.6245	<b>1400</b>	702.14	1.4242	5679.9	9.5805
909.50	1.0995	5953.1	9.8316	<b>1500</b>	818.57	1.2216	5953.0	9.7830	<b>1500</b>	744.17	1.3438	5952.9	9.7389
960.84	1.0408	6230.4	9.9838	<b>1600</b>	864.78	1.1564	6230.3	9.9351	<b>1600</b>	786.19	1.2719	6230.2	9.8911
1063.5	0.940 29	6796.8	10.271	<b>1800</b>	957.19	1.0447	6796.7	10.222	<b>1800</b>	870.21	1.1492	6796.7	10.178
1166.1	0.857 54	7376.8	10.538	<b>2000</b>	1049.6	0.952 78	7376.8	10.489	<b>2000</b>	954.19	1.0480	7376.7	10.445

**Table 3. Compressed Water and Superheated Steam (continued)**

1.2 MPa ( $t_s = 187.957\text{ }^\circ\text{C}$ )					1.3 MPa ( $t_s = 191.605\text{ }^\circ\text{C}$ )					1.4 MPa ( $t_s = 195.039\text{ }^\circ\text{C}$ )				
$v$	$\rho$	$h$	$s$	$t_s, \text{ }^\circ\text{C}$	$v$	$\rho$	$h$	$s$	$t_s, \text{ }^\circ\text{C}$	$v$	$\rho$	$h$	$s$	$t_s, \text{ }^\circ\text{C}$
1.138 50	878.35	798.33	2.2159	$t_s(\text{L})$	1.143 80	874.28	814.60	2.2508	$t_s(\text{L})$	1.148 92	870.39	829.97	2.2835	
163.26	6.1251	2783.7	6.5217	$t_s(\text{V})$	151.19	6.6144	2786.5	6.4936	$t_s(\text{V})$	140.78	7.1034	2788.8	6.4675	
0.999 60	1000.40	1.18	-0.000 08	0	0.999 55	1000.45	1.28	-0.000 07	0	0.999 50	1000.50	1.38	-0.000 06	
0.999 49	1000.51	22.21	0.076 23	5	0.999 45	1000.56	22.31	0.076 23	5	0.999 40	1000.60	22.41	0.076 23	
0.999 77	1000.23	43.19	0.150 98	10	0.999 73	1000.27	43.29	0.150 97	10	0.999 68	1000.32	43.38	0.150 96	
1.000 39	999.62	64.13	0.224 28	15	1.000 34	999.66	64.22	0.224 27	15	1.000 29	999.71	64.32	0.224 25	
1.001 29	998.71	85.04	0.296 23	20	1.001 25	998.76	85.13	0.296 21	20	1.001 20	998.80	85.23	0.296 19	
1.002 46	997.54	105.94	0.366 92	25	1.002 42	997.59	106.03	0.366 89	25	1.002 37	997.63	106.12	0.366 86	
1.003 88	996.14	126.82	0.436 39	30	1.003 83	996.18	126.92	0.436 36	30	1.003 79	996.23	127.01	0.436 33	
1.005 51	994.52	147.71	0.504 71	35	1.005 47	994.56	147.80	0.504 68	35	1.005 42	994.61	147.89	0.504 64	
1.007 36	992.70	168.59	0.571 94	40	1.007 31	992.74	168.68	0.571 90	40	1.007 27	992.79	168.77	0.571 86	
1.009 39	990.69	189.48	0.638 11	45	1.009 35	990.74	189.56	0.638 06	45	1.009 31	990.78	189.65	0.638 02	
1.011 62	988.51	210.37	0.703 26	50	1.011 57	988.56	210.45	0.703 21	50	1.011 53	988.60	210.54	0.703 17	
1.014 02	986.17	231.26	0.767 43	55	1.013 98	986.22	231.35	0.767 38	55	1.013 93	986.26	231.43	0.767 33	
1.016 60	983.68	252.17	0.830 67	60	1.016 55	983.72	252.26	0.830 61	60	1.016 50	983.76	252.34	0.830 56	
1.019 33	981.03	273.09	0.892 99	65	1.019 29	981.08	273.17	0.892 93	65	1.019 24	981.12	273.26	0.892 88	
1.022 23	978.25	294.02	0.954 44	70	1.022 19	978.29	294.10	0.954 38	70	1.022 14	978.34	294.18	0.954 32	
1.025 29	975.33	314.97	1.0150	75	1.025 25	975.38	315.05	1.0150	75	1.025 20	975.42	315.13	1.0149	
1.028 51	972.28	335.93	1.0748	80	1.028 46	972.33	336.01	1.0748	80	1.028 41	972.37	336.09	1.0747	
1.031 88	969.11	356.91	1.1338	85	1.031 83	969.15	356.99	1.1337	85	1.031 78	969.20	357.07	1.1337	
1.035 40	965.81	377.91	1.1921	90	1.035 35	965.86	377.99	1.1920	90	1.035 30	965.90	378.07	1.1919	
1.039 07	962.40	398.94	1.2496	95	1.039 02	962.44	399.02	1.2495	95	1.038 97	962.49	399.09	1.2494	
1.042 90	958.86	419.99	1.3064	100	1.042 85	958.91	420.07	1.3063	100	1.042 80	958.96	420.14	1.3062	
1.046 88	955.22	441.07	1.3625	105	1.046 83	955.27	441.15	1.3624	105	1.046 78	955.31	441.22	1.3623	
1.051 02	951.46	462.18	1.4179	110	1.050 96	951.51	462.26	1.4178	110	1.050 91	951.56	462.33	1.4178	
1.055 31	947.59	483.33	1.4728	115	1.055 26	947.64	483.40	1.4727	115	1.055 20	947.69	483.47	1.4726	
1.059 76	943.61	504.52	1.5270	120	1.059 71	943.66	504.59	1.5269	120	1.059 65	943.71	504.66	1.5268	
1.064 38	939.52	525.74	1.5806	125	1.064 32	939.57	525.81	1.5806	125	1.064 26	939.62	525.88	1.5805	
1.069 16	935.32	547.01	1.6337	130	1.069 10	935.37	547.08	1.6336	130	1.069 04	935.42	547.15	1.6335	
1.074 10	931.01	568.33	1.6863	135	1.074 04	931.06	568.40	1.6862	135	1.073 98	931.11	568.47	1.6861	
1.079 23	926.59	589.71	1.7383	140	1.079 16	926.64	589.77	1.7382	140	1.079 10	926.70	589.83	1.7381	
1.084 53	922.06	611.13	1.7899	145	1.084 46	922.12	611.20	1.7898	145	1.084 40	922.17	611.26	1.7897	
1.090 01	917.42	632.63	1.8410	150	1.089 95	917.48	632.69	1.8409	150	1.089 88	917.53	632.75	1.8408	
1.095 69	912.67	654.18	1.8916	155	1.095 62	912.72	654.24	1.8915	155	1.095 55	912.78	654.30	1.8914	
1.101 57	907.80	675.81	1.9419	160	1.101 50	907.86	675.87	1.9417	160	1.101 42	907.92	675.93	1.9416	
1.107 65	902.81	697.52	1.9917	165	1.107 57	902.87	697.57	1.9916	165	1.107 50	902.93	697.63	1.9914	
1.113 95	897.71	719.31	2.0411	170	1.113 87	897.77	719.36	2.0410	170	1.113 79	897.83	719.42	2.0409	
1.120 47	892.48	741.18	2.0902	175	1.120 39	892.55	741.23	2.0901	175	1.120 31	892.61	741.29	2.0900	
1.127 23	887.13	763.15	2.1390	180	1.127 14	887.20	763.20	2.1388	180	1.127 06	887.26	763.25	2.1387	
1.134 24	881.65	785.23	2.1874	185	1.134 15	881.72	785.27	2.1873	185	1.134 06	881.79	785.32	2.1871	
164.32	6.0857	2789.4	6.5340	190	1.141 41	876.11	807.45	2.2354	190	1.141 32	876.18	807.50	2.2353	
166.86	5.9931	2803.0	6.5631	195	152.83	6.5434	2796.0	6.5141	195	1.148 86	870.43	829.79	2.2831	
169.34	5.9053	2816.1	6.5909	200	155.19	6.4439	2809.6	6.5431	200	143.03	6.9918	2803.0	6.4975	
174.17	5.7415	2841.3	6.6437	210	159.76	6.2595	2835.7	6.5975	210	147.38	6.7850	2829.9	6.5538	
178.87	5.5908	2865.7	6.6937	220	164.18	6.0907	2860.7	6.6487	220	151.58	6.5970	2855.5	6.6062	
183.46	5.4508	2889.5	6.7414	230	168.50	5.9347	2884.9	6.6973	230	155.66	6.4241	2880.2	6.6559	
187.97	5.3200	2912.7	6.7872	240	172.73	5.7895	2908.5	6.7439	240	159.65	6.2637	2904.3	6.7033	
192.41	5.1973	2935.6	6.8313	250	176.88	5.6536	2931.8	6.7887	250	163.56	6.1139	2927.9	6.7488	
196.79	5.0817	2958.2	6.8740	260	180.97	5.5258	2954.6	6.8320	260	167.41	5.9735	2951.0	6.7926	
201.11	4.9723	2980.5	6.9155	270	185.01	5.4051	2977.2	6.8739	270	171.20	5.8411	2973.8	6.8350	
205.40	4.8686	3002.6	6.9558	280	189.00	5.2909	2999.5	6.9146	280	174.95	5.7160	2996.4	6.8762	
209.64	4.7700	3024.5	6.9951	290	192.96	5.1825	3021.6	6.9543	290	178.65	5.5975	3018.8	6.9162	

**Table 3. Compressed Water and Superheated Steam (continued)**

1.2 MPa ( $t_s = 187.957\text{ °C}$ )				$t, \text{°C}$	1.3 MPa ( $t_s = 191.605\text{ °C}$ )				$t, \text{°C}$	1.4 MPa ( $t_s = 195.039\text{ °C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
213.86	4.6760	3046.3	7.0335	<b>300</b>	196.88	5.0792	3043.6	6.9930	<b>300</b>	182.32	5.4847	3040.9	6.9552
218.04	4.5363	3068.0	7.0710	<b>310</b>	200.77	4.9808	3065.5	7.0308	<b>310</b>	185.97	5.3773	3062.9	6.9933
222.20	4.5004	3089.6	7.1078	<b>320</b>	204.64	4.8867	3087.3	7.0678	<b>320</b>	189.58	5.2748	3084.9	7.0306
226.34	4.4182	3111.2	7.1438	<b>330</b>	208.48	4.7966	3108.9	7.1041	<b>330</b>	193.17	5.1767	3106.7	7.0671
230.45	4.3393	3132.7	7.1792	<b>340</b>	212.30	4.7103	3130.6	7.1396	<b>340</b>	196.74	5.0828	3128.4	7.1028
234.55	4.2635	3154.2	7.2139	<b>350</b>	216.10	4.6274	3152.1	7.1745	<b>350</b>	200.29	4.9927	3150.1	7.1379
238.63	4.1906	3175.6	7.2480	<b>360</b>	219.89	4.5477	3173.7	7.2088	<b>360</b>	203.83	4.9062	3171.7	7.1723
242.70	4.1204	3197.0	7.2816	<b>370</b>	223.66	4.4710	3195.2	7.2425	<b>370</b>	207.34	4.8229	3193.3	7.2062
246.75	4.0527	3218.4	7.3147	<b>380</b>	227.42	4.3972	3216.7	7.2757	<b>380</b>	210.85	4.7427	3214.9	7.2395
250.79	3.9874	3239.9	7.3472	<b>390</b>	231.16	4.3260	3238.2	7.3084	<b>390</b>	214.34	4.6655	3236.5	7.2723
254.82	3.9244	3261.3	7.3793	<b>400</b>	234.90	4.2572	3259.7	7.3406	<b>400</b>	217.82	4.5909	3258.1	7.3046
258.83	3.8635	3282.7	7.4109	<b>410</b>	238.62	4.1908	3281.2	7.3723	<b>410</b>	221.29	4.5190	3279.7	7.3364
262.84	3.8046	3304.2	7.4421	<b>420</b>	242.33	4.1266	3302.7	7.4036	<b>420</b>	224.75	4.4494	3301.2	7.3678
266.84	3.7475	3325.7	7.4728	<b>430</b>	246.04	4.0645	3324.3	7.4344	<b>430</b>	228.20	4.3821	3322.8	7.3987
270.83	3.6923	3347.2	7.5032	<b>440</b>	249.73	4.0043	3345.8	7.4649	<b>440</b>	231.64	4.3170	3344.5	7.4292
274.82	3.6388	3368.7	7.5332	<b>450</b>	253.42	3.9460	3367.4	7.4949	<b>450</b>	235.08	4.2539	3366.1	7.4594
278.79	3.5869	3390.3	7.5628	<b>460</b>	257.10	3.8895	3389.0	7.5246	<b>460</b>	238.51	4.1928	3387.8	7.4891
282.76	3.5365	3411.9	7.5921	<b>470</b>	260.77	3.8347	3410.7	7.5539	<b>470</b>	241.93	4.1335	3409.5	7.5185
286.73	3.4876	3433.5	7.6210	<b>480</b>	264.44	3.7815	3432.4	7.5829	<b>480</b>	245.34	4.0759	3431.2	7.5476
290.69	3.4401	3455.2	7.6496	<b>490</b>	268.11	3.7299	3454.1	7.6116	<b>490</b>	248.75	4.0201	3453.0	7.5763
294.64	3.3940	3476.9	7.6779	<b>500</b>	271.76	3.6797	3475.9	7.6399	<b>500</b>	252.16	3.9658	3474.8	7.6047
302.53	3.3055	3520.5	7.7336	<b>520</b>	279.06	3.5834	3519.5	7.6957	<b>520</b>	258.95	3.8617	3518.5	7.6605
310.41	3.2216	3564.3	7.7881	<b>540</b>	286.35	3.4923	3563.4	7.7503	<b>540</b>	265.73	3.7633	3562.4	7.7152
318.26	3.1420	3608.3	7.8416	<b>560</b>	293.62	3.4058	3607.5	7.8038	<b>560</b>	272.49	3.6699	3606.6	7.7688
326.11	3.0664	3652.6	7.8940	<b>580</b>	300.87	3.3237	3651.7	7.8563	<b>580</b>	279.23	3.5812	3650.9	7.8214
333.94	2.9945	3697.0	7.9455	<b>600</b>	308.11	3.2456	3696.2	7.9079	<b>600</b>	285.97	3.4969	3695.4	7.8730
341.77	2.9260	3741.7	7.9961	<b>620</b>	315.34	3.1711	3741.0	7.9586	<b>620</b>	292.69	3.4165	3740.2	7.9237
349.58	2.8606	3786.6	8.0459	<b>640</b>	322.57	3.1001	3785.9	8.0083	<b>640</b>	299.41	3.3399	3785.2	7.9736
357.39	2.7981	3831.8	8.0948	<b>660</b>	329.78	3.0323	3831.1	8.0573	<b>660</b>	306.12	3.2667	3830.5	8.0226
365.18	2.7384	3877.2	8.1430	<b>680</b>	336.98	2.9675	3876.6	8.1055	<b>680</b>	312.81	3.1968	3876.0	8.0708
372.97	2.6812	3922.9	8.1904	<b>700</b>	344.18	2.9054	3922.3	8.1530	<b>700</b>	319.51	3.1298	3921.7	8.1183
380.76	2.6264	3968.8	8.2371	<b>720</b>	351.37	2.8460	3968.3	8.1997	<b>720</b>	326.19	3.0657	3967.7	8.1651
388.53	2.5738	4015.0	8.2832	<b>740</b>	358.56	2.7889	4014.5	8.2458	<b>740</b>	332.87	3.0042	4014.0	8.2112
396.31	2.5233	4061.5	8.3286	<b>760</b>	365.74	2.7342	4061.0	8.2912	<b>760</b>	339.54	2.9451	4060.5	8.2567
404.07	2.4748	4108.2	8.3734	<b>780</b>	372.92	2.6816	4107.7	8.3361	<b>780</b>	346.21	2.8884	4107.2	8.3015
411.84	2.4282	4155.2	8.4176	<b>800</b>	380.09	2.6310	4154.7	8.3803	<b>800</b>	352.87	2.8339	4154.3	8.3457
419.59	2.3833	4202.4	8.4612	<b>820</b>	387.25	2.5823	4202.0	8.4239	<b>820</b>	359.53	2.7814	4201.6	8.3894
427.35	2.3400	4249.9	8.5042	<b>840</b>	394.42	2.5354	4249.5	8.4670	<b>840</b>	366.19	2.7308	4249.1	8.4325
435.10	2.2983	4297.7	8.5468	<b>860</b>	401.58	2.4902	4297.3	8.5095	<b>860</b>	372.84	2.6821	4296.9	8.4751
442.85	2.2581	4345.7	8.5888	<b>880</b>	408.73	2.4466	4345.4	8.5516	<b>880</b>	379.49	2.6351	4345.0	8.5171
450.59	2.2193	4394.0	8.6303	<b>900</b>	415.89	2.4045	4393.7	8.5931	<b>900</b>	386.14	2.5898	4393.3	8.5587
458.34	2.1818	4442.6	8.6713	<b>920</b>	423.04	2.3639	4442.2	8.6342	<b>920</b>	392.78	2.5459	4441.9	8.5997
466.08	2.1456	4491.4	8.7119	<b>940</b>	430.18	2.3246	4491.1	8.6747	<b>940</b>	399.42	2.5036	4490.7	8.6403
473.81	2.1105	4540.5	8.7520	<b>960</b>	437.33	2.2866	4540.1	8.7149	<b>960</b>	406.06	2.4627	4539.8	8.6805
481.55	2.0766	4589.8	8.7917	<b>980</b>	444.47	2.2499	4589.5	8.7546	<b>980</b>	412.70	2.4231	4589.2	8.7202
489.28	2.0438	4639.4	8.8310	<b>1000</b>	451.61	2.2143	4639.1	8.7938	<b>1000</b>	419.33	2.3848	4638.8	8.7594
527.92	1.8942	4891.0	9.0212	<b>1100</b>	487.29	2.0522	4890.7	8.9841	<b>1100</b>	452.47	2.2101	4890.5	8.9497
566.52	1.7652	5148.5	9.2022	<b>1200</b>	522.93	1.9123	5148.3	9.1651	<b>1200</b>	485.58	2.0594	5148.1	9.1308
605.09	1.6526	5411.5	9.3749	<b>1300</b>	558.55	1.7904	5411.4	9.3379	<b>1300</b>	518.66	1.9281	5411.2	9.3036
643.64	1.5537	5679.8	9.5402	<b>1400</b>	594.14	1.6831	5679.6	9.5032	<b>1400</b>	551.72	1.8125	5679.5	9.4689
682.18	1.4659	5952.8	9.6987	<b>1500</b>	629.72	1.5880	5952.7	9.6617	<b>1500</b>	584.76	1.7101	5952.6	9.6274
720.70	1.3875	6230.1	9.8508	<b>1600</b>	665.29	1.5031	6230.0	9.8138	<b>1600</b>	617.79	1.6187	6230.0	9.7796
797.72	1.2536	6796.6	10.138	<b>1800</b>	736.39	1.3580	6796.6	10.101	<b>1800</b>	683.82	1.4624	6796.5	10.067
874.71	1.1432	7376.7	10.405	<b>2000</b>	807.46	1.2384	7376.7	10.368	<b>2000</b>	749.82	1.3336	7376.7	10.334

**Table 3. Compressed Water and Superheated Steam (continued)**

1.5 MPa ( $t_s = 198.287\text{ }^\circ\text{C}$ )				$t_s, ^\circ\text{C}$	1.6 MPa ( $t_s = 201.370\text{ }^\circ\text{C}$ )				$t_s, ^\circ\text{C}$	1.8 MPa ( $t_s = 207.112\text{ }^\circ\text{C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
1.153 87	866.65	844.56	2.3143	$t_s(\text{L})$	1.158 68	863.05	858.46	2.3435	$t_s(\text{L})$	1.167 92	856.22	884.47	2.3975
131.71	7.5924	2791.0	6.4430	$t_s(\text{V})$	123.74	8.0815	2792.8	6.4199	$t_s(\text{V})$	110.37	9.0606	2795.9	6.3775
0.999 45	1000.55	1.48	-0.000 06	<b>0</b>	0.999 40	1000.60	1.59	-0.000 05	<b>0</b>	0.999 29	1000.71	1.79	-0.000 04
0.999 35	1000.65	22.51	0.076 23	<b>5</b>	0.999 30	1000.70	22.61	0.076 22	<b>5</b>	0.999 20	1000.80	22.81	0.076 22
0.999 63	1000.37	43.48	0.150 95	<b>10</b>	0.999 58	1000.42	43.58	0.150 94	<b>10</b>	0.999 49	1000.51	43.77	0.150 92
1.000 25	999.75	64.41	0.224 24	<b>15</b>	1.000 20	999.80	64.51	0.224 22	<b>15</b>	1.000 11	999.89	64.70	0.224 19
1.001 15	998.85	85.32	0.296 17	<b>20</b>	1.001 11	998.89	85.42	0.296 15	<b>20</b>	1.001 02	998.98	85.60	0.296 11
1.002 33	997.68	106.21	0.366 84	<b>25</b>	1.002 28	997.72	106.31	0.366 81	<b>25</b>	1.002 19	997.81	106.49	0.366 76
1.003 74	996.27	127.10	0.436 30	<b>30</b>	1.003 70	996.32	127.19	0.436 27	<b>30</b>	1.003 61	996.41	127.37	0.436 21
1.005 38	994.65	147.98	0.504 61	<b>35</b>	1.005 33	994.69	148.07	0.504 58	<b>35</b>	1.005 25	994.78	148.25	0.504 51
1.007 22	992.83	168.86	0.571 82	<b>40</b>	1.007 18	992.87	168.94	0.571 78	<b>40</b>	1.007 09	992.96	169.12	0.571 71
1.009 26	990.82	189.74	0.637 98	<b>45</b>	1.009 22	990.87	189.82	0.637 94	<b>45</b>	1.009 13	990.95	190.00	0.637 85
1.011 49	988.64	210.62	0.703 12	<b>50</b>	1.011 44	988.69	210.71	0.703 07	<b>50</b>	1.011 35	988.78	210.88	0.702 98
1.013 89	986.30	231.52	0.767 28	<b>55</b>	1.013 84	986.35	231.60	0.767 23	<b>55</b>	1.013 75	986.43	231.77	0.767 13
1.016 46	983.81	252.42	0.830 51	<b>60</b>	1.016 41	983.85	252.51	0.830 45	<b>60</b>	1.016 32	983.94	252.67	0.830 35
1.019 20	981.16	273.34	0.892 82	<b>65</b>	1.019 15	981.21	273.42	0.892 76	<b>65</b>	1.019 06	981.30	273.59	0.892 65
1.022 10	978.38	294.27	0.954 26	<b>70</b>	1.022 05	978.43	294.35	0.954 20	<b>70</b>	1.021 96	978.51	294.51	0.954 08
1.025 15	975.46	315.21	1.0148	<b>75</b>	1.025 11	975.51	315.29	1.0148	<b>75</b>	1.025 01	975.60	315.45	1.0147
1.028 37	972.42	336.17	1.0746	<b>80</b>	1.028 32	972.46	336.25	1.0746	<b>80</b>	1.028 22	972.55	336.41	1.0744
1.031 73	969.24	357.15	1.1336	<b>85</b>	1.031 68	969.29	357.23	1.1335	<b>85</b>	1.031 59	969.38	357.38	1.1334
1.035 25	965.95	378.15	1.1918	<b>90</b>	1.035 20	965.99	378.22	1.1918	<b>90</b>	1.035 10	966.09	378.38	1.1916
1.038 92	962.53	399.17	1.2493	<b>95</b>	1.038 87	962.58	399.24	1.2493	<b>95</b>	1.038 77	962.67	399.40	1.2491
1.042 75	959.00	420.22	1.3061	<b>100</b>	1.042 70	959.05	420.29	1.3060	<b>100</b>	1.042 60	959.15	420.44	1.3059
1.046 73	955.36	441.29	1.3622	<b>105</b>	1.046 67	955.41	441.37	1.3621	<b>105</b>	1.046 57	955.50	441.52	1.3620
1.050 86	951.60	462.40	1.4177	<b>110</b>	1.050 80	951.65	462.48	1.4176	<b>110</b>	1.050 70	951.75	462.62	1.4174
1.055 15	947.74	483.55	1.4725	<b>115</b>	1.055 09	947.78	483.62	1.4724	<b>115</b>	1.054 98	947.88	483.76	1.4722
1.059 59	943.76	504.73	1.5267	<b>120</b>	1.059 54	943.81	504.80	1.5266	<b>120</b>	1.059 43	943.91	504.94	1.5265
1.064 20	939.67	525.95	1.5804	<b>125</b>	1.064 15	939.72	526.02	1.5803	<b>125</b>	1.064 03	939.82	526.16	1.5801
1.068 98	935.47	547.22	1.6334	<b>130</b>	1.068 92	935.52	547.28	1.6334	<b>130</b>	1.068 80	935.63	547.42	1.6332
1.073 92	931.17	568.53	1.6860	<b>135</b>	1.073 86	931.22	568.60	1.6859	<b>135</b>	1.073 74	931.33	568.73	1.6857
1.079 04	926.75	589.90	1.7380	<b>140</b>	1.078 98	926.81	589.96	1.7379	<b>140</b>	1.078 85	926.91	590.09	1.7377
1.084 33	922.23	611.33	1.7896	<b>145</b>	1.084 27	922.28	611.39	1.7895	<b>145</b>	1.084 14	922.39	611.52	1.7893
1.089 81	917.59	632.81	1.8407	<b>150</b>	1.089 75	917.65	632.87	1.8405	<b>150</b>	1.089 61	917.76	633.00	1.8403
1.095 48	912.84	654.36	1.8913	<b>155</b>	1.095 41	912.90	654.42	1.8912	<b>155</b>	1.095 27	913.01	654.54	1.8909
1.101 35	907.98	675.99	1.9415	<b>160</b>	1.101 28	908.04	676.05	1.9414	<b>160</b>	1.101 13	908.15	676.16	1.9411
1.107 42	903.00	697.69	1.9913	<b>165</b>	1.107 35	903.06	697.74	1.9912	<b>165</b>	1.107 20	903.18	697.86	1.9909
1.113 71	897.90	719.47	2.0407	<b>170</b>	1.113 64	897.96	719.52	2.0406	<b>170</b>	1.113 48	898.09	719.63	2.0404
1.120 23	892.68	741.34	2.0898	<b>175</b>	1.120 14	892.74	741.39	2.0897	<b>175</b>	1.119 98	892.87	741.50	2.0894
1.126 97	887.33	763.30	2.1386	<b>180</b>	1.126 89	887.40	763.35	2.1384	<b>180</b>	1.126 72	887.53	763.46	2.1382
1.133 97	881.86	785.37	2.1870	<b>185</b>	1.133 88	881.93	785.42	2.1868	<b>185</b>	1.133 70	882.06	785.51	2.1866
1.141 23	876.25	807.54	2.2351	<b>190</b>	1.141 13	876.32	807.59	2.2350	<b>190</b>	1.140 95	876.46	807.68	2.2347
1.148 76	870.50	829.83	2.2830	<b>195</b>	1.148 66	870.58	829.88	2.2828	<b>195</b>	1.148 47	870.73	829.96	2.2825
132.45	7.5498	2796.0	6.4536	<b>200</b>	1.156 48	864.69	852.29	2.3305	<b>200</b>	1.156 28	864.85	852.37	2.3301
136.64	7.3185	2823.9	6.5120	<b>210</b>	127.22	7.8605	2817.7	6.4720	<b>210</b>	111.45	8.9726	2804.7	6.3958
140.65	7.1100	2850.2	6.5659	<b>220</b>	131.06	7.6299	2844.8	6.5274	<b>220</b>	115.05	8.6921	2833.5	6.4548
144.53	6.9191	2875.5	6.6166	<b>230</b>	134.77	7.4199	2870.6	6.5792	<b>230</b>	118.48	8.4402	2860.6	6.5092
148.31	6.7427	2900.0	6.6649	<b>240</b>	138.38	7.2267	2895.6	6.6284	<b>240</b>	121.80	8.2104	2886.6	6.5602
152.01	6.5785	2923.9	6.7111	<b>250</b>	141.90	7.0473	2919.9	6.6753	<b>250</b>	125.02	7.9986	2911.7	6.6087
155.65	6.4248	2947.4	6.7555	<b>260</b>	145.35	6.8799	2943.7	6.7204	<b>260</b>	128.17	7.8019	2936.2	6.6551
159.23	6.2804	2970.5	6.7984	<b>270</b>	148.75	6.7229	2967.1	6.7638	<b>270</b>	131.26	7.6183	2960.1	6.6996
162.76	6.1441	2993.3	6.8400	<b>280</b>	152.09	6.5750	2990.1	6.8059	<b>280</b>	134.30	7.4460	2983.7	6.7426
166.25	6.0150	3015.8	6.8804	<b>290</b>	155.39	6.4352	3012.9	6.8467	<b>290</b>	137.29	7.2837	3006.9	6.7842



**Table 3. Compressed Water and Superheated Steam (continued)**

1.5 MPa ( $t_s = 198.287\text{ }^\circ\text{C}$ )				$t_s, \text{ }^\circ\text{C}$	1.6 MPa ( $t_s = 201.370\text{ }^\circ\text{C}$ )				$t_s, \text{ }^\circ\text{C}$	1.8 MPa ( $t_s = 207.112\text{ }^\circ\text{C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
169.71	5.8925	3038.2	6.9198	<b>300</b>	158.66	6.3027	3035.4	6.8863	<b>300</b>	140.25	7.1302	3029.9	6.8246
173.13	5.7760	3060.4	6.9582	<b>310</b>	161.90	6.1767	3057.8	6.9250	<b>310</b>	143.17	6.9847	3052.6	6.8639
176.53	5.6648	3082.4	6.9957	<b>320</b>	165.11	6.0567	3080.0	6.9628	<b>320</b>	146.06	6.8464	3075.1	6.9022
179.90	5.5586	3104.4	7.0324	<b>330</b>	168.29	5.9421	3102.1	6.9997	<b>330</b>	148.93	6.7146	3097.5	6.9396
183.25	5.4569	3126.2	7.0683	<b>340</b>	171.45	5.8326	3124.1	7.0359	<b>340</b>	151.77	6.5887	3119.7	6.9761
186.59	5.3594	3148.0	7.1036	<b>350</b>	174.59	5.7276	3146.0	7.0713	<b>350</b>	154.60	6.4683	3141.8	7.0120
189.90	5.2659	3169.8	7.1382	<b>360</b>	177.72	5.6269	3167.8	7.1061	<b>360</b>	157.41	6.3530	3163.9	7.0471
193.20	5.1759	3191.5	7.1722	<b>370</b>	180.83	5.5302	3189.6	7.1403	<b>370</b>	160.20	6.2423	3185.9	7.0815
196.49	5.0894	3213.2	7.2057	<b>380</b>	183.92	5.4371	3211.4	7.1738	<b>380</b>	162.97	6.1360	3207.8	7.1154
199.76	5.0060	3234.8	7.2386	<b>390</b>	187.00	5.3476	3233.1	7.2069	<b>390</b>	165.73	6.0337	3229.7	7.1487
203.02	4.9256	3256.5	7.2710	<b>400</b>	190.07	5.2612	3254.9	7.2394	<b>400</b>	168.49	5.9352	3251.6	7.1814
206.27	4.8480	3278.1	7.3029	<b>410</b>	193.13	5.1779	3276.6	7.2714	<b>410</b>	171.22	5.8403	3273.5	7.2136
209.51	4.7730	3299.8	7.3343	<b>420</b>	196.18	5.0974	3298.3	7.3030	<b>420</b>	173.95	5.7486	3295.3	7.2454
212.74	4.7005	3321.4	7.3654	<b>430</b>	199.22	5.0196	3320.0	7.3341	<b>430</b>	176.67	5.6601	3317.2	7.2767
215.97	4.6303	3343.1	7.3960	<b>440</b>	202.25	4.9444	3341.7	7.3648	<b>440</b>	179.39	5.5746	3339.0	7.3075
219.18	4.5624	3364.8	7.4262	<b>450</b>	205.27	4.8716	3363.5	7.3950	<b>450</b>	182.09	5.4918	3360.9	7.3380
222.39	4.4966	3386.5	7.4560	<b>460</b>	208.29	4.8010	3385.3	7.4249	<b>460</b>	184.79	5.4116	3382.7	7.3680
225.59	4.4328	3408.3	7.4855	<b>470</b>	211.30	4.7326	3407.0	7.4545	<b>470</b>	187.48	5.3340	3404.6	7.3976
228.79	4.3709	3430.0	7.5146	<b>480</b>	214.30	4.6663	3428.9	7.4836	<b>480</b>	190.16	5.2587	3426.5	7.4269
231.98	4.3107	3451.8	7.5433	<b>490</b>	217.30	4.6019	3450.7	7.5124	<b>490</b>	192.84	5.1857	3448.5	7.4559
235.16	4.2524	3473.7	7.5718	<b>500</b>	220.29	4.5394	3472.6	7.5409	<b>500</b>	195.51	5.1148	3470.4	7.4845
241.52	4.1405	3517.5	7.6277	<b>520</b>	226.26	4.4196	3516.5	7.5970	<b>520</b>	200.84	4.9791	3514.5	7.5407
247.85	4.0346	3561.5	7.6825	<b>540</b>	232.22	4.3063	3560.6	7.6518	<b>540</b>	206.15	4.8508	3558.7	7.5957
254.18	3.9343	3605.7	7.7362	<b>560</b>	238.15	4.1990	3604.8	7.7056	<b>560</b>	211.45	4.7293	3603.0	7.6496
260.48	3.8390	3650.1	7.7888	<b>580</b>	244.08	4.0971	3649.2	7.7583	<b>580</b>	216.73	4.6140	3647.6	7.7025
266.78	3.7484	3694.7	7.8405	<b>600</b>	249.99	4.0002	3693.9	7.8100	<b>600</b>	222.00	4.5044	3692.3	7.7543
273.07	3.6621	3739.5	7.8912	<b>620</b>	255.89	3.9079	3738.7	7.8608	<b>620</b>	227.26	4.4002	3737.3	7.8052
279.34	3.5799	3784.5	7.9411	<b>640</b>	261.78	3.8200	3783.8	7.9108	<b>640</b>	232.51	4.3008	3782.4	7.8552
285.61	3.5013	3829.8	7.9902	<b>660</b>	267.66	3.7360	3829.2	7.9599	<b>660</b>	237.75	4.2060	3827.8	7.9044
291.87	3.4262	3875.4	8.0385	<b>680</b>	273.54	3.6558	3874.7	8.0082	<b>680</b>	242.99	4.1154	3873.5	7.9528
298.12	3.3544	3921.1	8.0860	<b>700</b>	279.40	3.5790	3920.5	8.0557	<b>700</b>	248.21	4.0288	3919.4	8.0004
304.36	3.2856	3967.2	8.1328	<b>720</b>	285.26	3.5055	3966.6	8.1026	<b>720</b>	253.43	3.9458	3965.5	8.0473
310.60	3.2196	4013.4	8.1789	<b>740</b>	291.12	3.4350	4012.9	8.1487	<b>740</b>	258.65	3.8663	4011.8	8.0936
316.84	3.1562	4060.0	8.2244	<b>760</b>	296.97	3.3674	4059.5	8.1943	<b>760</b>	263.86	3.7899	4058.4	8.1391
323.06	3.0954	4106.8	8.2693	<b>780</b>	302.81	3.3024	4106.3	8.2391	<b>780</b>	269.06	3.7167	4105.3	8.1840
329.29	3.0368	4153.8	8.3135	<b>800</b>	308.65	3.2399	4153.3	8.2834	<b>800</b>	274.26	3.6462	4152.4	8.2284
335.51	2.9805	4201.1	8.3572	<b>820</b>	314.49	3.1798	4200.7	8.3271	<b>820</b>	279.45	3.5784	4199.8	8.2721
341.73	2.9263	4248.7	8.4003	<b>840</b>	320.32	3.1219	4248.3	8.3702	<b>840</b>	284.64	3.5132	4247.4	8.3153
347.94	2.8741	4296.5	8.4429	<b>860</b>	326.15	3.0661	4296.1	8.4128	<b>860</b>	289.83	3.4503	4295.3	8.3579
354.15	2.8237	4344.6	8.4850	<b>880</b>	331.97	3.0123	4344.2	8.4549	<b>880</b>	295.02	3.3897	4343.5	8.4000
360.36	2.7750	4392.9	8.5266	<b>900</b>	337.80	2.9604	4392.6	8.4965	<b>900</b>	300.20	3.3312	4391.9	8.4416
366.56	2.7281	4441.5	8.5676	<b>920</b>	343.61	2.9102	4441.2	8.5376	<b>920</b>	305.37	3.2747	4440.5	8.4828
372.76	2.6827	4490.4	8.6082	<b>940</b>	349.43	2.8618	4490.1	8.5782	<b>940</b>	310.55	3.2201	4489.4	8.5234
378.96	2.6388	4539.5	8.6484	<b>960</b>	355.25	2.8150	4539.2	8.6184	<b>960</b>	315.72	3.1673	4538.6	8.5636
385.16	2.5964	4588.9	8.6881	<b>980</b>	361.06	2.7696	4588.6	8.6581	<b>980</b>	320.89	3.1163	4588.0	8.6033
391.35	2.5553	4638.5	8.7274	<b>1000</b>	366.87	2.7258	4638.2	8.6974	<b>1000</b>	326.06	3.0669	4637.6	8.6426
422.29	2.3680	4890.3	8.9177	<b>1100</b>	395.89	2.5260	4890.0	8.8878	<b>1100</b>	351.88	2.8419	4889.5	8.8331
453.20	2.2065	5147.9	9.0988	<b>1200</b>	424.87	2.3536	5147.7	9.0689	<b>1200</b>	377.66	2.6479	5147.3	9.0143
484.08	2.0658	5411.1	9.2716	<b>1300</b>	453.83	2.2035	5410.9	9.2417	<b>1300</b>	403.41	2.4789	5410.6	9.1872
514.94	1.9420	5679.4	9.4370	<b>1400</b>	482.77	2.0714	5679.3	9.4071	<b>1400</b>	429.15	2.3302	5679.0	9.3526
545.79	1.8322	5952.5	9.5955	<b>1500</b>	511.69	1.9543	5952.4	9.5656	<b>1500</b>	454.86	2.1985	5952.1	9.5111
576.62	1.7342	6229.9	9.7477	<b>1600</b>	540.60	1.8498	6229.8	9.7178	<b>1600</b>	480.57	2.0809	6229.6	9.6634
638.26	1.5668	6796.5	10.035	<b>1800</b>	598.39	1.6712	6796.4	10.005	<b>1800</b>	531.95	1.8799	6796.3	9.9507
699.86	1.4288	7376.6	10.302	<b>2000</b>	656.15	1.5240	7376.6	10.272	<b>2000</b>	583.30	1.7144	7376.6	10.218

**Table 3. Compressed Water and Superheated Steam (continued)**

2.0 MPa ( $t_s = 212.377\text{ }^\circ\text{C}$ )				$t_s, \text{ }^\circ\text{C}$	2.2 MPa ( $t_s = 217.249\text{ }^\circ\text{C}$ )				$t_s, \text{ }^\circ\text{C}$	2.5 MPa ( $t_s = 223.950\text{ }^\circ\text{C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
1.176 75	849.80	908.50	2.4468	$t_s(\text{L})$	1.185 23	843.72	930.87	2.4921	$t_s(\text{L})$	1.197 43	835.12	961.91	2.5543
99.585	10.042	2798.3	6.3390	$t_s(\text{V})$	90.698	11.026	2800.1	6.3038	$t_s(\text{V})$	79.949	12.508	2801.9	6.2558
0.999 19	1000.81	1.99	-0.000 03	<b>0</b>	0.999 09	1000.91	2.20	-0.000 01	<b>0</b>	0.998 94	1001.06	2.50	0.000 00
0.999 10	1000.90	23.01	0.076 22	<b>5</b>	0.999 00	1001.00	23.21	0.076 21	<b>5</b>	0.998 86	1001.14	23.50	0.076 21
0.999 39	1000.61	43.97	0.150 91	<b>10</b>	0.999 30	1000.70	44.16	0.150 89	<b>10</b>	0.999 15	1000.85	44.46	0.150 86
1.000 01	999.99	64.89	0.224 16	<b>15</b>	0.999 92	1000.08	65.08	0.224 13	<b>15</b>	0.999 78	1000.22	65.37	0.224 08
1.000 93	999.08	85.79	0.296 07	<b>20</b>	1.000 83	999.17	85.98	0.296 03	<b>20</b>	1.000 70	999.30	86.26	0.295 96
1.002 10	997.90	106.68	0.366 71	<b>25</b>	1.002 01	997.99	106.86	0.366 66	<b>25</b>	1.001 88	998.13	107.14	0.366 58
1.003 52	996.49	127.55	0.436 15	<b>30</b>	1.003 43	996.58	127.74	0.436 08	<b>30</b>	1.003 29	996.72	128.01	0.435 99
1.005 16	994.87	148.43	0.504 44	<b>35</b>	1.005 07	994.96	148.60	0.504 37	<b>35</b>	1.004 93	995.09	148.87	0.504 26
1.007 00	993.05	169.30	0.571 63	<b>40</b>	1.006 91	993.14	169.48	0.571 55	<b>40</b>	1.006 78	993.27	169.74	0.571 43
1.009 04	991.04	190.17	0.637 76	<b>45</b>	1.008 95	991.13	190.35	0.637 68	<b>45</b>	1.008 82	991.26	190.61	0.637 55
1.011 26	988.86	211.06	0.702 89	<b>50</b>	1.011 17	988.95	211.23	0.702 80	<b>50</b>	1.011 04	989.08	211.49	0.702 66
1.013 66	986.52	231.94	0.767 04	<b>55</b>	1.013 57	986.61	232.11	0.766 94	<b>55</b>	1.013 44	986.74	232.37	0.766 79
1.016 23	984.02	252.84	0.830 24	<b>60</b>	1.016 14	984.11	253.01	0.830 13	<b>60</b>	1.016 01	984.24	253.26	0.829 98
1.018 97	981.38	273.75	0.892 54	<b>65</b>	1.018 88	981.47	273.92	0.892 43	<b>65</b>	1.018 74	981.60	274.17	0.892 26
1.021 87	978.60	294.68	0.953 96	<b>70</b>	1.021 77	978.69	294.84	0.953 84	<b>70</b>	1.021 64	978.82	295.08	0.953 66
1.024 92	975.69	315.61	1.0145	<b>75</b>	1.024 83	975.77	315.77	1.0144	<b>75</b>	1.024 69	975.91	316.02	1.0142
1.028 13	972.64	336.57	1.0743	<b>80</b>	1.028 04	972.73	336.73	1.0742	<b>80</b>	1.027 89	972.86	336.96	1.0740
1.031 49	969.47	357.54	1.1333	<b>85</b>	1.031 40	969.56	357.70	1.1331	<b>85</b>	1.031 25	969.69	357.93	1.1329
1.035 01	966.18	378.53	1.1915	<b>90</b>	1.034 91	966.27	378.69	1.1913	<b>90</b>	1.034 76	966.40	378.92	1.1911
1.038 67	962.77	399.55	1.2490	<b>95</b>	1.038 57	962.86	399.70	1.2488	<b>95</b>	1.038 43	963.00	399.93	1.2486
1.042 49	959.24	420.59	1.3057	<b>100</b>	1.042 39	959.33	420.74	1.3056	<b>100</b>	1.042 24	959.47	420.97	1.3053
1.046 47	955.60	441.66	1.3618	<b>105</b>	1.046 36	955.69	441.81	1.3617	<b>105</b>	1.046 21	955.83	442.03	1.3614
1.050 59	951.84	462.77	1.4173	<b>110</b>	1.050 49	951.94	462.91	1.4171	<b>110</b>	1.050 33	952.08	463.13	1.4168
1.054 87	947.98	483.90	1.4721	<b>115</b>	1.054 77	948.08	484.05	1.4719	<b>115</b>	1.054 60	948.22	484.26	1.4716
1.059 31	944.01	505.08	1.5263	<b>120</b>	1.059 20	944.11	505.22	1.5261	<b>120</b>	1.059 04	944.26	505.43	1.5258
1.063 92	939.92	526.29	1.5799	<b>125</b>	1.063 80	940.02	526.43	1.5797	<b>125</b>	1.063 63	940.18	526.64	1.5794
1.068 68	935.73	547.55	1.6330	<b>130</b>	1.068 56	935.84	547.69	1.6328	<b>130</b>	1.068 39	935.99	547.89	1.6325
1.073 62	931.43	568.86	1.6855	<b>135</b>	1.073 49	931.54	569.00	1.6853	<b>135</b>	1.073 31	931.70	569.20	1.6850
1.078 72	927.02	590.22	1.7375	<b>140</b>	1.078 60	927.13	590.35	1.7373	<b>140</b>	1.078 41	927.29	590.55	1.7370
1.084 01	922.50	611.64	1.7890	<b>145</b>	1.083 88	922.61	611.77	1.7888	<b>145</b>	1.083 68	922.78	611.96	1.7885
1.089 48	917.87	633.12	1.8401	<b>150</b>	1.089 34	917.98	633.24	1.8399	<b>150</b>	1.089 14	918.15	633.43	1.8395
1.095 13	913.13	654.67	1.8907	<b>155</b>	1.095 00	913.25	654.79	1.8905	<b>155</b>	1.094 79	913.42	654.97	1.8901
1.100 99	908.27	676.28	1.9409	<b>160</b>	1.100 85	908.39	676.40	1.9407	<b>160</b>	1.100 63	908.57	676.57	1.9403
1.107 05	903.30	697.97	1.9907	<b>165</b>	1.106 90	903.42	698.08	1.9905	<b>165</b>	1.106 68	903.61	698.25	1.9901
1.113 32	898.21	719.74	2.0401	<b>170</b>	1.113 17	898.34	719.85	2.0399	<b>170</b>	1.112 93	898.53	720.02	2.0395
1.119 82	893.00	741.60	2.0892	<b>175</b>	1.119 66	893.13	741.71	2.0889	<b>175</b>	1.119 42	893.32	741.87	2.0885
1.126 55	887.67	763.56	2.1379	<b>180</b>	1.126 38	887.80	763.66	2.1376	<b>180</b>	1.126 13	888.00	763.81	2.1372
1.133 53	882.20	785.61	2.1863	<b>185</b>	1.133 35	882.34	785.71	2.1860	<b>185</b>	1.133 09	882.54	785.85	2.1856
1.140 76	876.61	807.77	2.2344	<b>190</b>	1.140 58	876.75	807.86	2.2341	<b>190</b>	1.140 30	876.96	808.00	2.2337
1.148 27	870.87	830.05	2.2822	<b>195</b>	1.148 08	871.02	830.14	2.2819	<b>195</b>	1.147 79	871.24	830.27	2.2815
1.156 07	865.00	852.45	2.3298	<b>200</b>	1.155 87	865.15	852.53	2.3295	<b>200</b>	1.155 56	865.38	852.65	2.3290
1.172 62	852.79	897.66	2.4244	<b>210</b>	1.172 39	852.96	897.73	2.4240	<b>210</b>	1.172 05	853.20	897.83	2.4235
102.18	9.7870	2821.6	6.3867	<b>220</b>	91.585	10.919	2809.0	6.3218	<b>220</b>	1.189 94	840.38	943.63	2.5173
105.41	9.4871	2850.2	6.4440	<b>230</b>	94.667	10.563	2839.2	6.3826	<b>230</b>	81.702	12.240	2821.8	6.2955
108.50	9.2165	2877.2	6.4973	<b>240</b>	97.592	10.247	2867.5	6.4383	<b>240</b>	84.445	11.842	2852.3	6.3555
111.50	8.9689	2903.2	6.5475	<b>250</b>	100.41	9.9596	2894.5	6.4903	<b>250</b>	87.053	11.487	2880.9	6.4107
114.41	8.7404	2928.5	6.5952	<b>260</b>	103.13	9.6964	2920.5	6.5396	<b>260</b>	89.562	11.165	2908.2	6.4625
117.26	8.5281	2953.1	6.6409	<b>270</b>	105.79	9.4530	2945.8	6.5866	<b>270</b>	91.992	10.871	2934.6	6.5114
120.05	8.3296	2977.1	6.6849	<b>280</b>	108.38	9.2265	2970.5	6.6316	<b>280</b>	94.358	10.598	2960.1	6.5581
122.80	8.1433	3000.8	6.7273	<b>290</b>	110.93	9.0146	2994.6	6.6749	<b>290</b>	96.670	10.344	2985.1	6.6028

**Table 3. Compressed Water and Superheated Steam (continued)**

2.0 MPa ( $t_s = 212.377\text{ }^\circ\text{C}$ )					$t, \text{ }^\circ\text{C}$	2.2 MPa ( $t_s = 217.249\text{ }^\circ\text{C}$ )					$t, \text{ }^\circ\text{C}$	2.5 MPa ( $t_s = 223.950\text{ }^\circ\text{C}$ )				
$v$	$\rho$	$h$	$s$	$v$		$\rho$	$h$	$s$	$v$	$\rho$		$h$	$s$			
125.51	7.9677	3024.2	6.7684	<b>300</b>	113.44	8.8155	3018.4	6.7167	<b>300</b>	98.937	10.107	3009.6	6.6459			
128.18	7.8016	3047.3	6.8083	<b>310</b>	115.91	8.6277	3041.9	6.7573	<b>310</b>	101.17	9.8848	3033.6	6.6875			
130.82	7.6440	3070.1	6.8472	<b>320</b>	118.34	8.4500	3065.1	6.7967	<b>320</b>	103.36	9.6749	3057.4	6.7278			
133.44	7.4942	3092.8	6.8851	<b>330</b>	120.75	8.2813	3088.0	6.8351	<b>330</b>	105.53	9.4763	3080.8	6.7670			
136.03	7.3514	3115.3	6.9221	<b>340</b>	123.14	8.1208	3110.8	6.8726	<b>340</b>	107.67	9.2879	3104.0	6.8052			
138.60	7.2150	3137.7	6.9583	<b>350</b>	125.51	7.9678	3133.4	6.9092	<b>350</b>	109.79	9.1087	3127.0	6.8424			
141.15	7.0845	3159.9	6.9937	<b>360</b>	127.85	7.8215	3155.9	6.9450	<b>360</b>	111.88	8.9378	3149.8	6.8788			
143.69	6.9594	3182.1	7.0285	<b>370</b>	130.18	7.6816	3178.3	6.9801	<b>370</b>	113.97	8.7746	3172.5	6.9143			
146.21	6.8394	3204.2	7.0627	<b>380</b>	132.49	7.5475	3200.6	7.0145	<b>380</b>	116.03	8.6184	3195.1	6.9492			
148.72	6.7241	3226.3	7.0962	<b>390</b>	134.79	7.4187	3222.9	7.0483	<b>390</b>	118.08	8.4687	3217.7	6.9834			
151.21	6.6131	3248.3	7.1292	<b>400</b>	137.08	7.2949	3245.1	7.0815	<b>400</b>	120.12	8.3251	3240.1	7.0170			
153.70	6.5062	3270.3	7.1616	<b>410</b>	139.36	7.1758	3267.2	7.1142	<b>410</b>	122.15	8.1870	3262.5	7.0500			
156.17	6.4031	3292.3	7.1935	<b>420</b>	141.62	7.0610	3289.3	7.1463	<b>420</b>	124.16	8.0541	3284.8	7.0824			
158.64	6.3037	3314.3	7.2250	<b>430</b>	143.88	6.9503	3311.4	7.1780	<b>430</b>	126.17	7.9260	3307.1	7.1143			
161.09	6.2075	3336.3	7.2560	<b>440</b>	146.13	6.8434	3333.5	7.2091	<b>440</b>	128.16	7.8025	3329.3	7.1458			
163.54	6.1146	3358.2	7.2866	<b>450</b>	148.37	6.7401	3355.6	7.2399	<b>450</b>	130.15	7.6833	3351.6	7.1767			
165.98	6.0247	3380.2	7.3168	<b>460</b>	150.60	6.6402	3377.6	7.2702	<b>460</b>	132.13	7.5681	3373.8	7.2073			
168.42	5.9376	3402.2	7.3466	<b>470</b>	152.82	6.5435	3399.7	7.3001	<b>470</b>	134.11	7.4567	3396.0	7.2374			
170.85	5.8533	3424.2	7.3760	<b>480</b>	155.04	6.4499	3421.8	7.3296	<b>480</b>	136.07	7.3489	3418.3	7.2671			
173.27	5.7714	3446.2	7.4050	<b>490</b>	157.25	6.3592	3443.9	7.3588	<b>490</b>	138.04	7.2445	3440.5	7.2964			
175.68	5.6921	3468.2	7.4337	<b>500</b>	159.46	6.2711	3466.0	7.3876	<b>500</b>	139.99	7.1433	3462.7	7.3254			
180.50	5.5401	3512.4	7.4901	<b>520</b>	163.86	6.1028	3510.4	7.4442	<b>520</b>	143.89	6.9498	3507.3	7.3823			
185.30	5.3966	3556.7	7.5453	<b>540</b>	168.24	5.9439	3554.8	7.4996	<b>540</b>	147.77	6.7674	3552.0	7.4379			
190.09	5.2608	3601.2	7.5994	<b>560</b>	172.61	5.7935	3599.4	7.5538	<b>560</b>	151.63	6.5950	3596.8	7.4923			
194.86	5.1320	3645.9	7.6523	<b>580</b>	176.96	5.6511	3644.2	7.6069	<b>580</b>	155.48	6.4318	3641.7	7.5456			
199.61	5.0097	3690.7	7.7043	<b>600</b>	181.30	5.5158	3689.2	7.6589	<b>600</b>	159.31	6.2769	3686.8	7.5979			
204.36	4.8933	3735.8	7.7553	<b>620</b>	185.62	5.3872	3734.3	7.7100	<b>620</b>	163.14	6.1297	3732.1	7.6491			
209.10	4.7824	3781.0	7.8054	<b>640</b>	189.94	5.2648	3779.6	7.7603	<b>640</b>	166.95	5.9897	3777.5	7.6995			
213.83	4.6767	3826.5	7.8547	<b>660</b>	194.25	5.1480	3825.2	7.8096	<b>660</b>	170.76	5.8562	3823.2	7.7490			
218.55	4.5756	3872.2	7.9032	<b>680</b>	198.55	5.0364	3871.0	7.8581	<b>680</b>	174.56	5.7288	3869.1	7.7976			
223.26	4.4790	3918.2	7.9509	<b>700</b>	202.85	4.9298	3917.0	7.9059	<b>700</b>	178.35	5.6070	3915.2	7.8455			
227.97	4.3866	3964.3	7.9978	<b>720</b>	207.13	4.8278	3963.2	7.9529	<b>720</b>	182.13	5.4905	3961.5	7.8926			
232.67	4.2979	4010.8	8.0441	<b>740</b>	211.42	4.7300	4009.7	7.9993	<b>740</b>	185.91	5.3789	4008.1	7.9390			
237.37	4.2129	4057.4	8.0897	<b>760</b>	215.69	4.6362	4056.4	8.0449	<b>760</b>	189.68	5.2719	4054.9	7.9848			
242.06	4.1313	4104.3	8.1347	<b>780</b>	219.96	4.5462	4103.4	8.0900	<b>780</b>	193.45	5.1693	4101.9	8.0299			
246.74	4.0528	4151.5	8.1790	<b>800</b>	224.23	4.4597	4150.6	8.1344	<b>800</b>	197.21	5.0706	4149.2	8.0743			
251.42	3.9773	4198.9	8.2228	<b>820</b>	228.49	4.3765	4198.1	8.1782	<b>820</b>	200.97	4.9758	4196.7	8.1182			
256.10	3.9047	4246.6	8.2660	<b>840</b>	232.75	4.2964	4245.8	8.2214	<b>840</b>	204.73	4.8845	4244.5	8.1615			
260.78	3.8347	4294.5	8.3087	<b>860</b>	237.01	4.2193	4293.7	8.2641	<b>860</b>	208.48	4.7966	4292.5	8.2043			
265.45	3.7672	4342.7	8.3509	<b>880</b>	241.26	4.1449	4341.9	8.3063	<b>880</b>	212.23	4.7119	4340.8	8.2465			
270.12	3.7021	4391.1	8.3925	<b>900</b>	245.51	4.0732	4390.4	8.3480	<b>900</b>	215.97	4.6302	4389.3	8.2882			
274.78	3.6392	4439.8	8.4336	<b>920</b>	249.75	4.0040	4439.1	8.3892	<b>920</b>	219.72	4.5513	4438.1	8.3294			
279.44	3.5785	4488.7	8.4743	<b>940</b>	254.00	3.9371	4488.1	8.4299	<b>940</b>	223.46	4.4752	4487.1	8.3702			
284.11	3.5198	4537.9	8.5145	<b>960</b>	258.24	3.8724	4537.3	8.4701	<b>960</b>	227.19	4.4015	4536.3	8.4104			
288.76	3.4630	4587.4	8.5543	<b>980</b>	262.47	3.8099	4586.8	8.5099	<b>980</b>	230.93	4.3303	4585.8	8.4503			
293.42	3.4081	4637.0	8.5936	<b>1000</b>	266.71	3.7494	4636.5	8.5492	<b>1000</b>	234.66	4.2615	4635.6	8.4896			
316.67	3.1578	4889.1	8.7842	<b>1100</b>	287.87	3.4738	4888.6	8.7399	<b>1100</b>	253.30	3.9479	4887.9	8.6804			
339.89	2.9421	5147.0	8.9654	<b>1200</b>	308.98	3.2364	5146.6	8.9212	<b>1200</b>	271.90	3.6778	5146.0	8.8618			
363.08	2.7542	5410.3	9.1384	<b>1300</b>	330.08	3.0296	5410.0	9.0942	<b>1300</b>	290.47	3.4426	5409.5	9.0349			
386.25	2.5890	5678.8	9.3038	<b>1400</b>	351.15	2.8478	5678.5	9.2596	<b>1400</b>	309.03	3.2360	5678.1	9.2004			
409.40	2.4426	5951.9	9.4624	<b>1500</b>	372.20	2.6867	5951.7	9.4182	<b>1500</b>	327.57	3.0528	5951.4	9.3590			
432.54	2.3119	6229.5	9.6146	<b>1600</b>	393.24	2.5430	6229.3	9.5705	<b>1600</b>	346.09	2.8894	6229.1	9.5113			
478.79	2.0886	6796.2	9.9020	<b>1800</b>	435.30	2.2973	6796.1	9.8580	<b>1800</b>	383.11	2.6102	6796.0	9.7988			
525.01	1.9047	7376.5	10.169	<b>2000</b>	477.33	2.0950	7376.5	10.125	<b>2000</b>	420.11	2.3804	7376.4	10.066			

**Table 3. Compressed Water and Superheated Steam (continued)**

3.0 MPa ( $t_s = 233.853\text{ }^\circ\text{C}$ )				$t_s, ^\circ\text{C}$	3.5 MPa ( $t_s = 242.557\text{ }^\circ\text{C}$ )				$t_s, ^\circ\text{C}$	4.0 MPa ( $t_s = 250.354\text{ }^\circ\text{C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
1.216 69	821.90	1008.3	2.6455	$t_s(\text{L})$	1.234 97	809.74	1049.8	2.7254	$t_s(\text{L})$	1.252 56	798.37	1087.5	2.7968
66.664	15.001	2803.2	6.1856	$t_s(\text{V})$	57.058	17.526	2802.6	6.1243	$t_s(\text{V})$	49.776	20.090	2800.8	6.0696
0.998 69	1001.31	3.01	0.000 03	<b>0</b>	0.998 44	1001.57	3.51	0.000 06	<b>0</b>	0.998 19	1001.82	4.02	0.000 09
0.998 61	1001.39	24.00	0.076 19	<b>5</b>	0.998 37	1001.63	24.50	0.076 18	<b>5</b>	0.998 13	1001.88	24.99	0.076 17
0.998 92	1001.08	44.94	0.150 81	<b>10</b>	0.998 68	1001.32	45.43	0.150 76	<b>10</b>	0.998 44	1001.56	45.91	0.150 72
0.999 55	1000.45	65.85	0.224 00	<b>15</b>	0.999 32	1000.68	66.32	0.223 92	<b>15</b>	0.999 09	1000.92	66.80	0.223 85
1.000 47	999.53	86.73	0.295 86	<b>20</b>	1.000 24	999.76	87.20	0.295 75	<b>20</b>	1.000 01	999.99	87.67	0.295 64
1.001 65	998.35	107.60	0.366 45	<b>25</b>	1.001 43	998.58	108.06	0.366 32	<b>25</b>	1.001 20	998.80	108.52	0.366 19
1.003 07	996.94	128.46	0.435 84	<b>30</b>	1.002 85	997.16	128.92	0.435 69	<b>30</b>	1.002 63	997.38	129.37	0.435 53
1.004 71	995.31	149.32	0.504 09	<b>35</b>	1.004 49	995.53	149.77	0.503 91	<b>35</b>	1.004 27	995.75	150.22	0.503 74
1.006 56	993.48	170.18	0.571 24	<b>40</b>	1.006 34	993.70	170.63	0.571 04	<b>40</b>	1.006 12	993.92	171.07	0.570 85
1.008 60	991.48	191.05	0.637 34	<b>45</b>	1.008 38	991.69	191.48	0.637 13	<b>45</b>	1.008 16	991.91	191.92	0.636 91
1.010 82	989.30	211.92	0.702 43	<b>50</b>	1.010 60	989.51	212.35	0.702 19	<b>50</b>	1.010 38	989.73	212.78	0.701 96
1.013 22	986.95	232.79	0.766 54	<b>55</b>	1.013 00	987.17	233.22	0.766 29	<b>55</b>	1.012 77	987.39	233.64	0.766 04
1.015 79	984.46	253.68	0.829 71	<b>60</b>	1.015 56	984.68	254.10	0.829 45	<b>60</b>	1.015 34	984.89	254.52	0.829 18
1.018 52	981.82	274.58	0.891 98	<b>65</b>	1.018 29	982.04	275.00	0.891 69	<b>65</b>	1.018 07	982.26	275.41	0.891 41
1.021 41	979.04	295.49	0.953 36	<b>70</b>	1.021 18	979.26	295.90	0.953 07	<b>70</b>	1.020 95	979.48	296.31	0.952 77
1.024 46	976.13	316.42	1.0139	<b>75</b>	1.024 23	976.35	316.82	1.0136	<b>75</b>	1.023 99	976.57	317.23	1.0133
1.027 66	973.09	337.36	1.0736	<b>80</b>	1.027 42	973.31	337.76	1.0733	<b>80</b>	1.027 19	973.53	338.16	1.0730
1.031 01	969.92	358.32	1.1326	<b>85</b>	1.030 78	970.14	358.72	1.1322	<b>85</b>	1.030 54	970.37	359.11	1.1319
1.034 52	966.63	379.31	1.1908	<b>90</b>	1.034 28	966.86	379.69	1.1904	<b>90</b>	1.034 03	967.09	380.08	1.1900
1.038 18	963.23	400.31	1.2482	<b>95</b>	1.037 93	963.46	400.69	1.2478	<b>95</b>	1.037 68	963.69	401.08	1.2475
1.041 99	959.71	421.34	1.3050	<b>100</b>	1.041 73	959.94	421.72	1.3046	<b>100</b>	1.041 48	960.17	422.10	1.3042
1.045 95	956.07	442.40	1.3610	<b>105</b>	1.045 69	956.31	442.77	1.3606	<b>105</b>	1.045 43	956.54	443.15	1.3602
1.050 06	952.32	463.50	1.4164	<b>110</b>	1.049 80	952.56	463.86	1.4160	<b>110</b>	1.049 53	952.80	464.22	1.4156
1.054 33	948.47	484.62	1.4712	<b>115</b>	1.054 06	948.71	484.98	1.4708	<b>115</b>	1.053 79	948.96	485.34	1.4703
1.058 76	944.50	505.78	1.5254	<b>120</b>	1.058 48	944.75	506.14	1.5249	<b>120</b>	1.058 20	945.00	506.49	1.5245
1.063 34	940.43	526.99	1.5790	<b>125</b>	1.063 06	940.68	527.33	1.5785	<b>125</b>	1.062 77	940.93	527.68	1.5780
1.068 09	936.25	548.23	1.6320	<b>130</b>	1.067 80	936.51	548.57	1.6315	<b>130</b>	1.067 51	936.76	548.91	1.6310
1.073 01	931.96	569.53	1.6845	<b>135</b>	1.072 71	932.22	569.86	1.6840	<b>135</b>	1.072 40	932.48	570.19	1.6835
1.078 10	927.56	590.87	1.7365	<b>140</b>	1.077 78	927.83	591.20	1.7360	<b>140</b>	1.077 47	928.10	591.53	1.7354
1.083 36	923.05	612.28	1.7880	<b>145</b>	1.083 04	923.33	612.60	1.7874	<b>145</b>	1.082 72	923.60	612.91	1.7869
1.088 81	918.44	633.74	1.8390	<b>150</b>	1.088 47	918.72	634.05	1.8384	<b>150</b>	1.088 14	919.00	634.36	1.8379
1.094 44	913.71	655.27	1.8896	<b>155</b>	1.094 10	914.00	655.57	1.8890	<b>155</b>	1.093 75	914.28	655.87	1.8884
1.100 27	908.87	676.87	1.9397	<b>160</b>	1.099 91	909.16	677.16	1.9391	<b>160</b>	1.099 56	909.46	677.45	1.9385
1.106 30	903.91	698.54	1.9895	<b>165</b>	1.105 93	904.21	698.82	1.9889	<b>165</b>	1.105 56	904.52	699.11	1.9882
1.112 55	898.84	720.29	2.0388	<b>170</b>	1.112 16	899.15	720.57	2.0382	<b>170</b>	1.111 78	899.46	720.84	2.0376
1.119 01	893.65	742.13	2.0878	<b>175</b>	1.118 61	893.97	742.40	2.0872	<b>175</b>	1.118 21	894.29	742.66	2.0865
1.125 71	888.33	764.06	2.1365	<b>180</b>	1.125 29	888.66	764.32	2.1358	<b>180</b>	1.124 87	888.99	764.57	2.1352
1.132 65	882.89	786.09	2.1849	<b>185</b>	1.132 21	883.23	786.34	2.1842	<b>185</b>	1.131 77	883.57	786.58	2.1835
1.139 84	877.31	808.23	2.2329	<b>190</b>	1.139 38	877.67	808.46	2.2322	<b>190</b>	1.138 93	878.02	808.69	2.2315
1.147 31	871.61	830.48	2.2807	<b>195</b>	1.146 83	871.97	830.70	2.2799	<b>195</b>	1.146 35	872.33	830.92	2.2792
1.155 06	865.76	852.86	2.3282	<b>200</b>	1.154 56	866.13	853.06	2.3275	<b>200</b>	1.154 05	866.51	853.27	2.3267
1.171 49	853.61	898.01	2.4227	<b>210</b>	1.170 94	854.02	898.18	2.4218	<b>210</b>	1.170 38	854.42	898.35	2.4210
1.189 31	840.82	943.76	2.5164	<b>220</b>	1.188 69	841.26	943.90	2.5155	<b>220</b>	1.188 07	841.70	944.04	2.5146
1.208 73	827.32	990.23	2.6097	<b>230</b>	1.208 03	827.80	990.32	2.6087	<b>230</b>	1.207 33	828.28	990.42	2.6077
68.230	14.656	2824.5	6.2274	<b>240</b>	1.229 21	813.53	1037.6	2.7016	<b>240</b>	1.228 42	814.06	1037.6	2.7005
70.627	14.159	2856.5	6.2893	<b>250</b>	58.757	17.019	2829.7	6.1764	<b>250</b>	1.251 69	798.92	1085.8	2.7935
72.895	13.718	2886.4	6.3459	<b>260</b>	60.888	16.424	2862.9	6.2393	<b>260</b>	51.777	19.314	2837.1	6.1383
75.066	13.322	2914.9	6.3987	<b>270</b>	62.898	15.899	2893.8	6.2968	<b>270</b>	53.693	18.624	2871.2	6.2016
77.162	12.960	2942.2	6.4486	<b>280</b>	64.817	15.428	2923.2	6.3503	<b>280</b>	55.497	18.019	2902.9	6.2595
79.196	12.627	2968.6	6.4959	<b>290</b>	66.664	15.001	2951.3	6.4006	<b>290</b>	57.217	17.477	2933.0	6.3133

**Table 3. Compressed Water and Superheated Steam (continued)**

3.0 MPa ( $t_s = 233.853$ °C)					3.5 MPa ( $t_s = 242.557$ °C)					4.0 MPa ( $t_s = 250.354$ °C)				
$v$	$\rho$	$h$	$s$	$t_s$ , °C	$v$	$\rho$	$h$	$s$	$t_s$ , °C	$v$	$\rho$	$h$	$s$	$t_s$ , °C
81.179	12.318	2994.3	6.5412	300	68.453	14.609	2978.4	6.4484	300	58.870	16.987	2961.7	6.3639	300
83.119	12.031	3019.5	6.5847	310	70.194	14.246	3004.8	6.4940	310	60.468	16.538	2989.4	6.4118	310
85.022	11.762	3044.2	6.6266	320	71.894	13.909	3030.5	6.5377	320	62.021	16.123	3016.3	6.4576	320
86.893	11.508	3068.4	6.6672	330	73.559	13.595	3055.7	6.5799	330	63.536	15.739	3042.5	6.5014	330
88.737	11.269	3092.4	6.7066	340	75.194	13.299	3080.4	6.6206	340	65.019	15.380	3068.1	6.5435	340
90.556	11.043	3116.1	6.7449	350	76.804	13.020	3104.8	6.6601	350	66.473	15.044	3093.3	6.5843	350
92.355	10.828	3139.5	6.7823	360	78.390	12.757	3128.9	6.6984	360	67.903	14.727	3118.1	6.6238	360
94.134	10.623	3162.8	6.8187	370	79.956	12.507	3152.8	6.7358	370	69.311	14.428	3142.6	6.6621	370
95.897	10.428	3185.9	6.8544	380	81.505	12.269	3176.4	6.7723	380	70.701	14.144	3166.8	6.6994	380
97.645	10.241	3208.8	6.8892	390	83.038	12.043	3199.9	6.8079	390	72.073	13.875	3190.7	6.7358	390
99.379	10.062	3231.7	6.9234	400	84.556	11.826	3223.2	6.8427	400	73.431	13.618	3214.5	6.7714	400
101.10	9.8911	3254.4	6.9570	410	86.062	11.620	3246.3	6.8769	410	74.776	13.373	3238.1	6.8061	410
102.81	9.7265	3277.1	6.9900	420	87.556	11.421	3269.4	6.9104	420	76.108	13.139	3261.5	6.8402	420
104.51	9.5682	3299.7	7.0224	430	89.039	11.231	3292.3	6.9433	430	77.429	12.915	3284.8	6.8736	430
106.20	9.4159	3322.3	7.0542	440	90.513	11.048	3315.2	6.9756	440	78.741	12.700	3308.0	6.9064	440
107.89	9.2690	3344.8	7.0856	450	91.978	10.872	3338.0	7.0074	450	80.043	12.493	3331.2	6.9386	450
109.56	9.1273	3367.3	7.1165	460	93.435	10.703	3360.8	7.0387	460	81.337	12.295	3354.2	6.9703	460
111.23	8.9904	3389.8	7.1470	470	94.885	10.539	3383.6	7.0695	470	82.623	12.103	3377.2	7.0015	470
112.89	8.8581	3412.3	7.1770	480	96.328	10.381	3406.3	7.0998	480	83.902	11.919	3400.2	7.0321	480
114.55	8.7301	3434.8	7.2066	490	97.764	10.229	3429.0	7.1298	490	85.175	11.741	3423.1	7.0624	490
116.20	8.6062	3457.2	7.2359	500	99.195	10.081	3451.6	7.1593	500	86.442	11.568	3446.0	7.0922	500
119.48	8.3697	3502.2	7.2933	520	102.04	9.8001	3497.0	7.2172	520	88.959	11.241	3491.8	7.1506	520
122.74	8.1471	3547.2	7.3493	540	104.87	9.5360	3542.3	7.2737	540	91.457	10.934	3537.5	7.2075	540
125.99	7.9371	3592.3	7.4041	560	107.68	9.2871	3587.7	7.3288	560	93.938	10.645	3583.2	7.2631	560
129.22	7.7385	3637.5	7.4577	580	110.47	9.0521	3633.2	7.3828	580	96.405	10.373	3629.0	7.3174	580
132.45	7.5503	3682.8	7.5103	600	113.25	8.8297	3678.9	7.4356	600	98.859	10.115	3674.9	7.3705	600
135.66	7.3716	3728.3	7.5618	620	116.02	8.6189	3724.6	7.4874	620	101.30	9.8716	3720.9	7.4226	620
138.86	7.2017	3774.0	7.6124	640	118.79	8.4185	3770.5	7.5383	640	103.73	9.6402	3767.0	7.4737	640
142.05	7.0399	3819.9	7.6621	660	121.54	8.2279	3816.6	7.5882	660	106.16	9.4202	3813.2	7.5238	660
145.23	6.8856	3866.0	7.7109	680	124.28	8.0463	3862.8	7.6372	680	108.57	9.2107	3859.7	7.5730	680
148.41	6.7383	3912.2	7.7590	700	127.02	7.8729	3909.3	7.6854	700	110.98	9.0109	3906.3	7.6214	700
151.57	6.5974	3958.7	7.8062	720	129.75	7.7073	3955.9	7.7329	720	113.38	8.8202	3953.1	7.6690	720
154.74	6.4625	4005.4	7.8528	740	132.47	7.5488	4002.8	7.7796	740	115.77	8.6377	4000.1	7.7159	740
157.90	6.3333	4052.4	7.8987	760	135.19	7.3970	4049.8	7.8256	760	118.16	8.4631	4047.3	7.7620	760
161.05	6.2093	4099.5	7.9439	780	137.90	7.2515	4097.1	7.8709	780	120.54	8.2958	4094.7	7.8074	780
164.20	6.0903	4146.9	7.9885	800	140.61	7.1118	4144.6	7.9156	800	122.92	8.1352	4142.3	7.8523	800
167.34	5.9759	4194.6	8.0325	820	143.32	6.9776	4192.4	7.9597	820	125.30	7.9811	4190.2	7.8964	820
170.48	5.8658	4242.4	8.0759	840	146.02	6.8486	4240.3	8.0032	840	127.67	7.8328	4238.3	7.9400	840
173.62	5.7599	4290.5	8.1187	860	148.71	6.7244	4288.6	8.0461	860	130.03	7.6903	4286.6	7.9830	860
176.75	5.6578	4338.9	8.1610	880	151.41	6.6048	4337.0	8.0885	880	132.40	7.5530	4335.1	8.0255	880
179.88	5.5593	4387.5	8.2028	900	154.10	6.4895	4385.7	8.1303	900	134.76	7.4206	4383.9	8.0674	900
183.01	5.4643	4436.3	8.2441	920	156.78	6.3782	4434.6	8.1717	920	137.12	7.2930	4432.9	8.1088	920
186.13	5.3726	4485.4	8.2849	940	159.47	6.2708	4483.8	8.2126	940	139.47	7.1699	4482.1	8.1498	940
189.25	5.2840	4534.8	8.3252	960	162.15	6.1671	4533.2	8.2529	960	141.83	7.0509	4531.6	8.1902	960
192.37	5.1983	4584.3	8.3651	980	164.83	6.0668	4582.8	8.2929	980	144.18	6.9360	4581.3	8.2302	980
195.49	5.1154	4634.1	8.4045	1000	167.51	5.9698	4632.7	8.3324	1000	146.52	6.8248	4631.2	8.2697	1000
211.05	4.7382	4886.7	8.5955	1100	180.87	5.5288	4885.6	8.5235	1100	158.24	6.3195	4884.4	8.4611	1100
226.57	4.4136	5145.0	8.7770	1200	194.20	5.1494	5144.1	8.7053	1200	169.92	5.8852	5143.1	8.6430	1200
242.07	4.1310	5408.8	8.9502	1300	207.50	4.8193	5408.0	8.8785	1300	181.57	5.5075	5407.2	8.8164	1300
257.55	3.8828	5677.5	9.1158	1400	220.78	4.5294	5676.9	9.0443	1400	193.20	5.1760	5676.3	8.9822	1400
273.01	3.6629	5950.9	9.2745	1500	234.04	4.2728	5950.4	9.2030	1500	204.81	4.8825	5949.9	9.1411	1500
288.46	3.4667	6228.7	9.4269	1600	247.29	4.0438	6228.3	9.3555	1600	216.42	4.6207	6227.9	9.2935	1600
319.32	3.1316	6795.8	9.7145	1800	273.76	3.6528	6795.5	9.6431	1800	239.59	4.1738	6795.3	9.5813	1800
350.17	2.8558	7376.3	9.9818	2000	300.21	3.3310	7376.2	9.9105	2000	262.74	3.8060	7376.0	9.8487	2000

**Table 3. Compressed Water and Superheated Steam (continued)**

4.5 MPa ( $t_s = 257.437\text{ °C}$ )				$t_s, \text{°C}$	5.0 MPa ( $t_s = 263.941\text{ °C}$ )				$t_s, \text{°C}$	5.5 MPa ( $t_s = 269.965\text{ °C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
1.269 65	787.62	1122.2	2.8615	$t_s(L)$	1.286 39	777.37	1154.6	2.9210	$t_s(L)$	1.302 90	767.52	1185.1	2.9762
44.059	22.697	2797.9	6.0197	$t_s(V)$	39.446	25.351	2794.2	5.9737	$t_s(V)$	35.642	28.057	2789.7	5.9307
0.997 93	1002.07	4.53	0.000 11	<b>0</b>	0.997 68	1002.32	5.03	0.000 14	<b>0</b>	0.997 43	1002.57	5.54	0.000 16
0.997 89	1002.12	25.49	0.076 15	<b>5</b>	0.997 64	1002.36	25.98	0.076 14	<b>5</b>	0.997 40	1002.61	26.48	0.076 12
0.998 21	1001.79	46.40	0.150 67	<b>10</b>	0.997 97	1002.03	46.88	0.150 62	<b>10</b>	0.997 74	1002.27	47.37	0.150 57
0.998 85	1001.15	67.28	0.223 77	<b>15</b>	0.998 62	1001.38	67.75	0.223 69	<b>15</b>	0.998 39	1001.61	68.23	0.223 61
0.999 79	1000.21	88.14	0.295 54	<b>20</b>	0.999 56	1000.44	88.61	0.295 43	<b>20</b>	0.999 33	1000.67	89.08	0.295 32
1.000 98	999.02	108.99	0.366 05	<b>25</b>	1.000 75	999.25	109.45	0.365 92	<b>25</b>	1.000 53	999.47	109.91	0.365 79
1.002 40	997.60	129.83	0.435 38	<b>30</b>	1.002 18	997.82	130.28	0.435 22	<b>30</b>	1.001 96	998.04	130.74	0.435 07
1.004 05	995.97	150.67	0.503 56	<b>35</b>	1.003 83	996.19	151.12	0.503 39	<b>35</b>	1.003 61	996.40	151.56	0.503 21
1.005 90	994.14	171.51	0.570 66	<b>40</b>	1.005 68	994.36	171.95	0.570 46	<b>40</b>	1.005 46	994.57	172.39	0.570 27
1.007 94	992.13	192.36	0.636 70	<b>45</b>	1.007 72	992.34	192.79	0.636 49	<b>45</b>	1.007 50	992.56	193.23	0.636 27
1.010 16	989.95	213.21	0.701 73	<b>50</b>	1.009 94	990.16	213.64	0.701 50	<b>50</b>	1.009 72	990.38	214.07	0.701 27
1.012 55	987.60	234.07	0.765 79	<b>55</b>	1.012 33	987.82	234.49	0.765 55	<b>55</b>	1.012 11	988.04	234.92	0.765 30
1.015 11	985.11	254.94	0.828 92	<b>60</b>	1.014 89	985.33	255.36	0.828 65	<b>60</b>	1.014 67	985.54	255.78	0.828 39
1.017 84	982.47	275.82	0.891 13	<b>65</b>	1.017 62	982.69	276.24	0.890 85	<b>65</b>	1.017 39	982.91	276.65	0.890 57
1.020 72	979.70	296.72	0.952 47	<b>70</b>	1.020 50	979.92	297.13	0.952 18	<b>70</b>	1.020 27	980.13	297.54	0.951 88
1.023 76	976.79	317.63	1.0130	<b>75</b>	1.023 53	977.01	318.03	1.0127	<b>75</b>	1.023 30	977.23	318.44	1.0123
1.026 96	973.75	338.56	1.0727	<b>80</b>	1.026 72	973.97	338.95	1.0723	<b>80</b>	1.026 49	974.19	339.35	1.0720
1.030 30	970.59	359.50	1.1315	<b>85</b>	1.030 06	970.82	359.90	1.1312	<b>85</b>	1.029 82	971.04	360.29	1.1309
1.033 79	967.31	380.47	1.1897	<b>90</b>	1.033 55	967.54	380.86	1.1893	<b>90</b>	1.033 31	967.76	381.24	1.1890
1.037 44	963.91	401.46	1.2471	<b>95</b>	1.037 19	964.14	401.84	1.2467	<b>95</b>	1.036 94	964.37	402.22	1.2463
1.041 23	960.40	422.47	1.3038	<b>100</b>	1.040 98	960.63	422.85	1.3034	<b>100</b>	1.040 73	960.87	423.23	1.3030
1.045 17	956.78	443.52	1.3598	<b>105</b>	1.044 92	957.01	443.89	1.3594	<b>105</b>	1.044 66	957.25	444.26	1.3590
1.049 27	953.04	464.59	1.4152	<b>110</b>	1.049 01	953.28	464.95	1.4147	<b>110</b>	1.048 75	953.52	465.32	1.4143
1.053 52	949.20	485.70	1.4699	<b>115</b>	1.053 25	949.44	486.06	1.4695	<b>115</b>	1.052 98	949.68	486.41	1.4690
1.057 93	945.25	506.84	1.5240	<b>120</b>	1.057 65	945.49	507.19	1.5236	<b>120</b>	1.057 37	945.74	507.55	1.5231
1.062 49	941.19	528.02	1.5776	<b>125</b>	1.062 20	941.44	528.37	1.5771	<b>125</b>	1.061 92	941.69	528.72	1.5766
1.067 21	937.02	549.25	1.6305	<b>130</b>	1.066 92	937.28	549.59	1.6301	<b>130</b>	1.066 63	937.53	549.93	1.6296
1.072 10	932.75	570.53	1.6830	<b>135</b>	1.071 80	933.01	570.86	1.6825	<b>135</b>	1.071 50	933.27	571.19	1.6820
1.077 16	928.36	591.85	1.7349	<b>140</b>	1.076 85	928.63	592.18	1.7344	<b>140</b>	1.076 54	928.90	592.50	1.7339
1.082 40	923.88	613.23	1.7864	<b>145</b>	1.082 08	924.15	613.55	1.7858	<b>145</b>	1.081 76	924.42	613.87	1.7853
1.087 81	919.28	634.67	1.8373	<b>150</b>	1.087 48	919.56	634.98	1.8368	<b>150</b>	1.087 15	919.84	635.29	1.8362
1.093 41	914.57	656.18	1.8879	<b>155</b>	1.093 07	914.86	656.48	1.8873	<b>155</b>	1.092 73	915.14	656.78	1.8867
1.099 20	909.75	677.75	1.9379	<b>160</b>	1.098 85	910.05	678.04	1.9374	<b>160</b>	1.098 49	910.34	678.34	1.9368
1.105 19	904.82	699.39	1.9876	<b>165</b>	1.104 82	905.12	699.68	1.9870	<b>165</b>	1.104 46	905.42	699.97	1.9864
1.111 39	899.77	721.12	2.0369	<b>170</b>	1.111 01	900.08	721.40	2.0363	<b>170</b>	1.110 63	900.39	721.67	2.0357
1.117 81	894.61	742.93	2.0859	<b>175</b>	1.117 41	894.93	743.19	2.0852	<b>175</b>	1.117 01	895.24	743.46	2.0846
1.124 45	889.32	764.83	2.1345	<b>180</b>	1.124 04	889.65	765.08	2.1338	<b>180</b>	1.123 63	889.98	765.34	2.1331
1.131 34	883.91	786.83	2.1827	<b>185</b>	1.130 91	884.25	787.07	2.1821	<b>185</b>	1.130 47	884.58	787.32	2.1814
1.138 47	878.37	808.93	2.2307	<b>190</b>	1.138 02	878.72	809.16	2.2300	<b>190</b>	1.137 57	879.07	809.39	2.2293
1.145 87	872.70	831.14	2.2784	<b>195</b>	1.145 40	873.06	831.36	2.2777	<b>195</b>	1.144 93	873.42	831.58	2.2769
1.153 55	866.89	853.47	2.3259	<b>200</b>	1.153 06	867.26	853.68	2.3251	<b>200</b>	1.152 56	867.63	853.89	2.3243
1.169 83	854.83	898.53	2.4201	<b>210</b>	1.169 28	855.23	898.71	2.4193	<b>210</b>	1.168 73	855.63	898.88	2.4184
1.187 45	842.14	944.18	2.5136	<b>220</b>	1.186 84	842.58	944.32	2.5127	<b>220</b>	1.186 23	843.01	944.46	2.5118
1.206 63	828.75	990.52	2.6067	<b>230</b>	1.205 94	829.23	990.62	2.6057	<b>230</b>	1.205 25	829.70	990.72	2.6047
1.227 63	814.58	1037.7	2.6994	<b>240</b>	1.226 84	815.10	1037.7	2.6983	<b>240</b>	1.226 06	815.62	1037.8	2.6972
1.250 77	799.51	1085.8	2.7922	<b>250</b>	1.249 87	800.09	1085.7	2.7910	<b>250</b>	1.248 97	800.66	1085.7	2.7898
44.572	22.435	2808.6	6.0397	<b>260</b>	1.275 47	784.03	1134.9	2.8841	<b>260</b>	1.274 42	784.67	1134.8	2.8828
46.451	21.528	2846.7	6.1105	<b>270</b>	40.567	24.651	2819.8	6.0211	<b>270</b>	35.648	28.052	2789.9	5.9310
48.186	20.753	2881.3	6.1737	<b>280</b>	42.274	23.655	2858.1	6.0909	<b>280</b>	37.367	26.762	2832.9	6.0095
49.821	20.072	2913.6	6.2316	<b>290</b>	43.856	22.802	2893.0	6.1536	<b>290</b>	38.925	25.691	2871.1	6.0779

**Table 3. Compressed Water and Superheated Steam (continued)**

4.5 MPa ( $t_s = 257.437\text{ }^\circ\text{C}$ )					$t_s, \text{ }^\circ\text{C}$	5.0 MPa ( $t_s = 263.941\text{ }^\circ\text{C}$ )					$t_s, \text{ }^\circ\text{C}$	5.5 MPa ( $t_s = 269.965\text{ }^\circ\text{C}$ )				
$v$	$\rho$	$h$	$s$	$v$		$\rho$	$h$	$s$	$v$	$\rho$		$h$	$s$			
51.378	19.464	2944.2	6.2854	<b>300</b>	45.346	22.053	2925.7	6.2110	<b>300</b>	40.373	24.769	2906.2	6.1397			
52.873	18.913	2973.4	6.3359	<b>310</b>	46.766	21.383	2956.6	6.2646	<b>310</b>	41.740	23.958	2939.1	6.1966			
54.317	18.410	3001.6	6.3838	<b>320</b>	48.130	20.777	2986.2	6.3149	<b>320</b>	43.043	23.233	2970.3	6.2496			
55.720	17.947	3028.9	6.4295	<b>330</b>	49.446	20.224	3014.7	6.3626	<b>330</b>	44.294	22.576	3000.1	6.2995			
57.087	17.517	3055.5	6.4732	<b>340</b>	50.724	19.714	3042.4	6.4080	<b>340</b>	45.502	21.977	3028.9	6.3468			
58.423	17.117	3081.5	6.5153	<b>350</b>	51.969	19.242	3069.3	6.4516	<b>350</b>	46.675	21.425	3056.8	6.3920			
59.733	16.741	3107.0	6.5560	<b>360</b>	53.186	18.802	3095.6	6.4935	<b>360</b>	47.817	20.913	3084.0	6.4352			
61.021	16.388	3132.1	6.5953	<b>370</b>	54.378	18.390	3121.5	6.5340	<b>370</b>	48.934	20.436	3110.5	6.4769			
62.288	16.054	3156.9	6.6336	<b>380</b>	55.549	18.002	3146.9	6.5732	<b>380</b>	50.027	19.989	3136.6	6.5171			
63.538	15.739	3181.4	6.6708	<b>390</b>	56.702	17.636	3171.9	6.6112	<b>390</b>	51.101	19.569	3162.3	6.5561			
64.772	15.439	3205.6	6.7070	<b>400</b>	57.837	17.290	3196.7	6.6483	<b>400</b>	52.158	19.173	3187.5	6.5939			
65.991	15.153	3229.7	6.7425	<b>410</b>	58.958	16.961	3221.2	6.6844	<b>410</b>	53.199	18.797	3212.5	6.6307			
67.199	14.881	3253.5	6.7771	<b>420</b>	60.066	16.648	3245.4	6.7196	<b>420</b>	54.226	18.441	3237.2	6.6666			
68.394	14.621	3277.2	6.8111	<b>430</b>	61.162	16.350	3269.5	6.7541	<b>430</b>	55.241	18.102	3261.7	6.7017			
69.580	14.372	3300.8	6.8443	<b>440</b>	62.248	16.065	3293.4	6.7879	<b>440</b>	56.245	17.779	3286.0	6.7360			
70.756	14.133	3324.2	6.8770	<b>450</b>	63.323	15.792	3317.2	6.8210	<b>450</b>	57.239	17.471	3310.1	6.7696			
71.924	13.904	3347.6	6.9091	<b>460</b>	64.390	15.530	3340.9	6.8535	<b>460</b>	58.224	17.175	3334.1	6.8025			
73.083	13.683	3370.9	6.9406	<b>470</b>	65.449	15.279	3364.4	6.8854	<b>470</b>	59.200	16.892	3357.9	6.8348			
74.236	13.471	3394.1	6.9716	<b>480</b>	66.500	15.038	3387.9	6.9168	<b>480</b>	60.169	16.620	3381.7	6.8666			
75.381	13.266	3417.2	7.0022	<b>490</b>	67.545	14.805	3411.3	6.9477	<b>490</b>	61.131	16.358	3405.3	6.8978			
76.521	13.068	3440.4	7.0323	<b>500</b>	68.583	14.581	3434.7	6.9781	<b>500</b>	62.086	16.107	3428.9	6.9285			
77.784	12.693	3486.5	7.0912	<b>520</b>	70.642	14.156	3481.2	7.0375	<b>520</b>	63.979	15.630	3475.9	6.9885			
81.027	12.342	3532.6	7.1486	<b>540</b>	72.681	13.759	3527.7	7.0954	<b>540</b>	65.852	15.185	3522.7	7.0468			
83.253	12.012	3578.6	7.2046	<b>560</b>	74.703	13.386	3574.1	7.1517	<b>560</b>	67.708	14.769	3569.4	7.1035			
85.464	11.701	3624.7	7.2592	<b>580</b>	76.710	13.036	3620.4	7.2067	<b>580</b>	69.548	14.379	3616.1	7.1589			
87.662	11.407	3670.9	7.3127	<b>600</b>	78.704	12.706	3666.8	7.2605	<b>600</b>	71.374	14.011	3662.8	7.2130			
89.848	11.130	3717.1	7.3650	<b>620</b>	80.685	12.394	3713.3	7.3131	<b>620</b>	73.188	13.663	3709.5	7.2659			
92.024	10.867	3763.4	7.4163	<b>640</b>	82.657	12.098	3759.9	7.3647	<b>640</b>	74.992	13.335	3756.3	7.3177			
94.191	10.617	3809.9	7.4666	<b>660</b>	84.619	11.818	3806.5	7.4152	<b>660</b>	76.787	13.023	3803.2	7.3685			
96.349	10.379	3856.5	7.5161	<b>680</b>	86.572	11.551	3853.3	7.4649	<b>680</b>	78.573	12.727	3850.2	7.4183			
98.500	10.152	3903.3	7.5646	<b>700</b>	88.518	11.297	3900.3	7.5136	<b>700</b>	80.351	12.445	3897.3	7.4672			
100.64	9.9360	3950.2	7.6124	<b>720</b>	90.457	11.055	3947.4	7.5615	<b>720</b>	82.123	12.177	3944.6	7.5153			
102.78	9.7294	3997.4	7.6594	<b>740</b>	92.390	10.824	3994.7	7.6087	<b>740</b>	83.888	11.921	3992.0	7.5626			
104.91	9.5316	4044.7	7.7057	<b>760</b>	94.318	10.602	4042.2	7.6551	<b>760</b>	85.648	11.676	4039.6	7.6091			
107.04	9.3422	4092.3	7.7512	<b>780</b>	96.240	10.391	4089.8	7.7008	<b>780</b>	87.403	11.441	4087.4	7.6549			
109.16	9.1605	4140.0	7.7962	<b>800</b>	98.158	10.188	4137.7	7.7458	<b>800</b>	89.152	11.217	4135.4	7.7001			
111.28	8.9861	4188.0	7.8404	<b>820</b>	100.07	9.9929	4185.8	7.7902	<b>820</b>	90.898	11.001	4183.6	7.7446			
113.40	8.8186	4236.2	7.8841	<b>840</b>	101.98	9.8058	4234.1	7.8340	<b>840</b>	92.640	10.795	4232.0	7.7884			
115.51	8.6574	4284.6	7.9272	<b>860</b>	103.89	9.6259	4282.6	7.8771	<b>860</b>	94.378	10.596	4280.6	7.8317			
117.62	8.5023	4333.2	7.9698	<b>880</b>	105.79	9.4528	4331.3	7.9198	<b>880</b>	96.112	10.404	4329.4	7.8744			
119.72	8.3528	4382.1	8.0118	<b>900</b>	107.69	9.2861	4380.2	7.9618	<b>900</b>	97.844	10.220	4378.4	7.9166			
121.82	8.2087	4431.1	8.0533	<b>920</b>	109.58	9.1254	4429.4	8.0034	<b>920</b>	99.573	10.043	4427.7	7.9582			
123.92	8.0697	4480.5	8.0942	<b>940</b>	111.48	8.9703	4478.8	8.0445	<b>940</b>	101.30	9.8718	4477.1	7.9993			
126.02	7.9355	4530.0	8.1348	<b>960</b>	113.37	8.8207	4528.4	8.0850	<b>960</b>	103.02	9.7066	4526.8	8.0399			
128.11	7.8057	4579.8	8.1748	<b>980</b>	115.26	8.6761	4578.3	8.1251	<b>980</b>	104.74	9.5471	4576.7	8.0801			
130.20	7.6803	4629.8	8.2144	<b>1000</b>	117.15	8.5364	4628.3	8.1648	<b>1000</b>	106.46	9.3930	4626.9	8.1198			
140.64	7.1106	4883.2	8.4060	<b>1100</b>	126.55	7.9018	4882.0	8.3566	<b>1100</b>	115.03	8.6933	4880.9	8.3118			
151.03	6.6211	5142.2	8.5880	<b>1200</b>	135.92	7.3571	5141.2	8.5388	<b>1200</b>	123.56	8.0931	5140.3	8.4941			
161.40	6.1957	5406.4	8.7615	<b>1300</b>	145.27	6.8838	5405.7	8.7124	<b>1300</b>	132.07	7.5719	5404.9	8.6679			
171.75	5.8224	5675.6	8.9274	<b>1400</b>	154.59	6.4687	5675.0	8.8784	<b>1400</b>	140.55	7.1148	5674.4	8.8340			
182.08	5.4920	5949.4	9.0863	<b>1500</b>	163.90	6.1014	5948.9	9.0374	<b>1500</b>	149.02	6.7106	5948.4	8.9930			
192.40	5.1974	6227.5	9.2389	<b>1600</b>	173.19	5.7739	6227.1	9.1900	<b>1600</b>	157.47	6.3502	6226.7	9.1457			
213.01	4.6945	6795.0	9.5267	<b>1800</b>	191.75	5.2151	6794.8	9.4779	<b>1800</b>	174.36	5.7354	6794.5	9.4337			
233.60	4.2808	7375.9	9.7942	<b>2000</b>	210.29	4.7554	7375.8	9.7454	<b>2000</b>	191.21	5.2298	7375.7	9.7012			

**Table 3. Compressed Water and Superheated Steam (continued)**

6.0 MPa ( $t_s = 275.585$ °C)				$t_s$ , °C	6.5 MPa ( $t_s = 280.858$ °C)				$t_s$ , °C	7.0 MPa ( $t_s = 285.829$ °C)			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
1.319 26	758.00	1213.9	3.0278	$t_s(L)$	1.335 56	748.75	1241.4	3.0764	$t_s(L)$	1.351 86	739.72	1267.7	3.1224
32.448	30.818	2784.6	5.8901	$t_s(V)$	29.727	33.640	2778.9	5.8516	$t_s(V)$	27.378	36.525	2772.6	5.8148
0.997 18	1002.82	6.04	0.000 19	0	0.996 94	1003.07	6.55	0.000 21	0	0.996 69	1003.32	7.05	0.000 23
0.997 16	1002.85	26.97	0.076 11	5	0.996 92	1003.09	27.46	0.076 09	5	0.996 68	1003.33	27.96	0.076 07
0.997 50	1002.50	47.85	0.150 52	10	0.997 27	1002.74	48.34	0.150 47	10	0.997 03	1002.98	48.82	0.150 41
0.998 16	1001.84	68.71	0.223 53	15	0.997 93	1002.07	69.18	0.223 45	15	0.997 71	1002.30	69.66	0.223 36
0.999 11	1000.89	89.54	0.295 22	20	0.998 88	1001.12	90.01	0.295 11	20	0.998 66	1001.34	90.48	0.295 00
1.000 31	999.69	110.37	0.365 66	25	1.000 09	999.91	110.83	0.365 53	25	0.999 86	1000.14	111.29	0.365 40
1.001 74	998.26	131.19	0.434 92	30	1.001 52	998.48	131.64	0.434 76	30	1.001 30	998.70	132.10	0.434 61
1.003 39	996.62	152.01	0.503 04	35	1.003 17	996.84	152.46	0.502 86	35	1.002 95	997.06	152.91	0.502 69
1.005 24	994.79	172.84	0.570 07	40	1.005 02	995.01	173.28	0.569 88	40	1.004 80	995.22	173.72	0.569 68
1.007 28	992.78	193.66	0.636 06	45	1.007 06	992.99	194.10	0.635 85	45	1.006 84	993.21	194.54	0.635 63
1.009 50	990.59	214.50	0.701 04	50	1.009 28	990.81	214.93	0.700 81	50	1.009 06	991.02	215.36	0.700 58
1.011 89	988.25	235.34	0.765 05	55	1.011 67	988.47	235.77	0.764 80	55	1.011 45	988.68	236.19	0.764 56
1.014 45	985.76	256.20	0.828 12	60	1.014 22	985.97	256.62	0.827 86	60	1.014 00	986.19	257.04	0.827 60
1.017 17	983.12	277.07	0.890 29	65	1.016 94	983.34	277.48	0.890 01	65	1.016 72	983.56	277.89	0.889 73
1.020 04	980.35	297.95	0.951 59	70	1.019 82	980.57	298.35	0.951 29	70	1.019 59	980.79	298.76	0.951 00
1.023 07	977.45	318.84	1.0120	75	1.022 84	977.67	319.24	1.0117	75	1.022 62	977.88	319.65	1.0114
1.026 26	974.42	339.75	1.0717	80	1.026 02	974.64	340.15	1.0713	80	1.025 79	974.86	340.55	1.0710
1.029 59	971.26	360.68	1.1305	85	1.029 35	971.48	361.07	1.1302	85	1.029 12	971.71	361.47	1.1298
1.033 07	967.99	381.63	1.1886	90	1.032 83	968.21	382.02	1.1883	90	1.032 59	968.44	382.41	1.1879
1.036 70	964.60	402.60	1.2460	95	1.036 45	964.83	402.99	1.2456	95	1.036 21	965.05	403.37	1.2452
1.040 48	961.10	423.60	1.3026	100	1.040 23	961.33	423.98	1.3022	100	1.039 98	961.56	424.36	1.3019
1.044 41	957.48	444.63	1.3586	105	1.044 15	957.72	445.00	1.3582	105	1.043 90	957.95	445.37	1.3578
1.048 48	953.76	465.68	1.4139	110	1.048 22	954.00	466.05	1.4135	110	1.047 96	954.23	466.41	1.4131
1.052 71	949.93	486.77	1.4686	115	1.052 45	950.17	487.13	1.4682	115	1.052 18	950.41	487.49	1.4677
1.057 10	945.99	507.90	1.5227	120	1.056 82	946.23	508.25	1.5222	120	1.056 55	946.48	508.61	1.5218
1.061 64	941.94	529.06	1.5762	125	1.061 36	942.19	529.41	1.5757	125	1.061 08	942.44	529.76	1.5753
1.066 34	937.79	550.27	1.6291	130	1.066 05	938.04	550.61	1.6286	130	1.065 76	938.30	550.95	1.6282
1.071 20	933.53	571.53	1.6815	135	1.070 91	933.79	571.86	1.6810	135	1.070 61	934.05	572.19	1.6805
1.076 24	929.16	592.83	1.7334	140	1.075 93	929.43	593.16	1.7329	140	1.075 62	929.69	593.48	1.7324
1.081 44	924.69	614.19	1.7848	145	1.081 12	924.96	614.51	1.7842	145	1.080 81	925.24	614.83	1.7837
1.086 82	920.11	635.61	1.8357	150	1.086 49	920.39	635.92	1.8351	150	1.086 17	920.67	636.23	1.8346
1.092 39	915.43	657.09	1.8862	155	1.092 05	915.71	657.39	1.8856	155	1.091 71	916.00	657.69	1.8850
1.098 14	910.63	678.63	1.9362	160	1.097 79	910.92	678.93	1.9356	160	1.097 44	911.21	679.22	1.9350
1.104 09	905.72	700.25	1.9858	165	1.103 73	906.02	700.54	1.9852	165	1.103 36	906.32	700.83	1.9846
1.110 25	900.70	721.95	2.0351	170	1.109 87	901.01	722.23	2.0344	170	1.109 49	901.31	722.51	2.0338
1.116 62	895.56	743.73	2.0839	175	1.116 23	895.88	744.00	2.0833	175	1.115 83	896.19	744.27	2.0826
1.123 21	890.30	765.60	2.1325	180	1.122 80	890.63	765.86	2.1318	180	1.122 39	890.95	766.11	2.1311
1.130 04	884.92	787.56	2.1807	185	1.129 62	885.26	787.81	2.1800	185	1.129 19	885.59	788.06	2.1793
1.137 12	879.41	809.63	2.2286	190	1.136 67	879.76	809.86	2.2278	190	1.136 23	880.11	810.10	2.2271
1.144 46	873.78	831.80	2.2762	195	1.143 99	874.13	832.03	2.2754	195	1.143 52	874.49	832.25	2.2747
1.152 07	868.00	854.09	2.3235	200	1.151 58	868.37	854.30	2.3228	200	1.151 09	868.74	854.51	2.3220
1.168 18	856.03	899.06	2.4176	210	1.167 64	856.43	899.24	2.4168	210	1.167 10	856.82	899.42	2.4159
1.185 62	843.44	944.61	2.5109	220	1.185 01	843.87	944.75	2.5100	220	1.184 41	844.30	944.90	2.5091
1.204 57	830.17	990.82	2.6037	230	1.203 89	830.64	990.93	2.6027	230	1.203 21	831.11	991.04	2.6017
1.225 28	816.14	1037.8	2.6961	240	1.224 51	816.65	1037.9	2.6951	240	1.223 74	817.16	1037.9	2.6940
1.248 07	801.23	1085.7	2.7886	250	1.247 19	801.80	1085.7	2.7874	250	1.246 31	802.37	1085.7	2.7862
1.273 37	785.32	1134.7	2.8814	260	1.272 34	785.95	1134.7	2.8801	260	1.271 31	786.59	1134.6	2.8788
1.301 77	768.19	1185.1	2.9750	270	1.300 54	768.91	1184.9	2.9735	270	1.299 32	769.63	1184.8	2.9720
33.199	30.121	2805.3	5.9277	280	1.332 60	750.41	1236.8	3.0682	280	1.331 12	751.25	1236.6	3.0665
34.762	28.767	2847.5	6.0034	290	31.180	32.072	2822.0	5.9289	290	28.043	35.659	2794.1	5.8529



**Table 3. Compressed Water and Superheated Steam (continued)**

6.0 MPa ( $t_s = 275.585\text{ }^\circ\text{C}$ )					$t, \text{ }^\circ\text{C}$	6.5 MPa ( $t_s = 280.858\text{ }^\circ\text{C}$ )					$t, \text{ }^\circ\text{C}$	7.0 MPa ( $t_s = 285.829\text{ }^\circ\text{C}$ )				
$v$	$\rho$	$h$	$s$	$v$		$\rho$	$h$	$s$	$v$	$\rho$		$h$	$s$			
36.189	27.632	2885.5	6.0703	<b>300</b>	32.607	30.668	2863.5	6.0019	<b>300</b>	29.492	33.907	2839.9	5.9337			
37.521	26.652	2920.6	6.1310	<b>310</b>	33.920	29.481	2901.2	6.0671	<b>310</b>	30.801	32.466	2880.6	6.0041			
38.780	25.786	2953.6	6.1871	<b>320</b>	35.149	28.450	2936.2	6.1266	<b>320</b>	32.012	31.238	2917.9	6.0675			
39.981	25.012	2984.9	6.2395	<b>330</b>	36.313	27.538	2969.1	6.1817	<b>330</b>	33.149	30.166	2952.7	6.1257			
41.135	24.310	3014.9	6.2888	<b>340</b>	37.425	26.720	3000.5	6.2333	<b>340</b>	34.229	29.215	2985.6	6.1797			
42.251	23.668	3043.9	6.3357	<b>350</b>	38.494	25.978	3030.6	6.2820	<b>350</b>	35.262	28.359	3016.9	6.2304			
43.333	23.077	3072.0	6.3804	<b>360</b>	39.528	25.298	3059.7	6.3283	<b>360</b>	36.257	27.581	3047.0	6.2784			
44.388	22.529	3099.4	6.4233	<b>370</b>	40.532	24.672	3087.9	6.3725	<b>370</b>	37.219	26.868	3076.2	6.3241			
45.418	22.018	3126.1	6.4646	<b>380</b>	41.511	24.090	3115.4	6.4150	<b>380</b>	38.155	26.209	3104.5	6.3677			
46.428	21.539	3152.4	6.5045	<b>390</b>	42.467	23.547	3142.4	6.4559	<b>390</b>	39.067	25.597	3132.1	6.4097			
47.419	21.088	3178.2	6.5432	<b>400</b>	43.404	23.039	3168.8	6.4954	<b>400</b>	39.958	25.026	3159.2	6.4502			
48.395	20.663	3203.7	6.5807	<b>410</b>	44.325	22.561	3194.8	6.5338	<b>410</b>	40.832	24.491	3185.7	6.4894			
49.355	20.261	3228.9	6.6173	<b>420</b>	45.230	22.109	3220.4	6.5710	<b>420</b>	41.690	23.987	3211.8	6.5273			
50.303	19.879	3253.8	6.6530	<b>430</b>	46.122	21.682	3245.8	6.6073	<b>430</b>	42.534	23.510	3237.6	6.5643			
51.240	19.516	3278.4	6.6878	<b>440</b>	47.002	21.276	3270.8	6.6427	<b>440</b>	43.366	23.060	3263.1	6.6002			
52.166	19.170	3302.9	6.7219	<b>450</b>	47.871	20.890	3295.6	6.6773	<b>450</b>	44.187	22.631	3288.3	6.6353			
53.083	18.839	3327.2	6.7552	<b>460</b>	48.730	20.521	3320.3	6.7111	<b>460</b>	44.997	22.224	3313.3	6.6696			
53.991	18.522	3351.4	6.7880	<b>470</b>	49.581	20.169	3344.7	6.7442	<b>470</b>	45.799	21.835	3338.0	6.7032			
54.891	18.218	3375.4	6.8201	<b>480</b>	50.423	19.832	3369.0	6.7767	<b>480</b>	46.592	21.463	3362.6	6.7360			
55.784	17.926	3399.3	6.8516	<b>490</b>	51.259	19.509	3393.2	6.8086	<b>490</b>	47.378	21.107	3387.1	6.7683			
56.671	17.646	3423.1	6.8826	<b>500</b>	52.087	19.199	3417.3	6.8399	<b>500</b>	48.157	20.765	3411.4	6.8000			
58.426	17.116	3470.5	6.9432	<b>520</b>	53.726	18.613	3465.1	6.9011	<b>520</b>	49.696	20.122	3459.7	6.8617			
60.161	16.622	3517.7	7.0020	<b>540</b>	55.344	18.069	3512.7	6.9603	<b>540</b>	51.214	19.526	3507.7	6.9214			
61.877	16.161	3564.8	7.0591	<b>560</b>	56.943	17.561	3560.2	7.0179	<b>560</b>	52.713	18.971	3555.5	6.9794			
63.578	15.729	3611.8	7.1149	<b>580</b>	58.526	17.086	3607.4	7.0740	<b>580</b>	54.196	18.452	3603.1	7.0359			
65.265	15.322	3658.7	7.1693	<b>600</b>	60.096	16.640	3654.7	7.1288	<b>600</b>	55.665	17.965	3650.6	7.0910			
66.941	14.939	3705.7	7.2224	<b>620</b>	61.653	16.220	3701.9	7.1822	<b>620</b>	57.121	17.507	3698.1	7.1447			
68.605	14.576	3752.7	7.2745	<b>640</b>	63.200	15.823	3749.1	7.2345	<b>640</b>	58.567	17.074	3745.5	7.1973			
70.260	14.233	3799.8	7.3255	<b>660</b>	64.737	15.447	3796.4	7.2858	<b>660</b>	60.003	16.666	3793.0	7.2487			
71.907	13.907	3847.0	7.3755	<b>680</b>	66.266	15.091	3843.8	7.3360	<b>680</b>	61.431	16.279	3840.6	7.2992			
73.545	13.597	3894.3	7.4246	<b>700</b>	67.786	14.752	3891.3	7.3853	<b>700</b>	62.850	15.911	3888.2	7.3486			
75.177	13.302	3941.7	7.4729	<b>720</b>	69.300	14.430	3938.9	7.4337	<b>720</b>	64.263	15.561	3936.0	7.3972			
76.803	13.020	3989.3	7.5203	<b>740</b>	70.808	14.123	3986.6	7.4813	<b>740</b>	65.669	15.228	3983.9	7.4450			
78.423	12.751	4037.0	7.5670	<b>760</b>	72.310	13.829	4034.5	7.5281	<b>760</b>	67.070	14.910	4031.9	7.4919			
80.038	12.494	4085.0	7.6129	<b>780</b>	73.806	13.549	4082.5	7.5741	<b>780</b>	68.465	14.606	4080.1	7.5381			
81.648	12.248	4133.1	7.6582	<b>800</b>	75.298	13.281	4130.8	7.6195	<b>800</b>	69.855	14.315	4128.4	7.5836			
83.254	12.011	4181.4	7.7028	<b>820</b>	76.786	13.023	4179.2	7.6642	<b>820</b>	71.242	14.037	4177.0	7.6284			
84.856	11.785	4229.9	7.7467	<b>840</b>	78.269	12.776	4227.8	7.7083	<b>840</b>	72.624	13.770	4225.7	7.6725			
86.454	11.567	4278.6	7.7901	<b>860</b>	79.749	12.539	4276.6	7.7517	<b>860</b>	74.003	13.513	4274.6	7.7160			
88.049	11.357	4327.5	7.8329	<b>880</b>	81.226	12.311	4325.6	7.7946	<b>880</b>	75.378	13.267	4323.7	7.7590			
89.641	11.156	4376.6	7.8751	<b>900</b>	82.699	12.092	4374.8	7.8369	<b>900</b>	76.750	13.029	4373.0	7.8014			
91.230	10.961	4425.9	7.9168	<b>920</b>	84.170	11.881	4424.2	7.8786	<b>920</b>	78.119	12.801	4422.4	7.8432			
92.816	10.774	4475.5	7.9580	<b>940</b>	85.638	11.677	4473.8	7.9199	<b>940</b>	79.485	12.581	4472.1	7.8845			
94.400	10.593	4525.2	7.9987	<b>960</b>	87.103	11.481	4523.6	7.9606	<b>960</b>	80.849	12.369	4522.1	7.9253			
95.981	10.419	4575.2	8.0389	<b>980</b>	88.566	11.291	4573.7	8.0009	<b>980</b>	82.211	12.164	4572.2	7.9656			
97.560	10.250	4625.4	8.0786	<b>1000</b>	90.027	11.108	4624.0	8.0407	<b>1000</b>	83.571	11.966	4622.5	8.0055			
105.43	9.4850	4879.7	8.2709	<b>1100</b>	97.305	10.277	4878.5	8.2331	<b>1100</b>	90.341	11.069	4877.3	8.1981			
113.26	8.8291	5139.3	8.4534	<b>1200</b>	104.55	9.5652	5138.4	8.4158	<b>1200</b>	97.074	10.301	5137.4	8.3810			
121.07	8.2599	5404.1	8.6272	<b>1300</b>	111.76	8.9478	5403.3	8.5898	<b>1300</b>	103.78	9.6357	5402.6	8.5551			
128.85	7.7609	5673.7	8.7934	<b>1400</b>	118.95	8.4068	5673.1	8.7560	<b>1400</b>	110.47	9.0525	5672.5	8.7214			
136.62	7.3196	5947.9	8.9525	<b>1500</b>	126.13	7.9284	5947.4	8.9152	<b>1500</b>	117.14	8.5371	5946.9	8.8807			
144.38	6.9264	6226.3	9.1052	<b>1600</b>	133.29	7.5023	6225.9	9.0680	<b>1600</b>	123.79	8.0780	6225.5	9.0335			
159.86	6.2555	6794.3	9.3933	<b>1800</b>	147.59	6.7754	6794.1	9.3562	<b>1800</b>	137.08	7.2951	6793.8	9.3217			
175.32	5.7040	7375.6	9.6609	<b>2000</b>	161.87	6.1779	7375.4	9.6238	<b>2000</b>	150.34	6.6517	7375.3	9.5895			

**Table 3. Compressed Water and Superheated Steam (continued)**

7.5 MPa ( $t_s = 290.535\text{ }^\circ\text{C}$ )				$t_s, \text{ }^\circ\text{C}$	8.0 MPa ( $t_s = 295.008\text{ }^\circ\text{C}$ )				$t_s, \text{ }^\circ\text{C}$	9.0 MPa ( $t_s = 303.345\text{ }^\circ\text{C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
1.368 21	730.88	1292.9	3.1662	$t_s(\text{L})$	1.384 67	722.20	1317.3	3.2081	$t_s(\text{L})$	1.418 11	705.16	1363.9	3.2870
25.330	39.479	2765.9	5.7793	$t_s(\text{V})$	23.526	42.507	2758.7	5.7450	$t_s(\text{V})$	20.490	48.804	2742.9	5.6791
0.996 44	1003.57	7.56	0.000 25	0	0.996 19	1003.82	8.06	0.000 27	0	0.995 69	1004.32	9.06	0.000 31
0.996 44	1003.57	28.45	0.076 05	5	0.996 20	1003.82	28.94	0.076 03	5	0.995 72	1004.30	29.93	0.075 99
0.996 80	1003.21	49.30	0.150 36	10	0.996 57	1003.45	49.79	0.150 31	10	0.996 10	1003.91	50.75	0.150 20
0.997 48	1002.53	70.13	0.223 28	15	0.997 25	1002.76	70.61	0.223 20	15	0.996 79	1003.22	71.56	0.223 03
0.998 43	1001.57	90.95	0.294 89	20	0.998 21	1001.80	91.41	0.294 78	20	0.997 76	1002.25	92.35	0.294 57
0.999 64	1000.36	111.75	0.365 26	25	0.999 42	1000.58	112.21	0.365 13	25	0.998 98	1001.02	113.13	0.364 86
1.001 08	998.92	132.55	0.434 45	30	1.000 86	999.14	133.01	0.434 30	30	1.000 42	999.58	133.91	0.433 99
1.002 73	997.28	153.35	0.502 51	35	1.002 51	997.49	153.80	0.502 34	35	1.002 08	997.93	154.70	0.501 99
1.004 58	995.44	174.16	0.569 49	40	1.004 37	995.65	174.60	0.569 29	40	1.003 93	996.08	175.48	0.568 90
1.006 62	993.42	194.97	0.635 42	45	1.006 40	993.64	195.41	0.635 21	45	1.005 97	994.07	196.28	0.634 78
1.008 84	991.24	215.79	0.700 35	50	1.008 62	991.45	216.22	0.700 12	50	1.008 19	991.88	217.08	0.699 66
1.011 23	988.90	236.62	0.764 31	55	1.011 01	989.11	237.04	0.764 06	55	1.010 57	989.54	237.89	0.763 57
1.013 78	986.41	257.46	0.827 33	60	1.013 56	986.62	257.88	0.827 07	60	1.013 12	987.05	258.71	0.826 54
1.016 50	983.77	278.31	0.889 45	65	1.016 27	983.99	278.72	0.889 17	65	1.015 83	984.42	279.55	0.888 62
1.019 37	981.00	299.17	0.950 70	70	1.019 14	981.22	299.58	0.950 41	70	1.018 69	981.65	300.40	0.949 82
1.022 39	978.10	320.05	1.0111	75	1.022 16	978.32	320.45	1.0108	75	1.021 70	978.76	321.26	1.0102
1.025 56	975.08	340.95	1.0707	80	1.025 33	975.30	341.34	1.0704	80	1.024 87	975.74	342.14	1.0697
1.028 88	971.93	361.86	1.1295	85	1.028 65	972.15	362.25	1.1292	85	1.028 18	972.59	363.04	1.1285
1.032 35	968.66	382.79	1.1876	90	1.032 11	968.89	383.18	1.1872	90	1.031 63	969.34	383.96	1.1865
1.035 97	965.28	403.75	1.2449	95	1.035 72	965.51	404.13	1.2445	95	1.035 24	965.96	404.90	1.2438
1.039 73	961.79	424.73	1.3015	100	1.039 48	962.02	425.11	1.3011	100	1.038 99	962.48	425.86	1.3003
1.043 64	958.18	445.74	1.3574	105	1.043 39	958.42	446.11	1.3570	105	1.042 88	958.88	446.85	1.3562
1.047 70	954.47	466.78	1.4127	110	1.047 44	954.71	467.15	1.4123	110	1.046 93	955.18	467.88	1.4114
1.051 91	950.65	487.85	1.4673	115	1.051 65	950.89	488.21	1.4669	115	1.051 12	951.37	488.93	1.4660
1.056 28	946.72	508.96	1.5213	120	1.056 00	946.97	509.31	1.5209	120	1.055 46	947.45	510.02	1.5200
1.060 80	942.69	530.11	1.5748	125	1.060 52	942.94	530.45	1.5743	125	1.059 96	943.43	531.15	1.5734
1.065 47	938.55	551.29	1.6277	130	1.065 19	938.80	551.63	1.6272	130	1.064 61	939.31	552.32	1.6263
1.070 31	934.31	572.53	1.6800	135	1.070 02	934.57	572.86	1.6795	135	1.069 42	935.08	573.53	1.6786
1.075 32	929.96	593.81	1.7319	140	1.075 01	930.22	594.14	1.7313	140	1.074 40	930.75	594.79	1.7303
1.080 49	925.51	615.15	1.7832	145	1.080 17	925.78	615.47	1.7827	145	1.079 55	926.31	616.11	1.7816
1.085 84	920.95	636.54	1.8341	150	1.085 51	921.22	636.86	1.8335	150	1.084 87	921.77	637.48	1.8324
1.091 37	916.28	658.00	1.8845	155	1.091 03	916.56	658.30	1.8839	155	1.090 36	917.13	658.92	1.8828
1.097 09	911.50	679.52	1.9344	160	1.096 74	911.79	679.82	1.9339	160	1.096 04	912.37	680.41	1.9327
1.103 00	906.62	701.11	1.9840	165	1.102 64	906.92	701.40	1.9834	165	1.101 92	907.51	701.98	1.9822
1.109 11	901.62	722.78	2.0332	170	1.108 74	901.93	723.06	2.0326	170	1.107 99	902.53	723.62	2.0313
1.115 44	896.51	744.54	2.0820	175	1.115 05	896.82	744.80	2.0813	175	1.114 27	897.45	745.35	2.0801
1.121 99	891.28	766.37	2.1304	180	1.121 58	891.60	766.63	2.1298	180	1.120 77	892.24	767.15	2.1285
1.128 76	885.93	788.30	2.1786	185	1.128 34	886.26	788.55	2.1779	185	1.127 49	886.92	789.05	2.1765
1.135 78	880.45	810.34	2.2264	190	1.135 34	880.79	810.57	2.2257	190	1.134 46	881.48	811.05	2.2243
1.143 06	874.85	832.47	2.2739	195	1.142 59	875.20	832.70	2.2732	195	1.141 67	875.91	833.15	2.2717
1.150 60	869.11	854.73	2.3212	200	1.150 11	869.48	854.94	2.3205	200	1.149 15	870.21	855.37	2.3189
1.166 56	857.22	899.61	2.4151	210	1.166 03	857.61	899.79	2.4143	210	1.164 96	858.40	900.16	2.4126
1.183 81	844.73	945.05	2.5082	220	1.183 22	845.15	945.20	2.5073	220	1.182 03	846.00	945.50	2.5055
1.202 54	831.57	991.14	2.6007	230	1.201 87	832.03	991.25	2.5997	230	1.200 55	832.95	991.48	2.5978
1.222 98	817.67	1038.0	2.6929	240	1.222 22	818.18	1038.1	2.6919	240	1.220 72	819.19	1038.2	2.6897
1.245 43	802.93	1085.7	2.7851	250	1.244 57	803.49	1085.7	2.7839	250	1.242 85	804.60	1085.8	2.7815
1.270 30	787.22	1134.5	2.8775	260	1.269 29	787.84	1134.5	2.8761	260	1.267 30	789.08	1134.4	2.8736
1.298 12	770.35	1184.6	2.9705	270	1.296 93	771.05	1184.5	2.9690	270	1.294 58	772.45	1184.2	2.9661
1.329 67	752.07	1236.3	3.0648	280	1.328 23	752.88	1236.0	3.0631	280	1.325 40	754.49	1235.5	3.0598
1.366 09	732.02	1290.0	3.1610	290	1.364 30	732.98	1289.6	3.1590	290	1.360 80	734.86	1288.8	3.1552

**Table 3. Compressed Water and Superheated Steam (continued)**

7.5 MPa ( $t_s = 290.535\text{ °C}$ )					8.0 MPa ( $t_s = 295.008\text{ °C}$ )					9.0 MPa ( $t_s = 303.345\text{ °C}$ )				
$v$	$\rho$	$h$	$s$	$t_s, \text{ °C}$	$v$	$\rho$	$h$	$s$	$t_s, \text{ °C}$	$v$	$\rho$	$h$	$s$	$t_s, \text{ °C}$
26.742	37.394	2814.4	5.8646	<b>300</b>	24.279	41.188	2786.5	5.7937	<b>300</b>	1.402 39	713.07	1344.5	3.2533	
28.063	35.634	2858.8	5.9414	<b>310</b>	25.630	39.016	2835.4	5.8783	<b>310</b>	21.448	46.625	2782.7	5.7478	
29.268	34.167	2898.7	6.0093	<b>320</b>	26.840	37.258	2878.4	5.9515	<b>320</b>	22.708	44.036	2834.0	5.8350	
30.388	32.907	2935.5	6.0709	<b>330</b>	27.952	35.775	2917.6	6.0170	<b>330</b>	23.831	41.962	2879.0	5.9101	
31.444	31.802	2970.1	6.1277	<b>340</b>	28.992	34.493	2953.9	6.0768	<b>340</b>	24.859	40.228	2919.7	5.9771	
32.449	30.818	3002.8	6.1806	<b>350</b>	29.975	33.361	2988.1	6.1321	<b>350</b>	25.816	38.736	2957.3	6.0380	
33.412	29.930	3034.0	6.2304	<b>360</b>	30.912	32.350	3020.6	6.1838	<b>360</b>	26.718	37.428	2992.6	6.0942	
34.340	29.121	3064.1	6.2776	<b>370</b>	31.812	31.434	3051.8	6.2327	<b>370</b>	27.577	36.263	3026.1	6.1467	
35.239	28.378	3093.3	6.3225	<b>380</b>	32.681	30.599	3081.8	6.2790	<b>380</b>	28.399	35.212	3058.1	6.1961	
36.113	27.691	3121.7	6.3656	<b>390</b>	33.524	29.830	3111.0	6.3233	<b>390</b>	29.192	34.256	3089.0	6.2429	
36.966	27.052	3149.4	6.4071	<b>400</b>	34.344	29.117	3139.4	6.3658	<b>400</b>	29.960	33.378	3118.8	6.2876	
37.801	26.455	3176.5	6.4471	<b>410</b>	35.144	28.454	3167.1	6.4067	<b>410</b>	30.706	32.567	3147.9	6.3304	
38.619	25.894	3203.1	6.4858	<b>420</b>	35.928	27.834	3194.3	6.4462	<b>420</b>	31.433	31.813	3176.2	6.3716	
39.422	25.367	3229.4	6.5234	<b>430</b>	36.696	27.251	3221.0	6.4845	<b>430</b>	32.144	31.110	3203.9	6.4114	
40.212	24.868	3255.3	6.5600	<b>440</b>	37.451	26.702	3247.3	6.5217	<b>440</b>	32.841	30.450	3231.2	6.4499	
40.992	24.395	3280.9	6.5956	<b>450</b>	38.194	26.182	3273.3	6.5579	<b>450</b>	33.524	29.829	3258.0	6.4872	
41.760	23.946	3306.2	6.6304	<b>460</b>	38.926	25.690	3299.0	6.5931	<b>460</b>	34.197	29.243	3284.5	6.5235	
42.520	23.519	3331.3	6.6644	<b>470</b>	39.648	25.222	3324.4	6.6276	<b>470</b>	34.859	28.687	3310.6	6.5589	
43.270	23.110	3356.2	6.6977	<b>480</b>	40.362	24.776	3349.6	6.6613	<b>480</b>	35.512	28.160	3336.4	6.5935	
44.014	22.720	3380.9	6.7303	<b>490</b>	41.068	24.350	3374.7	6.6942	<b>490</b>	36.156	27.658	3362.0	6.6272	
44.750	22.347	3405.5	6.7623	<b>500</b>	41.767	23.942	3399.5	6.7266	<b>500</b>	36.793	27.179	3387.4	6.6603	
46.203	21.644	3454.2	6.8246	<b>520</b>	43.145	23.177	3448.7	6.7895	<b>520</b>	38.047	26.283	3437.6	6.7244	
47.634	20.993	3502.6	6.8848	<b>540</b>	44.501	22.471	3497.6	6.8503	<b>540</b>	39.278	25.460	3487.3	6.7862	
49.046	20.389	3550.8	6.9433	<b>560</b>	45.838	21.816	3546.0	6.9092	<b>560</b>	40.488	24.698	3536.5	6.8461	
50.442	19.825	3598.7	7.0001	<b>580</b>	47.158	21.205	3594.3	6.9664	<b>580</b>	41.682	23.991	3585.4	6.9041	
51.824	19.296	3646.5	7.0555	<b>600</b>	48.463	20.634	3642.4	7.0221	<b>600</b>	42.861	23.331	3634.1	6.9605	
53.193	18.799	3694.2	7.1096	<b>620</b>	49.756	20.098	3690.4	7.0764	<b>620</b>	44.027	22.713	3682.6	7.0154	
54.552	18.331	3741.9	7.1624	<b>640</b>	51.038	19.593	3738.3	7.1295	<b>640</b>	45.181	22.133	3731.0	7.0690	
55.900	17.889	3789.6	7.2141	<b>660</b>	52.310	19.117	3786.2	7.1814	<b>660</b>	46.326	21.586	3779.4	7.1214	
57.240	17.470	3837.4	7.2647	<b>680</b>	53.573	18.666	3834.2	7.2323	<b>680</b>	47.461	21.070	3827.7	7.1726	
58.572	17.073	3885.2	7.3144	<b>700</b>	54.828	18.239	3882.2	7.2821	<b>700</b>	48.589	20.581	3876.1	7.2229	
59.897	16.695	3933.1	7.3631	<b>720</b>	56.077	17.833	3930.3	7.3310	<b>720</b>	49.709	20.117	3924.5	7.2721	
61.215	16.336	3981.2	7.4110	<b>740</b>	57.318	17.446	3978.5	7.3791	<b>740</b>	50.823	19.676	3973.0	7.3205	
62.528	15.993	4029.3	7.4581	<b>760</b>	58.554	17.078	4026.8	7.4263	<b>760</b>	51.931	19.256	4021.6	7.3680	
63.836	15.665	4077.7	7.5044	<b>780</b>	59.785	16.727	4075.2	7.4727	<b>780</b>	53.034	18.856	4070.3	7.4147	
65.138	15.352	4126.1	7.5500	<b>800</b>	61.011	16.390	4123.8	7.5184	<b>800</b>	54.132	18.473	4119.1	7.4606	
66.437	15.052	4174.8	7.5949	<b>820</b>	62.233	16.069	4172.5	7.5635	<b>820</b>	55.226	18.108	4168.1	7.5058	
67.731	14.764	4223.6	7.6391	<b>840</b>	63.450	15.760	4221.5	7.6078	<b>840</b>	56.315	17.757	4217.3	7.5503	
69.022	14.488	4272.6	7.6828	<b>860</b>	64.664	15.465	4270.6	7.6515	<b>860</b>	57.401	17.421	4266.5	7.5942	
70.309	14.223	4321.7	7.7258	<b>880</b>	65.874	15.180	4319.8	7.6946	<b>880</b>	58.483	17.099	4316.0	7.6375	
71.593	13.968	4371.1	7.7682	<b>900</b>	67.082	14.907	4369.3	7.7371	<b>900</b>	59.562	16.789	4365.7	7.6802	
72.875	13.722	4420.7	7.8101	<b>920</b>	68.286	14.644	4419.0	7.7791	<b>920</b>	60.639	16.491	4415.5	7.7223	
74.153	13.486	4470.5	7.8515	<b>940</b>	69.488	14.391	4468.8	7.8206	<b>940</b>	61.712	16.204	4465.5	7.7639	
75.430	13.257	4520.5	7.8924	<b>960</b>	70.687	14.147	4518.9	7.8615	<b>960</b>	62.783	15.928	4515.7	7.8049	
76.703	13.037	4570.7	7.9327	<b>980</b>	71.884	13.911	4569.1	7.9019	<b>980</b>	63.852	15.661	4566.1	7.8454	
77.975	12.825	4621.1	7.9726	<b>1000</b>	73.079	13.684	4619.6	7.9419	<b>1000</b>	64.918	15.404	4616.7	7.8855	
84.306	11.862	4876.2	8.1655	<b>1100</b>	79.025	12.654	4875.0	8.1350	<b>1100</b>	70.224	14.240	4872.7	8.0790	
90.600	11.038	5136.5	8.3485	<b>1200</b>	84.934	11.774	5135.5	8.3181	<b>1200</b>	75.492	13.246	5133.6	8.2625	
96.866	10.323	5401.8	8.5227	<b>1300</b>	90.816	11.011	5401.0	8.4924	<b>1300</b>	80.733	12.387	5399.5	8.4370	
103.11	9.6981	5671.9	8.6891	<b>1400</b>	96.678	10.344	5671.2	8.6589	<b>1400</b>	85.954	11.634	5670.0	8.6037	
109.34	9.1456	5946.4	8.8485	<b>1500</b>	102.52	9.7539	5945.9	8.8184	<b>1500</b>	91.158	10.970	5944.9	8.7633	
115.56	8.6535	6225.1	9.0014	<b>1600</b>	108.36	9.2288	6224.7	8.9713	<b>1600</b>	96.350	10.379	6223.9	8.9163	
127.97	7.8145	6793.6	9.2897	<b>1800</b>	119.99	8.3338	6793.4	9.2597	<b>1800</b>	106.71	9.3716	6792.9	9.2049	
140.35	7.1252	7375.2	9.5575	<b>2000</b>	131.60	7.5986	7375.1	9.5275	<b>2000</b>	117.03	8.5446	7374.9	9.4729	

Table 3. Compressed Water and Superheated Steam (continued)

10 MPa ( $t_s = 310.997\text{ }^\circ\text{C}$ )				$t_s, ^\circ\text{C}$	11 MPa ( $t_s = 318.079\text{ }^\circ\text{C}$ )				$t_s, ^\circ\text{C}$	12 MPa ( $t_s = 324.675\text{ }^\circ\text{C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
1.452 59	688.42	1408.1	3.3606	$t_s(\text{L})$	1.488 51	671.81	1450.4	3.4303	$t_s(\text{L})$	1.526 30	655.18	1491.5	3.4967
18.030	55.463	2725.5	5.6160	$t_s(\text{V})$	15.990	62.541	2706.3	5.5545	$t_s(\text{V})$	14.264	70.106	2685.4	5.4939
0.995 20	1004.82	10.07	0.000 34	<b>0</b>	0.994 71	1005.32	11.07	0.000 37	<b>0</b>	0.994 22	1005.81	12.07	0.000 39
0.995 24	1004.78	30.91	0.075 95	<b>5</b>	0.994 77	1005.26	31.89	0.075 90	<b>5</b>	0.994 29	1005.74	32.87	0.075 85
0.995 64	1004.38	51.72	0.150 09	<b>10</b>	0.995 17	1004.85	52.68	0.149 98	<b>10</b>	0.994 71	1005.32	53.64	0.149 87
0.996 34	1003.68	72.51	0.222 87	<b>15</b>	0.995 88	1004.13	73.45	0.222 70	<b>15</b>	0.995 43	1004.59	74.40	0.222 52
0.997 31	1002.69	93.28	0.294 35	<b>20</b>	0.996 87	1003.14	94.21	0.294 12	<b>20</b>	0.996 42	1003.59	95.14	0.293 90
0.998 54	1001.47	114.05	0.364 60	<b>25</b>	0.998 10	1001.91	114.97	0.364 33	<b>25</b>	0.997 66	1002.35	115.89	0.364 06
0.999 98	1000.02	134.82	0.433 68	<b>30</b>	0.999 55	1000.45	135.72	0.433 37	<b>30</b>	0.999 11	1000.89	136.63	0.433 05
1.001 64	998.36	155.59	0.501 63	<b>35</b>	1.001 21	998.79	156.48	0.501 28	<b>35</b>	1.000 78	999.22	157.37	0.500 93
1.003 50	996.52	176.36	0.568 51	<b>40</b>	1.003 06	996.94	177.25	0.568 12	<b>40</b>	1.002 63	997.37	178.13	0.567 73
1.005 54	994.49	197.15	0.634 36	<b>45</b>	1.005 10	994.92	198.02	0.633 93	<b>45</b>	1.004 67	995.35	198.89	0.633 50
1.007 75	992.31	217.94	0.699 20	<b>50</b>	1.007 32	992.73	218.80	0.698 74	<b>50</b>	1.006 89	993.16	219.66	0.698 28
1.010 14	989.97	238.74	0.763 07	<b>55</b>	1.009 70	990.39	239.59	0.762 58	<b>55</b>	1.009 27	990.82	240.44	0.762 09
1.012 68	987.48	259.55	0.826 02	<b>60</b>	1.012 24	987.90	260.39	0.825 49	<b>60</b>	1.011 81	988.33	261.23	0.824 97
1.015 39	984.85	280.38	0.888 06	<b>65</b>	1.014 94	985.28	281.20	0.887 50	<b>65</b>	1.014 50	985.70	282.03	0.886 95
1.018 24	982.08	301.21	0.949 23	<b>70</b>	1.017 80	982.51	302.03	0.948 65	<b>70</b>	1.017 35	982.94	302.85	0.948 06
1.021 25	979.19	322.07	1.0096	<b>75</b>	1.020 80	979.62	322.87	1.0089	<b>75</b>	1.020 35	980.06	323.68	1.0083
1.024 41	976.17	342.94	1.0691	<b>80</b>	1.023 95	976.61	343.73	1.0684	<b>80</b>	1.023 49	977.05	344.53	1.0678
1.027 71	973.04	363.82	1.1278	<b>85</b>	1.027 25	973.48	364.61	1.1271	<b>85</b>	1.026 78	973.92	365.40	1.1265
1.031 16	969.78	384.73	1.1858	<b>90</b>	1.030 69	970.23	385.51	1.1851	<b>90</b>	1.030 21	970.67	386.28	1.1844
1.034 75	966.41	405.66	1.2430	<b>95</b>	1.034 27	966.86	406.43	1.2423	<b>95</b>	1.033 79	967.31	407.19	1.2416
1.038 49	962.93	426.62	1.2996	<b>100</b>	1.038 00	963.39	427.37	1.2988	<b>100</b>	1.037 51	963.84	428.12	1.2980
1.042 38	959.34	447.60	1.3554	<b>105</b>	1.041 88	959.81	448.34	1.3546	<b>105</b>	1.041 38	960.27	449.08	1.3538
1.046 41	955.65	468.61	1.4106	<b>110</b>	1.045 90	956.12	469.34	1.4098	<b>110</b>	1.045 38	956.59	470.07	1.4090
1.050 59	951.85	489.65	1.4652	<b>115</b>	1.050 06	952.32	490.37	1.4643	<b>115</b>	1.049 54	952.80	491.09	1.4635
1.054 92	947.94	510.73	1.5191	<b>120</b>	1.054 38	948.42	511.44	1.5183	<b>120</b>	1.053 84	948.91	512.15	1.5174
1.059 40	943.93	531.84	1.5725	<b>125</b>	1.058 85	944.42	532.54	1.5716	<b>125</b>	1.058 30	944.91	533.24	1.5707
1.064 04	939.81	553.00	1.6253	<b>130</b>	1.063 47	940.32	553.68	1.6244	<b>130</b>	1.062 91	940.82	554.37	1.6234
1.068 84	935.60	574.20	1.6776	<b>135</b>	1.068 25	936.11	574.87	1.6766	<b>135</b>	1.067 67	936.62	575.55	1.6756
1.073 80	931.28	595.45	1.7293	<b>140</b>	1.073 19	931.80	596.11	1.7283	<b>140</b>	1.072 59	932.32	596.77	1.7273
1.078 92	926.85	616.75	1.7806	<b>145</b>	1.078 30	927.38	617.40	1.7795	<b>145</b>	1.077 68	927.92	618.04	1.7785
1.084 22	922.32	638.11	1.8313	<b>150</b>	1.083 58	922.87	638.74	1.8303	<b>150</b>	1.082 94	923.41	639.37	1.8292
1.089 70	917.69	659.53	1.8817	<b>155</b>	1.089 03	918.25	660.14	1.8806	<b>155</b>	1.088 37	918.80	660.76	1.8794
1.095 35	912.95	681.01	1.9315	<b>160</b>	1.094 67	913.52	681.61	1.9304	<b>160</b>	1.093 98	914.09	682.21	1.9293
1.101 20	908.10	702.56	1.9810	<b>165</b>	1.100 49	908.69	703.14	1.9798	<b>165</b>	1.099 78	909.27	703.72	1.9786
1.107 25	903.14	724.18	2.0301	<b>170</b>	1.106 51	903.74	724.75	2.0289	<b>170</b>	1.105 77	904.34	725.31	2.0276
1.113 50	898.07	745.89	2.0788	<b>175</b>	1.112 73	898.69	746.43	2.0775	<b>175</b>	1.111 97	899.31	746.98	2.0763
1.119 97	892.88	767.68	2.1271	<b>180</b>	1.119 17	893.52	768.20	2.1258	<b>180</b>	1.118 37	894.16	768.73	2.1245
1.126 66	887.58	789.55	2.1752	<b>185</b>	1.125 82	888.24	790.06	2.1738	<b>185</b>	1.125 00	888.89	790.57	2.1724
1.133 58	882.16	811.53	2.2229	<b>190</b>	1.132 71	882.84	812.01	2.2215	<b>190</b>	1.131 85	883.51	812.50	2.2201
1.140 76	876.61	833.61	2.2703	<b>195</b>	1.139 85	877.31	834.07	2.2688	<b>195</b>	1.138 95	878.00	834.53	2.2674
1.148 19	870.94	855.80	2.3174	<b>200</b>	1.147 24	871.66	856.23	2.3159	<b>200</b>	1.146 30	872.37	856.67	2.3144
1.163 90	859.18	900.53	2.4110	<b>210</b>	1.162 86	859.95	900.91	2.4094	<b>210</b>	1.161 82	860.72	901.29	2.4077
1.180 86	846.84	945.81	2.5037	<b>220</b>	1.179 70	847.67	946.13	2.5020	<b>220</b>	1.178 55	848.50	946.44	2.5002
1.199 23	833.87	991.71	2.5959	<b>230</b>	1.197 94	834.77	991.95	2.5940	<b>230</b>	1.196 65	835.67	992.20	2.5921
1.219 24	820.18	1038.3	2.6876	<b>240</b>	1.217 77	821.17	1038.5	2.6855	<b>240</b>	1.216 33	822.15	1038.6	2.6835
1.241 15	805.70	1085.8	2.7792	<b>250</b>	1.239 48	806.79	1085.8	2.7769	<b>250</b>	1.237 83	807.86	1085.9	2.7747
1.265 33	790.30	1134.3	2.8710	<b>260</b>	1.263 40	791.51	1134.2	2.8685	<b>260</b>	1.261 50	792.71	1134.1	2.8660
1.292 27	773.83	1183.9	2.9633	<b>270</b>	1.290 00	775.19	1183.7	2.9604	<b>270</b>	1.287 78	776.53	1183.4	2.9576
1.322 63	756.07	1235.0	3.0565	<b>280</b>	1.319 92	757.62	1234.6	3.0533	<b>280</b>	1.317 27	759.15	1234.1	3.0501
1.357 39	736.71	1288.0	3.1514	<b>290</b>	1.354 07	738.52	1287.3	3.1477	<b>290</b>	1.350 83	740.28	1286.6	3.1440

**Table 3. Compressed Water and Superheated Steam (continued)**

10 MPa ( $t_s = 310.997\text{ °C}$ )				$t, \text{ °C}$	11 MPa ( $t_s = 318.079\text{ °C}$ )				$t, \text{ °C}$	12 MPa ( $t_s = 324.675\text{ °C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
1.398 04	715.29	1343.3	3.2488	<b>300</b>	1.393 83	717.45	1342.2	3.2444	<b>300</b>	1.389 76	719.55	1341.2	3.2401
1.447 09	691.04	1402.0	3.3502	<b>310</b>	1.441 49	693.72	1400.3	3.3449	<b>310</b>	1.436 13	696.31	1398.7	3.3397
19.270	51.894	2782.8	5.7133	<b>320</b>	16.274	61.447	2721.1	5.5793	<b>320</b>	1.493 66	669.50	1460.5	3.4447
20.444	48.913	2835.8	5.8019	<b>330</b>	17.565	56.931	2786.5	5.6888	<b>330</b>	15.021	66.572	2728.2	5.5651
21.487	46.539	2882.1	5.8782	<b>340</b>	18.656	53.602	2840.6	5.7777	<b>340</b>	16.210	61.690	2793.6	5.6727
22.440	44.564	2924.0	5.9459	<b>350</b>	19.625	50.955	2887.9	5.8542	<b>350</b>	17.221	58.068	2848.1	5.7609
23.325	42.873	2962.7	6.0075	<b>360</b>	20.509	48.758	2930.6	5.9223	<b>360</b>	18.121	55.185	2895.9	5.8371
24.158	41.394	2998.9	6.0642	<b>370</b>	21.331	46.881	2970.0	5.9840	<b>370</b>	18.943	52.791	2939.2	5.9049
24.950	40.081	3033.2	6.1172	<b>380</b>	22.103	45.243	3006.9	6.0410	<b>380</b>	19.706	50.746	2979.2	5.9665
25.707	38.900	3065.9	6.1669	<b>390</b>	22.836	43.790	3041.9	6.0941	<b>390</b>	20.424	48.961	3016.6	6.0234
26.436	37.827	3097.4	6.2141	<b>400</b>	23.537	42.486	3075.2	6.1440	<b>400</b>	21.106	47.380	3052.0	6.0764
27.142	36.844	3127.9	6.2590	<b>410</b>	24.212	41.302	3107.2	6.1912	<b>410</b>	21.758	45.961	3085.8	6.1262
27.826	35.937	3157.5	6.3020	<b>420</b>	24.864	40.219	3138.2	6.2362	<b>420</b>	22.385	44.674	3118.3	6.1734
28.493	35.096	3186.4	6.3434	<b>430</b>	25.496	39.221	3168.3	6.2793	<b>430</b>	22.990	43.497	3149.7	6.2184
29.144	34.312	3214.6	6.3833	<b>440</b>	26.112	38.297	3197.6	6.3207	<b>440</b>	23.577	42.413	3180.1	6.2614
29.782	33.578	3242.3	6.4219	<b>450</b>	26.713	37.435	3226.3	6.3607	<b>450</b>	24.149	41.410	3209.8	6.3028
30.407	32.887	3269.6	6.4593	<b>460</b>	27.301	36.629	3254.4	6.3993	<b>460</b>	24.707	40.475	3238.9	6.3427
31.022	32.236	3296.5	6.4957	<b>470</b>	27.877	35.872	3282.0	6.4367	<b>470</b>	25.252	39.601	3267.3	6.3812
31.626	31.619	3323.0	6.5311	<b>480</b>	28.443	35.158	3309.3	6.4731	<b>480</b>	25.787	38.780	3295.3	6.4186
32.223	31.034	3349.2	6.5657	<b>490</b>	29.000	34.482	3336.1	6.5085	<b>490</b>	26.312	38.006	3322.8	6.4549
32.811	30.478	3375.1	6.5995	<b>500</b>	29.549	33.842	3362.7	6.5431	<b>500</b>	26.828	37.275	3350.0	6.4903
33.966	29.441	3426.4	6.6649	<b>520</b>	30.624	32.654	3415.0	6.6099	<b>520</b>	27.837	35.923	3403.4	6.5585
35.097	28.493	3476.9	6.7278	<b>540</b>	31.674	31.571	3466.4	6.6739	<b>540</b>	28.821	34.697	3455.8	6.6237
36.207	27.619	3526.9	6.7886	<b>560</b>	32.703	30.578	3517.2	6.7356	<b>560</b>	29.782	33.577	3507.4	6.6864
37.300	26.809	3576.5	6.8474	<b>580</b>	33.714	29.661	3567.5	6.7953	<b>580</b>	30.725	32.547	3558.4	6.7469
38.378	26.057	3625.8	6.9045	<b>600</b>	34.709	28.811	3617.4	6.8531	<b>600</b>	31.651	31.594	3608.9	6.8054
39.442	25.353	3674.8	6.9600	<b>620</b>	35.691	28.018	3667.0	6.9092	<b>620</b>	32.564	30.708	3659.1	6.8622
40.495	24.694	3723.7	7.0142	<b>640</b>	36.661	27.277	3716.4	6.9639	<b>640</b>	33.465	29.882	3709.0	6.9175
41.538	24.074	3772.5	7.0670	<b>660</b>	37.621	26.581	3765.6	7.0173	<b>660</b>	34.356	29.107	3758.7	6.9713
42.572	23.490	3821.3	7.1187	<b>680</b>	38.571	25.926	3814.8	7.0694	<b>680</b>	35.237	28.379	3808.2	7.0239
43.597	22.937	3870.0	7.1693	<b>700</b>	39.513	25.308	3863.9	7.1204	<b>700</b>	36.109	27.694	3857.7	7.0753
44.615	22.414	3918.7	7.2189	<b>720</b>	40.448	24.723	3913.0	7.1703	<b>720</b>	36.975	27.046	3907.2	7.1256
45.627	21.917	3967.6	7.2676	<b>740</b>	41.376	24.169	3962.1	7.2193	<b>740</b>	37.833	26.432	3956.6	7.1748
46.633	21.444	4016.4	7.3153	<b>760</b>	42.298	23.642	4011.2	7.2673	<b>760</b>	38.685	25.849	4006.0	7.2232
47.633	20.994	4065.4	7.3623	<b>780</b>	43.215	23.140	4060.5	7.3146	<b>780</b>	39.532	25.296	4055.6	7.2706
48.629	20.564	4114.5	7.4085	<b>800</b>	44.126	22.662	4109.8	7.3610	<b>800</b>	40.375	24.768	4105.1	7.3173
49.620	20.153	4163.7	7.4539	<b>820</b>	45.034	22.206	4159.3	7.4066	<b>820</b>	41.212	24.265	4154.8	7.3631
50.607	19.760	4213.0	7.4986	<b>840</b>	45.937	21.769	4208.8	7.4515	<b>840</b>	42.045	23.784	4204.6	7.4083
51.590	19.383	4262.5	7.5427	<b>860</b>	46.837	21.351	4258.5	7.4958	<b>860</b>	42.875	23.324	4254.5	7.4527
52.570	19.022	4312.2	7.5861	<b>880</b>	47.733	20.950	4308.3	7.5394	<b>880</b>	43.701	22.883	4304.5	7.4965
53.547	18.675	4362.0	7.6290	<b>900</b>	48.625	20.565	4358.3	7.5824	<b>900</b>	44.524	22.460	4354.7	7.5396
54.521	18.342	4412.0	7.6712	<b>920</b>	49.515	20.196	4408.5	7.6247	<b>920</b>	45.344	22.054	4405.0	7.5821
55.492	18.021	4462.2	7.7129	<b>940</b>	50.402	19.840	4458.8	7.6666	<b>940</b>	46.161	21.663	4455.5	7.6241
56.460	17.712	4512.5	7.7541	<b>960</b>	51.287	19.498	4509.3	7.7079	<b>960</b>	46.976	21.287	4506.1	7.6655
57.426	17.414	4563.0	7.7947	<b>980</b>	52.169	19.168	4560.0	7.7486	<b>980</b>	47.789	20.925	4557.0	7.7064
58.390	17.126	4613.8	7.8349	<b>1000</b>	53.049	18.850	4610.9	7.7889	<b>1000</b>	48.599	20.577	4608.0	7.7467
63.183	15.827	4870.3	8.0288	<b>1100</b>	57.422	17.415	4868.0	7.9833	<b>1100</b>	52.622	19.003	4865.6	7.9416
67.938	14.719	5131.7	8.2126	<b>1200</b>	61.758	16.192	5129.8	8.1673	<b>1200</b>	56.608	17.665	5127.9	8.1259
72.667	13.761	5397.9	8.3874	<b>1300</b>	66.067	15.136	5396.4	8.3424	<b>1300</b>	60.567	16.511	5394.9	8.3012
77.374	12.924	5668.7	8.5543	<b>1400</b>	70.355	14.214	5667.5	8.5095	<b>1400</b>	64.505	15.503	5666.3	8.4685
82.066	12.185	5943.9	8.7140	<b>1500</b>	74.627	13.400	5942.9	8.6693	<b>1500</b>	68.428	14.614	5941.9	8.6284
86.745	11.528	6223.1	8.8671	<b>1600</b>	78.886	12.676	6222.3	8.8226	<b>1600</b>	72.337	13.824	6221.5	8.7818
96.074	10.409	6792.4	9.1559	<b>1800</b>	87.377	11.445	6791.9	9.1115	<b>1800</b>	80.129	12.480	6791.5	9.0709
105.38	9.4897	7374.6	9.4239	<b>2000</b>	95.840	10.434	7374.4	9.3796	<b>2000</b>	87.892	11.378	7374.2	9.3392

**Table 3. Compressed Water and Superheated Steam (continued)**

13 MPa ( $t_s = 330.854 \text{ }^\circ\text{C}$ )				$t_s, \text{ }^\circ\text{C}$	14 MPa ( $t_s = 336.666 \text{ }^\circ\text{C}$ )				$t_s, \text{ }^\circ\text{C}$	15 MPa ( $t_s = 342.155 \text{ }^\circ\text{C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
1.566 49	638.37	1531.5	3.5608	$t_s(\text{L})$	1.609 74	621.22	1571.0	3.6232	$t_s(\text{L})$	1.656 95	603.52	1610.2	3.6846
12.780	78.245	2662.7	5.4336	$t_s(\text{V})$	11.485	87.069	2637.9	5.3727	$t_s(\text{V})$	10.338	96.727	2610.7	5.3106
0.993 73	1006.31	13.07	0.000 41	<b>0</b>	0.993 25	1006.80	14.07	0.000 43	<b>0</b>	0.992 76	1007.29	15.07	0.000 45
0.993 82	1006.22	33.85	0.075 80	<b>5</b>	0.993 35	1006.70	34.83	0.075 74	<b>5</b>	0.992 88	1007.17	35.81	0.075 69
0.994 25	1005.78	54.61	0.149 75	<b>10</b>	0.993 79	1006.25	55.57	0.149 63	<b>10</b>	0.993 34	1006.71	56.53	0.149 51
0.994 98	1005.04	75.34	0.222 35	<b>15</b>	0.994 53	1005.50	76.29	0.222 18	<b>15</b>	0.994 09	1005.95	77.23	0.222 00
0.995 98	1004.04	96.07	0.293 68	<b>20</b>	0.995 54	1004.48	97.00	0.293 45	<b>20</b>	0.995 10	1004.93	97.93	0.293 23
0.997 22	1002.79	116.80	0.363 79	<b>25</b>	0.996 78	1003.23	117.72	0.363 52	<b>25</b>	0.996 35	1003.66	118.63	0.363 25
0.998 68	1001.32	137.53	0.432 74	<b>30</b>	0.998 25	1001.75	138.44	0.432 43	<b>30</b>	0.997 82	1002.19	139.34	0.432 11
1.000 35	999.65	158.27	0.500 58	<b>35</b>	0.999 92	1000.08	159.16	0.500 22	<b>35</b>	0.999 49	1000.51	160.05	0.499 87
1.002 20	997.80	179.01	0.567 34	<b>40</b>	1.001 78	998.23	179.89	0.566 95	<b>40</b>	1.001 35	998.65	180.77	0.566 56
1.004 24	995.77	199.76	0.633 08	<b>45</b>	1.003 82	996.20	200.62	0.632 65	<b>45</b>	1.003 39	996.62	201.49	0.632 23
1.006 46	993.58	220.51	0.697 82	<b>50</b>	1.006 03	994.01	221.37	0.697 36	<b>50</b>	1.005 60	994.43	222.23	0.696 90
1.008 83	991.24	241.28	0.761 60	<b>55</b>	1.008 40	991.67	242.13	0.761 10	<b>55</b>	1.007 97	992.09	242.98	0.760 61
1.011 37	988.76	262.06	0.824 44	<b>60</b>	1.010 94	989.18	262.90	0.823 92	<b>60</b>	1.010 51	989.60	263.74	0.823 40
1.014 06	986.13	282.86	0.886 39	<b>65</b>	1.013 63	986.56	283.68	0.885 84	<b>65</b>	1.013 19	986.98	284.51	0.885 29
1.016 91	983.37	303.66	0.947 48	<b>70</b>	1.016 47	983.80	304.48	0.946 89	<b>70</b>	1.016 03	984.23	305.30	0.946 31
1.019 90	980.49	324.49	1.0077	<b>75</b>	1.019 45	980.92	325.29	1.0071	<b>75</b>	1.019 01	981.35	326.10	1.0065
1.023 04	977.48	345.32	1.0671	<b>80</b>	1.022 58	977.91	346.12	1.0665	<b>80</b>	1.022 13	978.35	346.92	1.0659
1.026 32	974.36	366.18	1.1258	<b>85</b>	1.025 86	974.79	366.97	1.1251	<b>85</b>	1.025 40	975.23	367.75	1.1245
1.029 75	971.11	387.06	1.1837	<b>90</b>	1.029 28	971.56	387.83	1.1830	<b>90</b>	1.028 81	972.00	388.61	1.1823
1.033 31	967.76	407.96	1.2408	<b>95</b>	1.032 84	968.21	408.72	1.2401	<b>95</b>	1.032 36	968.65	409.49	1.2394
1.037 02	964.30	428.88	1.2973	<b>100</b>	1.036 54	964.75	429.63	1.2965	<b>100</b>	1.036 05	965.20	430.39	1.2958
1.040 88	960.73	449.83	1.3531	<b>105</b>	1.040 38	961.19	450.57	1.3523	<b>105</b>	1.039 89	961.64	451.32	1.3515
1.044 88	957.05	470.81	1.4082	<b>110</b>	1.044 37	957.52	471.54	1.4073	<b>110</b>	1.043 86	957.98	472.27	1.4065
1.049 02	953.27	491.81	1.4626	<b>115</b>	1.048 50	953.74	492.54	1.4618	<b>115</b>	1.047 98	954.21	493.26	1.4610
1.053 31	949.39	512.86	1.5165	<b>120</b>	1.052 78	949.87	513.57	1.5156	<b>120</b>	1.052 25	950.35	514.28	1.5148
1.057 75	945.40	533.94	1.5698	<b>125</b>	1.057 20	945.89	534.63	1.5689	<b>125</b>	1.056 66	946.38	535.33	1.5680
1.062 34	941.32	555.06	1.6225	<b>130</b>	1.061 78	941.81	555.74	1.6216	<b>130</b>	1.061 22	942.31	556.43	1.6206
1.067 09	937.13	576.22	1.6747	<b>135</b>	1.066 51	937.63	576.89	1.6737	<b>135</b>	1.065 94	938.14	577.57	1.6727
1.072 00	932.84	597.43	1.7263	<b>140</b>	1.071 40	933.36	598.09	1.7253	<b>140</b>	1.070 81	933.87	598.75	1.7243
1.077 07	928.45	618.69	1.7775	<b>145</b>	1.076 46	928.98	619.33	1.7764	<b>145</b>	1.075 85	929.50	619.98	1.7754
1.082 31	923.95	640.00	1.8281	<b>150</b>	1.081 67	924.49	640.63	1.8271	<b>150</b>	1.081 04	925.03	641.27	1.8260
1.087 72	919.36	661.37	1.8783	<b>155</b>	1.087 06	919.91	661.99	1.8772	<b>155</b>	1.086 41	920.46	662.61	1.8762
1.093 30	914.66	682.81	1.9281	<b>160</b>	1.092 63	915.22	683.41	1.9270	<b>160</b>	1.091 96	915.79	684.01	1.9259
1.099 08	909.85	704.31	1.9775	<b>165</b>	1.098 38	910.43	704.89	1.9763	<b>165</b>	1.097 68	911.01	705.48	1.9751
1.105 04	904.94	725.88	2.0264	<b>170</b>	1.104 32	905.54	726.45	2.0252	<b>170</b>	1.103 60	906.13	727.02	2.0240
1.111 21	899.92	747.53	2.0750	<b>175</b>	1.110 46	900.53	748.08	2.0738	<b>175</b>	1.109 71	901.14	748.63	2.0725
1.117 58	894.79	769.26	2.1232	<b>180</b>	1.116 80	895.42	769.79	2.1219	<b>180</b>	1.116 02	896.04	770.32	2.1206
1.124 17	889.54	791.07	2.1711	<b>185</b>	1.123 36	890.19	791.59	2.1698	<b>185</b>	1.122 55	890.83	792.10	2.1684
1.130 99	884.18	812.98	2.2187	<b>190</b>	1.130 14	884.84	813.47	2.2173	<b>190</b>	1.129 30	885.51	813.97	2.2159
1.138 05	878.69	834.99	2.2659	<b>195</b>	1.137 16	879.38	835.46	2.2645	<b>195</b>	1.136 28	880.06	835.93	2.2631
1.145 36	873.09	857.11	2.3129	<b>200</b>	1.144 43	873.80	857.55	2.3114	<b>200</b>	1.143 51	874.50	857.99	2.3100
1.160 79	861.48	901.68	2.4061	<b>210</b>	1.159 77	862.24	902.07	2.4045	<b>210</b>	1.158 76	862.99	902.46	2.4030
1.177 41	849.32	946.77	2.4985	<b>220</b>	1.176 28	850.14	947.10	2.4968	<b>220</b>	1.175 16	850.95	947.43	2.4951
1.195 38	836.55	992.45	2.5902	<b>230</b>	1.194 12	837.44	992.71	2.5883	<b>230</b>	1.192 87	838.31	992.97	2.5865
1.214 89	823.12	1038.8	2.6814	<b>240</b>	1.213 48	824.08	1039.0	2.6794	<b>240</b>	1.212 08	825.03	1039.2	2.6774
1.236 20	808.93	1086.0	2.7724	<b>250</b>	1.234 59	809.98	1086.0	2.7702	<b>250</b>	1.233 01	811.03	1086.1	2.7680
1.259 63	793.89	1134.0	2.8635	<b>260</b>	1.257 78	795.05	1134.0	2.8610	<b>260</b>	1.255 96	796.20	1134.0	2.8586
1.285 59	777.85	1183.2	2.9549	<b>270</b>	1.283 44	779.16	1183.0	2.9521	<b>270</b>	1.281 33	780.44	1182.9	2.9495
1.314 67	760.65	1233.7	3.0470	<b>280</b>	1.312 12	762.12	1233.4	3.0440	<b>280</b>	1.309 63	763.58	1233.0	3.0409
1.347 68	742.02	1285.9	3.1405	<b>290</b>	1.344 60	743.72	1285.3	3.1370	<b>290</b>	1.341 59	745.39	1284.7	3.1335

**Table 3. Compressed Water and Superheated Steam (continued)**

13 MPa ( $t_s = 330.854\text{ }^\circ\text{C}$ )				$t, \text{ }^\circ\text{C}$	14 MPa ( $t_s = 336.666\text{ }^\circ\text{C}$ )				$t, \text{ }^\circ\text{C}$	15 MPa ( $t_s = 342.155\text{ }^\circ\text{C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
1.385 81	721.60	1340.2	3.2360	<b>300</b>	1.381 98	723.60	1339.2	3.2319	<b>300</b>	1.378 26	725.55	1338.3	3.2279
1.430 98	698.82	1397.2	3.3346	<b>310</b>	1.426 03	701.25	1395.8	3.3297	<b>310</b>	1.421 25	703.60	1394.4	3.3250
1.486 50	672.72	1458.2	3.4383	<b>320</b>	1.479 72	675.80	1456.0	3.4322	<b>320</b>	1.473 26	678.77	1454.0	3.4263
1.559 09	641.40	1525.4	3.5506	<b>330</b>	1.548 83	645.65	1521.9	3.5423	<b>330</b>	1.539 32	649.64	1518.8	3.5345
14.029	71.282	2739.0	5.5591	<b>340</b>	11.997	83.356	2672.3	5.4290	<b>340</b>	1.631 13	613.07	1592.4	3.6555
15.119	66.144	2803.7	5.6638	<b>350</b>	13.232	75.577	2753.1	5.5598	<b>350</b>	11.481	87.100	2693.1	5.4437
16.053	62.292	2858.1	5.7504	<b>360</b>	14.228	70.284	2816.5	5.6607	<b>360</b>	12.582	79.476	2769.7	5.5657
16.888	59.212	2906.2	5.8257	<b>370</b>	15.091	66.264	2870.4	5.7453	<b>370</b>	13.493	74.115	2831.4	5.6625
17.653	56.649	2949.7	5.8929	<b>380</b>	15.866	63.028	2918.3	5.8192	<b>380</b>	14.289	69.984	2884.7	5.7446
18.364	54.455	2990.0	5.9541	<b>390</b>	16.577	60.323	2961.9	5.8855	<b>390</b>	15.008	66.630	2932.2	5.8168
19.033	52.540	3027.7	6.0106	<b>400</b>	17.240	58.003	3002.3	5.9459	<b>400</b>	15.671	63.812	2975.7	5.8819
19.669	50.843	3063.5	6.0633	<b>410</b>	17.865	55.974	3040.3	6.0019	<b>410</b>	16.290	61.387	3016.1	5.9415
20.276	49.318	3097.6	6.1129	<b>420</b>	18.459	54.173	3076.2	6.0542	<b>420</b>	16.875	59.260	3054.0	5.9967
20.861	47.936	3130.4	6.1599	<b>430</b>	19.028	52.554	3110.6	6.1034	<b>430</b>	17.431	57.368	3090.1	6.0484
21.426	46.672	3162.2	6.2047	<b>440</b>	19.575	51.086	3143.7	6.1501	<b>440</b>	17.964	55.666	3124.7	6.0971
21.974	45.509	3193.0	6.2476	<b>450</b>	20.104	49.743	3175.7	6.1946	<b>450</b>	18.477	54.121	3157.9	6.1434
22.507	44.431	3223.0	6.2888	<b>460</b>	20.616	48.505	3206.7	6.2373	<b>460</b>	18.973	52.706	3190.1	6.1876
23.027	43.428	3252.3	6.3286	<b>470</b>	21.115	47.359	3237.0	6.2783	<b>470</b>	19.455	51.402	3221.3	6.2299
23.535	42.489	3281.1	6.3670	<b>480</b>	21.602	46.292	3266.6	6.3178	<b>480</b>	19.923	50.193	3251.8	6.2706
24.034	41.609	3309.3	6.4043	<b>490</b>	22.078	45.294	3295.6	6.3561	<b>490</b>	20.380	49.067	3281.6	6.3099
24.523	40.779	3337.1	6.4405	<b>500</b>	22.544	44.357	3324.1	6.3932	<b>500</b>	20.827	48.014	3310.8	6.3480
25.477	39.251	3391.7	6.5101	<b>520</b>	23.452	42.640	3379.8	6.4643	<b>520</b>	21.696	46.092	3367.8	6.4207
26.404	37.873	3445.0	6.5766	<b>540</b>	24.332	41.098	3434.2	6.5320	<b>540</b>	22.534	44.376	3423.2	6.4897
27.309	36.618	3497.5	6.6403	<b>560</b>	25.188	39.701	3487.5	6.5968	<b>560</b>	23.349	42.828	3477.4	6.5556
28.194	35.468	3549.2	6.7016	<b>580</b>	26.025	38.425	3539.9	6.6591	<b>580</b>	24.144	41.419	3530.6	6.6187
29.063	34.408	3600.4	6.7609	<b>600</b>	26.845	37.252	3591.8	6.7191	<b>600</b>	24.921	40.127	3583.1	6.6796
29.918	33.424	3651.1	6.8184	<b>620</b>	27.650	36.166	3643.1	6.7772	<b>620</b>	25.684	38.935	3635.1	6.7384
30.761	32.509	3701.5	6.8742	<b>640</b>	28.443	35.158	3694.0	6.8336	<b>640</b>	26.433	37.831	3686.5	6.7954
31.593	31.653	3751.7	6.9286	<b>660</b>	29.225	34.218	3744.7	6.8885	<b>660</b>	27.172	36.802	3737.6	6.8508
32.415	30.850	3801.7	6.9816	<b>680</b>	29.997	33.337	3795.1	6.9419	<b>680</b>	27.901	35.841	3788.5	6.9047
33.229	30.094	3851.5	7.0333	<b>700</b>	30.761	32.509	3845.3	6.9941	<b>700</b>	28.621	34.939	3839.1	6.9572
34.036	29.381	3901.3	7.0840	<b>720</b>	31.517	31.729	3895.5	7.0451	<b>720</b>	29.334	34.091	3889.6	7.0086
34.835	28.707	3951.1	7.1336	<b>740</b>	32.266	30.993	3945.6	7.0950	<b>740</b>	30.039	33.290	3940.0	7.0589
35.629	28.067	4000.8	7.1822	<b>760</b>	33.009	30.295	3995.6	7.1440	<b>760</b>	30.738	32.533	3990.4	7.1081
36.417	27.460	4050.6	7.2299	<b>780</b>	33.746	29.633	4045.7	7.1920	<b>780</b>	31.432	31.815	4040.7	7.1563
37.200	26.882	4100.4	7.2768	<b>800</b>	34.479	29.003	4095.8	7.2391	<b>800</b>	32.121	31.132	4091.1	7.2037
37.978	26.331	4150.4	7.3229	<b>820</b>	35.207	28.404	4145.9	7.2854	<b>820</b>	32.805	30.483	4141.4	7.2502
38.753	25.805	4200.3	7.3682	<b>840</b>	35.931	27.831	4196.1	7.3309	<b>840</b>	33.485	29.864	4191.9	7.2959
39.523	25.302	4250.5	7.4128	<b>860</b>	36.650	27.285	4246.4	7.3757	<b>860</b>	34.161	29.273	4242.4	7.3409
40.290	24.820	4300.7	7.4567	<b>880</b>	37.367	26.762	4296.8	7.4198	<b>880</b>	34.833	28.708	4293.0	7.3852
41.054	24.358	4351.0	7.5000	<b>900</b>	38.080	26.261	4347.4	7.4632	<b>900</b>	35.503	28.167	4343.7	7.4288
41.815	23.915	4401.5	7.5427	<b>920</b>	38.790	25.780	4398.0	7.5060	<b>920</b>	36.169	27.648	4394.5	7.4717
42.573	23.489	4452.2	7.5848	<b>940</b>	39.498	25.318	4448.8	7.5483	<b>940</b>	36.832	27.150	4445.5	7.5141
43.329	23.079	4503.0	7.6263	<b>960</b>	40.203	24.874	4499.8	7.5899	<b>960</b>	37.493	26.671	4496.6	7.5559
44.082	22.685	4553.9	7.6673	<b>980</b>	40.905	24.447	4550.9	7.6310	<b>980</b>	38.152	26.211	4547.8	7.5971
44.833	22.305	4605.0	7.7078	<b>1000</b>	41.605	24.035	4602.1	7.6716	<b>1000</b>	38.808	25.768	4599.2	7.6378
48.560	20.593	4863.3	7.9030	<b>1100</b>	45.079	22.183	4860.9	7.8673	<b>1100</b>	42.062	23.774	4858.6	7.8339
52.251	19.139	5126.0	8.0877	<b>1200</b>	48.516	20.612	5124.2	8.0523	<b>1200</b>	45.279	22.085	5122.3	8.0192
55.914	17.885	5393.3	8.2633	<b>1300</b>	51.925	19.259	5391.8	8.2280	<b>1300</b>	48.468	20.632	5390.3	8.1952
59.556	16.791	5665.0	8.4307	<b>1400</b>	55.314	18.079	5663.8	8.3956	<b>1400</b>	51.637	19.366	5662.5	8.3630
63.182	15.827	5940.9	8.5908	<b>1500</b>	58.687	17.040	5939.9	8.5559	<b>1500</b>	54.790	18.251	5938.9	8.5234
66.796	14.971	6220.7	8.7443	<b>1600</b>	62.047	16.117	6219.9	8.7095	<b>1600</b>	57.931	17.262	6219.1	8.6771
73.996	13.514	6791.0	9.0335	<b>1800</b>	68.739	14.548	6790.5	8.9989	<b>1800</b>	64.183	15.580	6790.0	8.9666
81.168	12.320	7373.9	9.3019	<b>2000</b>	75.404	13.262	7373.7	9.2674	<b>2000</b>	70.408	14.203	7373.5	9.2353

**Table 3. Compressed Water and Superheated Steam (continued)**

16 MPa ( $t_s = 347.355\text{ }^\circ\text{C}$ )				$t_s, \text{ }^\circ\text{C}$	17 MPa ( $t_s = 352.293\text{ }^\circ\text{C}$ )				$t_s, \text{ }^\circ\text{C}$	18 MPa ( $t_s = 356.992\text{ }^\circ\text{C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
1.709 44	584.99	1649.7	3.7457	$t_s(\text{L})$	1.769 26	565.21	1690.0	3.8077	$t_s(\text{L})$	1.839 80	543.54	1732.1	3.8718
9.3088	107.42	2580.8	5.2463	$t_s(\text{V})$	8.3709	119.46	2547.5	5.1787	$t_s(\text{V})$	7.5017	133.30	2509.8	5.1061
0.992 28	1007.78	16.06	0.000 46	0	0.991 79	1008.27	17.06	0.000 47	0	0.991 31	1008.76	18.05	0.000 47
0.992 41	1007.65	36.78	0.075 63	5	0.991 94	1008.12	37.76	0.075 56	5	0.991 48	1008.59	38.73	0.075 50
0.992 88	1007.17	57.48	0.149 39	10	0.992 42	1007.63	58.44	0.149 26	10	0.991 97	1008.09	59.40	0.149 14
0.993 64	1006.40	78.18	0.221 82	15	0.993 19	1006.85	79.12	0.221 64	15	0.992 75	1007.30	80.06	0.221 46
0.994 66	1005.37	98.86	0.293 00	20	0.994 22	1005.81	99.79	0.292 77	20	0.993 78	1006.25	100.72	0.292 54
0.995 92	1004.10	119.55	0.362 97	25	0.995 48	1004.54	120.46	0.362 70	25	0.995 05	1004.97	121.38	0.362 42
0.997 39	1002.62	140.24	0.431 80	30	0.996 96	1003.05	141.14	0.431 48	30	0.996 53	1003.48	142.04	0.431 17
0.999 06	1000.94	160.94	0.499 52	35	0.998 64	1001.37	161.83	0.499 16	35	0.998 21	1001.79	162.72	0.498 81
1.000 92	999.08	181.65	0.566 17	40	1.000 50	999.50	182.52	0.565 78	40	1.000 08	999.92	183.40	0.565 39
1.002 96	997.04	202.36	0.631 80	45	1.002 54	997.47	203.23	0.631 38	45	1.002 12	997.89	204.10	0.630 95
1.005 17	994.85	223.09	0.696 44	50	1.004 75	995.27	223.94	0.695 98	50	1.004 32	995.69	224.80	0.695 53
1.007 55	992.51	243.82	0.760 12	55	1.007 12	992.93	244.67	0.759 63	55	1.006 69	993.35	245.52	0.759 14
1.010 07	990.03	264.57	0.822 88	60	1.009 64	990.45	265.41	0.822 36	60	1.009 22	990.87	266.25	0.821 84
1.012 76	987.40	285.34	0.884 74	65	1.012 32	987.83	286.16	0.884 19	65	1.011 89	988.25	286.99	0.883 64
1.015 59	984.65	306.11	0.945 73	70	1.015 15	985.08	306.93	0.945 15	70	1.014 71	985.50	307.75	0.944 57
1.018 56	981.78	326.91	1.0059	75	1.018 12	982.20	327.71	1.0053	75	1.017 68	982.63	328.52	1.0047
1.021 68	978.78	347.71	1.0652	80	1.021 23	979.21	348.51	1.0646	80	1.020 79	979.64	349.31	1.0640
1.024 94	975.66	368.54	1.1238	85	1.024 49	976.10	369.33	1.1231	85	1.024 03	976.53	370.11	1.1225
1.028 35	972.44	389.39	1.1816	90	1.027 88	972.87	390.16	1.1809	90	1.027 42	973.31	390.94	1.1802
1.031 89	969.10	410.25	1.2387	95	1.031 42	969.54	411.02	1.2379	95	1.030 95	969.98	411.79	1.2372
1.035 57	965.65	431.14	1.2950	100	1.035 09	966.10	431.90	1.2943	100	1.034 61	966.55	432.66	1.2935
1.039 39	962.10	452.06	1.3507	105	1.038 90	962.55	452.81	1.3499	105	1.038 41	963.01	453.55	1.3492
1.043 36	958.44	473.01	1.4057	110	1.042 86	958.90	473.74	1.4049	110	1.042 36	959.36	474.47	1.4041
1.047 47	954.68	493.98	1.4601	115	1.046 95	955.15	494.70	1.4593	115	1.046 44	955.62	495.43	1.4585
1.051 72	950.82	514.99	1.5139	120	1.051 19	951.30	515.70	1.5130	120	1.050 67	951.77	516.41	1.5122
1.056 12	946.86	536.03	1.5671	125	1.055 58	947.35	536.73	1.5662	125	1.055 04	947.83	537.43	1.5653
1.060 67	942.80	557.12	1.6197	130	1.060 11	943.30	557.80	1.6188	130	1.059 56	943.79	558.49	1.6179
1.065 37	938.64	578.24	1.6718	135	1.064 80	939.15	578.92	1.6708	135	1.064 23	939.65	579.59	1.6699
1.070 22	934.38	599.41	1.7233	140	1.069 64	934.90	600.07	1.7224	140	1.069 05	935.41	600.74	1.7214
1.075 24	930.03	620.63	1.7744	145	1.074 64	930.55	621.28	1.7734	145	1.074 03	931.07	621.93	1.7724
1.080 42	925.57	641.90	1.8250	150	1.079 80	926.10	642.54	1.8239	150	1.079 18	926.63	643.17	1.8229
1.085 77	921.01	663.23	1.8751	155	1.085 12	921.55	663.85	1.8740	155	1.084 48	922.10	664.47	1.8729
1.091 29	916.35	684.62	1.9247	160	1.090 62	916.91	685.22	1.9236	160	1.089 96	917.46	685.83	1.9225
1.096 99	911.58	706.07	1.9740	165	1.096 30	912.16	706.66	1.9728	165	1.095 62	912.73	707.25	1.9717
1.102 88	906.72	727.59	2.0228	170	1.102 17	907.30	728.16	2.0216	170	1.101 46	907.89	728.74	2.0204
1.108 96	901.74	749.18	2.0713	175	1.108 22	902.35	749.74	2.0700	175	1.107 49	902.95	750.30	2.0688
1.115 25	896.66	770.86	2.1194	180	1.114 48	897.28	771.39	2.1181	180	1.113 71	897.90	771.93	2.1168
1.121 74	891.47	792.61	2.1671	185	1.120 94	892.11	793.13	2.1658	185	1.120 15	892.74	793.65	2.1645
1.128 46	886.17	814.46	2.2145	190	1.127 62	886.82	814.96	2.2132	190	1.126 80	887.47	815.46	2.2118
1.135 40	880.74	836.40	2.2617	195	1.134 53	881.42	836.88	2.2602	195	1.133 67	882.09	837.35	2.2588
1.142 59	875.20	858.44	2.3085	200	1.141 68	875.90	858.90	2.3070	200	1.140 78	876.59	859.35	2.3056
1.157 75	863.74	902.86	2.4014	210	1.156 76	864.49	903.26	2.3998	210	1.155 77	865.23	903.66	2.3983
1.174 05	851.75	947.77	2.4934	220	1.172 95	852.55	948.11	2.4917	220	1.171 86	853.34	948.46	2.4900
1.191 64	839.18	993.24	2.5847	230	1.190 42	840.04	993.51	2.5828	230	1.189 21	840.90	993.79	2.5810
1.210 69	825.97	1039.4	2.6754	240	1.209 32	826.91	1039.5	2.6734	240	1.207 97	827.84	1039.7	2.6715
1.231 44	812.06	1086.2	2.7658	250	1.229 89	813.08	1086.3	2.7637	250	1.228 36	814.09	1086.4	2.7615
1.254 17	797.34	1133.9	2.8562	260	1.252 40	798.47	1133.9	2.8538	260	1.250 65	799.58	1133.9	2.8515
1.279 25	781.71	1182.7	2.9468	270	1.277 20	782.96	1182.5	2.9442	270	1.275 18	784.20	1182.4	2.9416
1.307 18	765.01	1232.7	3.0380	280	1.304 77	766.42	1232.3	3.0350	280	1.302 41	767.81	1232.0	3.0321
1.338 65	747.02	1284.1	3.1302	290	1.335 77	748.63	1283.6	3.1268	290	1.332 96	750.21	1283.1	3.1236



**Table 3. Compressed Water and Superheated Steam (continued)**

16 MPa ( $t_s = 347.355\text{ }^\circ\text{C}$ )				$t, \text{ }^\circ\text{C}$	17 MPa ( $t_s = 352.293\text{ }^\circ\text{C}$ )				$t, \text{ }^\circ\text{C}$	18 MPa ( $t_s = 356.992\text{ }^\circ\text{C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
1.374 64	727.46	1337.4	3.2240	<b>300</b>	1.371 12	729.33	1336.6	3.2202	<b>300</b>	1.367 69	731.16	1335.8	3.2164
1.416 65	705.89	1393.2	3.3204	<b>310</b>	1.412 19	708.12	1391.9	3.3158	<b>310</b>	1.407 89	710.29	1390.8	3.3114
1.467 11	681.61	1452.1	3.4206	<b>320</b>	1.461 22	684.36	1450.3	3.4151	<b>320</b>	1.455 58	687.01	1448.6	3.4098
1.530 44	653.41	1515.8	3.5271	<b>330</b>	1.522 11	656.98	1513.1	3.5201	<b>330</b>	1.514 26	660.39	1510.6	3.5133
1.616 30	618.70	1587.4	3.6447	<b>340</b>	1.602 96	623.85	1582.9	3.6347	<b>340</b>	1.590 81	628.61	1578.8	3.6255
9.7658	102.40	2617.0	5.3045	<b>350</b>	1.726 98	579.05	1666.6	3.7702	<b>350</b>	1.702 99	587.20	1658.7	3.7547
11.061	90.407	2715.8	5.4619	<b>360</b>	9.6038	104.12	2651.1	5.3434	<b>360</b>	8.1112	123.29	2566.1	5.1952
12.046	83.012	2788.4	5.5756	<b>370</b>	10.713	93.345	2739.9	5.4826	<b>370</b>	9.4535	105.78	2683.9	5.3799
12.878	77.652	2848.3	5.6681	<b>380</b>	11.598	86.222	2808.7	5.5888	<b>380</b>	10.419	95.974	2764.9	5.5050
13.613	73.457	2900.6	5.7476	<b>390</b>	12.359	80.914	2866.7	5.6770	<b>390</b>	11.218	89.143	2830.3	5.6042
14.281	70.021	2947.6	5.8179	<b>400</b>	13.038	76.697	2917.9	5.7536	<b>400</b>	11.916	83.924	2886.4	5.6883
14.899	67.117	2990.7	5.8816	<b>410</b>	13.660	73.209	2964.2	5.8219	<b>410</b>	12.545	79.716	2936.4	5.7620
15.478	64.606	3031.0	5.9401	<b>420</b>	14.237	70.241	3007.0	5.8841	<b>420</b>	13.123	76.202	2982.0	5.8283
16.026	62.398	3069.0	5.9945	<b>430</b>	14.779	67.664	3047.1	5.9414	<b>430</b>	13.663	73.193	3024.4	5.8890
16.548	60.429	3105.1	6.0455	<b>440</b>	15.293	65.389	3084.9	5.9949	<b>440</b>	14.171	70.566	3064.1	5.9451
17.049	58.654	3139.7	6.0937	<b>450</b>	15.784	63.356	3121.0	6.0451	<b>450</b>	14.654	68.239	3101.8	5.9975
17.531	57.040	3173.0	6.1395	<b>460</b>	16.255	61.519	3155.6	6.0927	<b>460</b>	15.117	66.152	3137.7	6.0469
17.998	55.561	3205.3	6.1832	<b>470</b>	16.710	59.846	3189.0	6.1379	<b>470</b>	15.561	64.263	3172.3	6.0938
18.451	54.197	3236.7	6.2252	<b>480</b>	17.150	58.310	3221.4	6.1812	<b>480</b>	15.990	62.538	3205.7	6.1384
18.892	52.931	3267.3	6.2656	<b>490</b>	17.577	56.892	3252.9	6.2227	<b>490</b>	16.406	60.953	3238.1	6.1812
19.323	51.752	3297.3	6.3046	<b>500</b>	17.994	55.575	3283.6	6.2628	<b>500</b>	16.810	59.488	3269.7	6.2223
20.157	49.610	3355.6	6.3790	<b>520</b>	18.798	53.197	3343.2	6.3389	<b>520</b>	17.589	56.854	3330.7	6.3002
20.961	47.708	3412.1	6.4493	<b>540</b>	19.571	51.096	3400.8	6.4106	<b>540</b>	18.335	54.541	3389.5	6.3734
21.739	45.999	3467.2	6.5163	<b>560</b>	20.318	49.217	3456.9	6.4787	<b>560</b>	19.054	52.481	3446.5	6.4427
22.497	44.450	3521.2	6.5804	<b>580</b>	21.044	47.519	3511.7	6.5438	<b>580</b>	19.752	50.628	3502.2	6.5087
23.238	43.034	3574.4	6.6421	<b>600</b>	21.752	45.973	3565.7	6.6063	<b>600</b>	20.431	48.945	3556.8	6.5720
23.963	41.731	3627.0	6.7016	<b>620</b>	22.444	44.555	3618.8	6.6665	<b>620</b>	21.094	47.406	3610.6	6.6329
24.675	40.527	3679.0	6.7591	<b>640</b>	23.123	43.246	3671.4	6.7247	<b>640</b>	21.744	45.989	3663.8	6.6918
25.376	39.407	3730.6	6.8150	<b>660</b>	23.791	42.033	3723.5	6.7811	<b>660</b>	22.382	44.678	3716.3	6.7487
26.067	38.363	3781.9	6.8694	<b>680</b>	24.449	40.902	3775.2	6.8360	<b>680</b>	23.010	43.459	3768.5	6.8041
26.749	37.385	3832.9	6.9224	<b>700</b>	25.097	39.845	3826.6	6.8894	<b>700</b>	23.629	42.321	3820.4	6.8579
27.423	36.465	3883.8	6.9741	<b>720</b>	25.738	38.853	3877.9	6.9415	<b>720</b>	24.240	41.254	3872.0	6.9104
28.091	35.599	3934.5	7.0247	<b>740</b>	26.372	37.919	3928.9	6.9924	<b>740</b>	24.844	40.251	3923.4	6.9616
28.752	34.780	3985.1	7.0742	<b>760</b>	26.999	37.038	3979.9	7.0422	<b>760</b>	25.441	39.306	3974.6	7.0117
29.407	34.005	4035.7	7.1227	<b>780</b>	27.621	36.205	4030.8	7.0910	<b>780</b>	26.033	38.413	4025.8	7.0608
30.058	33.269	4086.3	7.1703	<b>800</b>	28.237	35.414	4081.6	7.1388	<b>800</b>	26.619	37.566	4076.9	7.1089
30.703	32.570	4137.0	7.2171	<b>820</b>	28.849	34.663	4132.5	7.1858	<b>820</b>	27.201	36.763	4128.0	7.1560
31.345	31.903	4187.6	7.2630	<b>840</b>	29.457	33.948	4183.4	7.2319	<b>840</b>	27.779	35.999	4179.1	7.2024
31.983	31.267	4238.3	7.3082	<b>860</b>	30.061	33.266	4234.3	7.2772	<b>860</b>	28.352	35.270	4230.3	7.2479
32.617	30.659	4289.1	7.3526	<b>880</b>	30.661	32.615	4285.3	7.3218	<b>880</b>	28.923	34.575	4281.4	7.2927
33.247	30.078	4340.0	7.3964	<b>900</b>	31.258	31.992	4336.4	7.3658	<b>900</b>	29.489	33.911	4332.7	7.3368
33.875	29.520	4391.0	7.4395	<b>920</b>	31.852	31.396	4387.5	7.4090	<b>920</b>	30.053	33.274	4384.0	7.3801
34.500	28.985	4442.2	7.4819	<b>940</b>	32.443	30.823	4438.8	7.4516	<b>940</b>	30.614	32.665	4435.5	7.4229
35.123	28.472	4493.4	7.5238	<b>960</b>	33.031	30.274	4490.2	7.4936	<b>960</b>	31.173	32.080	4487.0	7.4650
35.743	27.978	4544.8	7.5652	<b>980</b>	33.618	29.746	4541.7	7.5351	<b>980</b>	31.729	31.517	4538.7	7.5066
36.361	27.502	4596.3	7.6060	<b>1000</b>	34.202	29.238	4593.4	7.5760	<b>1000</b>	32.282	30.977	4590.5	7.5476
39.422	25.366	4856.3	7.8025	<b>1100</b>	37.093	26.959	4853.9	7.7730	<b>1100</b>	35.023	28.553	4851.6	7.7450
42.447	23.559	5120.4	7.9882	<b>1200</b>	39.948	25.033	5118.5	7.9589	<b>1200</b>	37.727	26.506	5116.6	7.9313
45.444	22.005	5388.7	8.1644	<b>1300</b>	42.775	23.378	5387.2	8.1354	<b>1300</b>	40.403	24.750	5385.7	8.1080
48.420	20.652	5661.3	8.3323	<b>1400</b>	45.582	21.938	5660.1	8.3035	<b>1400</b>	43.059	23.224	5658.8	8.2763
51.381	19.462	5937.9	8.4929	<b>1500</b>	48.373	20.673	5936.9	8.4642	<b>1500</b>	45.699	21.882	5935.9	8.4372
54.329	18.406	6218.3	8.6467	<b>1600</b>	51.151	19.550	6217.5	8.6182	<b>1600</b>	48.327	20.693	6216.7	8.5912
60.197	16.612	6789.6	8.9364	<b>1800</b>	56.679	17.643	6789.1	8.9080	<b>1800</b>	53.553	18.673	6788.6	8.8813
66.037	15.143	7373.2	9.2052	<b>2000</b>	62.181	16.082	7373.0	9.1769	<b>2000</b>	58.753	17.021	7372.8	9.1502

**Table 3. Compressed Water and Superheated Steam (continued)**

19 MPa ( $t_s = 361.473\text{ }^\circ\text{C}$ )				$t_s, ^\circ\text{C}$	20 MPa ( $t_s = 365.749\text{ }^\circ\text{C}$ )				$t_s, ^\circ\text{C}$	22 MPa ( $t_s = 373.705\text{ }^\circ\text{C}$ )			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
1.926 77	519.00	1777.2	3.9401	$t_s(\text{L})$	2.0400	490.19	1827.2	4.0156	$t_s(\text{L})$	2.7044	369.77	2011.3	4.2945
6.6773	149.76	2466.0	5.0256	$t_s(\text{V})$	5.8652	170.50	2412.3	4.9314	$t_s(\text{V})$	3.6475	274.16	2173.1	4.5446
0.990 84	1009.25	19.04	0.000 47	<b>0</b>	0.990 36	1009.74	20.03	0.000 47	<b>0</b>	0.989 41	1010.71	22.01	0.000 46
0.991 02	1009.07	39.70	0.075 43	<b>5</b>	0.990 55	1009.54	40.68	0.075 36	<b>5</b>	0.989 63	1010.48	42.61	0.075 21
0.991 52	1008.55	60.35	0.149 01	<b>10</b>	0.991 07	1009.01	61.31	0.148 88	<b>10</b>	0.990 17	1009.93	63.21	0.148 61
0.992 31	1007.75	81.00	0.221 28	<b>15</b>	0.991 87	1008.20	81.94	0.221 09	<b>15</b>	0.990 99	1009.09	83.81	0.220 72
0.993 35	1006.69	101.64	0.292 31	<b>20</b>	0.992 92	1007.13	102.57	0.292 07	<b>20</b>	0.992 05	1008.01	104.41	0.291 61
0.994 62	1005.41	122.29	0.362 15	<b>25</b>	0.994 19	1005.84	123.20	0.361 87	<b>25</b>	0.993 34	1006.70	125.02	0.361 32
0.996 11	1003.91	142.94	0.430 85	<b>30</b>	0.995 68	1004.34	143.84	0.430 53	<b>30</b>	0.994 84	1005.19	145.64	0.429 90
0.997 79	1002.22	163.61	0.498 45	<b>35</b>	0.997 37	1002.64	164.49	0.498 10	<b>35</b>	0.996 53	1003.49	166.27	0.497 39
0.999 65	1000.35	184.28	0.565 00	<b>40</b>	0.999 23	1000.77	185.16	0.564 61	<b>40</b>	0.998 40	1001.61	186.91	0.563 83
1.001 69	998.31	204.96	0.630 53	<b>45</b>	1.001 27	998.73	205.83	0.630 10	<b>45</b>	1.000 44	999.56	207.56	0.629 25
1.003 90	996.11	225.66	0.695 07	<b>50</b>	1.003 48	996.53	226.51	0.694 61	<b>50</b>	1.002 64	997.37	228.22	0.693 70
1.006 27	993.77	246.36	0.758 65	<b>55</b>	1.005 85	994.19	247.21	0.758 17	<b>55</b>	1.005 00	995.02	248.90	0.757 19
1.008 79	991.29	267.08	0.821 32	<b>60</b>	1.008 36	991.71	267.92	0.820 80	<b>60</b>	1.007 52	992.54	269.59	0.819 76
1.011 46	988.67	287.81	0.883 09	<b>65</b>	1.011 03	989.09	288.64	0.882 54	<b>65</b>	1.010 18	989.93	290.29	0.881 44
1.014 28	985.92	308.56	0.943 99	<b>70</b>	1.013 84	986.35	309.38	0.943 41	<b>70</b>	1.012 98	987.19	311.01	0.942 26
1.017 24	983.05	329.32	1.0041	<b>75</b>	1.016 80	983.48	330.13	1.0035	<b>75</b>	1.015 93	984.32	331.74	1.0022
1.020 34	980.07	350.10	1.0633	<b>80</b>	1.019 89	980.49	350.90	1.0627	<b>80</b>	1.019 01	981.35	352.49	1.0614
1.023 58	976.96	370.90	1.1218	<b>85</b>	1.023 13	977.39	371.69	1.1211	<b>85</b>	1.022 23	978.25	373.26	1.1198
1.026 96	973.75	391.72	1.1795	<b>90</b>	1.026 50	974.18	392.49	1.1788	<b>90</b>	1.025 59	975.05	394.05	1.1775
1.030 48	970.42	412.55	1.2365	<b>95</b>	1.030 01	970.86	413.32	1.2358	<b>95</b>	1.029 08	971.74	414.85	1.2344
1.034 13	966.99	433.41	1.2928	<b>100</b>	1.033 66	967.44	434.17	1.2920	<b>100</b>	1.032 71	968.32	435.68	1.2906
1.037 93	963.46	454.30	1.3484	<b>105</b>	1.037 44	963.91	455.04	1.3476	<b>105</b>	1.036 48	964.81	456.54	1.3461
1.041 86	959.82	475.21	1.4033	<b>110</b>	1.041 36	960.28	475.94	1.4025	<b>110</b>	1.040 38	961.19	477.42	1.4009
1.045 93	956.08	496.15	1.4576	<b>115</b>	1.045 43	956.55	496.88	1.4568	<b>115</b>	1.044 42	957.47	498.33	1.4551
1.050 15	952.25	517.13	1.5113	<b>120</b>	1.049 63	952.72	517.84	1.5105	<b>120</b>	1.048 60	953.66	519.27	1.5088
1.054 51	948.31	538.13	1.5644	<b>125</b>	1.053 98	948.79	538.84	1.5635	<b>125</b>	1.052 92	949.74	540.24	1.5618
1.059 01	944.28	559.18	1.6169	<b>130</b>	1.058 47	944.76	559.87	1.6160	<b>130</b>	1.057 38	945.73	561.25	1.6142
1.063 67	940.14	580.27	1.6689	<b>135</b>	1.063 11	940.64	580.95	1.6680	<b>135</b>	1.061 99	941.63	582.31	1.6661
1.068 47	935.91	601.40	1.7204	<b>140</b>	1.067 90	936.42	602.07	1.7194	<b>140</b>	1.066 75	937.43	603.40	1.7175
1.073 44	931.59	622.58	1.7713	<b>145</b>	1.072 84	932.10	623.23	1.7703	<b>145</b>	1.071 66	933.13	624.54	1.7683
1.078 56	927.16	643.81	1.8218	<b>150</b>	1.077 95	927.69	644.45	1.8208	<b>150</b>	1.076 73	928.74	645.73	1.8187
1.083 85	922.64	665.10	1.8718	<b>155</b>	1.083 21	923.18	665.72	1.8707	<b>155</b>	1.081 96	924.25	666.97	1.8686
1.089 30	918.02	686.44	1.9214	<b>160</b>	1.088 65	918.57	687.05	1.9203	<b>160</b>	1.087 35	919.67	688.27	1.9181
1.094 94	913.29	707.84	1.9705	<b>165</b>	1.094 26	913.86	708.44	1.9694	<b>165</b>	1.092 92	914.98	709.63	1.9671
1.100 75	908.47	729.31	2.0192	<b>170</b>	1.100 05	909.05	729.89	2.0181	<b>170</b>	1.098 66	910.20	731.05	2.0157
1.106 75	903.54	750.86	2.0676	<b>175</b>	1.106 03	904.14	751.42	2.0664	<b>175</b>	1.104 58	905.32	752.54	2.0639
1.112 95	898.51	772.48	2.1156	<b>180</b>	1.112 20	899.12	773.02	2.1143	<b>180</b>	1.110 70	900.33	774.11	2.1118
1.119 36	893.37	794.17	2.1632	<b>185</b>	1.118 57	894.00	794.70	2.1619	<b>185</b>	1.117 01	895.24	795.75	2.1593
1.125 97	888.12	815.96	2.2105	<b>190</b>	1.125 16	888.77	816.46	2.2091	<b>190</b>	1.123 54	890.05	817.48	2.2065
1.132 81	882.76	837.83	2.2574	<b>195</b>	1.131 96	883.42	838.32	2.2561	<b>195</b>	1.130 27	884.74	839.29	2.2533
1.139 89	877.28	859.81	2.3041	<b>200</b>	1.139 00	877.97	860.27	2.3027	<b>200</b>	1.137 24	879.32	861.20	2.2999
1.154 79	865.96	904.07	2.3967	<b>210</b>	1.153 81	866.69	904.48	2.3952	<b>210</b>	1.151 89	868.14	905.31	2.3921
1.170 78	854.13	948.81	2.4884	<b>220</b>	1.169 71	854.91	949.16	2.4867	<b>220</b>	1.167 59	856.46	949.88	2.4834
1.188 01	841.75	994.08	2.5792	<b>230</b>	1.186 82	842.59	994.37	2.5774	<b>230</b>	1.184 48	844.25	994.96	2.5739
1.206 63	828.76	1040.0	2.6695	<b>240</b>	1.205 30	829.67	1040.2	2.6676	<b>240</b>	1.202 69	831.47	1040.6	2.6638
1.226 85	815.10	1086.5	2.7594	<b>250</b>	1.225 36	816.09	1086.7	2.7573	<b>250</b>	1.222 42	818.05	1086.9	2.7532
1.248 93	800.68	1133.9	2.8492	<b>260</b>	1.247 23	801.78	1134.0	2.8469	<b>260</b>	1.243 90	803.92	1134.0	2.8423
1.273 20	785.42	1182.3	2.9390	<b>270</b>	1.271 25	786.63	1182.2	2.9365	<b>270</b>	1.267 43	789.00	1182.0	2.9315
1.300 10	769.17	1231.8	3.0293	<b>280</b>	1.297 82	770.52	1231.5	3.0265	<b>280</b>	1.293 38	773.17	1231.0	3.0209
1.330 20	751.77	1282.6	3.1203	<b>290</b>	1.327 50	753.29	1282.1	3.1172	<b>290</b>	1.322 27	756.28	1281.3	3.1110

**Table 3. Compressed Water and Superheated Steam (continued)**

19 MPa ( $t_s = 361.473\text{ }^\circ\text{C}$ )					$t, \text{ }^\circ\text{C}$	20 MPa ( $t_s = 365.749\text{ }^\circ\text{C}$ )					$t, \text{ }^\circ\text{C}$	22 MPa ( $t_s = 373.705\text{ }^\circ\text{C}$ )				
$v$	$\rho$	$h$	$s$	$v$		$\rho$	$h$	$s$	$v$	$\rho$		$h$	$s$			
1.364 34	732.95	1335.1	3.2127	<b>300</b>	1.361 08	734.71	1334.4	3.2091	<b>300</b>	1.354 78	738.13	1333.0	3.2021			
1.403 71	712.40	1389.7	3.3071	<b>310</b>	1.399 66	714.46	1388.6	3.3029	<b>310</b>	1.391 90	718.44	1386.7	3.2948			
1.450 17	689.58	1447.0	3.4046	<b>320</b>	1.444 96	692.06	1445.5	3.3996	<b>320</b>	1.435 09	696.82	1442.7	3.3900			
1.506 83	663.64	1508.2	3.5068	<b>330</b>	1.499 78	666.76	1505.9	3.5006	<b>330</b>	1.486 66	672.65	1501.8	3.4889			
1.579 64	633.06	1575.0	3.6168	<b>340</b>	1.569 29	637.23	1571.6	3.6086	<b>340</b>	1.550 60	644.91	1565.4	3.5934			
1.682 65	594.30	1651.9	3.7412	<b>350</b>	1.664 90	600.64	1646.0	3.7290	<b>350</b>	1.634 87	611.67	1635.9	3.7075			
1.873 74	533.69	1755.2	3.9054	<b>360</b>	1.824 79	548.01	1740.1	3.8787	<b>360</b>	1.760 12	568.14	1719.4	3.8404			
8.2199	121.66	2616.3	5.2610	<b>370</b>	6.9234	144.44	2526.5	5.1097	<b>370</b>	2.0286	492.96	1842.5	4.0332			
9.3160	107.34	2715.9	5.4147	<b>380</b>	8.2599	121.07	2659.4	5.3149	<b>380</b>	6.1234	163.31	2504.5	5.0555			
10.168	98.345	2790.7	5.5284	<b>390</b>	9.1906	108.81	2747.2	5.4483	<b>390</b>	7.3787	135.52	2643.9	5.2675			
10.892	91.810	2852.8	5.6215	<b>400</b>	9.9503	100.50	2816.9	5.5525	<b>400</b>	8.2556	121.13	2735.8	5.4051			
11.533	86.704	2907.1	5.7015	<b>410</b>	10.610	94.255	2876.2	5.6400	<b>410</b>	8.9702	111.48	2808.4	5.5122			
12.117	82.531	2956.0	5.7725	<b>420</b>	11.201	89.278	2928.7	5.7163	<b>420</b>	9.5893	104.28	2870.0	5.6018			
12.656	79.013	3000.8	5.8368	<b>430</b>	11.743	85.158	2976.4	5.7847	<b>430</b>	10.144	98.582	2924.5	5.6798			
13.162	75.979	3042.6	5.8958	<b>440</b>	12.247	81.652	3020.4	5.8469	<b>440</b>	10.651	93.886	2973.7	5.7494			
13.639	73.318	3082.0	5.9506	<b>450</b>	12.721	78.609	3061.7	5.9043	<b>450</b>	11.123	89.907	3019.2	5.8127			
14.094	70.950	3119.4	6.0020	<b>460</b>	13.171	75.926	3100.7	5.9579	<b>460</b>	11.565	86.465	3061.7	5.8710			
14.530	68.821	3155.3	6.0506	<b>470</b>	13.600	73.530	3137.8	6.0082	<b>470</b>	11.985	83.439	3101.8	5.9254			
14.950	66.889	3189.8	6.0967	<b>480</b>	14.012	71.368	3173.5	6.0559	<b>480</b>	12.385	80.744	3140.0	5.9764			
15.356	65.121	3223.1	6.1407	<b>490</b>	14.409	69.401	3207.9	6.1012	<b>490</b>	12.768	78.319	3176.5	6.0246			
15.750	63.494	3255.5	6.1829	<b>500</b>	14.793	67.598	3241.2	6.1446	<b>500</b>	13.138	76.116	3211.8	6.0705			
16.506	60.585	3318.0	6.2627	<b>520</b>	15.530	64.392	3305.2	6.2263	<b>520</b>	13.842	72.245	3279.0	6.1563			
17.228	58.044	3378.0	6.3374	<b>540</b>	16.231	61.609	3366.4	6.3025	<b>540</b>	14.508	68.929	3342.8	6.2358			
17.923	55.794	3436.0	6.4079	<b>560</b>	16.904	59.156	3425.4	6.3743	<b>560</b>	15.144	66.034	3404.0	6.3102			
18.595	53.777	3492.6	6.4750	<b>580</b>	17.554	56.966	3482.9	6.4424	<b>580</b>	15.755	63.471	3463.3	6.3805			
19.249	51.951	3548.0	6.5391	<b>600</b>	18.185	54.991	3539.0	6.5075	<b>600</b>	16.347	61.175	3521.0	6.4473			
19.886	50.286	3602.4	6.6008	<b>620</b>	18.799	53.194	3594.1	6.5699	<b>620</b>	16.921	59.099	3577.4	6.5113			
20.510	48.757	3656.1	6.6603	<b>640</b>	19.399	51.548	3648.4	6.6300	<b>640</b>	17.481	57.206	3632.9	6.5727			
21.122	47.344	3709.2	6.7178	<b>660</b>	19.987	50.032	3702.0	6.6881	<b>660</b>	18.028	55.469	3687.6	6.6319			
21.723	46.034	3761.8	6.7736	<b>680</b>	20.565	48.626	3755.1	6.7443	<b>680</b>	18.565	53.865	3741.6	6.6892			
22.316	44.812	3814.1	6.8278	<b>700</b>	21.133	47.318	3807.8	6.7990	<b>700</b>	19.092	52.378	3795.1	6.7447			
22.900	43.668	3866.0	6.8807	<b>720</b>	21.694	46.096	3860.1	6.8523	<b>720</b>	19.611	50.992	3848.2	6.7988			
23.477	42.595	3917.8	6.9323	<b>740</b>	22.247	44.950	3912.2	6.9042	<b>740</b>	20.122	49.696	3901.0	6.8514			
24.048	41.584	3969.3	6.9827	<b>760</b>	22.793	43.873	3964.1	6.9549	<b>760</b>	20.627	48.479	3953.5	6.9027			
24.612	40.630	4020.8	7.0320	<b>780</b>	23.334	42.856	4015.8	7.0045	<b>780</b>	21.126	47.334	4005.8	6.9529			
25.172	39.727	4072.2	7.0803	<b>800</b>	23.869	41.895	4067.5	7.0531	<b>800</b>	21.620	46.253	4058.0	7.0020			
25.727	38.870	4123.5	7.1277	<b>820</b>	24.400	40.983	4119.0	7.1007	<b>820</b>	22.109	45.230	4110.1	7.0500			
26.278	38.055	4174.9	7.1743	<b>840</b>	24.927	40.118	4170.6	7.1475	<b>840</b>	22.594	44.260	4162.1	7.0972			
26.824	37.280	4226.2	7.2200	<b>860</b>	25.449	39.294	4222.2	7.1934	<b>860</b>	23.074	43.339	4214.1	7.1435			
27.367	36.540	4277.6	7.2649	<b>880</b>	25.968	38.509	4273.7	7.2385	<b>880</b>	23.551	42.461	4266.0	7.1889			
27.907	35.833	4329.0	7.3092	<b>900</b>	26.483	37.759	4325.4	7.2829	<b>900</b>	24.025	41.624	4318.0	7.2336			
28.444	35.157	4380.6	7.3527	<b>920</b>	26.996	37.043	4377.1	7.3266	<b>920</b>	24.495	40.824	4370.1	7.2776			
28.978	34.509	4432.2	7.3956	<b>940</b>	27.506	36.356	4428.8	7.3696	<b>940</b>	24.963	40.059	4422.2	7.3209			
29.509	33.887	4483.9	7.4379	<b>960</b>	28.013	35.698	4480.7	7.4120	<b>960</b>	25.428	39.326	4474.3	7.3636			
30.038	33.291	4535.7	7.4796	<b>980</b>	28.518	35.066	4532.6	7.4538	<b>980</b>	25.891	38.623	4526.6	7.4056			
30.565	32.717	4587.6	7.5207	<b>1000</b>	29.020	34.459	4584.7	7.4950	<b>1000</b>	26.352	37.948	4578.9	7.4470			
33.171	30.147	4849.3	7.7185	<b>1100</b>	31.504	31.742	4846.9	7.6933	<b>1100</b>	28.626	34.934	4842.3	7.6462			
35.740	27.980	5114.7	7.9051	<b>1200</b>	33.952	29.454	5112.8	7.8802	<b>1200</b>	30.863	32.401	5109.1	7.8337			
38.281	26.122	5384.2	8.0820	<b>1300</b>	36.371	27.494	5382.6	8.0574	<b>1300</b>	33.073	30.236	5379.6	8.0113			
40.802	24.509	5657.6	8.2505	<b>1400</b>	38.771	25.793	5656.4	8.2260	<b>1400</b>	35.262	28.359	5653.9	8.1804			
43.307	23.091	5934.9	8.4115	<b>1500</b>	41.154	24.299	5933.9	8.3871	<b>1500</b>	37.435	26.713	5932.0	8.3418			
45.799	21.834	6215.9	8.5657	<b>1600</b>	43.525	22.975	6215.1	8.5414	<b>1600</b>	39.596	25.255	6213.6	8.4963			
50.756	19.702	6788.2	8.8559	<b>1800</b>	48.238	20.730	6787.7	8.8318	<b>1800</b>	43.890	22.784	6786.8	8.7870			
55.685	17.958	7372.6	9.1249	<b>2000</b>	52.925	18.895	7372.3	9.1010	<b>2000</b>	48.157	20.765	7371.9	9.0564			

**Table 3. Compressed Water and Superheated Steam (continued)**

25 MPa				t, °C	30 MPa				t, °C	35 MPa			
v	ρ	h	s		v	ρ	h	s		v	ρ	h	s
0.988 00	1012.15	24.96	0.000 41	<b>0</b>	0.985 67	1014.54	29.86	0.000 27	<b>0</b>	0.983 38	1016.90	34.72	0.000 05
0.988 26	1011.88	45.51	0.074 96	<b>5</b>	0.986 01	1014.19	50.32	0.074 50	<b>5</b>	0.983 79	1016.48	55.10	0.073 98
0.988 84	1011.29	66.06	0.148 19	<b>10</b>	0.986 64	1013.54	70.79	0.147 45	<b>10</b>	0.984 47	1015.77	75.50	0.146 66
0.989 68	1010.43	86.62	0.220 15	<b>15</b>	0.987 53	1012.63	91.28	0.219 16	<b>15</b>	0.985 40	1014.81	95.91	0.218 13
0.990 77	1009.32	107.18	0.290 89	<b>20</b>	0.988 65	1011.48	111.77	0.289 68	<b>20</b>	0.986 56	1013.63	116.34	0.288 44
0.992 07	1007.99	127.75	0.360 47	<b>25</b>	0.989 98	1010.12	132.28	0.359 05	<b>25</b>	0.987 91	1012.23	136.80	0.357 61
0.993 58	1006.46	148.33	0.428 94	<b>30</b>	0.991 50	1008.57	152.81	0.427 32	<b>30</b>	0.989 46	1010.65	157.27	0.425 70
0.995 27	1004.75	168.93	0.496 32	<b>35</b>	0.993 21	1006.83	173.35	0.494 52	<b>35</b>	0.991 18	1008.90	177.75	0.492 72
0.997 15	1002.86	189.53	0.562 65	<b>40</b>	0.995 09	1004.93	193.90	0.560 69	<b>40</b>	0.993 07	1006.98	198.26	0.558 73
0.999 19	1000.81	210.15	0.627 98	<b>45</b>	0.997 14	1002.87	214.47	0.625 86	<b>45</b>	0.995 11	1004.91	218.78	0.623 74
1.001 39	998.61	230.79	0.692 33	<b>50</b>	0.999 33	1000.67	235.05	0.690 05	<b>50</b>	0.997 31	1002.70	239.31	0.687 78
1.003 75	996.27	251.43	0.755 73	<b>55</b>	1.001 68	998.32	255.65	0.753 30	<b>55</b>	0.999 65	1000.35	259.86	0.750 89
1.006 25	993.79	272.09	0.818 21	<b>60</b>	1.004 17	995.84	276.26	0.815 64	<b>60</b>	1.002 13	997.88	280.43	0.813 08
1.008 90	991.17	292.77	0.879 81	<b>65</b>	1.006 81	993.24	296.89	0.877 10	<b>65</b>	1.004 75	995.28	301.01	0.874 40
1.011 70	988.44	313.46	0.940 54	<b>70</b>	1.009 58	990.51	317.53	0.937 69	<b>70</b>	1.007 50	992.56	321.60	0.934 86
1.014 63	985.59	334.16	1.0004	<b>75</b>	1.012 49	987.67	338.19	0.997 46	<b>75</b>	1.010 38	989.73	342.21	0.994 50
1.017 69	982.61	354.88	1.0595	<b>80</b>	1.015 53	984.71	358.86	1.0564	<b>80</b>	1.013 39	986.78	362.84	1.0533
1.020 90	979.53	375.62	1.1178	<b>85</b>	1.018 70	981.65	379.55	1.1146	<b>85</b>	1.016 54	983.73	383.49	1.1114
1.024 23	976.34	396.38	1.1754	<b>90</b>	1.022 00	978.47	400.26	1.1720	<b>90</b>	1.019 80	980.58	404.15	1.1687
1.027 70	973.05	417.15	1.2322	<b>95</b>	1.025 43	975.20	420.99	1.2287	<b>95</b>	1.023 20	977.33	424.83	1.2252
1.031 30	969.65	437.95	1.2883	<b>100</b>	1.028 99	971.82	441.74	1.2847	<b>100</b>	1.026 72	973.97	445.54	1.2811
1.035 04	966.14	458.78	1.3438	<b>105</b>	1.032 68	968.35	462.52	1.3400	<b>105</b>	1.030 37	970.53	466.26	1.3363
1.038 91	962.54	479.63	1.3986	<b>110</b>	1.036 51	964.78	483.32	1.3946	<b>110</b>	1.034 14	966.98	487.01	1.3908
1.042 92	958.85	500.50	1.4527	<b>115</b>	1.040 46	961.11	504.14	1.4486	<b>115</b>	1.038 05	963.35	507.79	1.4447
1.047 06	955.05	521.41	1.5062	<b>120</b>	1.044 55	957.35	525.00	1.5020	<b>120</b>	1.042 08	959.62	528.59	1.4979
1.051 34	951.16	542.35	1.5591	<b>125</b>	1.048 77	953.50	545.88	1.5548	<b>125</b>	1.046 24	955.80	549.43	1.5506
1.055 77	947.18	563.33	1.6115	<b>130</b>	1.053 12	949.56	566.81	1.6070	<b>130</b>	1.050 53	951.90	570.29	1.6027
1.060 33	943.10	584.35	1.6633	<b>135</b>	1.057 62	945.52	587.76	1.6587	<b>135</b>	1.054 96	947.90	591.20	1.6542
1.065 05	938.93	605.41	1.7146	<b>140</b>	1.062 26	941.39	608.76	1.7098	<b>140</b>	1.059 53	943.82	612.14	1.7052
1.069 91	934.66	626.51	1.7654	<b>145</b>	1.067 04	937.17	629.80	1.7605	<b>145</b>	1.064 23	939.64	633.12	1.7557
1.074 92	930.30	647.66	1.8156	<b>150</b>	1.071 97	932.86	650.89	1.8106	<b>150</b>	1.069 08	935.38	654.14	1.8056
1.080 09	925.85	668.86	1.8654	<b>155</b>	1.077 05	928.46	672.02	1.8602	<b>155</b>	1.074 07	931.04	675.21	1.8551
1.085 43	921.30	690.11	1.9148	<b>160</b>	1.082 28	923.97	693.21	1.9094	<b>160</b>	1.079 22	926.60	696.33	1.9042
1.090 93	916.65	711.43	1.9637	<b>165</b>	1.087 68	919.39	714.45	1.9582	<b>165</b>	1.084 51	922.07	717.50	1.9528
1.096 60	911.91	732.80	2.0122	<b>170</b>	1.093 24	914.71	735.75	2.0065	<b>170</b>	1.089 97	917.46	738.73	2.0009
1.102 45	907.07	754.25	2.0604	<b>175</b>	1.098 97	909.94	757.11	2.0545	<b>175</b>	1.095 59	912.75	760.02	2.0487
1.108 49	902.13	775.76	2.1081	<b>180</b>	1.104 88	905.07	778.54	2.1020	<b>180</b>	1.101 38	907.95	781.37	2.0961
1.114 72	897.09	797.35	2.1555	<b>185</b>	1.110 98	900.11	800.05	2.1492	<b>185</b>	1.107 34	903.06	802.79	2.1431
1.121 15	891.94	819.02	2.2025	<b>190</b>	1.117 26	895.05	821.62	2.1961	<b>190</b>	1.113 49	898.08	824.28	2.1897
1.127 78	886.69	840.77	2.2492	<b>195</b>	1.123 74	889.88	843.28	2.2426	<b>195</b>	1.119 83	893.00	845.84	2.2361
1.134 64	881.33	862.61	2.2956	<b>200</b>	1.130 43	884.62	865.02	2.2888	<b>200</b>	1.126 36	887.82	867.48	2.2820
1.149 06	870.28	906.59	2.3876	<b>210</b>	1.144 47	873.76	908.77	2.3803	<b>210</b>	1.140 05	877.15	911.02	2.3731
1.164 49	858.75	951.00	2.4786	<b>220</b>	1.159 47	862.46	952.93	2.4707	<b>220</b>	1.154 64	866.07	954.94	2.4631
1.181 04	846.71	995.89	2.5687	<b>230</b>	1.175 52	850.69	997.54	2.5603	<b>230</b>	1.170 22	854.54	999.28	2.5521
1.198 87	834.12	1041.3	2.6582	<b>240</b>	1.192 75	838.40	1042.7	2.6491	<b>240</b>	1.186 90	842.53	1044.1	2.6403
1.218 14	820.92	1087.4	2.7471	<b>250</b>	1.211 31	825.56	1088.4	2.7373	<b>250</b>	1.204 81	830.00	1089.4	2.7278
1.239 06	807.06	1134.2	2.8357	<b>260</b>	1.231 37	812.10	1134.7	2.8250	<b>260</b>	1.224 11	816.92	1135.4	2.8148
1.261 90	792.46	1181.9	2.9242	<b>270</b>	1.253 17	797.98	1181.8	2.9126	<b>270</b>	1.244 98	803.23	1182.0	2.9014
1.286 99	777.01	1230.5	3.0129	<b>280</b>	1.276 98	783.10	1229.8	3.0001	<b>280</b>	1.267 66	788.85	1229.4	2.9879
1.314 78	760.59	1280.2	3.1020	<b>290</b>	1.303 15	767.37	1278.7	3.0878	<b>290</b>	1.292 45	773.73	1277.7	3.0744

**Table 3. Compressed Water and Superheated Steam (continued)**

25 MPa				$t, ^\circ\text{C}$	30 MPa				$t, ^\circ\text{C}$	35 MPa			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
1.3459	743.02	1331.3	3.1919	<b>300</b>	1.3322	750.66	1328.9	3.1760	<b>300</b>	1.3197	757.74	1327.0	3.1612
1.3810	724.09	1384.1	3.2832	<b>310</b>	1.3646	732.80	1380.4	3.2652	<b>310</b>	1.3499	740.78	1377.6	3.2486
1.4215	703.49	1438.9	3.3764	<b>320</b>	1.4014	713.58	1433.7	3.3557	<b>320</b>	1.3837	722.67	1429.5	3.3370
1.4690	680.74	1496.4	3.4726	<b>330</b>	1.4436	692.69	1489.1	3.4483	<b>330</b>	1.4220	703.22	1483.2	3.4268
1.5264	655.13	1557.5	3.5731	<b>340</b>	1.4932	669.70	1547.1	3.5438	<b>340</b>	1.4660	682.13	1539.1	3.5186
1.5988	625.45	1623.9	3.6804	<b>350</b>	1.5529	643.95	1608.8	3.6436	<b>350</b>	1.5174	659.01	1597.6	3.6132
1.6969	589.31	1698.6	3.7993	<b>360</b>	1.6276	614.39	1675.6	3.7498	<b>360</b>	1.5791	633.29	1659.6	3.7120
1.8503	540.46	1789.8	3.9423	<b>370</b>	1.7268	579.09	1750.1	3.8666	<b>370</b>	1.6554	604.08	1726.5	3.8168
2.2182	450.82	1935.7	4.1671	<b>380</b>	1.8729	533.93	1838.2	4.0025	<b>380</b>	1.7546	569.94	1800.4	3.9308
4.6474	215.18	2395.7	4.8660	<b>390</b>	2.1331	468.81	1955.3	4.1804	<b>390</b>	1.8930	528.27	1885.4	4.0599
6.0047	166.54	2578.6	5.1400	<b>400</b>	2.7978	357.43	2152.8	4.4757	<b>400</b>	2.1054	474.97	1988.6	4.2143
6.8833	145.28	2687.1	5.3000	<b>410</b>	3.9809	251.20	2395.4	4.8336	<b>410</b>	2.4747	404.09	2123.9	4.4138
7.5792	131.94	2769.4	5.4197	<b>420</b>	4.9203	203.24	2552.9	5.0627	<b>420</b>	3.0838	324.28	2291.9	4.6579
8.1725	122.36	2837.8	5.5176	<b>430</b>	5.6366	177.41	2662.8	5.2200	<b>430</b>	3.7800	264.55	2447.6	4.8809
8.6986	114.96	2897.3	5.6016	<b>440</b>	6.2267	160.60	2748.9	5.3416	<b>440</b>	4.4120	226.65	2571.8	5.0564
9.1763	108.98	2950.6	5.6759	<b>450</b>	6.7373	148.43	2821.0	5.4421	<b>450</b>	4.9572	201.73	2671.0	5.1945
9.6176	103.98	2999.4	5.7428	<b>460</b>	7.1931	139.02	2884.0	5.5286	<b>460</b>	5.4336	184.04	2753.6	5.3080
10.030	99.701	3044.6	5.8042	<b>470</b>	7.6083	131.44	2940.4	5.6051	<b>470</b>	5.8588	170.68	2824.8	5.4046
10.419	95.976	3087.2	5.8610	<b>480</b>	7.9923	125.12	2992.0	5.6741	<b>480</b>	6.2450	160.13	2888.1	5.4891
10.789	92.686	3127.5	5.9142	<b>490</b>	8.3515	119.74	3039.9	5.7372	<b>490</b>	6.6009	151.49	2945.3	5.5646
11.143	89.744	3165.9	5.9642	<b>500</b>	8.6904	115.07	3084.7	5.7956	<b>500</b>	6.9325	144.25	2997.9	5.6331
11.811	84.670	3238.4	6.0569	<b>520</b>	9.3200	107.30	3167.6	5.9014	<b>520</b>	7.5392	132.64	3092.9	5.7544
12.436	80.411	3306.5	6.1416	<b>540</b>	9.9000	101.01	3243.6	5.9961	<b>540</b>	8.0893	123.62	3178.1	5.8605
13.029	76.752	3371.2	6.2202	<b>560</b>	10.442	95.763	3314.7	6.0825	<b>560</b>	8.5974	116.31	3256.4	5.9556
13.595	73.555	3433.3	6.2940	<b>580</b>	10.955	91.279	3382.2	6.1625	<b>580</b>	9.0732	110.21	3329.6	6.0425
14.140	70.720	3493.5	6.3637	<b>600</b>	11.445	87.377	3446.7	6.2373	<b>600</b>	9.5234	105.00	3398.9	6.1228
14.667	68.180	3552.1	6.4300	<b>620</b>	11.914	83.931	3509.1	6.3079	<b>620</b>	9.9527	100.48	3465.3	6.1980
15.179	65.881	3609.4	6.4935	<b>640</b>	12.368	80.854	3569.7	6.3750	<b>640</b>	10.365	96.480	3529.4	6.2689
15.678	63.785	3665.7	6.5545	<b>660</b>	12.808	78.078	3628.8	6.4391	<b>660</b>	10.762	92.916	3591.5	6.3363
16.165	61.861	3721.2	6.6133	<b>680</b>	13.236	75.553	3686.8	6.5006	<b>680</b>	11.148	89.704	3652.2	6.4006
16.643	60.084	3776.0	6.6702	<b>700</b>	13.653	73.242	3743.9	6.5598	<b>700</b>	11.523	86.786	3711.6	6.4622
17.113	58.437	3830.2	6.7254	<b>720</b>	14.062	71.112	3800.2	6.6171	<b>720</b>	11.888	84.118	3769.9	6.5216
17.574	56.901	3884.1	6.7791	<b>740</b>	14.463	69.141	3855.8	6.6726	<b>740</b>	12.246	81.662	3827.4	6.5789
18.025	55.465	3937.6	6.8313	<b>760</b>	14.857	67.307	3910.9	6.7264	<b>760</b>	12.596	79.391	3884.3	6.6345
18.478	54.117	3990.8	6.8823	<b>780</b>	15.245	65.594	3965.7	6.7789	<b>780</b>	12.940	77.280	3940.5	6.6884
18.922	52.848	4043.8	6.9322	<b>800</b>	15.628	63.990	4020.0	6.8300	<b>800</b>	13.278	75.310	3996.3	6.7409
19.361	51.651	4096.6	6.9810	<b>820</b>	16.005	62.481	4074.1	6.8800	<b>820</b>	13.612	73.466	4051.7	6.7920
19.795	50.518	4149.3	7.0287	<b>840</b>	16.378	61.058	4128.0	6.9288	<b>840</b>	13.941	71.733	4106.7	6.8419
20.225	49.443	4201.9	7.0756	<b>860</b>	16.747	59.714	4181.7	6.9766	<b>860</b>	14.265	70.100	4161.5	6.8907
20.652	48.421	4254.5	7.1216	<b>880</b>	17.112	58.440	4235.3	7.0235	<b>880</b>	14.586	68.557	4216.1	6.9385
21.075	47.449	4307.1	7.1668	<b>900</b>	17.473	57.230	4288.8	7.0695	<b>900</b>	14.904	67.097	4270.6	6.9853
21.496	46.521	4359.6	7.2112	<b>920</b>	17.832	56.079	4342.2	7.1147	<b>920</b>	15.218	65.710	4324.9	7.0312
21.913	45.635	4412.2	7.2549	<b>940</b>	18.188	54.982	4395.6	7.1591	<b>940</b>	15.530	64.392	4379.1	7.0763
22.328	44.787	4464.8	7.2979	<b>960</b>	18.541	53.935	4449.0	7.2027	<b>960</b>	15.839	63.136	4433.3	7.1205
22.740	43.975	4517.5	7.3403	<b>980</b>	18.891	52.934	4502.4	7.2457	<b>980</b>	16.145	61.937	4487.4	7.1641
23.150	43.196	4570.2	7.3820	<b>1000</b>	19.240	51.976	4555.8	7.2880	<b>1000</b>	16.450	60.792	4541.5	7.2069
25.172	39.726	4835.4	7.5825	<b>1100</b>	20.953	47.725	4823.8	7.4906	<b>1100</b>	17.942	55.734	4812.4	7.4118
27.157	36.822	5103.5	7.7710	<b>1200</b>	22.630	44.189	5094.2	7.6807	<b>1200</b>	19.398	51.552	5085.0	7.6034
29.115	34.346	5375.1	7.9493	<b>1300</b>	24.279	41.187	5367.6	7.8602	<b>1300</b>	20.827	48.015	5360.1	7.7841
31.052	32.204	5650.3	8.1189	<b>1400</b>	25.908	38.598	5644.2	8.0307	<b>1400</b>	22.235	44.974	5638.2	7.9554
32.974	30.327	5929.0	8.2807	<b>1500</b>	27.521	36.335	5924.2	8.1932	<b>1500</b>	23.628	42.322	5919.4	8.1186
34.883	28.668	6211.2	8.4356	<b>1600</b>	29.122	34.338	6207.4	8.3485	<b>1600</b>	25.009	39.986	6203.6	8.2746
38.672	25.858	6785.4	8.7267	<b>1800</b>	32.296	30.964	6783.1	8.6405	<b>1800</b>	27.742	36.046	6780.9	8.5673
42.436	23.565	7371.2	8.9965	<b>2000</b>	35.443	28.214	7370.1	8.9108	<b>2000</b>	30.450	32.841	7369.1	8.8382

**Table 3. Compressed Water and Superheated Steam (continued)**

40 MPa				$t_s, ^\circ\text{C}$	45 MPa				$t_s, ^\circ\text{C}$	50 MPa			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
0.981 13	1019.23	39.55	-0.000 24	<b>0</b>	0.978 92	1021.54	44.35	-0.000 60	<b>0</b>	0.976 73	1023.82	49.13	-0.001 03
0.981 60	1018.74	59.85	0.073 40	<b>5</b>	0.979 45	1020.98	64.58	0.072 76	<b>5</b>	0.977 33	1023.20	69.28	0.072 07
0.982 34	1017.98	80.18	0.145 82	<b>10</b>	0.980 24	1020.16	84.83	0.144 94	<b>10</b>	0.978 16	1022.32	89.47	0.144 02
0.983 31	1016.97	100.53	0.217 07	<b>15</b>	0.981 25	1019.11	105.12	0.215 97	<b>15</b>	0.979 22	1021.22	109.69	0.214 83
0.984 50	1015.75	120.90	0.287 16	<b>20</b>	0.982 47	1017.85	125.44	0.285 86	<b>20</b>	0.980 47	1019.92	129.95	0.284 54
0.985 88	1014.32	141.29	0.356 15	<b>25</b>	0.983 87	1016.39	145.78	0.354 66	<b>25</b>	0.981 89	1018.44	150.24	0.353 16
0.987 44	1012.72	161.71	0.424 05	<b>30</b>	0.985 45	1014.76	166.14	0.422 40	<b>30</b>	0.983 49	1016.79	170.56	0.420 73
0.989 17	1010.94	182.15	0.490 91	<b>35</b>	0.987 20	1012.97	186.53	0.489 10	<b>35</b>	0.985 25	1014.97	190.89	0.487 27
0.991 07	1009.01	202.60	0.556 76	<b>40</b>	0.989 10	1011.02	206.93	0.554 79	<b>40</b>	0.987 15	1013.01	211.25	0.552 81
0.993 11	1006.93	223.07	0.621 61	<b>45</b>	0.991 14	1008.93	227.36	0.619 50	<b>45</b>	0.989 20	1010.92	231.63	0.617 38
0.995 31	1004.72	243.56	0.685 51	<b>50</b>	0.993 33	1006.71	247.80	0.683 25	<b>50</b>	0.991 39	1008.69	252.03	0.681 00
0.997 64	1002.37	264.06	0.748 48	<b>55</b>	0.995 66	1004.36	268.26	0.746 08	<b>55</b>	0.993 71	1006.33	272.45	0.743 69
1.000 11	999.89	284.58	0.810 54	<b>60</b>	0.998 12	1001.88	288.74	0.808 01	<b>60</b>	0.996 16	1003.86	292.88	0.805 49
1.002 71	997.30	305.12	0.871 72	<b>65</b>	1.000 71	999.29	309.23	0.869 06	<b>65</b>	0.998 73	1001.27	313.33	0.866 42
1.005 45	994.58	325.67	0.932 05	<b>70</b>	1.003 42	996.59	329.74	0.929 27	<b>70</b>	1.001 43	998.57	333.80	0.926 50
1.008 31	991.76	346.24	0.991 56	<b>75</b>	1.006 26	993.77	350.26	0.988 65	<b>75</b>	1.004 25	995.77	354.28	0.985 75
1.011 29	988.83	366.82	1.0503	<b>80</b>	1.009 23	990.86	370.80	1.0472	<b>80</b>	1.007 19	992.86	374.78	1.0442
1.014 41	985.80	387.42	1.1082	<b>85</b>	1.012 31	987.84	391.36	1.1050	<b>85</b>	1.010 25	989.85	395.29	1.1019
1.017 64	982.66	408.04	1.1654	<b>90</b>	1.015 52	984.72	411.93	1.1621	<b>90</b>	1.013 43	986.75	415.82	1.1588
1.021 00	979.43	428.68	1.2218	<b>95</b>	1.018 84	981.50	432.52	1.2184	<b>95</b>	1.016 72	983.56	436.37	1.2150
1.024 49	976.10	449.33	1.2775	<b>100</b>	1.022 29	978.20	453.14	1.2740	<b>100</b>	1.020 13	980.27	456.94	1.2705
1.028 09	972.68	470.01	1.3326	<b>105</b>	1.025 85	974.80	473.77	1.3289	<b>105</b>	1.023 65	976.89	477.53	1.3253
1.031 82	969.16	490.72	1.3870	<b>110</b>	1.029 54	971.31	494.42	1.3832	<b>110</b>	1.027 30	973.43	498.14	1.3795
1.035 68	965.55	511.44	1.4407	<b>115</b>	1.033 35	967.73	515.10	1.4368	<b>115</b>	1.031 06	969.88	518.77	1.4330
1.039 65	961.86	532.20	1.4938	<b>120</b>	1.037 28	964.06	535.81	1.4898	<b>120</b>	1.034 94	966.24	539.43	1.4859
1.043 76	958.07	552.98	1.5464	<b>125</b>	1.041 33	960.31	556.54	1.5422	<b>125</b>	1.038 94	962.52	560.12	1.5381
1.047 99	954.20	573.79	1.5983	<b>130</b>	1.045 50	956.48	577.31	1.5941	<b>130</b>	1.043 06	958.72	580.83	1.5898
1.052 36	950.25	594.64	1.6497	<b>135</b>	1.049 81	952.56	598.10	1.6453	<b>135</b>	1.047 30	954.83	601.58	1.6410
1.056 85	946.20	615.53	1.7006	<b>140</b>	1.054 24	948.55	618.93	1.6960	<b>140</b>	1.051 67	950.87	622.36	1.6916
1.061 49	942.08	636.45	1.7509	<b>145</b>	1.058 80	944.47	639.80	1.7462	<b>145</b>	1.056 16	946.82	643.17	1.7417
1.066 26	937.86	657.42	1.8008	<b>150</b>	1.063 49	940.30	660.71	1.7960	<b>150</b>	1.060 79	942.70	664.02	1.7912
1.071 17	933.56	678.42	1.8501	<b>155</b>	1.068 32	936.05	681.66	1.8452	<b>155</b>	1.065 54	938.49	684.91	1.8403
1.076 22	929.18	699.48	1.8990	<b>160</b>	1.073 29	931.71	702.65	1.8939	<b>160</b>	1.070 43	934.20	705.84	1.8889
1.081 42	924.71	720.58	1.9474	<b>165</b>	1.078 41	927.29	723.69	1.9422	<b>165</b>	1.075 46	929.83	726.82	1.9371
1.086 78	920.15	741.74	1.9955	<b>170</b>	1.083 67	922.79	744.78	1.9901	<b>170</b>	1.080 63	925.39	747.85	1.9848
1.092 29	915.51	762.96	2.0431	<b>175</b>	1.089 08	918.21	765.93	2.0375	<b>175</b>	1.085 94	920.86	768.93	2.0321
1.097 97	910.77	784.23	2.0903	<b>180</b>	1.094 65	913.54	787.13	2.0846	<b>180</b>	1.091 41	916.25	790.06	2.0790
1.103 81	905.95	805.57	2.1371	<b>185</b>	1.100 37	908.78	808.39	2.1312	<b>185</b>	1.097 03	911.55	811.25	2.1255
1.109 83	901.04	826.97	2.1836	<b>190</b>	1.106 27	903.94	829.72	2.1775	<b>190</b>	1.102 81	906.78	832.50	2.1716
1.116 03	896.04	848.45	2.2297	<b>195</b>	1.112 34	899.01	851.11	2.2235	<b>195</b>	1.108 75	901.92	853.81	2.2174
1.122 41	890.94	870.00	2.2755	<b>200</b>	1.118 58	893.99	872.57	2.2691	<b>200</b>	1.114 86	896.97	875.19	2.2628
1.135 78	880.46	913.34	2.3661	<b>210</b>	1.131 64	883.67	915.72	2.3593	<b>210</b>	1.127 63	886.82	918.16	2.3527
1.149 99	869.57	957.04	2.4556	<b>220</b>	1.145 50	872.98	959.21	2.4484	<b>220</b>	1.141 16	876.30	961.45	2.4414
1.165 14	858.27	1001.1	2.5442	<b>230</b>	1.160 24	861.89	1003.1	2.5364	<b>230</b>	1.155 53	865.41	1005.1	2.5289
1.181 31	846.52	1045.7	2.6318	<b>240</b>	1.175 95	850.38	1047.3	2.6236	<b>240</b>	1.170 80	854.12	1049.1	2.6156
1.198 63	834.29	1090.7	2.7187	<b>250</b>	1.192 72	838.42	1092.0	2.7099	<b>250</b>	1.187 07	842.41	1093.5	2.7013
1.217 23	821.54	1136.3	2.8050	<b>260</b>	1.210 68	825.98	1137.3	2.7955	<b>260</b>	1.204 44	830.26	1138.4	2.7864
1.237 27	808.23	1182.4	2.8908	<b>270</b>	1.229 97	813.03	1183.1	2.8806	<b>270</b>	1.223 05	817.63	1183.9	2.8708
1.258 95	794.31	1229.3	2.9764	<b>280</b>	1.250 76	799.51	1229.5	2.9653	<b>280</b>	1.243 03	804.48	1229.9	2.9547
1.282 52	779.72	1277.0	3.0618	<b>290</b>	1.273 25	785.39	1276.7	3.0498	<b>290</b>	1.264 57	790.78	1276.6	3.0383

**Table 3. Compressed Water and Superheated Steam (continued)**

40 MPa				<i>t</i> , °C	45 MPa				<i>t</i> , °C	50 MPa			
<i>v</i>	$\rho$	<i>h</i>	<i>s</i>		<i>v</i>	$\rho$	<i>h</i>	<i>s</i>		<i>v</i>	$\rho$	<i>h</i>	<i>s</i>
1.3083	764.36	1325.6	3.1473	<b>300</b>	1.2977	770.59	1324.6	3.1342	<b>300</b>	1.2879	776.48	1324.0	3.1218
1.3366	748.16	1375.3	3.2332	<b>310</b>	1.3244	755.04	1373.5	3.2188	<b>310</b>	1.3132	761.50	1372.2	3.2052
1.3680	730.98	1426.2	3.3198	<b>320</b>	1.3538	738.65	1423.5	3.3038	<b>320</b>	1.3409	745.79	1421.4	3.2888
1.4032	712.68	1478.5	3.4073	<b>330</b>	1.3864	721.30	1474.7	3.3894	<b>330</b>	1.3713	729.25	1471.6	3.3728
1.4429	693.06	1532.6	3.4962	<b>340</b>	1.4228	702.86	1527.4	3.4760	<b>340</b>	1.4049	711.78	1523.1	3.4575
1.4884	671.86	1588.8	3.5871	<b>350</b>	1.4638	683.14	1581.8	3.5640	<b>350</b>	1.4425	693.25	1576.1	3.5431
1.5415	648.73	1647.7	3.6808	<b>360</b>	1.5108	661.92	1638.3	3.6539	<b>360</b>	1.4848	673.51	1630.7	3.6301
1.6046	623.20	1709.9	3.7783	<b>370</b>	1.5652	638.91	1697.3	3.7464	<b>370</b>	1.5329	652.36	1687.4	3.7189
1.6819	594.56	1776.6	3.8813	<b>380</b>	1.6294	613.71	1759.6	3.8425	<b>380</b>	1.5884	629.57	1746.5	3.8101
1.7801	561.77	1849.6	3.9921	<b>390</b>	1.7071	585.80	1825.9	3.9433	<b>390</b>	1.6534	604.83	1808.6	3.9045
1.9108	523.34	1931.4	4.1145	<b>400</b>	1.8034	554.49	1897.7	4.0507	<b>400</b>	1.7307	577.79	1874.4	4.0029
2.0934	477.69	2025.5	4.2533	<b>410</b>	1.9267	519.03	1976.4	4.1667	<b>410</b>	1.8247	548.02	1944.7	4.1066
2.3601	423.72	2136.4	4.4144	<b>420</b>	2.0879	478.95	2063.7	4.2937	<b>420</b>	1.9409	515.23	2020.5	4.2168
2.7437	364.47	2264.5	4.5979	<b>430</b>	2.3016	434.49	2161.1	4.4331	<b>430</b>	2.0856	479.47	2102.5	4.3342
3.2092	311.60	2394.2	4.7810	<b>440</b>	2.5808	387.47	2267.9	4.5839	<b>440</b>	2.2660	441.31	2190.8	4.4589
3.6915	270.89	2511.8	4.9448	<b>450</b>	2.9154	343.00	2377.6	4.7367	<b>450</b>	2.4873	402.04	2284.7	4.5896
4.1480	241.08	2613.4	5.0844	<b>460</b>	3.2774	305.12	2482.7	4.8810	<b>460</b>	2.7454	364.24	2380.7	4.7215
4.5662	219.00	2700.8	5.2028	<b>470</b>	3.6415	274.61	2579.0	5.0115	<b>470</b>	3.0272	330.34	2474.8	4.8489
4.9479	202.11	2777.1	5.3048	<b>480</b>	3.9922	250.49	2665.5	5.1272	<b>480</b>	3.3186	301.33	2563.8	4.9680
5.2985	188.73	2845.0	5.3944	<b>490</b>	4.3229	231.32	2743.1	5.2295	<b>490</b>	3.6085	277.13	2646.5	5.0771
5.6231	177.84	2906.5	5.4744	<b>500</b>	4.6330	215.84	2813.2	5.3207	<b>500</b>	3.8900	257.07	2722.6	5.1762
6.2116	160.99	3015.1	5.6132	<b>520</b>	5.1978	192.39	2935.7	5.4773	<b>520</b>	4.4168	226.41	2857.0	5.3479
6.7388	148.39	3110.4	5.7319	<b>540</b>	5.7027	175.36	3041.5	5.6091	<b>540</b>	4.8947	204.30	2972.8	5.4920
7.2209	138.49	3196.5	5.8365	<b>560</b>	6.1620	162.29	3135.8	5.7236	<b>560</b>	5.3308	187.59	3075.0	5.6163
7.6685	130.40	3275.9	5.9307	<b>580</b>	6.5861	151.83	3221.7	5.8255	<b>580</b>	5.7331	174.43	3167.4	5.7259
8.0891	123.62	3350.4	6.0170	<b>600</b>	6.9825	143.22	3301.5	5.9179	<b>600</b>	6.1081	163.72	3252.5	5.8245
8.4878	117.82	3421.0	6.0970	<b>620</b>	7.3565	135.93	3376.5	6.0029	<b>620</b>	6.4610	154.78	3332.0	5.9145
8.8686	112.76	3488.7	6.1719	<b>640</b>	7.7122	129.66	3447.9	6.0820	<b>640</b>	6.7956	147.16	3407.2	5.9978
9.2344	108.29	3554.0	6.2427	<b>660</b>	8.0527	124.18	3516.4	6.1562	<b>660</b>	7.1149	140.55	3478.9	6.0755
9.5875	104.30	3617.4	6.3098	<b>680</b>	8.3802	119.33	3582.5	6.2263	<b>680</b>	7.4213	134.75	3547.9	6.1486
9.9297	100.71	3679.1	6.3740	<b>700</b>	8.6967	114.99	3646.8	6.2930	<b>700</b>	7.7166	129.59	3614.6	6.2178
10.263	97.442	3739.6	6.4355	<b>720</b>	9.0037	111.06	3709.4	6.3568	<b>720</b>	8.0025	124.96	3679.4	6.2838
10.587	94.454	3799.1	6.4948	<b>740</b>	9.3025	107.50	3770.8	6.4179	<b>740</b>	8.2801	120.77	3742.7	6.3469
10.905	91.705	3857.6	6.5520	<b>760</b>	9.5939	104.23	3831.1	6.4769	<b>760</b>	8.5504	116.95	3804.8	6.4076
11.216	89.162	3915.4	6.6074	<b>780</b>	9.8789	101.23	3890.5	6.5338	<b>780</b>	8.8143	113.45	3865.7	6.4660
11.521	86.799	3972.6	6.6612	<b>800</b>	10.158	98.443	3949.1	6.5889	<b>800</b>	9.0724	110.22	3925.8	6.5225
11.821	84.595	4029.3	6.7136	<b>820</b>	10.432	95.855	4007.1	6.6425	<b>820</b>	9.3255	107.23	3985.1	6.5773
12.117	82.531	4085.6	6.7646	<b>840</b>	10.702	93.441	4064.6	6.6946	<b>840</b>	9.5741	104.45	4043.8	6.6304
12.408	80.592	4141.5	6.8144	<b>860</b>	10.967	91.179	4121.6	6.7454	<b>860</b>	9.8185	101.85	4101.9	6.6822
12.696	78.765	4197.1	6.8630	<b>880</b>	11.229	89.054	4178.2	6.7949	<b>880</b>	10.059	99.412	4159.5	6.7326
12.980	77.040	4252.5	6.9106	<b>900</b>	11.487	87.052	4234.6	6.8433	<b>900</b>	10.296	97.121	4216.8	6.7819
13.261	75.407	4307.7	6.9573	<b>920</b>	11.743	85.161	4290.7	6.8907	<b>920</b>	10.531	94.962	4273.8	6.8300
13.540	73.857	4362.7	7.0030	<b>940</b>	11.995	83.369	4346.5	6.9372	<b>940</b>	10.762	92.921	4330.5	6.8772
13.815	72.383	4417.7	7.0480	<b>960</b>	12.244	81.669	4402.2	6.9827	<b>960</b>	10.991	90.987	4387.0	6.9233
14.089	70.979	4472.5	7.0921	<b>980</b>	12.492	80.053	4457.8	7.0274	<b>980</b>	11.217	89.151	4443.2	6.9686
14.360	69.640	4527.3	7.1355	<b>1000</b>	12.737	78.513	4513.3	7.0713	<b>1000</b>	11.441	87.405	4499.4	7.0131
15.686	63.750	4801.1	7.3425	<b>1100</b>	13.934	71.769	4789.9	7.2805	<b>1100</b>	12.534	79.785	4778.9	7.2244
16.976	58.907	5075.9	7.5357	<b>1200</b>	15.094	66.251	5066.9	7.4753	<b>1200</b>	13.590	73.583	5058.1	7.4207
18.239	54.827	5352.8	7.7175	<b>1300</b>	16.228	61.623	5345.6	7.6583	<b>1300</b>	14.620	68.399	5338.4	7.6048
19.482	51.330	5632.3	7.8897	<b>1400</b>	17.342	57.665	5626.5	7.8314	<b>1400</b>	15.631	63.977	5620.8	7.7788
20.709	48.288	5914.6	8.0536	<b>1500</b>	18.440	54.229	5910.0	7.9959	<b>1500</b>	16.626	60.147	5905.4	7.9440
21.925	45.611	6199.9	8.2101	<b>1600</b>	19.527	51.212	6196.2	8.1529	<b>1600</b>	17.609	56.788	6192.6	8.1015
24.328	41.105	6778.7	8.5037	<b>1800</b>	21.673	46.141	6776.6	8.4473	<b>1800</b>	19.549	51.153	6774.5	8.3967
26.705	37.446	7368.1	8.7750	<b>2000</b>	23.793	42.030	7367.1	8.7192	<b>2000</b>	21.464	46.590	7366.2	8.6691

**Table 3. Compressed Water and Superheated Steam (continued)**

60 MPa				$t, ^\circ\text{C}$	70 MPa				$t, ^\circ\text{C}$	80 MPa			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
0.972 47	1028.30	58.58	-0.002 08	<b>0</b>	0.968 34	1032.69	67.93	-0.003 38	<b>0</b>	0.964 34	1036.98	77.18	-0.004 89
0.973 18	1027.56	78.60	0.070 53	<b>5</b>	0.969 16	1031.82	87.83	0.068 79	<b>5</b>	0.965 25	1036.00	96.96	0.066 86
0.974 11	1026.58	98.67	0.142 04	<b>10</b>	0.970 17	1030.75	107.78	0.139 90	<b>10</b>	0.966 34	1034.83	116.82	0.137 61
0.975 24	1025.39	118.78	0.212 46	<b>15</b>	0.971 37	1029.48	127.80	0.209 96	<b>15</b>	0.967 60	1033.48	136.73	0.207 33
0.976 54	1024.02	138.94	0.281 80	<b>20</b>	0.972 73	1028.03	147.85	0.278 97	<b>20</b>	0.969 02	1031.97	156.70	0.276 04
0.978 02	1022.48	159.13	0.350 09	<b>25</b>	0.974 25	1026.43	167.95	0.346 94	<b>25</b>	0.970 57	1030.32	176.72	0.343 73
0.979 65	1020.77	179.35	0.417 34	<b>30</b>	0.975 91	1024.69	188.08	0.413 91	<b>30</b>	0.972 26	1028.53	196.77	0.410 42
0.981 43	1018.92	199.59	0.483 59	<b>35</b>	0.977 71	1022.80	208.24	0.479 87	<b>35</b>	0.974 08	1026.61	216.85	0.476 13
0.983 34	1016.94	219.86	0.548 85	<b>40</b>	0.979 64	1020.79	228.43	0.544 87	<b>40</b>	0.976 02	1024.56	236.96	0.540 87
0.985 40	1014.82	240.16	0.613 14	<b>45</b>	0.981 69	1018.65	248.65	0.608 90	<b>45</b>	0.978 08	1022.41	257.10	0.604 67
0.987 58	1012.58	260.47	0.676 50	<b>50</b>	0.983 87	1016.39	268.88	0.672 01	<b>50</b>	0.980 26	1020.14	277.26	0.667 55
0.989 89	1010.22	280.81	0.738 94	<b>55</b>	0.986 17	1014.03	289.14	0.734 22	<b>55</b>	0.982 54	1017.77	297.44	0.729 52
0.992 32	1007.74	301.16	0.800 49	<b>60</b>	0.988 58	1011.55	309.41	0.795 53	<b>60</b>	0.984 94	1015.29	317.64	0.790 61
0.994 86	1005.16	321.53	0.861 17	<b>65</b>	0.991 10	1008.98	329.70	0.855 99	<b>65</b>	0.987 44	1012.72	337.86	0.850 85
0.997 53	1002.48	341.91	0.921 01	<b>70</b>	0.993 74	1006.30	350.01	0.915 60	<b>70</b>	0.990 05	1010.05	358.09	0.910 25
1.000 31	999.69	362.31	0.980 04	<b>75</b>	0.996 48	1003.53	370.33	0.974 40	<b>75</b>	0.992 76	1007.29	378.34	0.968 84
1.003 21	996.80	382.73	1.0383	<b>80</b>	0.999 34	1000.66	390.67	1.0324	<b>80</b>	0.995 57	1004.45	398.61	1.0266
1.006 21	993.82	403.16	1.0957	<b>85</b>	1.002 30	997.71	411.03	1.0896	<b>85</b>	0.998 49	1001.51	418.89	1.0837
1.009 33	990.75	423.61	1.1524	<b>90</b>	1.005 36	994.66	431.40	1.1461	<b>90</b>	1.001 51	998.50	439.18	1.1399
1.012 57	987.59	444.08	1.2084	<b>95</b>	1.008 54	991.54	451.78	1.2019	<b>95</b>	1.004 63	995.40	459.50	1.1955
1.015 91	984.34	464.56	1.2637	<b>100</b>	1.011 81	988.32	472.19	1.2569	<b>100</b>	1.007 84	992.22	479.82	1.2503
1.019 36	981.01	485.06	1.3182	<b>105</b>	1.015 20	985.03	492.61	1.3113	<b>105</b>	1.011 16	988.96	500.17	1.3045
1.022 92	977.59	505.59	1.3721	<b>110</b>	1.018 69	981.65	513.05	1.3650	<b>110</b>	1.014 58	985.63	520.53	1.3580
1.026 60	974.09	526.13	1.4254	<b>115</b>	1.022 28	978.20	533.51	1.4180	<b>115</b>	1.018 10	982.22	540.91	1.4108
1.030 39	970.51	546.70	1.4781	<b>120</b>	1.025 99	974.67	553.99	1.4705	<b>120</b>	1.021 73	978.73	561.31	1.4630
1.034 29	966.85	567.29	1.5301	<b>125</b>	1.029 80	971.07	574.50	1.5223	<b>125</b>	1.025 45	975.18	581.73	1.5147
1.038 30	963.11	587.91	1.5816	<b>130</b>	1.033 71	967.39	595.03	1.5735	<b>130</b>	1.029 28	971.55	602.18	1.5657
1.042 43	959.29	608.56	1.6325	<b>135</b>	1.037 74	963.63	615.58	1.6242	<b>135</b>	1.033 21	967.86	622.65	1.6162
1.046 68	955.40	629.24	1.6828	<b>140</b>	1.041 88	959.80	636.17	1.6743	<b>140</b>	1.037 25	964.09	643.14	1.6661
1.051 05	951.43	649.95	1.7327	<b>145</b>	1.046 13	955.90	656.78	1.7239	<b>145</b>	1.041 39	960.25	663.66	1.7154
1.055 54	947.38	670.69	1.7820	<b>150</b>	1.050 50	951.93	677.43	1.7730	<b>150</b>	1.045 64	956.35	684.21	1.7643
1.060 15	943.26	691.47	1.8308	<b>155</b>	1.054 98	947.89	698.10	1.8216	<b>155</b>	1.050 00	952.38	704.80	1.8126
1.064 89	939.06	712.29	1.8792	<b>160</b>	1.059 58	943.77	718.82	1.8697	<b>160</b>	1.054 47	948.34	725.41	1.8605
1.069 76	934.79	733.16	1.9270	<b>165</b>	1.064 30	939.59	739.57	1.9173	<b>165</b>	1.059 06	944.24	746.06	1.9079
1.074 76	930.44	754.06	1.9745	<b>170</b>	1.069 14	935.33	760.36	1.9645	<b>170</b>	1.063 76	940.06	766.74	1.9549
1.079 89	926.02	775.01	2.0215	<b>175</b>	1.074 11	931.00	781.19	2.0113	<b>175</b>	1.068 58	935.82	787.47	2.0014
1.085 17	921.52	796.01	2.0681	<b>180</b>	1.079 21	926.60	802.07	2.0576	<b>180</b>	1.073 52	931.52	808.23	2.0474
1.090 58	916.94	817.06	2.1143	<b>185</b>	1.084 44	922.13	823.00	2.1035	<b>185</b>	1.078 58	927.14	829.04	2.0931
1.096 15	912.29	838.17	2.1601	<b>190</b>	1.089 81	917.59	843.97	2.1490	<b>190</b>	1.083 77	922.70	849.89	2.1384
1.101 86	907.56	859.33	2.2056	<b>195</b>	1.095 32	912.97	864.99	2.1942	<b>195</b>	1.089 09	918.20	870.78	2.1832
1.107 73	902.74	880.55	2.2507	<b>200</b>	1.100 97	908.29	886.07	2.2390	<b>200</b>	1.094 54	913.62	891.73	2.2277
1.119 97	892.88	923.19	2.3398	<b>210</b>	1.112 73	898.69	928.40	2.3275	<b>210</b>	1.105 87	904.27	933.78	2.3157
1.132 89	882.69	966.10	2.4277	<b>220</b>	1.125 12	888.80	970.98	2.4147	<b>220</b>	1.117 77	894.64	976.05	2.4023
1.146 57	872.17	1009.3	2.5145	<b>230</b>	1.138 19	878.59	1013.8	2.5008	<b>230</b>	1.130 30	884.72	1018.6	2.4876
1.161 06	861.28	1052.9	2.6002	<b>240</b>	1.151 99	868.06	1057.0	2.5857	<b>240</b>	1.143 49	874.52	1061.4	2.5718
1.176 43	850.03	1096.8	2.6850	<b>250</b>	1.166 58	857.21	1100.5	2.6696	<b>250</b>	1.157 39	864.01	1104.4	2.6550
1.192 77	838.38	1141.1	2.7690	<b>260</b>	1.182 03	846.00	1144.3	2.7526	<b>260</b>	1.172 07	853.19	1147.8	2.7371
1.210 18	826.32	1185.9	2.8522	<b>270</b>	1.198 41	834.44	1188.5	2.8348	<b>270</b>	1.187 57	842.06	1191.5	2.8184
1.228 76	813.83	1231.2	2.9348	<b>280</b>	1.215 82	822.49	1233.2	2.9162	<b>280</b>	1.203 97	830.58	1235.6	2.8988
1.248 66	800.86	1277.0	3.0169	<b>290</b>	1.234 36	810.14	1278.3	2.9970	<b>290</b>	1.221 36	818.76	1280.1	2.9785



**Table 3. Compressed Water and Superheated Steam (continued)**

60 MPa				<i>t</i> , °C	70 MPa				<i>t</i> , °C	80 MPa			
<i>v</i>	$\rho$	<i>h</i>	<i>s</i>		<i>v</i>	$\rho$	<i>h</i>	<i>s</i>		<i>v</i>	$\rho$	<i>h</i>	<i>s</i>
1.2700	787.39	1323.5	3.0986	<b>300</b>	1.2541	797.36	1323.9	3.0773	<b>300</b>	1.2398	806.57	1325.1	3.0576
1.2930	773.38	1370.6	3.1801	<b>310</b>	1.2753	784.13	1370.1	3.1572	<b>310</b>	1.2595	793.99	1370.5	3.1362
1.3179	758.78	1418.4	3.2615	<b>320</b>	1.2980	770.42	1416.9	3.2368	<b>320</b>	1.2804	781.01	1416.4	3.2142
1.3449	743.54	1467.1	3.3429	<b>330</b>	1.3224	756.19	1464.3	3.3162	<b>330</b>	1.3028	767.60	1462.9	3.2919
1.3744	727.60	1516.8	3.4245	<b>340</b>	1.3488	741.41	1512.6	3.3954	<b>340</b>	1.3267	753.73	1510.0	3.3694
1.4067	710.88	1567.5	3.5065	<b>350</b>	1.3774	726.03	1561.6	3.4748	<b>350</b>	1.3525	739.39	1557.7	3.4466
1.4423	693.31	1619.4	3.5892	<b>360</b>	1.4084	710.01	1611.6	3.5543	<b>360</b>	1.3802	724.54	1606.2	3.5238
1.4819	674.80	1672.7	3.6727	<b>370</b>	1.4424	693.29	1662.6	3.6342	<b>370</b>	1.4101	709.16	1655.5	3.6010
1.5262	655.22	1727.6	3.7574	<b>380</b>	1.4797	675.83	1714.7	3.7147	<b>380</b>	1.4426	693.21	1705.6	3.6784
1.5761	634.47	1784.3	3.8436	<b>390</b>	1.5208	657.55	1768.1	3.7958	<b>390</b>	1.4778	676.66	1756.7	3.7560
1.6329	612.42	1843.2	3.9317	<b>400</b>	1.5664	638.41	1822.9	3.8779	<b>400</b>	1.5163	659.49	1808.8	3.8340
1.6981	588.91	1904.5	4.0221	<b>410</b>	1.6172	618.35	1879.3	3.9610	<b>410</b>	1.5584	641.66	1862.0	3.9125
1.7736	563.83	1968.6	4.1153	<b>420</b>	1.6741	597.32	1937.5	4.0455	<b>420</b>	1.6047	623.17	1916.5	3.9916
1.8618	537.13	2035.9	4.2116	<b>430</b>	1.7382	575.30	1997.5	4.1315	<b>430</b>	1.6556	604.01	1972.2	4.0714
1.9650	508.91	2106.4	4.3112	<b>440</b>	1.8106	552.30	2059.6	4.2192	<b>440</b>	1.7118	584.18	2029.3	4.1520
2.0855	479.51	2180.2	4.4140	<b>450</b>	1.8924	528.42	2123.7	4.3084	<b>450</b>	1.7739	563.74	2087.8	4.2335
2.2249	449.46	2256.8	4.5191	<b>460</b>	1.9846	503.89	2189.7	4.3991	<b>460</b>	1.8424	542.77	2147.6	4.3156
2.3839	419.48	2335.5	4.6257	<b>470</b>	2.0877	478.99	2257.5	4.4909	<b>470</b>	1.9179	521.40	2208.7	4.3984
2.5610	390.48	2415.0	4.7320	<b>480</b>	2.2022	454.10	2326.4	4.5831	<b>480</b>	2.0006	499.84	2270.9	4.4815
2.7521	363.36	2493.7	4.8358	<b>490</b>	2.3277	429.62	2396.2	4.6751	<b>490</b>	2.0907	478.30	2333.9	4.5647
2.9522	338.73	2570.3	4.9356	<b>500</b>	2.4632	405.97	2466.1	4.7660	<b>500</b>	2.1880	457.04	2397.4	4.6473
3.3617	297.47	2713.9	5.1189	<b>520</b>	2.7572	362.69	2603.3	4.9412	<b>520</b>	2.4024	416.25	2524.6	4.8097
3.7624	265.79	2842.7	5.2794	<b>540</b>	3.0673	326.02	2733.3	5.1032	<b>540</b>	2.6376	379.14	2649.3	4.9650
4.1422	241.42	2957.9	5.4193	<b>560</b>	3.3790	295.95	2854.0	5.2499	<b>560</b>	2.8846	346.66	2768.9	5.1104
4.4986	222.29	3061.8	5.5426	<b>580</b>	3.6829	271.52	2965.1	5.3816	<b>580</b>	3.1354	318.94	2882.0	5.2445
4.8330	206.91	3156.8	5.6527	<b>600</b>	3.9749	251.58	3067.4	5.5002	<b>600</b>	3.3838	295.53	2988.1	5.3674
5.1482	194.24	3244.8	5.7524	<b>620</b>	4.2538	235.09	3162.3	5.6077	<b>620</b>	3.6262	275.77	3087.5	5.4800
5.4468	183.59	3327.2	5.8437	<b>640</b>	4.5198	221.25	3251.1	5.7060	<b>640</b>	3.8609	259.01	3180.8	5.5834
5.7312	174.48	3405.3	5.9282	<b>660</b>	4.7742	209.46	3334.8	5.7966	<b>660</b>	4.0874	244.66	3269.0	5.6789
6.0033	166.57	3479.7	6.0071	<b>680</b>	5.0179	199.29	3414.3	5.8809	<b>680</b>	4.3058	232.25	3352.8	5.7677
6.2649	159.62	3551.3	6.0814	<b>700</b>	5.2523	190.39	3490.3	5.9599	<b>700</b>	4.5165	221.41	3432.7	5.8507
6.5174	153.44	3620.4	6.1518	<b>720</b>	5.4784	182.53	3563.5	6.0343	<b>720</b>	4.7202	211.85	3509.5	5.9288
6.7618	147.89	3687.5	6.2187	<b>740</b>	5.6971	175.53	3634.3	6.1049	<b>740</b>	4.9175	203.36	3583.6	6.0027
6.9992	142.87	3753.0	6.2827	<b>760</b>	5.9093	169.23	3703.0	6.1721	<b>760</b>	5.1089	195.73	3655.3	6.0728
7.2304	138.31	3817.1	6.3441	<b>780</b>	6.1156	163.52	3770.1	6.2364	<b>780</b>	5.2951	188.85	3725.1	6.1397
7.4560	134.12	3880.0	6.4033	<b>800</b>	6.3167	158.31	3835.7	6.2981	<b>800</b>	5.4765	182.60	3793.3	6.2038
7.6766	130.27	3941.9	6.4604	<b>820</b>	6.5130	153.54	3900.1	6.3576	<b>820</b>	5.6536	176.88	3860.0	6.2654
7.8928	126.70	4002.9	6.5158	<b>840</b>	6.7052	149.14	3963.4	6.4150	<b>840</b>	5.8267	171.62	3925.4	6.3248
8.1050	123.38	4063.2	6.5694	<b>860</b>	6.8935	145.06	4025.8	6.4705	<b>860</b>	5.9963	166.77	3989.8	6.3821
8.3136	120.29	4122.9	6.6217	<b>880</b>	7.0783	141.28	4087.4	6.5244	<b>880</b>	6.1625	162.27	4053.3	6.4376
8.5188	117.39	4182.0	6.6725	<b>900</b>	7.2599	137.74	4148.3	6.5768	<b>900</b>	6.3258	158.08	4115.9	6.4915
8.7210	114.67	4240.7	6.7221	<b>920</b>	7.4387	134.43	4208.7	6.6279	<b>920</b>	6.4864	154.17	4177.9	6.5439
8.9204	112.10	4299.0	6.7706	<b>940</b>	7.6148	131.32	4268.6	6.6776	<b>940</b>	6.6444	150.50	4239.3	6.5949
9.1173	109.68	4357.0	6.8180	<b>960</b>	7.7884	128.40	4328.0	6.7262	<b>960</b>	6.8001	147.06	4300.1	6.6446
9.3119	107.39	4414.7	6.8644	<b>980</b>	7.9598	125.63	4387.1	6.7737	<b>980</b>	6.9537	143.81	4360.5	6.6932
9.5043	105.22	4472.2	6.9099	<b>1000</b>	8.1291	123.01	4445.9	6.8203	<b>1000</b>	7.1053	140.74	4420.5	6.7407
10.439	95.794	4757.3	7.1255	<b>1100</b>	8.9494	111.74	4736.4	7.0399	<b>1100</b>	7.8381	127.58	4716.2	6.9643
11.339	88.195	5040.8	7.3248	<b>1200</b>	9.7356	102.72	5024.0	7.2421	<b>1200</b>	8.5381	117.12	5007.9	7.1693
12.212	81.884	5324.5	7.5111	<b>1300</b>	10.497	95.266	5311.1	7.4307	<b>1300</b>	9.2143	108.53	5298.1	7.3600
13.067	76.528	5609.6	7.6868	<b>1400</b>	11.240	88.970	5598.8	7.6080	<b>1400</b>	9.8724	101.29	5588.4	7.5389
13.907	71.906	5896.5	7.8533	<b>1500</b>	11.968	83.556	5887.9	7.7758	<b>1500</b>	10.517	95.087	5879.7	7.7080
14.735	67.864	6185.6	8.0119	<b>1600</b>	12.685	78.832	6178.9	7.9354	<b>1600</b>	11.150	89.687	6172.5	7.8686
16.366	61.103	6770.5	8.3086	<b>1800</b>	14.094	70.953	6766.7	8.2336	<b>1800</b>	12.392	80.698	6763.2	8.1682
17.971	55.644	7364.4	8.5820	<b>2000</b>	15.478	64.606	7362.8	8.5081	<b>2000</b>	13.610	73.475	7361.4	8.4436

**Table 3. Compressed Water and Superheated Steam (continued)**

90 MPa				t, °C	100 MPa				t, °C	120 MPa			
v	ρ	h	s		v	ρ	h	s		v	ρ	h	s
0.960 45	1041.17	86.34	-0.006 61	0	0.956 68	1045.28	95.40	-0.008 51	0	0.949 47	1053.22	113.29	-0.012 82
0.961 45	1040.09	106.01	0.064 77	5	0.957 76	1044.10	114.99	0.062 52	5	0.950 69	1051.87	132.70	0.057 61
0.962 62	1038.83	125.78	0.135 18	10	0.959 00	1042.75	134.66	0.132 63	10	0.952 04	1050.37	152.22	0.127 17
0.963 94	1037.41	145.60	0.204 60	15	0.960 37	1041.26	154.41	0.201 76	15	0.953 52	1048.75	171.83	0.195 81
0.965 40	1035.84	165.49	0.273 02	20	0.961 88	1039.63	174.22	0.269 92	20	0.955 11	1047.00	191.51	0.263 50
0.967 00	1034.13	185.42	0.340 45	25	0.963 51	1037.87	194.08	0.337 10	25	0.956 80	1045.15	211.24	0.330 24
0.968 71	1032.30	205.40	0.406 88	30	0.965 25	1036.00	213.98	0.403 31	30	0.958 59	1043.20	231.01	0.396 02
0.970 55	1030.34	225.41	0.472 35	35	0.967 11	1034.01	233.92	0.468 55	35	0.960 47	1041.15	250.83	0.460 86
0.972 50	1028.27	245.45	0.536 86	40	0.969 07	1031.92	253.90	0.532 84	40	0.962 45	1039.01	270.68	0.524 76
0.974 57	1026.10	265.51	0.600 44	45	0.971 14	1029.72	273.90	0.596 20	45	0.964 53	1036.78	290.56	0.587 73
0.976 74	1023.82	285.61	0.663 09	50	0.973 30	1027.43	293.92	0.658 65	50	0.966 69	1034.46	310.46	0.649 80
0.979 01	1021.44	305.72	0.724 85	55	0.975 57	1025.04	313.97	0.720 21	55	0.968 94	1032.06	330.39	0.710 99
0.981 39	1018.96	325.85	0.785 74	60	0.977 94	1022.56	334.03	0.780 89	60	0.971 27	1029.58	350.33	0.771 31
0.983 87	1016.39	346.00	0.845 77	65	0.980 40	1020.00	354.11	0.840 73	65	0.973 70	1027.01	370.29	0.830 78
0.986 45	1013.73	366.16	0.904 96	70	0.982 95	1017.34	374.21	0.899 73	70	0.976 21	1024.37	390.27	0.889 42
0.989 13	1010.99	386.34	0.963 35	75	0.985 60	1014.61	394.33	0.957 92	75	0.978 80	1021.66	410.26	0.947 26
0.991 91	1008.15	406.54	1.020 9	80	0.988 35	1011.79	414.45	1.015 3	80	0.981 48	1018.87	430.26	1.004 3
0.994 79	1005.24	426.75	1.077 8	85	0.991 18	1008.90	434.60	1.072 0	85	0.984 25	1016.01	450.28	1.060 6
0.997 76	1002.25	446.97	1.133 8	90	0.994 11	1005.93	454.75	1.127 9	90	0.987 09	1013.08	470.31	1.116 1
1.000 82	999.18	467.21	1.189 2	95	0.997 13	1002.88	474.92	1.183 0	95	0.990 02	1010.08	490.35	1.170 9
1.003 99	996.03	487.46	1.243 8	100	1.000 24	999.76	495.11	1.237 5	100	0.993 04	1007.01	510.41	1.225 1
1.007 25	992.81	507.73	1.297 8	105	1.003 44	996.57	515.31	1.291 3	105	0.996 14	1003.88	530.47	1.278 5
1.010 60	989.51	528.02	1.351 1	110	1.006 73	993.31	535.53	1.344 4	110	0.999 32	1000.68	550.56	1.331 2
1.014 05	986.14	548.33	1.403 8	115	1.010 12	989.98	555.76	1.396 8	115	1.002 59	997.42	570.65	1.383 3
1.017 60	982.70	568.65	1.455 8	120	1.013 60	986.58	576.01	1.448 7	120	1.005 94	994.10	590.77	1.434 8
1.021 25	979.20	588.99	1.507 2	125	1.017 17	983.12	596.27	1.499 9	125	1.009 37	990.72	610.89	1.485 7
1.024 99	975.62	609.36	1.558 0	130	1.020 83	979.59	616.56	1.550 5	130	1.012 89	987.28	631.04	1.536 0
1.028 83	971.98	629.74	1.608 3	135	1.024 59	976.00	636.87	1.600 6	135	1.016 49	983.77	651.20	1.585 7
1.032 77	968.27	650.15	1.658 0	140	1.028 44	972.34	657.20	1.650 1	140	1.020 18	980.22	671.38	1.634 8
1.036 81	964.49	670.59	1.707 1	145	1.032 39	968.63	677.55	1.699 1	145	1.023 96	976.60	691.58	1.683 4
1.040 96	960.65	691.05	1.755 8	150	1.036 43	964.85	697.93	1.747 5	150	1.027 83	972.93	711.80	1.731 5
1.045 21	956.75	711.54	1.803 9	155	1.040 58	961.00	718.33	1.795 4	155	1.031 78	969.20	732.05	1.779 1
1.049 56	952.78	732.06	1.851 6	160	1.044 82	957.10	738.76	1.842 9	160	1.035 82	965.42	752.31	1.826 1
1.054 02	948.75	752.61	1.898 8	165	1.049 16	953.14	759.23	1.889 8	165	1.039 96	961.58	772.61	1.872 7
1.058 59	944.66	773.20	1.945 5	170	1.053 61	949.12	779.72	1.936 4	170	1.044 18	957.69	792.92	1.918 8
1.063 27	940.50	793.82	1.991 7	175	1.058 16	945.04	800.24	1.982 4	175	1.048 50	953.74	813.27	1.964 5
1.068 06	936.28	814.47	2.037 6	180	1.062 82	940.90	820.80	2.028 0	180	1.052 92	949.74	833.64	2.009 7
1.072 97	931.99	835.17	2.083 0	185	1.067 58	936.70	841.39	2.073 2	185	1.057 43	945.69	854.05	2.054 5
1.077 99	927.65	855.91	2.128 0	190	1.072 46	932.44	862.02	2.118 0	190	1.062 04	941.59	874.48	2.098 8
1.083 14	923.24	876.69	2.172 6	195	1.077 45	928.12	882.69	2.162 4	195	1.066 75	937.43	894.95	2.142 8
1.088 41	918.77	897.51	2.216 9	200	1.082 56	923.74	903.40	2.206 4	200	1.071 56	933.22	915.46	2.186 3
1.093 94	914.24	918.29	2.261 3	205	1.087 78	919.31	924.15	2.250 4	205	1.076 57	929.01	935.97	2.229 8
1.100 24	909.63	939.30	2.304 3	210	1.093 13	914.81	944.94	2.293 3	210	1.081 49	924.65	956.57	2.272 3
1.107 24	904.94	960.31	2.346 3	215	1.100 24	909.64	966.68	2.336 3	215	1.087 01	919.99	977.17	2.314 8
1.115 04	900.24	981.29	2.390 3	220	1.107 24	904.56	988.42	2.378 8	220	1.092 86	915.86	997.83	2.356 9
1.123 54	895.59	1002.30	2.435 0	225	1.115 79	899.22	1010.16	2.420 9	225	1.100 24	911.69	1018.44	2.398 0
1.132 50	890.99	1023.5	2.480 0	230	1.125 00	894.00	1031.90	2.462 9	230	1.108 24	907.47	1039.01	2.439 1
1.142 00	886.44	1045.0	2.525 0	235	1.134 75	888.75	1053.64	2.504 9	235	1.116 99	903.20	1059.56	2.480 2
1.152 00	881.94	1066.5	2.570 0	240	1.144 90	883.50	1075.38	2.546 9	240	1.126 24	898.91	1080.09	2.521 3
1.162 50	877.49	1088.0	2.615 0	245	1.155 45	878.25	1097.12	2.588 9	245	1.136 00	894.56	1100.61	2.562 4
1.173 50	873.09	1109.5	2.660 0	250	1.166 45	873.00	1118.86	2.630 9	250	1.146 24	890.16	1121.14	2.603 5
1.185 00	868.74	1131.0	2.705 0	255	1.177 90	867.75	1140.60	2.672 9	255	1.156 99	885.71	1141.67	2.644 6
1.197 00	864.44	1152.5	2.750 0	260	1.189 75	862.50	1162.34	2.714 9	260	1.168 24	881.26	1162.20	2.685 7
1.209 44	860.19	1174.0	2.795 0	265	1.201 90	857.25	1184.08	2.756 9	265	1.179 99	876.76	1182.73	2.726 8
1.222 33	856.00	1195.5	2.840 0	270	1.214 45	852.00	1205.82	2.798 9	270	1.192 24	872.21	1203.26	2.767 9
1.235 66	851.87	1217.0	2.885 0	275	1.227 30	846.75	1227.56	2.840 9	275	1.204 99	867.61	1223.79	2.809 0
1.249 44	847.80	1238.5	2.930 0	280	1.240 45	841.50	1249.30	2.882 9	280	1.218 24	862.96	1244.32	2.850 1
1.263 66	843.79	1260.0	2.975 0	285	1.253 90	836.25	1271.04	2.924 9	285	1.231 99	858.26	1264.85	2.891 2
1.278 33	839.84	1281.5	3.020 0	290	1.267 65	831.00	1292.78	2.966 9	290	1.246 24	853.51	1285.38	2.932 3
1.293 44	835.94	1303.0	3.065 0	295	1.281 70	825.75	1314.52	3.008 9	295	1.260 99	848.71	1305.91	2.973 4
1.309 00	832.09	1324.5	3.110 0	300	1.296 05	820.50	1336.26	3.050 9	300	1.276 24	843.86	1326.44	3.014 5
1.325 00	828.29	1346.0	3.155 0	305	1.310 70	815.25	1358.00	3.092 9	305	1.291 99	838.96	1346.97	3.055 6
1.341 44	824.54	1367.5	3.200 0	310	1.325 65	810.00	1379.74	3.134 9	310	1.308 24	834.01	1367.50	3.096 7
1.358 33	820.84	1389.0	3.245 0	315	1.340 90	804.75	1401.48	3.176 9	315	1.324 99	829.01	1388.03	3.137 8
1.375 66	817.19	1410.5	3.290 0	320	1.356 45	799.50	1423.22	3.218 9	320	1.342 24	823.96	1408.56	3.178 9
1.393 44	813.59	1432.0	3.335 0	325	1.372 30	794.25	1444.96	3.260 9	325	1.359 99	818.86	1429.09	3.219 0
1.411 66	809.94	1453.5	3.380 0	330	1.388 45	789.00	1466.70	3.302 9	330	1.378 24	813.71	1449.62	3.260 1
1.430 33	806.34	1475.0	3.425 0	335	1.404 90	783.75	1488.44	3.344 9	335	1.396 99	808.51	1470.15	3.301 2
1.449 44	802.79	1496.5	3.470 0	340	1.421 65	778.50	1510.18	3.386 9	340	1.416 24	803.26	1490.68	3.342 3
1.469 00	799.29	1518.0	3.515 0	345	1.438 70	773.25	1531.92	3.428 9	345	1.436 99	797.96	1511.21	3.383 4
1.489 11	795.84	1539.5	3.560 0	350	1.456 05	768.00	1553.66	3.470 9	350	1.458 24	792.61	1531.74	3.424 5
1.509 66	792.44	1561.0	3.605 0	355	1.473 70	762.75	1575.40	3.512 9	355	1.480 99	787.21	1552.27	3.465 6
1.530 77	789.09	1582.5	3.650 0	360	1.491 75	757.50	1597.14	3.554 9	360	1.504 24	781.76	1572.80	3.506 7
1.552 44	785.79	1604.0	3.695 0	365	1.510 20	752.25	1618.88	3.596 9	365	1.528 99	776.26	1593.33	3.547 8
1.574 66													

**Table 3. Compressed Water and Superheated Steam (continued)**

90 MPa				t, °C	100 MPa				t, °C	120 MPa			
v	ρ	h	s		v	ρ	h	s		v	ρ	h	s
1.2268	815.14	1326.8	3.0392	<b>300</b>	1.2148	823.17	1329.1	3.0219	<b>300</b>	1.1934	837.91	1334.9	2.9900
1.2451	803.12	1371.6	3.1166	<b>310</b>	1.2321	811.63	1373.3	3.0983	<b>310</b>	1.2090	827.16	1378.1	3.0647
1.2646	790.75	1416.8	3.1934	<b>320</b>	1.2503	799.79	1417.8	3.1740	<b>320</b>	1.2252	816.18	1421.6	3.1387
1.2853	778.02	1462.4	3.2697	<b>330</b>	1.2696	787.63	1462.8	3.2492	<b>330</b>	1.2423	804.95	1465.4	3.2119
1.3074	764.90	1508.6	3.3456	<b>340</b>	1.2901	775.15	1508.2	3.3238	<b>340</b>	1.2603	793.48	1509.5	3.2845
1.3308	751.40	1555.3	3.4212	<b>350</b>	1.3118	762.34	1554.0	3.3979	<b>350</b>	1.2792	781.77	1554.0	3.3564
1.3560	737.48	1602.6	3.4965	<b>360</b>	1.3348	749.18	1600.3	3.4717	<b>360</b>	1.2990	769.80	1598.8	3.4277
1.3829	723.14	1650.5	3.5716	<b>370</b>	1.3593	735.67	1647.1	3.5451	<b>370</b>	1.3200	757.57	1644.0	3.4985
1.4117	708.34	1699.1	3.6466	<b>380</b>	1.3854	721.80	1694.5	3.6182	<b>380</b>	1.3421	745.09	1689.5	3.5688
1.4428	693.08	1748.5	3.7216	<b>390</b>	1.4133	707.56	1742.5	3.6911	<b>390</b>	1.3655	732.35	1735.5	3.6386
1.4763	677.35	1798.6	3.7966	<b>400</b>	1.4431	692.93	1791.1	3.7639	<b>400</b>	1.3901	719.35	1781.9	3.7081
1.5126	661.13	1849.6	3.8718	<b>410</b>	1.4751	677.92	1840.4	3.8365	<b>410</b>	1.4162	706.10	1828.7	3.7771
1.5518	644.41	1901.5	3.9472	<b>420</b>	1.5094	662.53	1890.4	3.9091	<b>420</b>	1.4439	692.59	1876.0	3.8458
1.5944	627.20	1954.3	4.0228	<b>430</b>	1.5462	646.77	1941.1	3.9818	<b>430</b>	1.4731	678.84	1923.8	3.9142
1.6407	609.51	2008.1	4.0988	<b>440</b>	1.5857	630.63	1992.5	4.0544	<b>440</b>	1.5041	664.85	1972.0	3.9823
1.6910	591.38	2062.9	4.1751	<b>450</b>	1.6282	614.16	2044.7	4.1271	<b>450</b>	1.5370	650.64	2020.7	4.0502
1.7457	572.83	2118.7	4.2517	<b>460</b>	1.6740	597.37	2097.7	4.1998	<b>460</b>	1.5718	636.23	2069.9	4.1177
1.8052	553.96	2175.4	4.3286	<b>470</b>	1.7232	580.32	2151.4	4.2725	<b>470</b>	1.6086	621.65	2119.6	4.1850
1.8696	534.86	2233.0	4.4056	<b>480</b>	1.7760	563.06	2205.7	4.3452	<b>480</b>	1.6477	606.92	2169.7	4.2520
1.9392	515.67	2291.4	4.4826	<b>490</b>	1.8326	545.68	2260.7	4.4177	<b>490</b>	1.6890	592.08	2220.2	4.3186
2.0140	496.53	2350.3	4.5592	<b>500</b>	1.8930	528.28	2316.2	4.4900	<b>500</b>	1.7325	577.19	2271.0	4.3848
2.1784	459.05	2468.8	4.7106	<b>520</b>	2.0251	493.80	2428.1	4.6329	<b>520</b>	1.8267	547.42	2373.7	4.5159
2.3607	423.60	2586.9	4.8576	<b>540</b>	2.1715	460.51	2540.2	4.7724	<b>540</b>	1.9302	518.08	2476.9	4.6444
2.5567	391.13	2702.5	4.9981	<b>560</b>	2.3301	429.16	2651.2	4.9073	<b>560</b>	2.0423	489.65	2580.0	4.7697
2.7612	362.16	2814.1	5.1304	<b>580</b>	2.4982	400.29	2759.8	5.0361	<b>580</b>	2.1619	462.55	2682.2	4.8909
2.9693	336.78	2920.7	5.2540	<b>600</b>	2.6723	374.21	2865.1	5.1581	<b>600</b>	2.2879	437.09	2782.9	5.0076
3.1770	314.76	3022.0	5.3687	<b>620</b>	2.8494	350.95	2966.4	5.2728	<b>620</b>	2.4185	413.47	2881.5	5.1192
3.3818	295.70	3118.1	5.4751	<b>640</b>	3.0269	330.38	3063.5	5.3803	<b>640</b>	2.5524	391.78	2977.5	5.2255
3.5820	279.17	3209.3	5.5740	<b>660</b>	3.2028	312.23	3156.4	5.4810	<b>660</b>	2.6881	372.01	3070.7	5.3265
3.7769	264.77	3296.2	5.6661	<b>680</b>	3.3760	296.21	3245.3	5.5753	<b>680</b>	2.8243	354.07	3161.0	5.4222
3.9662	252.13	3379.3	5.7524	<b>700</b>	3.5456	282.04	3330.7	5.6639	<b>700</b>	2.9600	337.84	3248.4	5.5130
4.1500	240.96	3459.1	5.8335	<b>720</b>	3.7114	269.44	3412.7	5.7474	<b>720</b>	3.0946	323.15	3333.0	5.5991
4.3286	231.02	3535.9	5.9102	<b>740</b>	3.8732	258.18	3491.9	5.8263	<b>740</b>	3.2275	309.84	3415.1	5.6809
4.5022	222.11	3610.4	5.9829	<b>760</b>	4.0311	248.07	3568.5	5.9012	<b>760</b>	3.3584	297.76	3494.7	5.7587
4.6713	214.07	3682.6	6.0522	<b>780</b>	4.1852	238.94	3642.8	5.9725	<b>780</b>	3.4871	286.77	3572.1	5.8329
4.8362	206.77	3753.0	6.1184	<b>800</b>	4.3358	230.64	3715.3	6.0406	<b>800</b>	3.6136	276.73	3647.6	5.9039
4.9972	200.11	3821.9	6.1820	<b>820</b>	4.4829	223.07	3786.0	6.1059	<b>820</b>	3.7378	267.54	3721.3	5.9720
5.1546	194.00	3889.3	6.2431	<b>840</b>	4.6270	216.12	3855.2	6.1686	<b>840</b>	3.8598	259.08	3793.4	6.0373
5.3088	188.37	3955.5	6.3021	<b>860</b>	4.7681	209.73	3923.1	6.2291	<b>860</b>	3.9796	251.28	3864.1	6.1003
5.4599	183.15	4020.7	6.3591	<b>880</b>	4.9065	203.81	3989.9	6.2875	<b>880</b>	4.0974	244.06	3933.5	6.1610
5.6083	178.31	4085.0	6.4144	<b>900</b>	5.0424	198.32	4055.6	6.3440	<b>900</b>	4.2132	237.35	4001.8	6.2197
5.7542	173.79	4148.5	6.4680	<b>920</b>	5.1760	193.20	4120.5	6.3988	<b>920</b>	4.3271	231.10	4069.0	6.2766
5.8976	169.56	4211.2	6.5202	<b>940</b>	5.3074	188.42	4184.5	6.4521	<b>940</b>	4.4392	225.26	4135.4	6.3317
6.0390	165.59	4273.4	6.5710	<b>960</b>	5.4368	183.93	4247.9	6.5039	<b>960</b>	4.5497	219.79	4201.0	6.3854
6.1782	161.86	4335.0	6.6206	<b>980</b>	5.5642	179.72	4310.7	6.5545	<b>980</b>	4.6586	214.66	4265.9	6.4375
6.3157	158.34	4396.2	6.6690	<b>1000</b>	5.6900	175.75	4373.0	6.6038	<b>1000</b>	4.7660	209.82	4330.1	6.4884
6.9789	143.29	4696.9	6.8964	<b>1100</b>	6.2963	158.82	4678.4	6.8347	<b>1100</b>	5.2837	189.26	4644.1	6.7258
7.6110	131.39	4992.4	7.1042	<b>1200</b>	6.8730	145.50	4977.6	7.0450	<b>1200</b>	5.7752	173.15	4950.0	6.9409
8.2201	121.65	5285.7	7.2968	<b>1300</b>	7.4278	134.63	5273.8	7.2396	<b>1300</b>	6.2470	160.08	5251.8	7.1391
8.8119	113.48	5578.5	7.4773	<b>1400</b>	7.9660	125.53	5569.1	7.4216	<b>1400</b>	6.7037	149.17	5551.6	7.3239
9.3902	106.49	5871.9	7.6476	<b>1500</b>	8.4913	117.77	5864.4	7.5930	<b>1500</b>	7.1484	139.89	5850.7	7.4975
9.9580	100.42	6166.4	7.8091	<b>1600</b>	9.0064	111.03	6160.6	7.7555	<b>1600</b>	7.5836	131.86	6150.1	7.6618
11.070	90.337	6759.9	8.1101	<b>1800</b>	10.013	99.867	6756.8	8.0579	<b>1800</b>	8.4325	118.59	6751.4	7.9668
12.158	82.249	7360.2	8.3865	<b>2000</b>	10.998	90.926	7359.2	8.3352	<b>2000</b>	9.2603	107.99	7357.7	8.2459

**Table 3. Compressed Water and Superheated Steam (continued)**

140 MPa				$t, ^\circ\text{C}$	160 MPa				$t, ^\circ\text{C}$	180 MPa			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
0.942 65	1060.84	130.88	-0.017 68	<b>0</b>	0.936 20	1068.15	148.21	-0.023 02	<b>0</b>	0.930 08	1075.18	165.31	-0.028 74
0.943 99	1059.33	150.15	0.052 22	<b>5</b>	0.937 64	1066.51	167.35	0.046 42	<b>5</b>	0.931 60	1073.42	184.34	0.040 29
0.945 45	1057.70	169.54	0.121 31	<b>10</b>	0.939 18	1064.76	186.63	0.115 11	<b>10</b>	0.933 21	1071.57	203.52	0.108 63
0.947 01	1055.96	189.02	0.189 52	<b>15</b>	0.940 81	1062.92	206.01	0.182 96	<b>15</b>	0.934 90	1069.63	222.81	0.176 16
0.948 66	1054.12	208.58	0.256 82	<b>20</b>	0.942 52	1060.99	225.47	0.249 91	<b>20</b>	0.936 66	1067.62	242.18	0.242 82
0.950 40	1052.18	228.20	0.323 18	<b>25</b>	0.944 31	1058.98	244.99	0.315 95	<b>25</b>	0.938 49	1065.55	261.62	0.308 57
0.952 23	1050.16	247.87	0.388 60	<b>30</b>	0.946 17	1056.89	264.57	0.381 05	<b>30</b>	0.940 38	1063.40	281.11	0.373 41
0.954 15	1048.06	267.58	0.453 08	<b>35</b>	0.948 11	1054.73	284.18	0.445 23	<b>35</b>	0.942 33	1061.20	300.64	0.437 31
0.956 14	1045.87	287.32	0.516 63	<b>40</b>	0.950 12	1052.50	303.83	0.508 47	<b>40</b>	0.944 35	1058.93	320.21	0.500 29
0.958 22	1043.60	307.09	0.579 27	<b>45</b>	0.952 19	1050.21	323.50	0.570 81	<b>45</b>	0.946 43	1056.60	339.80	0.562 36
0.960 37	1041.26	326.89	0.641 00	<b>50</b>	0.954 34	1047.84	343.20	0.632 24	<b>50</b>	0.948 57	1054.22	359.42	0.623 53
0.962 61	1038.84	346.70	0.701 86	<b>55</b>	0.956 56	1045.41	362.92	0.692 80	<b>55</b>	0.950 78	1051.77	379.05	0.683 82
0.964 92	1036.35	366.54	0.761 84	<b>60</b>	0.958 85	1042.91	382.66	0.752 49	<b>60</b>	0.953 04	1049.27	398.70	0.743 24
0.967 31	1033.79	386.39	0.820 99	<b>65</b>	0.961 21	1040.35	402.41	0.811 34	<b>65</b>	0.955 38	1046.71	418.36	0.801 82
0.969 78	1031.16	406.25	0.879 30	<b>70</b>	0.963 64	1037.73	422.18	0.869 36	<b>70</b>	0.957 77	1044.09	438.03	0.859 58
0.972 33	1028.46	426.13	0.936 82	<b>75</b>	0.966 14	1035.04	441.95	0.926 58	<b>75</b>	0.960 23	1041.42	457.72	0.916 53
0.974 95	1025.70	446.02	0.993 54	<b>80</b>	0.968 71	1032.30	461.74	0.983 01	<b>80</b>	0.962 75	1038.69	477.41	0.972 69
0.977 65	1022.86	465.93	1.049 5	<b>85</b>	0.971 35	1029.49	481.54	1.038 7	<b>85</b>	0.965 34	1035.90	497.11	1.028 1
0.980 42	1019.97	485.84	1.104 7	<b>90</b>	0.974 06	1026.63	501.35	1.093 6	<b>90</b>	0.967 99	1033.07	516.83	1.082 8
0.983 27	1017.01	505.77	1.159 2	<b>95</b>	0.976 85	1023.70	521.17	1.147 8	<b>95</b>	0.970 71	1030.18	536.55	1.136 7
0.986 20	1013.99	525.70	1.213 0	<b>100</b>	0.979 70	1020.72	540.99	1.201 3	<b>100</b>	0.973 49	1027.23	556.27	1.189 9
0.989 21	1010.91	545.65	1.266 1	<b>105</b>	0.982 62	1017.69	560.83	1.254 1	<b>105</b>	0.976 33	1024.24	576.01	1.242 4
0.992 29	1007.77	565.61	1.318 6	<b>110</b>	0.985 61	1014.60	580.68	1.306 3	<b>110</b>	0.979 24	1021.20	595.75	1.294 3
0.995 45	1004.57	585.58	1.370 3	<b>115</b>	0.988 67	1011.46	600.54	1.357 8	<b>115</b>	0.982 22	1018.10	615.51	1.345 5
0.998 69	1001.32	605.57	1.421 5	<b>120</b>	0.991 81	1008.26	620.41	1.408 6	<b>120</b>	0.985 26	1014.96	635.27	1.396 1
1.002 00	998.00	625.57	1.472 1	<b>125</b>	0.995 01	1005.01	640.29	1.458 9	<b>125</b>	0.988 37	1011.77	655.05	1.446 1
1.005 39	994.64	645.58	1.522 0	<b>130</b>	0.998 29	1001.72	660.19	1.508 5	<b>130</b>	0.991 54	1008.53	674.83	1.495 5
1.008 86	991.22	665.61	1.571 4	<b>135</b>	1.001 64	998.37	680.09	1.557 6	<b>135</b>	0.994 78	1005.25	694.63	1.544 3
1.012 41	987.75	685.66	1.620 2	<b>140</b>	1.005 06	994.97	700.01	1.606 1	<b>140</b>	0.998 08	1001.92	714.43	1.592 5
1.016 03	984.22	705.72	1.668 5	<b>145</b>	1.008 55	991.52	719.95	1.654 1	<b>145</b>	1.001 45	998.55	734.25	1.640 2
1.019 74	980.64	725.80	1.716 2	<b>150</b>	1.012 11	988.03	739.90	1.701 5	<b>150</b>	1.004 89	995.13	754.09	1.687 4
1.023 53	977.01	745.90	1.763 4	<b>155</b>	1.015 75	984.49	759.87	1.748 4	<b>155</b>	1.008 40	991.67	773.93	1.734 0
1.027 40	973.34	766.02	1.810 1	<b>160</b>	1.019 46	980.91	779.86	1.794 8	<b>160</b>	1.011 97	988.17	793.80	1.780 1
1.031 35	969.61	786.16	1.856 4	<b>165</b>	1.023 25	977.28	799.86	1.840 7	<b>165</b>	1.015 62	984.62	813.67	1.825 7
1.035 38	965.83	806.32	1.902 1	<b>170</b>	1.027 12	973.60	819.88	1.886 2	<b>170</b>	1.019 33	981.04	833.57	1.870 9
1.039 50	962.00	826.51	1.947 4	<b>175</b>	1.031 06	969.88	839.92	1.931 2	<b>175</b>	1.023 11	977.41	853.48	1.915 6
1.043 70	958.13	846.72	1.992 3	<b>180</b>	1.035 07	966.12	859.99	1.975 7	<b>180</b>	1.026 96	973.75	873.41	1.959 8
1.047 99	954.21	866.96	2.036 7	<b>185</b>	1.039 17	962.31	880.07	2.019 8	<b>185</b>	1.030 89	970.04	893.36	2.003 6
1.052 37	950.24	887.22	2.080 7	<b>190</b>	1.043 34	958.46	900.18	2.063 4	<b>190</b>	1.034 88	966.29	913.33	2.046 9
1.056 83	946.22	907.51	2.124 3	<b>195</b>	1.047 60	954.56	920.31	2.106 7	<b>195</b>	1.038 95	962.51	933.32	2.089 9
1.061 39	942.16	927.83	2.167 4	<b>200</b>	1.051 93	950.63	940.47	2.149 5	<b>200</b>	1.043 09	958.69	953.33	2.132 4
1.070 78	933.90	968.56	2.252 6	<b>210</b>	1.060 86	942.64	980.86	2.234 0	<b>210</b>	1.051 60	950.93	993.41	2.216 2
1.080 56	925.45	1009.4	2.336 3	<b>220</b>	1.070 12	934.48	1021.4	2.316 9	<b>220</b>	1.060 41	943.03	1033.6	2.298 5
1.090 74	916.81	1050.4	2.418 6	<b>230</b>	1.079 74	926.15	1062.0	2.398 5	<b>230</b>	1.069 54	934.98	1073.9	2.379 4
1.101 33	908.00	1091.6	2.499 6	<b>240</b>	1.089 72	917.67	1102.7	2.478 6	<b>240</b>	1.079 00	926.78	1114.2	2.458 8
1.112 35	899.00	1132.9	2.579 3	<b>250</b>	1.100 08	909.02	1143.6	2.557 5	<b>250</b>	1.088 79	918.45	1154.7	2.537 0
1.123 83	889.81	1174.3	2.657 8	<b>260</b>	1.110 84	900.22	1184.6	2.635 2	<b>260</b>	1.098 94	909.97	1195.3	2.613 9
1.135 79	880.45	1216.0	2.735 2	<b>270</b>	1.122 01	891.26	1225.7	2.711 6	<b>270</b>	1.109 44	901.36	1236.1	2.689 6
1.148 24	870.89	1257.8	2.811 5	<b>280</b>	1.133 61	882.14	1267.0	2.787 0	<b>280</b>	1.120 32	892.60	1276.9	2.764 1
1.161 23	861.16	1299.8	2.886 8	<b>290</b>	1.145 66	872.86	1308.5	2.861 3	<b>290</b>	1.131 59	883.71	1317.9	2.837 5

**Table 3. Compressed Water and Superheated Steam (continued)**

140 MPa				$t, ^\circ\text{C}$	160 MPa				$t, ^\circ\text{C}$	180 MPa			
$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$		$v$	$\rho$	$h$	$s$
1.1748	851.23	1342.0	2.9611	<b>300</b>	1.1582	863.42	1350.1	2.9345	<b>300</b>	1.1433	874.69	1359.0	2.9099
1.1889	841.11	1384.5	3.0345	<b>310</b>	1.1712	853.82	1391.9	3.0068	<b>310</b>	1.1554	865.53	1400.3	2.9813
1.2037	830.81	1427.1	3.1070	<b>320</b>	1.1847	844.07	1433.9	3.0782	<b>320</b>	1.1679	856.24	1441.7	3.0517
1.2191	820.31	1470.0	3.1787	<b>330</b>	1.1988	834.16	1476.1	3.1487	<b>330</b>	1.1809	846.82	1483.3	3.1211
1.2352	809.62	1513.2	3.2497	<b>340</b>	1.2135	824.09	1518.4	3.2183	<b>340</b>	1.1944	837.27	1525.0	3.1897
1.2520	798.73	1556.6	3.3199	<b>350</b>	1.2287	813.87	1561.0	3.2872	<b>350</b>	1.2083	827.59	1566.8	3.2575
1.2696	787.65	1600.2	3.3894	<b>360</b>	1.2446	803.49	1603.7	3.3553	<b>360</b>	1.2228	817.78	1608.9	3.3244
1.2880	776.38	1644.2	3.4582	<b>370</b>	1.2611	792.96	1646.7	3.4226	<b>370</b>	1.2379	807.85	1651.0	3.3905
1.3073	764.92	1688.4	3.5265	<b>380</b>	1.2783	782.28	1689.9	3.4892	<b>380</b>	1.2534	797.80	1693.4	3.4558
1.3276	753.26	1732.9	3.5941	<b>390</b>	1.2963	771.45	1733.3	3.5552	<b>390</b>	1.2696	787.63	1735.9	3.5205
1.3488	741.41	1777.7	3.6612	<b>400</b>	1.3150	760.48	1777.0	3.6205	<b>400</b>	1.2864	777.35	1778.6	3.5844
1.3710	729.38	1822.8	3.7277	<b>410</b>	1.3345	749.37	1820.8	3.6852	<b>410</b>	1.3039	766.96	1821.5	3.6476
1.3944	717.17	1868.3	3.7938	<b>420</b>	1.3548	738.12	1864.9	3.7493	<b>420</b>	1.3219	756.46	1864.6	3.7102
1.4189	704.79	1914.1	3.8594	<b>430</b>	1.3760	726.74	1909.3	3.8128	<b>430</b>	1.3407	745.86	1907.8	3.7721
1.4446	692.24	1960.2	3.9245	<b>440</b>	1.3981	715.24	1953.9	3.8758	<b>440</b>	1.3602	735.17	1951.2	3.8334
1.4716	679.53	2006.6	3.9892	<b>450</b>	1.4212	703.63	1998.7	3.9382	<b>450</b>	1.3805	724.40	1994.8	3.8941
1.4999	666.69	2053.4	4.0534	<b>460</b>	1.4453	691.91	2043.7	4.0001	<b>460</b>	1.4015	713.54	2038.6	3.9543
1.5297	653.72	2100.5	4.1172	<b>470</b>	1.4704	680.11	2089.0	4.0614	<b>470</b>	1.4232	702.62	2082.6	4.0138
1.5609	640.65	2147.9	4.1805	<b>480</b>	1.4965	668.23	2134.5	4.1222	<b>480</b>	1.4458	691.64	2126.7	4.0727
1.5936	627.50	2195.6	4.2434	<b>490</b>	1.5237	656.28	2180.3	4.1826	<b>490</b>	1.4693	680.61	2170.9	4.1311
1.6279	614.30	2243.5	4.3059	<b>500</b>	1.5521	644.29	2226.2	4.2423	<b>500</b>	1.4935	669.55	2215.3	4.1890
1.7011	587.85	2340.1	4.4292	<b>520</b>	1.6122	620.27	2318.5	4.3603	<b>520</b>	1.5447	647.39	2304.6	4.3029
1.7807	561.58	2437.3	4.5502	<b>540</b>	1.6769	596.33	2411.4	4.4759	<b>540</b>	1.5993	625.26	2394.2	4.4145
1.8664	535.78	2534.6	4.6685	<b>560</b>	1.7462	572.67	2504.5	4.5890	<b>560</b>	1.6575	603.33	2484.0	4.5236
1.9579	510.76	2631.7	4.7835	<b>580</b>	1.8198	549.51	2597.5	4.6993	<b>580</b>	1.7190	581.73	2573.9	4.6302
2.0544	486.77	2727.9	4.8951	<b>600</b>	1.8974	527.03	2690.1	4.8066	<b>600</b>	1.7837	560.62	2663.6	4.7341
2.1551	464.01	2822.9	5.0026	<b>620</b>	1.9786	505.42	2782.0	4.9106	<b>620</b>	1.8514	540.14	2752.8	4.8351
2.2593	442.61	2916.4	5.1061	<b>640</b>	2.0627	484.79	2872.8	5.0112	<b>640</b>	1.9216	520.40	2841.3	4.9331
2.3661	422.65	3007.9	5.2053	<b>660</b>	2.1494	465.24	2962.3	5.1082	<b>660</b>	1.9941	501.49	2928.8	5.0280
2.4745	404.12	3097.5	5.3003	<b>680</b>	2.2380	446.82	3050.4	5.2016	<b>680</b>	2.0684	483.47	3015.3	5.1197
2.5840	386.99	3184.9	5.3910	<b>700</b>	2.3281	429.54	3136.9	5.2913	<b>700</b>	2.1441	466.39	3100.6	5.2082
2.6938	371.22	3270.1	5.4778	<b>720</b>	2.4191	413.38	3221.7	5.3776	<b>720</b>	2.2210	450.24	3184.5	5.2936
2.8035	356.70	3353.3	5.5606	<b>740</b>	2.5106	398.31	3304.8	5.4605	<b>740</b>	2.2987	435.02	3267.1	5.3759
2.9125	343.35	3434.3	5.6399	<b>760</b>	2.6023	384.28	3386.2	5.5400	<b>760</b>	2.3770	420.71	3348.3	5.4553
3.0206	331.06	3513.5	5.7157	<b>780</b>	2.6938	371.22	3466.0	5.6165	<b>780</b>	2.4554	407.26	3428.1	5.5318
3.1276	319.74	3590.8	5.7884	<b>800</b>	2.7850	359.07	3544.2	5.6901	<b>800</b>	2.5339	394.64	3506.6	5.6056
3.2332	309.29	3666.4	5.8582	<b>820</b>	2.8756	347.76	3620.8	5.7609	<b>820</b>	2.6123	382.81	3583.8	5.6769
3.3375	299.62	3740.5	5.9254	<b>840</b>	2.9654	337.22	3696.1	5.8291	<b>840</b>	2.6904	371.70	3659.6	5.7457
3.4404	290.67	3813.1	5.9901	<b>860</b>	3.0544	327.40	3770.1	5.8950	<b>860</b>	2.7680	361.27	3734.3	5.8122
3.5418	282.34	3884.5	6.0525	<b>880</b>	3.1425	318.22	3842.8	5.9586	<b>880</b>	2.8451	351.48	3807.9	5.8765
3.6418	274.59	3954.7	6.1129	<b>900</b>	3.2296	309.63	3914.4	6.0202	<b>900</b>	2.9217	342.27	3880.4	5.9389
3.7404	267.35	4023.9	6.1714	<b>920</b>	3.3158	301.59	3985.0	6.0798	<b>920</b>	2.9976	333.60	3952.0	5.9993
3.8376	260.58	4092.1	6.2281	<b>940</b>	3.4010	294.03	4054.6	6.1377	<b>940</b>	3.0728	325.43	4022.6	6.0580
3.9335	254.23	4159.5	6.2832	<b>960</b>	3.4852	286.93	4123.3	6.1939	<b>960</b>	3.1473	317.73	4092.3	6.1151
4.0282	248.25	4226.1	6.3367	<b>980</b>	3.5684	280.24	4191.3	6.2485	<b>980</b>	3.2212	310.45	4161.3	6.1706
4.1216	242.62	4292.0	6.3889	<b>1000</b>	3.6507	273.92	4258.5	6.3018	<b>1000</b>	3.2943	303.56	4229.6	6.2246
4.5725	218.70	4613.3	6.6319	<b>1100</b>	4.0489	246.98	4586.0	6.5494	<b>1100</b>	3.6494	274.02	4562.1	6.4761
5.0009	199.96	4925.3	6.8513	<b>1200</b>	4.4280	225.83	4903.2	6.7725	<b>1200</b>	3.9888	250.70	4883.8	6.7023
5.4117	184.78	5232.0	7.0527	<b>1300</b>	4.7918	208.69	5214.4	6.9769	<b>1300</b>	4.3148	231.76	5198.9	6.9093
5.8088	172.15	5535.9	7.2400	<b>1400</b>	5.1432	194.43	5522.1	7.1665	<b>1400</b>	4.6299	215.99	5510.0	7.1010
6.1950	161.42	5838.6	7.4157	<b>1500</b>	5.4847	182.33	5827.9	7.3440	<b>1500</b>	4.9361	202.59	5818.7	7.2802
6.5724	152.15	6140.9	7.5816	<b>1600</b>	5.8182	171.87	6133.0	7.5114	<b>1600</b>	5.2349	191.03	6126.4	7.4490
7.3072	136.85	6747.0	7.8890	<b>1800</b>	6.4665	154.64	6743.6	7.8211	<b>1800</b>	5.8152	171.96	6741.1	7.7608
8.0223	124.65	7356.9	8.1699	<b>2000</b>	7.0964	140.92	7357.0	8.1036	<b>2000</b>	6.3784	156.78	7357.7	8.0447

**Table 3. Compressed Water and Superheated Steam (continued)**

200 MPa				<i>t</i> , °C	250 MPa				<i>t</i> , °C	300 MPa			
<i>v</i>	$\rho$	<i>h</i>	<i>s</i>		<i>v</i>	$\rho$	<i>h</i>	<i>s</i>		<i>v</i>	$\rho$	<i>h</i>	<i>s</i>
0.924 26	1081.9	182.21	-0.034 77	<b>0</b>	0.910 89	1097.8	223.68	-0.050 87	<b>0</b>	0.898 92	1112.4	264.27	-0.067 91
0.927 52	1078.1	220.22	0.101 91	<b>10</b>	0.914 37	1093.7	261.29	0.084 35	<b>10</b>	0.902 52	1108.0	301.54	0.066 08
0.931 06	1074.0	258.73	0.235 57	<b>20</b>	0.918 06	1089.3	299.49	0.216 94	<b>20</b>	0.906 30	1103.4	339.50	0.197 83
0.932 92	1071.9	278.10	0.301 08	<b>25</b>	0.919 97	1087.0	318.72	0.281 96	<b>25</b>	0.908 24	1101.0	358.62	0.262 51
0.934 83	1069.7	297.52	0.365 67	<b>30</b>	0.921 92	1084.7	338.00	0.346 08	<b>30</b>	0.910 21	1098.7	377.79	0.326 29
0.938 82	1065.2	336.47	0.492 09	<b>40</b>	0.925 95	1080.0	376.66	0.471 56	<b>40</b>	0.914 23	1093.8	416.25	0.451 08
0.943 04	1060.4	375.53	0.614 86	<b>50</b>	0.930 13	1075.1	415.41	0.593 37	<b>50</b>	0.918 38	1088.9	454.77	0.572 17
0.947 48	1055.4	414.65	0.734 09	<b>60</b>	0.934 49	1070.1	454.21	0.711 61	<b>60</b>	0.922 65	1083.8	493.31	0.689 64
0.952 14	1050.3	453.82	0.849 94	<b>70</b>	0.939 02	1064.9	493.03	0.826 43	<b>70</b>	0.927 07	1078.7	531.86	0.803 66
0.957 04	1044.9	493.03	0.962 57	<b>80</b>	0.943 74	1059.6	531.87	0.938 01	<b>80</b>	0.931 63	1073.4	570.41	0.914 39
0.962 18	1039.3	532.27	1.0721	<b>90</b>	0.948 65	1054.1	570.73	1.0465	<b>90</b>	0.936 35	1068.0	608.95	1.0220
0.967 55	1033.5	571.54	1.1788	<b>100</b>	0.953 75	1048.5	609.59	1.1521	<b>100</b>	0.941 23	1062.4	647.49	1.1267
0.973 16	1027.6	610.83	1.2827	<b>110</b>	0.959 05	1042.7	648.47	1.2549	<b>110</b>	0.946 27	1056.8	686.02	1.2286
0.979 02	1021.4	650.15	1.3840	<b>120</b>	0.964 56	1036.7	687.37	1.3551	<b>120</b>	0.951 48	1051.0	724.56	1.3279
0.985 11	1015.1	689.51	1.4829	<b>130</b>	0.970 26	1030.7	726.28	1.4529	<b>130</b>	0.956 86	1045.1	763.11	1.4247
0.991 45	1008.6	728.90	1.5794	<b>140</b>	0.976 16	1024.4	765.22	1.5483	<b>140</b>	0.962 41	1039.1	801.66	1.5192
0.998 04	1002.0	768.34	1.6737	<b>150</b>	0.982 28	1018.0	804.19	1.6414	<b>150</b>	0.968 14	1032.9	840.23	1.6114
1.0049	995.15	807.82	1.7659	<b>160</b>	0.988 59	1011.5	843.18	1.7325	<b>160</b>	0.974 04	1026.7	878.82	1.7016
1.0120	988.18	847.37	1.8562	<b>170</b>	0.995 12	1004.9	882.22	1.8216	<b>170</b>	0.980 11	1020.3	917.44	1.7897
1.0193	981.06	886.97	1.9446	<b>180</b>	1.0019	998.15	921.30	1.9088	<b>180</b>	0.986 36	1013.8	956.08	1.8759
1.0269	973.79	926.63	2.0311	<b>190</b>	1.0088	991.27	960.42	1.9942	<b>190</b>	0.992 79	1007.3	994.76	1.9603
1.0348	966.39	966.37	2.1160	<b>200</b>	1.0160	984.28	999.59	2.0779	<b>200</b>	0.999 40	1000.6	1033.5	2.0430
1.0429	958.84	1006.2	2.1993	<b>210</b>	1.0234	977.18	1038.8	2.1599	<b>210</b>	1.0062	993.85	1072.2	2.1241
1.0513	951.16	1046.1	2.2810	<b>220</b>	1.0310	969.97	1078.1	2.2404	<b>220</b>	1.0132	987.01	1111.0	2.2035
1.0600	943.35	1086.0	2.3612	<b>230</b>	1.0388	962.66	1117.4	2.3194	<b>230</b>	1.0203	980.09	1149.8	2.2814
1.0690	935.41	1126.1	2.4401	<b>240</b>	1.0468	955.25	1156.8	2.3969	<b>240</b>	1.0277	973.09	1188.7	2.3579
1.0783	927.35	1166.3	2.5176	<b>250</b>	1.0551	947.74	1196.3	2.4731	<b>250</b>	1.0352	966.01	1227.6	2.4330
1.0880	919.16	1206.5	2.5938	<b>260</b>	1.0637	940.13	1235.8	2.5479	<b>260</b>	1.0429	958.85	1266.5	2.5068
1.0979	910.85	1246.9	2.6688	<b>270</b>	1.0725	932.43	1275.4	2.6215	<b>270</b>	1.0508	951.63	1305.5	2.5792
1.1081	902.41	1287.3	2.7426	<b>280</b>	1.0815	924.64	1315.1	2.6938	<b>280</b>	1.0590	944.33	1344.6	2.6505
1.1187	893.86	1327.9	2.8153	<b>290</b>	1.0908	916.77	1354.8	2.7650	<b>290</b>	1.0673	936.97	1383.7	2.7205
1.1297	885.19	1368.6	2.8869	<b>300</b>	1.1003	908.81	1394.6	2.8350	<b>300</b>	1.0758	929.54	1422.8	2.7894
1.1527	867.51	1450.3	3.0270	<b>320</b>	1.1203	892.64	1474.4	2.9719	<b>320</b>	1.0935	914.51	1501.2	2.9238
1.1773	849.39	1532.5	3.1633	<b>340</b>	1.1413	876.17	1554.5	3.1048	<b>340</b>	1.1120	899.25	1579.8	3.0541
1.2036	830.83	1615.2	3.2961	<b>360</b>	1.1636	859.41	1634.9	3.2338	<b>360</b>	1.1315	883.78	1658.5	3.1805
1.2317	811.87	1698.4	3.4255	<b>380</b>	1.1871	842.38	1715.7	3.3594	<b>380</b>	1.1519	868.14	1737.5	3.3033
1.2618	792.53	1782.2	3.5518	<b>400</b>	1.2120	825.11	1796.7	3.4815	<b>400</b>	1.1732	852.34	1816.6	3.4226
1.2939	772.83	1866.5	3.6752	<b>420</b>	1.2382	807.62	1878.0	3.6006	<b>420</b>	1.1956	836.40	1895.9	3.5386
1.3283	752.82	1951.3	3.7959	<b>440</b>	1.2659	789.95	1959.6	3.7166	<b>440</b>	1.2190	820.34	1975.3	3.6516
1.3651	732.55	2036.7	3.9140	<b>460</b>	1.2951	772.13	2041.5	3.8299	<b>460</b>	1.2435	804.21	2054.8	3.7616
1.4044	712.06	2122.6	4.0296	<b>480</b>	1.3259	754.20	2123.6	3.9404	<b>480</b>	1.2690	788.01	2134.5	3.8688
1.4463	691.43	2209.0	4.1428	<b>500</b>	1.3583	736.20	2206.0	4.0483	<b>500</b>	1.2957	771.79	2214.2	3.9733
1.5630	639.79	2426.6	4.4154	<b>550</b>	1.4468	691.20	2412.7	4.3074	<b>550</b>	1.3674	731.32	2414.0	4.2236
1.6968	589.36	2644.9	4.6729	<b>600</b>	1.5458	646.91	2619.9	4.5518	<b>600</b>	1.4463	691.40	2613.8	4.4593
1.8456	541.84	2861.3	4.9139	<b>650</b>	1.6548	604.30	2826.3	4.7817	<b>650</b>	1.5323	652.63	2813.1	4.6813
2.0056	498.59	3073.1	5.1374	<b>700</b>	1.7721	564.30	3030.4	4.9970	<b>700</b>	1.6244	615.61	3011.1	4.8902
2.1728	460.23	3278.5	5.3432	<b>750</b>	1.8955	527.56	3230.7	5.1977	<b>750</b>	1.7216	580.87	3206.8	5.0862
2.3434	426.73	3476.6	5.5323	<b>800</b>	2.0227	494.38	3426.2	5.3843	<b>800</b>	1.8223	548.76	3399.3	5.2700
2.6847	372.48	3852.2	5.8671	<b>900</b>	2.2816	438.28	3802.1	5.7193	<b>900</b>	2.0292	492.80	3773.2	5.6032
3.0169	331.46	4204.9	6.1558	<b>1000</b>	2.5391	393.85	4159.5	6.0118	<b>1000</b>	2.2374	446.94	4132.3	5.8970
3.6426	274.53	4867.0	6.6391	<b>1200</b>	3.0348	329.51	4834.9	6.5049	<b>1200</b>	2.6439	378.23	4815.4	6.3957
4.2230	236.80	5499.5	7.0419	<b>1400</b>	3.5016	285.59	5480.3	6.9158	<b>1400</b>	3.0315	329.87	5469.7	6.8123
4.7710	209.60	6121.0	7.3928	<b>1600</b>	3.9443	253.53	6112.2	7.2726	<b>1600</b>	3.4015	293.99	6109.8	7.1737
5.2964	188.81	6739.6	7.7066	<b>1800</b>	4.3690	228.89	6739.3	7.5907	<b>1800</b>	3.7572	266.16	6743.7	7.4953
5.8057	172.24	7359.2	7.9919	<b>2000</b>	4.7802	209.20	7365.7	7.8791	<b>2000</b>	4.1018	243.79	7375.8	7.7864

**Table 3. Compressed Water and Superheated Steam (continued)**

350 MPa				t, °C	400 MPa				t, °C	450 MPa			
v	ρ	h	s		v	ρ	h	s		v	ρ	h	s
0.888 09	1126.0	304.15	-0.085 45	0	0.878 19	1138.7	343.44	-0.103 24	0	0.869 08	1150.6	382.24	-0.121 11
0.891 74	1121.4	341.11	0.047 42	10	0.881 87	1134.0	380.12	0.028 61	10	0.872 76	1145.8	418.65	0.009 79
0.895 56	1116.6	378.88	0.178 51	20	0.885 69	1129.1	417.72	0.159 13	20	0.876 57	1140.8	456.11	0.139 80
0.897 51	1114.2	397.92	0.242 92	25	0.887 64	1126.6	436.70	0.223 32	25	0.878 50	1138.3	475.04	0.203 82
0.899 48	1111.7	417.02	0.306 44	30	0.889 61	1124.1	455.74	0.286 66	30	0.880 45	1135.8	494.03	0.267 01
0.903 49	1106.8	455.31	0.430 73	40	0.893 58	1119.1	493.92	0.410 57	40	0.884 39	1130.7	532.13	0.390 64
0.907 59	1101.8	493.66	0.551 28	50	0.897 63	1114.0	532.14	0.530 71	50	0.888 38	1125.6	570.25	0.510 47
0.911 79	1096.7	532.01	0.668 16	60	0.901 75	1109.0	570.34	0.647 14	60	0.892 42	1120.5	608.33	0.626 54
0.916 09	1091.6	570.35	0.781 54	70	0.905 96	1103.8	608.50	0.760 00	70	0.896 54	1115.4	646.36	0.738 99
0.920 52	1086.3	608.66	0.891 58	80	0.910 26	1098.6	646.62	0.869 48	80	0.900 73	1110.2	684.31	0.848 02
0.925 07	1081.0	646.94	0.998 48	90	0.914 67	1093.3	684.69	0.975 79	90	0.905 01	1105.0	722.20	0.953 83
0.929 76	1075.5	685.20	1.1024	100	0.919 18	1087.9	722.72	1.0791	100	0.909 38	1099.7	760.04	1.0566
0.934 58	1070.0	723.45	1.2036	110	0.923 82	1082.5	760.72	1.1796	110	0.913 85	1094.3	797.84	1.1566
0.939 55	1064.3	761.68	1.3021	120	0.928 58	1076.9	798.70	1.2774	120	0.918 42	1088.8	835.59	1.2538
0.944 66	1058.6	799.91	1.3981	130	0.933 46	1071.3	836.66	1.3728	130	0.923 10	1083.3	873.32	1.3486
0.949 92	1052.7	838.14	1.4918	140	0.938 46	1065.6	874.61	1.4658	140	0.927 89	1077.7	911.04	1.4410
0.955 32	1046.8	876.38	1.5832	150	0.943 60	1059.8	912.56	1.5565	150	0.932 79	1072.1	948.74	1.5312
0.960 88	1040.7	914.63	1.6725	160	0.948 86	1053.9	950.51	1.6452	160	0.937 80	1066.3	986.43	1.6192
0.966 58	1034.6	952.89	1.7599	170	0.954 24	1047.9	988.47	1.7318	170	0.942 92	1060.5	1024.1	1.7053
0.972 43	1028.4	991.16	1.8453	180	0.959 76	1041.9	1026.4	1.8165	180	0.948 15	1054.7	1061.8	1.7894
0.978 43	1022.0	1029.5	1.9289	190	0.965 41	1035.8	1064.4	1.8994	190	0.953 50	1048.8	1099.5	1.8717
0.984 59	1015.7	1067.8	2.0107	200	0.971 19	1029.7	1102.4	1.9806	200	0.958 95	1042.8	1137.2	1.9522
0.990 89	1009.2	1106.1	2.0909	210	0.977 09	1023.4	1140.4	2.0601	210	0.964 52	1036.8	1175.0	2.0311
0.997 35	1002.7	1144.5	2.1696	220	0.983 13	1017.2	1178.4	2.1380	220	0.970 21	1030.7	1212.7	2.1084
1.0040	996.05	1182.9	2.2466	230	0.989 30	1010.8	1216.5	2.2144	230	0.976 00	1024.6	1250.4	2.1842
1.0107	989.38	1221.3	2.3223	240	0.995 60	1004.4	1254.6	2.2893	240	0.981 91	1018.4	1288.2	2.2585
1.0177	982.64	1259.8	2.3965	250	1.0020	997.97	1292.6	2.3628	250	0.987 93	1012.2	1325.9	2.3314
1.0247	975.85	1298.3	2.4694	260	1.0086	991.47	1330.7	2.4349	260	0.994 07	1006.0	1363.7	2.4029
1.0320	969.00	1336.8	2.5409	270	1.0153	984.93	1368.9	2.5058	270	1.0003	999.68	1401.5	2.4731
1.0394	962.09	1375.3	2.6113	280	1.0221	978.34	1407.0	2.5753	280	1.0067	993.37	1439.3	2.5421
1.0470	955.13	1413.9	2.6804	290	1.0291	971.72	1445.2	2.6437	290	1.0132	987.01	1477.1	2.6098
1.0547	948.13	1452.5	2.7483	300	1.0362	965.05	1483.3	2.7109	300	1.0197	980.63	1514.9	2.6764
1.0707	933.98	1529.8	2.8809	320	1.0508	951.61	1559.7	2.8419	320	1.0333	967.79	1590.6	2.8061
1.0874	919.66	1607.2	3.0092	340	1.0660	938.05	1636.2	2.9687	340	1.0473	954.85	1666.3	2.9316
1.1047	905.20	1684.7	3.1336	360	1.0818	924.38	1712.7	3.0915	360	1.0618	941.84	1742.0	3.0531
1.1228	890.60	1762.3	3.2543	380	1.0981	910.63	1789.2	3.2105	380	1.0767	928.76	1817.6	3.1708
1.1417	875.90	1840.0	3.3714	400	1.1151	896.80	1865.8	3.3260	400	1.0921	915.64	1893.3	3.2849
1.1613	861.12	1917.7	3.4852	420	1.1326	882.92	1942.4	3.4381	420	1.1080	902.49	1969.0	3.3957
1.1817	846.27	1995.6	3.5959	440	1.1507	869.00	2019.0	3.5470	440	1.1244	889.33	2044.6	3.5032
1.2028	831.37	2073.4	3.7036	460	1.1695	855.06	2095.6	3.6529	460	1.1413	876.16	2120.2	3.6078
1.2248	816.45	2151.3	3.8084	480	1.1889	841.13	2172.1	3.7560	480	1.1587	863.02	2195.8	3.7095
1.2476	801.53	2229.2	3.9105	500	1.2089	827.22	2248.7	3.8563	500	1.1766	849.90	2271.3	3.8084
1.3082	764.39	2424.1	4.1547	550	1.2616	792.62	2439.9	4.0959	550	1.2235	817.35	2459.7	4.0445
1.3741	727.74	2618.7	4.3843	600	1.3183	758.53	2630.7	4.3210	600	1.2734	785.30	2647.5	4.2661
1.4451	692.00	2812.9	4.6005	650	1.3789	725.20	2820.9	4.5328	650	1.3263	753.95	2834.8	4.4746
1.5208	657.54	3006.1	4.8043	700	1.4432	692.92	3010.4	4.7327	700	1.3822	723.50	3021.2	4.6713
1.6006	624.76	3197.8	4.9964	750	1.5107	661.94	3198.8	4.9215	750	1.4407	694.12	3206.8	4.8573
1.6836	593.97	3387.4	5.1774	800	1.5810	632.51	3385.7	5.0998	800	1.5015	666.00	3391.4	5.0334
1.8553	538.99	3758.6	5.5081	900	1.7272	578.96	3753.7	5.4278	900	1.6284	614.09	3756.2	5.3585
2.0296	492.70	4117.9	5.8021	1000	1.8769	532.80	4112.6	5.7214	1000	1.7592	568.44	4114.0	5.6512
2.3729	421.42	4805.8	6.3043	1200	2.1739	460.01	4803.7	6.2259	1200	2.0209	494.83	4807.2	6.1572
2.7029	369.97	5466.5	6.7250	1400	2.4607	406.38	5469.3	6.6497	1400	2.2747	439.61	5476.9	6.5836
3.0195	331.18	6112.8	7.0900	1600	2.7368	365.39	6120.6	7.0174	1600	2.5194	396.92	6132.3	6.9536
3.3248	300.77	6752.4	7.4144	1800	3.0037	332.93	6764.7	7.3442	1800	2.7562	362.82	6780.2	7.2823
3.6209	276.17	7389.3	7.7077	2000	3.2629	306.47	7405.6	7.6393	2000	2.9864	334.85	7424.5	7.5790

**Table 3. Compressed Water and Superheated Steam (continued)**

500 MPa				t, °C	600 MPa				t, °C	700 MPa			
v	ρ	h	s		v	ρ	h	s		v	ρ	h	s
0.860 64	1161.9	420.60	-0.138 97	<b>0</b>	0.845 40	1182.9	496.19	-0.174 46	<b>0</b>				
0.864 30	1157.0	456.76	-0.008 96	<b>10</b>	0.849 01	1177.8	531.91	-0.046 04	<b>10</b>	0.835 48	1196.9	605.83	-0.082 39
0.868 08	1152.0	494.10	0.120 60	<b>20</b>	0.852 72	1172.7	569.03	0.082 76	<b>20</b>	0.839 10	1191.7	642.77	0.045 81
0.870 00	1149.4	512.98	0.184 48	<b>25</b>	0.854 59	1170.1	587.84	0.146 41	<b>25</b>	0.840 93	1189.2	661.54	0.109 29
0.871 93	1146.9	531.94	0.247 55	<b>30</b>	0.856 48	1167.6	606.75	0.209 31	<b>30</b>	0.842 76	1186.6	680.41	0.172 07
0.875 82	1141.8	569.97	0.370 97	<b>40</b>	0.860 26	1162.4	644.69	0.332 44	<b>40</b>	0.846 44	1181.4	718.30	0.295 04
0.879 75	1136.7	608.02	0.490 56	<b>50</b>	0.864 07	1157.3	682.64	0.451 73	<b>50</b>	0.850 13	1176.3	756.21	0.414 18
0.883 72	1131.6	646.01	0.606 35	<b>60</b>	0.867 90	1152.2	720.51	0.567 15	<b>60</b>	0.853 83	1171.2	794.01	0.529 38
0.887 75	1126.4	683.92	0.718 48	<b>70</b>	0.871 77	1147.1	758.27	0.678 81	<b>70</b>	0.857 55	1166.1	831.66	0.640 75
0.891 84	1121.3	721.75	0.827 13	<b>80</b>	0.875 67	1142.0	795.90	0.786 91	<b>80</b>	0.861 29	1161.0	869.17	0.748 49
0.896 00	1116.1	759.49	0.932 53	<b>90</b>	0.879 63	1136.8	833.42	0.891 67	<b>90</b>	0.865 07	1156.0	906.53	0.852 81
0.900 24	1110.8	797.17	1.0349	<b>100</b>	0.883 63	1131.7	870.84	0.993 31	<b>100</b>	0.868 88	1150.9	943.76	0.953 95
0.904 56	1105.5	834.78	1.1344	<b>110</b>	0.887 71	1126.5	908.17	1.0920	<b>110</b>	0.872 75	1145.8	980.88	1.0521
0.908 97	1100.1	872.35	1.2311	<b>120</b>	0.891 84	1121.3	945.43	1.1881	<b>120</b>	0.876 66	1140.7	1017.9	1.1475
0.913 47	1094.7	909.88	1.3254	<b>130</b>	0.896 05	1116.0	982.64	1.2815	<b>130</b>	0.880 62	1135.6	1054.9	1.2404
0.918 07	1089.2	947.39	1.4173	<b>140</b>	0.900 33	1110.7	1019.8	1.3726	<b>140</b>	0.884 64	1130.4	1091.8	1.3308
0.922 77	1083.7	984.87	1.5070	<b>150</b>	0.904 68	1105.4	1056.9	1.4614	<b>150</b>	0.888 71	1125.2	1128.6	1.4189
0.927 56	1078.1	1022.3	1.5945	<b>160</b>	0.909 11	1100.0	1094.0	1.5480	<b>160</b>	0.892 85	1120.0	1165.5	1.5049
0.932 44	1072.4	1059.8	1.6800	<b>170</b>	0.913 61	1094.6	1131.1	1.6327	<b>170</b>	0.897 04	1114.8	1202.2	1.5889
0.937 43	1066.7	1097.3	1.7636	<b>180</b>	0.918 19	1089.1	1168.2	1.7154	<b>180</b>	0.901 30	1109.5	1239.0	1.6710
0.942 52	1061.0	1134.7	1.8454	<b>190</b>	0.922 84	1083.6	1205.3	1.7963	<b>190</b>	0.905 61	1104.2	1275.8	1.7512
0.947 70	1055.2	1172.2	1.9254	<b>200</b>	0.927 58	1078.1	1242.3	1.8755	<b>200</b>	0.909 99	1098.9	1312.5	1.8297
0.952 98	1049.3	1209.7	2.0037	<b>210</b>	0.932 38	1072.5	1279.4	1.9530	<b>210</b>	0.914 42	1093.6	1349.2	1.9065
0.958 36	1043.5	1247.1	2.0805	<b>220</b>	0.937 27	1066.9	1316.4	2.0289	<b>220</b>	0.918 92	1088.2	1386.0	1.9817
0.963 83	1037.5	1284.6	2.1558	<b>230</b>	0.942 23	1061.3	1353.5	2.1033	<b>230</b>	0.923 47	1082.9	1422.7	2.0554
0.969 41	1031.6	1322.1	2.2295	<b>240</b>	0.947 26	1055.7	1390.5	2.1762	<b>240</b>	0.928 08	1077.5	1459.4	2.1277
0.975 08	1025.6	1359.6	2.3019	<b>250</b>	0.952 37	1050.0	1427.6	2.2477	<b>250</b>	0.932 76	1072.1	1496.1	2.1985
0.980 85	1019.5	1397.1	2.3729	<b>260</b>	0.957 55	1044.3	1464.6	2.3178	<b>260</b>	0.937 49	1066.7	1532.8	2.2680
0.986 72	1013.5	1434.6	2.4426	<b>270</b>	0.962 81	1038.6	1501.7	2.3867	<b>270</b>	0.942 28	1061.3	1569.5	2.3362
0.992 69	1007.4	1472.1	2.5110	<b>280</b>	0.968 15	1032.9	1538.7	2.4542	<b>280</b>	0.947 13	1055.8	1606.2	2.4031
0.998 75	1001.3	1509.6	2.5782	<b>290</b>	0.973 55	1027.2	1575.7	2.5206	<b>290</b>	0.952 03	1050.4	1642.8	2.4688
1.0049	995.11	1547.1	2.6442	<b>300</b>	0.979 03	1021.4	1612.8	2.5858	<b>300</b>	0.956 99	1044.9	1679.5	2.5333
1.0175	982.77	1622.2	2.7729	<b>320</b>	0.990 22	1009.9	1686.8	2.7127	<b>320</b>	0.967 09	1034.0	1752.8	2.6590
1.0305	970.36	1697.2	2.8973	<b>340</b>	1.0017	998.31	1760.8	2.8355	<b>340</b>	0.977 41	1023.1	1826.0	2.7805
1.0440	957.89	1772.2	3.0177	<b>360</b>	1.0135	986.72	1834.8	2.9541	<b>360</b>	0.987 95	1012.2	1899.2	2.8979
1.0578	945.39	1847.2	3.1343	<b>380</b>	1.0255	975.12	1908.7	3.0691	<b>380</b>	0.998 71	1001.3	1972.3	3.0115
1.0720	932.85	1922.1	3.2474	<b>400</b>	1.0379	963.53	1982.5	3.1804	<b>400</b>	1.0097	990.41	2045.3	3.1216
1.0866	920.31	1997.1	3.3570	<b>420</b>	1.0505	951.94	2056.3	3.2884	<b>420</b>	1.0209	979.55	2118.2	3.2284
1.1016	907.77	2071.9	3.4635	<b>440</b>	1.0634	940.38	2129.9	3.3931	<b>440</b>	1.0323	968.73	2191.0	3.3319
1.1170	895.25	2146.7	3.5669	<b>460</b>	1.0766	928.85	2203.5	3.4949	<b>460</b>	1.0439	957.96	2263.7	3.4325
1.1328	882.75	2221.4	3.6675	<b>480</b>	1.0901	917.37	2277.0	3.5938	<b>480</b>	1.0557	947.24	2336.3	3.5302
1.1490	870.30	2296.1	3.7653	<b>500</b>	1.1038	905.94	2350.4	3.6899	<b>500</b>	1.0677	936.58	2408.8	3.6251
1.1913	839.41	2482.3	3.9986	<b>550</b>	1.1394	877.65	2533.3	3.9192	<b>550</b>	1.0986	910.23	2589.4	3.8516
1.2360	809.04	2667.8	4.2175	<b>600</b>	1.1766	849.88	2715.5	4.1341	<b>600</b>	1.1307	884.40	2769.3	4.0637
1.2832	779.33	2852.7	4.4234	<b>650</b>	1.2155	822.73	2896.9	4.3361	<b>650</b>	1.1639	859.16	2948.3	4.2631
1.3326	750.43	3036.8	4.6176	<b>700</b>	1.2558	796.29	3077.5	4.5267	<b>700</b>	1.1982	834.58	3126.6	4.4511
1.3842	722.46	3220.1	4.8013	<b>750</b>	1.2976	770.63	3257.4	4.7069	<b>750</b>	1.2335	810.70	3304.1	4.6290
1.4377	695.55	3402.5	4.9754	<b>800</b>	1.3408	745.81	3436.6	4.8779	<b>800</b>	1.2698	787.55	3481.0	4.7978
1.5495	645.36	3764.2	5.2977	<b>900</b>	1.4308	698.93	3792.7	5.1952	<b>900</b>	1.3449	743.57	3832.9	5.1113
1.6653	600.48	4120.6	5.5892	<b>1000</b>	1.5243	656.02	4145.7	5.4840	<b>1000</b>	1.4229	702.79	4182.5	5.3974
1.8991	526.57	4815.0	6.0960	<b>1200</b>	1.7160	582.74	4840.1	5.9907	<b>1200</b>	1.5842	631.24	4874.7	5.9024
2.1270	470.15	5488.1	6.5246	<b>1400</b>	1.9056	524.77	5518.3	6.4225	<b>1400</b>	1.7462	572.69	5555.8	6.3361
2.3468	426.11	6147.1	6.8967	<b>1600</b>	2.0891	478.68	6183.6	6.7982	<b>1600</b>	1.9041	525.17	6226.3	6.7146
2.5596	390.69	6798.3	7.2270	<b>1800</b>	2.2664	441.23	6840.8	7.1316	<b>1800</b>	2.0569	486.16	6888.7	7.0507
2.7665	361.47	7445.7	7.5252	<b>2000</b>	2.4387	410.06	7493.3	7.4321	<b>2000</b>	2.2051	453.50	7546.0	7.3534



**Table 3. Compressed Water and Superheated Steam (continued)**

800 MPa				t, °C	900 MPa				t, °C	1000 MPa			
v	ρ	h	s		v	ρ	h	s		v	ρ	h	s
				<b>0</b>					<b>0</b>				
				<b>10</b>					<b>10</b>				
				<b>20</b>					<b>20</b>				
0.826 89	1209.3	715.50	0.009 78	<b>25</b>	0.817 57	1223.1	806.06	0.038 01	<b>25</b>				
0.828 67	1206.7	734.24	0.073 16	<b>30</b>	0.819 31	1220.5	824.91	0.100 70	<b>30</b>	0.809 13	1235.9	895.96	0.066 52
0.830 46	1204.2	753.09	0.135 88	<b>40</b>	0.822 77	1215.4	862.78	0.223 60	<b>40</b>	0.812 50	1230.8	933.85	0.189 48
0.834 03	1199.0	790.96	0.258 78	<b>50</b>	0.826 24	1210.3	900.66	0.342 69	<b>50</b>	0.815 86	1225.7	971.75	0.308 62
0.837 60	1193.9	828.84	0.377 86	<b>60</b>	0.829 70	1205.3	938.42	0.457 76	<b>60</b>	0.819 21	1220.7	1009.5	0.423 72
0.841 17	1188.8	866.61	0.492 96	<b>70</b>	0.833 16	1200.3	975.99	0.568 89	<b>70</b>	0.822 56	1215.7	1047.1	0.534 82
0.844 76	1183.8	904.21	0.604 16	<b>80</b>	0.836 63	1195.3	1013.4	0.676 24	<b>80</b>	0.825 91	1210.8	1084.4	0.642 10
0.848 36	1178.7	941.63	0.711 66	<b>90</b>	0.840 11	1190.3	1050.5	0.780 06	<b>90</b>	0.829 27	1205.9	1121.6	0.745 80
0.851 98	1173.7	978.88	0.815 68	<b>100</b>	0.843 61	1185.4	1087.6	0.880 58	<b>100</b>	0.832 64	1201.0	1158.5	0.846 15
0.855 63	1168.7	1016.0	0.916 46	<b>110</b>	0.847 14	1180.4	1124.4	0.978 06	<b>110</b>	0.836 02	1196.1	1195.3	0.943 40
0.859 31	1163.7	1053.0	1.014 2	<b>120</b>	0.850 69	1175.5	1161.1	1.072 7	<b>120</b>	0.839 43	1191.3	1231.9	1.037 8
0.863 03	1158.7	1089.8	1.109 2	<b>130</b>	0.854 27	1170.6	1197.8	1.164 7	<b>130</b>	0.842 86	1186.4	1268.4	1.129 5
0.866 79	1153.7	1126.6	1.201 6	<b>140</b>	0.857 89	1165.7	1234.3	1.254 2	<b>140</b>	0.846 31	1181.6	1304.8	1.218 7
0.870 59	1148.6	1163.3	1.291 5	<b>150</b>	0.861 54	1160.7	1270.8	1.341 4	<b>150</b>	0.849 79	1176.8	1341.2	1.305 6
0.874 44	1143.6	1199.9	1.379 1	<b>160</b>	0.865 23	1155.8	1307.2	1.426 5	<b>160</b>	0.853 30	1171.9	1377.4	1.390 3
0.878 33	1138.5	1236.5	1.464 6	<b>170</b>	0.868 95	1150.8	1343.6	1.509 5	<b>170</b>	0.856 84	1167.1	1413.7	1.473 0
0.882 27	1133.4	1273.1	1.548 0	<b>180</b>	0.872 72	1145.8	1379.9	1.590 6	<b>180</b>	0.860 42	1162.2	1449.9	1.553 8
0.886 26	1128.3	1309.6	1.629 5	<b>190</b>	0.876 52	1140.9	1416.2	1.669 8	<b>190</b>	0.864 02	1157.4	1486.0	1.632 7
0.890 29	1123.2	1346.1	1.709 2	<b>200</b>	0.880 36	1135.9	1452.5	1.747 4	<b>200</b>	0.867 65	1152.5	1522.1	1.709 8
0.894 38	1118.1	1382.6	1.787 2	<b>210</b>	0.884 24	1130.9	1488.8	1.823 2	<b>210</b>	0.871 32	1147.7	1558.2	1.785 3
0.898 51	1113.0	1419.1	1.863 4	<b>220</b>	0.888 16	1125.9	1525.0	1.897 5	<b>220</b>	0.875 01	1142.8	1594.3	1.859 3
0.902 69	1107.8	1455.5	1.938 1	<b>230</b>	0.892 11	1120.9	1561.2	1.970 2	<b>230</b>	0.878 74	1138.0	1630.4	1.931 7
0.906 92	1102.6	1492.0	2.011 3	<b>240</b>	0.896 11	1115.9	1597.5	2.041 5	<b>240</b>	0.882 50	1133.1	1666.4	2.002 6
0.911 19	1097.5	1528.4	2.083 0	<b>250</b>	0.900 14	1110.9	1633.7	2.111 4	<b>250</b>	0.886 29	1128.3	1702.5	2.072 1
0.915 51	1092.3	1564.9	2.153 3	<b>260</b>	0.904 21	1105.9	1669.9	2.179 9	<b>260</b>	0.890 11	1123.5	1738.5	2.140 4
0.919 88	1087.1	1601.3	2.222 3	<b>270</b>	0.908 32	1100.9	1706.1	2.247 2	<b>270</b>	0.893 96	1118.6	1774.5	2.207 3
0.924 30	1081.9	1637.7	2.290 0	<b>280</b>	0.912 47	1095.9	1742.2	2.313 2	<b>280</b>	0.897 84	1113.8	1810.5	2.272 9
0.928 76	1076.7	1674.1	2.356 4	<b>290</b>	0.916 65	1090.9	1778.4	2.378 0	<b>290</b>	0.901 75	1109.0	1846.5	2.337 4
0.933 27	1071.5	1710.5	2.421 6	<b>300</b>	0.920 87	1085.9	1814.5	2.441 6	<b>300</b>	0.905 69	1104.1	1882.4	2.400 7
0.937 82	1066.3	1746.8	2.485 6	<b>320</b>	0.929 41	1076.0	1886.8	2.565 5	<b>320</b>	0.913 66	1094.5	1954.3	2.523 9
0.947 06	1055.9	1819.6	2.610 3	<b>340</b>	0.938 09	1066.0	1959.0	2.685 1	<b>340</b>	0.921 74	1084.9	2026.1	2.643 0
0.956 47	1045.5	1892.2	2.730 7	<b>360</b>	0.946 92	1056.1	2031.0	2.800 8	<b>360</b>	0.929 93	1075.4	2097.8	2.758 0
0.966 06	1035.1	1964.7	2.847 2	<b>380</b>	0.955 87	1046.2	2103.0	2.912 8	<b>380</b>	0.938 23	1065.8	2169.4	2.869 4
0.975 82	1024.8	2037.2	2.959 9	<b>400</b>	0.964 96	1036.3	2174.9	3.021 2	<b>400</b>	0.946 63	1056.4	2240.9	2.977 2
0.985 74	1014.5	2109.6	3.069 0	<b>420</b>	0.974 18	1026.5	2246.7	3.126 3	<b>420</b>	0.955 14	1047.0	2312.3	3.081 7
0.995 83	1004.2	2181.9	3.174 8	<b>440</b>	0.983 53	1016.7	2318.4	3.228 2	<b>440</b>	0.963 75	1037.6	2383.5	3.183 1
1.006 1	993.95	2254.0	3.277 5	<b>460</b>	0.993 00	1007.1	2389.9	3.327 1	<b>460</b>	0.972 46	1028.3	2454.7	3.281 5
1.016 5	983.77	2326.1	3.377 1	<b>480</b>	1.002 6	997.42	2461.3	3.423 3	<b>480</b>	0.981 26	1019.1	2525.7	3.377 1
1.027 1	973.65	2398.0	3.473 9	<b>500</b>	1.012 3	987.85	2532.6	3.516 7	<b>500</b>	0.990 16	1009.9	2596.6	3.470 0
1.037 8	963.59	2469.8	3.568 0	<b>550</b>	1.037 1	964.26	2710.4	3.739 4	<b>550</b>	1.012 8	987.37	2773.4	3.691 5
1.065 2	938.77	2648.8	3.792 3	<b>600</b>	1.062 5	941.17	2887.3	3.948 1	<b>600</b>	1.035 9	965.30	2949.3	3.899 0
1.093 6	914.45	2827.0	4.002 5	<b>650</b>	1.088 6	918.63	3063.4	4.144 2	<b>650</b>	1.059 6	943.77	3124.5	4.094 1
1.122 7	890.71	3004.3	4.200 0	<b>700</b>	1.115 2	896.68	3238.7	4.329 2	<b>700</b>	1.083 7	922.79	3298.9	4.278 1
1.152 6	867.58	3180.9	4.386 3	<b>750</b>	1.142 4	875.35	3413.4	4.504 2	<b>750</b>	1.108 2	902.40	3472.6	4.452 2
1.183 3	845.11	3356.8	4.562 5	<b>800</b>	1.170 1	854.63	3587.4	4.670 3	<b>800</b>	1.133 0	882.59	3645.8	4.617 4
1.214 6	823.30	3532.0	4.729 7	<b>900</b>	1.226 8	815.10	3933.8	4.978 9	<b>900</b>	1.183 8	844.75	3990.5	4.924 5
1.279 2	781.74	3880.7	5.040 4	<b>1000</b>	1.285 3	778.06	4278.5	5.260 9	<b>1000</b>	1.235 7	809.23	4333.5	5.205 2
1.346 0	742.95	4227.6	5.324 1	<b>1200</b>	1.406 0	711.24	4964.4	5.761 3	<b>1200</b>	1.342 7	744.75	5016.7	5.703 6
1.484 3	673.70	4916.6	5.826 9	<b>1400</b>	1.529 6	653.78	5646.1	6.195 2	<b>1400</b>	1.452 4	688.50	5697.2	6.136 8
1.625 0	615.39	5598.7	6.261 1	<b>1600</b>	1.652 7	605.06	6322.5	6.577 2	<b>1600</b>	1.562 7	639.92	6374.7	6.519 3
1.763 7	567.00	6272.9	6.641 8	<b>1800</b>	1.773 2	563.94	6993.3	6.917 4	<b>1800</b>	1.671 5	598.26	7048.2	6.860 9
1.898 4	526.77	6940.0	6.980 2	<b>2000</b>	1.890 3	529.02	7659.1	7.224 1	<b>2000</b>	1.777 7	562.52	7717.5	7.169 1

## **Appendix A.**

### **Release on the IAPWS Formulation 1995 for the Thermodynamic Properties of Ordinary Water Substance for General and Scientific Use**

In this Appendix, we reproduce the IAPWS Release on which the numbers in this report are based. The Release was approved by IAPWS in September 1996. Since we have reproduced the original document exactly as issued, it should be noted that the following 18 pages are self-contained in numbering of pages, tables, sections, etc. These numbers should not be confused with the numbering in the main body of this report.

# **The International Association for the Properties of Water and Steam**

**Fredericia, Denmark  
September 1996**

## **Release on the IAPWS Formulation 1995 for the Thermodynamic Properties of Ordinary Water Substance for General and Scientific Use**

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This release replaces the corresponding release of 1984 and contains 18 numbered pages.

This release has been authorized by the International Association for the Properties of Water and Steam (IAPWS) at its Meeting in Fredericia, Denmark, 8-14 September 1996, for issue by its Secretariat. The members of IAPWS are Argentina, Canada, Czech Republic, Denmark, Germany, France, Italy, Japan, Russia, the United Kingdom, and the United States of America.

The formulation provided in this release is recommended for general and scientific use; further details about the formulation can be found in an article "New International Formulation for the Thermodynamic Properties of Ordinary Water Substance for General and Scientific Use" by A. Pruß and W. Wagner [1]. This formulation provides the most accurate representation of the thermodynamic properties of the fluid phases of water substance over a wide range of conditions available at the time this release was prepared.

IAPWS also has a formulation intended for industrial use.

Further information about this release and other releases issued by IAPWS can be obtained from the Executive Secretary of IAPWS.

# The IAPWS Formulation 1995 for the Thermodynamic Properties of Ordinary Water Substance for General and Scientific Use

## 1 Nomenclature

### *Thermodynamic quantities:*

$B$	Second virial coefficient
$c_p$	Specific isobaric heat capacity
$c_v$	Specific isochoric heat capacity
$f$	Specific Helmholtz free energy
$h$	Specific enthalpy
$M$	Molar mass
$p$	Pressure
$R$	Specific gas constant
$R_m$	Molar gas constant
$s$	Specific entropy
$T$	Absolute temperature
$u$	Specific internal energy
$w$	Speed of sound
$\beta_s$	Isentropic throttling coefficient
$\delta$	Reduced density, $\delta = \rho/\rho_c$
$\delta_T$	Isothermal throttling coefficient
$\phi$	Dimensionless Helmholtz free energy, $\phi = f/(RT)$
$\kappa_T$	Isothermal compressibility
$\mu$	Joule-Thomson coefficient
$\rho$	Mass density
$\tau$	Inverse reduced temperature, $\tau = T_c/T$

### *Superscripts*

$^{\circ}$	Ideal-gas property
$^r$	Residual
$'$	Saturated liquid state
$''$	Saturated vapor state

### *Subscripts*

c	critical point
$\sigma$	saturation
t	triple point

Note:  $T$  denotes absolute temperature on the International Temperature Scale of 1990.

## 2 Reference Constants

$$T_c = 647.096 \text{ K} \quad (1)$$

$$\rho_c = 322 \text{ kg m}^{-3} \quad (2)$$

$$R = 0.461\,518\,05 \text{ kJ kg}^{-1} \text{ K}^{-1} \quad (3)$$

The numerical values for the critical temperature  $T_c$  and critical density  $\rho_c$  are identical to those given in the IAPWS revised release on the critical parameters of ordinary water substance [2]. The value of the specific gas constant  $R$  is derived from values of the molar gas constant  $R_m$  [3] and the molar mass  $M$  [4], which differ slightly from the accepted values of these quantities at the time this release was prepared. The use of the more recent values would yield a specific gas constant which is greater than the value given in Eq. (3) by about 1 part in 60 000. Since the value of  $R$  in Eq. (3) has been used in obtaining the coefficients in the residual part  $\phi^r$ , Eq. (6), then this value of  $R$  must be used in obtaining property values from the formulation, Eq. (4).

Due to the use of the *specific* gas constant, Eq. (4) corresponds to a mass-based formulation. In order to convert values of specific properties to molar properties, a choice of the suitable value for the molar mass must be made.

## 3 The Formulation

The formulation is a fundamental equation for the specific Helmholtz free energy  $f$ . This equation is expressed in dimensionless form,  $\phi = f/(RT)$ , and is separated into two parts, an ideal-gas part  $\phi^o$  and a residual part  $\phi^r$ , so that :

$$\frac{f(\rho, T)}{RT} = \phi(\delta, \tau) = \phi^o(\delta, \tau) + \phi^r(\delta, \tau), \quad (4)$$

where  $\delta = \rho/\rho_c$  and  $\tau = T_c/T$  with  $\rho_c$ ,  $T_c$  and  $R$  given by Eqs. (2), (1) and (3).

The ideal-gas part  $\phi^o$  of the dimensionless Helmholtz free energy is obtained from an equation for the specific isobaric heat capacity in the ideal-gas state developed by J.R. Cooper [5] and reads:

$$\phi^o = \ln \delta + n_1^o + n_2^o \tau + n_3^o \ln \tau + \sum_{i=4}^8 n_i^o \ln \left[ 1 - e^{-\gamma_i^o \tau} \right], \quad (5)$$

where  $\delta = \rho/\rho_c$  and  $\tau = T_c/T$  with  $\rho_c$  and  $T_c$  according to Eqs. (2) and (1). Table 1 contains the coefficients and parameters of Eq. (5).

The form of the residual part  $\phi^r$  of the dimensionless Helmholtz free energy is as follows:

$$\phi^r = \sum_{i=1}^7 n_i \delta^{d_i} \tau^{t_i} + \sum_{i=8}^{51} n_i \delta^{d_i} \tau^{t_i} e^{-\delta^{c_i}} + \sum_{i=52}^{54} n_i \delta^{d_i} \tau^{t_i} e^{-\alpha_i (\delta - \varepsilon_i)^2 - \beta_i (\tau - \gamma_i)^2} + \sum_{i=55}^{56} n_i \Delta^{b_i} \delta \psi \quad (6)$$

with  $\Delta = \theta^2 + B_i [(\delta - 1)^2]^{a_i}$

$$\theta = (1 - \tau) + A_i [(\delta - 1)^2]^{1/2\beta_i}$$

$$\psi = e^{-C_i (\delta - 1)^2 - D_i (\tau - 1)^2},$$

where  $\delta = \rho/\rho_c$  and  $\tau = T_c/T$  with  $\rho_c$  and  $T_c$  according to Eqs. (2) and (1). The coefficients and parameters of Eq. (6) are listed in Table 2.

Since the 5th International Conference on the Properties of Steam in London in 1956 the specific internal energy and the specific entropy of the saturated liquid at the triple point have been set equal to zero. Thus, at the triple-point temperature  $T_t = 273.16$  K

$$u'_t = 0, \quad s'_t = 0. \quad (7)$$

In order to meet this condition, the coefficients  $n_1^0$  and  $n_2^0$  in Eq. (5) have been adjusted accordingly. As a consequence, after calculating for  $T_t$  the saturated liquid density  $\rho'_t$  via the phase-equilibrium condition (see Table 3), Eq. (4) yields for the specific enthalpy of the saturated liquid at the triple point:

$$h'_t = 0.611\,872 \text{ J kg}^{-1}. \quad (8)$$

In the liquid-water region, small changes in density along an isotherm cause large changes in pressure. For this reason, due to an accumulation of small errors, a particular computer code may fail to return the zeros in Eq. (7) for the saturated liquid density at the triple-point temperature. In order to avoid this blemish, it is advisable to readjust the constants  $n_1^0$  and  $n_2^0$  in Eq. (5) by imposing the condition  $u'_t = 0, s'_t = 0$  with the desired accuracy.

#### 4 Relations of Thermodynamic Properties to the Dimensionless Helmholtz Free Energy

All thermodynamic properties can be derived from Eq.(4) by using the appropriate combinations of the ideal-gas part  $\phi^0$ , Eq. (5), and the residual part  $\phi^r$ , Eq. (6), of the dimensionless Helmholtz free energy and their derivatives. Relations between thermodynamic properties and  $\phi^0$  and  $\phi^r$  and their derivatives are summarized in Table 3. All required derivatives of the ideal-gas part and of the residual part of the Helmholtz free energy are explicitly given in Table 4 and Table 5, respectively.

Besides the single-phase region, the formulation also covers the liquid-vapor saturation curve. For given saturation temperature and solving simultaneously the three equations of the phase-equilibrium condition (see Table 3) by iteration, Eq. (6) yields the thermal saturation properties  $p_\sigma$ ,  $\rho'$  and  $\rho''$ . Then, all the other properties can be derived from Eq. (4). In this way, the properties calculated on the saturation curve are thermodynamically consistent with the properties of the single-phase region.

Note: IAPWS has issued the Supplementary Release on *Saturation Properties of Ordinary Water Substance* [6] containing a set of simple equations which yield values for the vapor pressure as well as the density, specific enthalpy and specific entropy of the saturated vapor and liquid. The values calculated from these equations are not identical with the corresponding values derived from Eq. (4), but agree with them within the uncertainties of the simple equations for the saturation properties.

## 5 Range of Validity

IAPWS has tested the formulation and endorses its validity in the following way:

- (1) The formulation is valid in the entire stable fluid region of H<sub>2</sub>O from the melting-pressure curve [7] to 1273 K at pressures up to 1000 MPa; the lowest temperature on the melting-pressure curve is 251.165 K ( at 209.9 MPa) [7], see Fig. 1.

In this entire region, Eq. (4) represents the experimental data available at the time the release was prepared (except for very few data points) to within their uncertainties.

Although Eq. (4) is also in satisfactory agreement with the experimental data in the critical region, the equation has some unsatisfactory features in the immediate vicinity of the critical point. These features involve second order and higher derivatives of the dimensionless Helmholtz free energy and properties obtained from them. Specifically, the isothermal compressibility  $\kappa_T$  ( $\kappa_T = \rho^{-1}(\partial\rho/\partial p)_T$ ), and the specific isobaric heat capacity  $c_p$  exhibit unphysical behavior which occurs in a region from  $T_c$  to 5 K above  $T_c$  for densities  $\pm 0.5$  % from  $\rho_c$ . In addition, within a temperature range from 20 mK below  $T_c$  up to  $T_c$ , the isochoric heat capacity  $c_v$  exhibits a maximum and the speed of sound  $w$  exhibits a minimum not at the saturation temperature  $T_\sigma$  of the corresponding isochore (as it should be) but in the single-phase region up to 2.5 mK above  $T_\sigma$ .

- (2) In the stable fluid region, the formulation can also be extrapolated beyond the limits given under item (1).

Tests show that Eq. (4) behaves reasonably when extrapolated to pressures up to about

100 GPa and temperatures up to about 5000 K. This holds at least for the density and enthalpy of undissociated H<sub>2</sub>O.

In the gas region at pressures below the triple-point pressure, Eq. (4) behaves reasonably when extrapolated to the sublimation-pressure curve [7] for temperatures down to 200 K. Due to the extremely low densities in this region which go down to about 10<sup>-6</sup> kg m<sup>-3</sup>, attention must be paid to numerical problems.

- (3) As far as can be tested with experimental data, the formulation behaves reasonably when extrapolated into the metastable regions. Eq. (4) represents the currently available experimental data of the subcooled liquid (solid-liquid metastable region) and of the superheated liquid (liquid-gas metastable region) to within the experimental uncertainty. In the case of the subcooled gas (gas-liquid metastable region), no experimental data are available. In this region, for pressures below 10 MPa, Eq. (4) produces reasonable values close to the saturation line. For calculations further away from the saturation line, an alternative equation (the so-called gas equation) is given in reference [1].

For further details see reference [1].

## 6 Estimates of Uncertainty

Estimates have been made of the uncertainty of the density, speed of sound, and isobaric heat capacity when calculated from the formulation, Eq. (4). These estimates were derived from comparisons with the various sets of experimental data together with the judgement of the Working Group on Thermophysical Properties of Water and Steam of IAPWS.

For the single-phase region, these tolerances are indicated in Figs. 1 to 3, which give the estimated uncertainties in various areas. As used here "tolerance" means the range of possible values as judged by IAPWS, and no statistical significance can be attached to it. With regard to the uncertainty for the speed of sound and the specific isobaric heat capacity, see Figs. 2 and 3, it should be noted that the uncertainties for these properties increase drastically when approaching the critical point. The statement "no definitive uncertainty estimates possible" for the high-pressure region in Figs. 2 and 3 is based on the lack of experimental data in this region.

For the saturation properties, the estimates of the uncertainties of vapor pressure, saturated liquid density, and saturated vapor density are shown in Fig. 4.



## 7 Computer-Program Verification

To assist the user in computer-program verification, three tables with test values are given. Table 6 contains values of the ideal-gas part  $\phi^o$  and the residual part  $\phi^r$  of the dimensionless Helmholtz free energy together with the corresponding derivatives. Table 7 lists values for the pressure  $p$ , the specific isochoric heat capacity  $c_v$ , the speed of sound  $w$ , and the specific entropy  $s$  calculated at selected values of temperature  $T$  and density  $\rho$ . Table 8 gives values for the vapor pressure  $p_\sigma$ , values for the density  $\rho'$ , specific enthalpy  $h'$  and specific entropy  $s'$  for the saturated liquid, and values for the density  $\rho''$ , specific enthalpy  $h''$  and specific entropy  $s''$  for the saturated vapor. All these saturation values have been calculated with Eq. (4) by using the phase-equilibrium condition (see the corresponding comment in Section 4).

## 8 References

- [1] A. Pruß and W. Wagner, to be submitted to *J. Phys. Chem. Ref. Data* (1996).
- [2] IAPWS Release on the *Values of Temperature, Pressure, and Density of Ordinary and Heavy Water Substances at Their Respective Critical Points* (September 1992), in *Physical Chemistry of Aqueous Systems: Meeting the Needs of Industry*, edited by H. White, Jr. et al., Proceedings of the 12th International Conference on the Properties of Water and Steam, pp. A 101 - A 102, Begell House, New York, 1995.
- [3] B. N. Taylor, W. H. Parker and D. N. Langenberg, *Rev. Mod. Phys.* **41**, 375 (1969).
- [4] G. S. Kell, *J. Phys. Chem. Ref. Data* **6**, 1109 (1977).
- [5] J. R. Cooper, *Int. J. Thermophys.* **3**, 35 (1982).
- [6] IAPWS Supplementary Release on *Saturation Properties of Ordinary Water Substance* (September 1992), in W. Wagner and A. Pruß, *J. Phys. Chem. Ref. Data* **22**, 783 (1993), also in *Physical Chemistry of Aqueous Systems: Meeting the Needs of Industry*, edited by H. White, Jr. et al., Proceedings of the 12th International Conference on the Properties of Water and Steam, pp. A 143 - A 149, Begell House, New York, 1995.
- [7] IAPWS Release on the *Pressure along the Melting and Sublimation Curves of Ordinary Water Substance* (September 1993), in W. Wagner, A. Saul, and A. Pruß, *J. Phys. Chem. Ref. Data* **23**, 515 (1994), also in *Physical Chemistry of Aqueous Systems: Meeting the Needs of Industry*, edited by H. White, Jr. et al., Proceedings of the 12th International Conference on the Properties of Water and Steam, pp. A 9 - A 12, Begell House, New York, 1995.

Table 1. Numerical values of the coefficients and parameters of the ideal-gas part of the dimensionless Helmholtz free energy, Eq.(5)

$i$	$n_i^0$	$\gamma_i^0$	$i$	$n_i^0$	$\gamma_i^0$
1	-8.320 446 482 01	-	5	0.973 15	3.537 342 22
2	6.683 210 526 8	-	6	1.279 50	7.740 737 08
3	3.006 32	-	7	0.969 56	9.244 377 96
4	0.012 436	1.287 289 67	8	0.248 73	27.507 510 5

Table 2. Numerical values of the coefficients and parameters of the residual part of the dimensionless Helmholtz free energy, Eq.(6)

$i$	$c_i$	$d_i$	$t_i$	$n_i$				
1	-	1	-0.5	$0.125\ 335\ 479\ 355\ 23 \times 10^{-1}$				
2	-	1	0.875	$0.789\ 576\ 347\ 228\ 28 \times 10^1$				
3	-	1	1	$-0.878\ 032\ 033\ 035\ 61 \times 10^1$				
4	-	2	0.5	0.318 025 093 454 18				
5	-	2	0.75	-0.261 455 338 593 58				
6	-	3	0.375	$-0.781\ 997\ 516\ 879\ 81 \times 10^{-2}$				
7	-	4	1	$0.880\ 894\ 931\ 021\ 34 \times 10^{-2}$				
8	1	1	4	-0.668 565 723 079 65				
9	1	1	6	0.204 338 109 509 65				
10	1	1	12	$-0.662\ 126\ 050\ 396\ 87 \times 10^{-4}$				
11	1	2	1	-0.192 327 211 560 02				
12	1	2	5	-0.257 090 430 034 38				
13	1	3	4	0.160 748 684 862 51				
14	1	4	2	$-0.400\ 928\ 289\ 258\ 07 \times 10^{-1}$				
15	1	4	13	$0.393\ 434\ 226\ 032\ 54 \times 10^{-6}$				
16	1	5	9	$-0.759\ 413\ 770\ 881\ 44 \times 10^{-5}$				
17	1	7	3	$0.562\ 509\ 793\ 518\ 88 \times 10^{-3}$				
18	1	9	4	$-0.156\ 086\ 522\ 571\ 35 \times 10^{-4}$				
19	1	10	11	$0.115\ 379\ 964\ 229\ 51 \times 10^{-8}$				
20	1	11	4	$0.365\ 821\ 651\ 442\ 04 \times 10^{-6}$				
21	1	13	13	$-0.132\ 511\ 800\ 746\ 68 \times 10^{-11}$				
22	1	15	1	$-0.626\ 395\ 869\ 124\ 54 \times 10^{-9}$				
23	2	1	7	-0.107 936 009 089 32				
24	2	2	1	$0.176\ 114\ 910\ 087\ 52 \times 10^{-1}$				
25	2	2	9	0.221 322 951 675 46				
26	2	2	10	-0.402 476 697 635 28				
27	2	3	10	0.580 833 999 857 59				
28	2	4	3	$0.499\ 691\ 469\ 908\ 06 \times 10^{-2}$				
29	2	4	7	$-0.313\ 587\ 007\ 125\ 49 \times 10^{-1}$				
30	2	4	10	-0.743 159 297 103 41				
31	2	5	10	0.478 073 299 154 80				
32	2	6	6	$0.205\ 279\ 408\ 959\ 48 \times 10^{-1}$				
33	2	6	10	-0.136 364 351 103 43				
34	2	7	10	$0.141\ 806\ 344\ 006\ 17 \times 10^{-1}$				
35	2	9	1	$0.833\ 265\ 048\ 807\ 13 \times 10^{-2}$				
36	2	9	2	$-0.290\ 523\ 360\ 095\ 85 \times 10^{-1}$				
37	2	9	3	$0.386\ 150\ 855\ 742\ 06 \times 10^{-1}$				
38	2	9	4	$-0.203\ 934\ 865\ 137\ 04 \times 10^{-1}$				
39	2	9	8	$-0.165\ 540\ 500\ 637\ 34 \times 10^{-2}$				
40	2	10	6	$0.199\ 555\ 719\ 795\ 41 \times 10^{-2}$				
41	2	10	9	$0.158\ 703\ 083\ 241\ 57 \times 10^{-3}$				
42	2	12	8	$-0.163\ 885\ 683\ 425\ 30 \times 10^{-4}$				
43	3	3	16	$0.436\ 136\ 157\ 238\ 11 \times 10^{-1}$				
44	3	4	22	$0.349\ 940\ 054\ 637\ 65 \times 10^{-1}$				
45	3	4	23	$-0.767\ 881\ 978\ 446\ 21 \times 10^{-1}$				
46	3	5	23	$0.224\ 462\ 773\ 320\ 06 \times 10^{-1}$				
47	4	14	10	$-0.626\ 897\ 104\ 146\ 85 \times 10^{-4}$				
48	6	3	50	$-0.557\ 111\ 185\ 656\ 45 \times 10^{-9}$				
49	6	6	44	-0.199 057 183 544 08				
50	6	6	46	0.317 774 973 307 38				
51	6	6	50	-0.118 411 824 259 81				
$i$	$c_i$	$d_i$	$t_i$	$n_i$	$\alpha_i$	$\beta_i$	$\gamma_i$	$\varepsilon_i$
52	-	3	0	$-0.313\ 062\ 603\ 234\ 35 \times 10^{-2}$	20	150	1.21	1
53	-	3	1	$0.315\ 461\ 402\ 377\ 81 \times 10^{-2}$	20	150	1.21	1
54	-	3	4	$-0.252\ 131\ 543\ 416\ 95 \times 10^{-4}$	20	250	1.25	1
$i$	$a_i$	$b_i$	$B_i$	$n_i$	$C_i$	$D_i$	$A_i$	$\beta_i$
55	3.5	0.85	0.2	-0.148 746 408 567 24	28	700	0.32	0.3
56	3.5	0.95	0.2	0.318 061 108 784 44	32	800	0.32	0.3

Table 3. Relations of thermodynamic properties to the ideal-gas part  $\phi^0$  and the residual part  $\phi^r$  of the dimensionless Helmholtz free energy and their derivatives<sup>a</sup>

Property	Relation
Pressure $p = \rho^2 (\partial f / \partial \rho)_T$	$\frac{p(\delta, \tau)}{\rho RT} = 1 + \delta \phi_\delta^r$
Internal energy $u = f - T(\partial f / \partial T)_\rho$	$\frac{u(\delta, \tau)}{RT} = \tau(\phi_\tau^0 + \phi_\tau^r)$
Entropy $s = -(\partial f / \partial T)_\rho$	$\frac{s(\delta, \tau)}{R} = \tau(\phi_\tau^0 + \phi_\tau^r) - \phi^0 - \phi^r$
Enthalpy $h = f - T(\partial f / \partial T)_\rho + \rho(\partial f / \partial \rho)_T$	$\frac{h(\delta, \tau)}{RT} = 1 + \tau(\phi_\tau^0 + \phi_\tau^r) + \delta \phi_\delta^r$
Isochoric heat capacity $c_v = (\partial u / \partial T)_\rho$	$\frac{c_v(\delta, \tau)}{R} = -\tau^2(\phi_{\tau\tau}^0 + \phi_{\tau\tau}^r)$
Isobaric heat capacity $c_p = (\partial h / \partial T)_p$	$\frac{c_p(\delta, \tau)}{R} = -\tau^2(\phi_{\tau\tau}^0 + \phi_{\tau\tau}^r) + \frac{(1 + \delta \phi_\delta^r - \delta \tau \phi_{\delta\tau}^r)^2}{1 + 2\delta \phi_\delta^r + \delta^2 \phi_{\delta\delta}^r}$
Speed of sound $w = (\partial p / \partial \rho)_s^{1/2}$	$\frac{w^2(\delta, \tau)}{RT} = 1 + 2\delta \phi_\delta^r + \delta^2 \phi_{\delta\delta}^r - \frac{(1 + \delta \phi_\delta^r - \delta \tau \phi_{\delta\tau}^r)^2}{\tau^2(\phi_{\tau\tau}^0 + \phi_{\tau\tau}^r)}$
Joule-Thomson coefficient $\mu = (\partial T / \partial p)_h$	$\mu R \rho = \frac{-(\delta \phi_\delta^r + \delta^2 \phi_{\delta\delta}^r + \delta \tau \phi_{\delta\tau}^r)}{(1 + \delta \phi_\delta^r - \delta \tau \phi_{\delta\tau}^r)^2 - \tau^2(\phi_{\tau\tau}^0 + \phi_{\tau\tau}^r)(1 + 2\delta \phi_\delta^r + \delta^2 \phi_{\delta\delta}^r)}$
Isothermal throttling coefficient $\delta_T = (\partial h / \partial p)_T$	$\delta_T \rho = 1 - \frac{1 + \delta \phi_\delta^r - \delta \tau \phi_{\delta\tau}^r}{1 + 2\delta \phi_\delta^r + \delta^2 \phi_{\delta\delta}^r}$
Isentropic temperature-pressure coefficient $\beta_s = (\partial T / \partial p)_s$	$\beta_s \rho R = \frac{1 + \delta \phi_\delta^r - \delta \tau \phi_{\delta\tau}^r}{(1 + \delta \phi_\delta^r - \delta \tau \phi_{\delta\tau}^r)^2 - \tau^2(\phi_{\tau\tau}^0 + \phi_{\tau\tau}^r)(1 + 2\delta \phi_\delta^r + \delta^2 \phi_{\delta\delta}^r)}$
Second virial coefficient $B(T) = \lim_{\rho \rightarrow 0} (\partial p / (\rho RT)) / \partial \rho)_T$	$B(\tau) \rho_c = \lim_{\delta \rightarrow 0} \phi_\delta^r(\delta, \tau)$
Third virial coefficient $C(T) = \lim_{\rho \rightarrow 0} \left[ \frac{1}{2} (\partial^2 (p / (\rho RT)) / \partial \rho^2)_T \right]$	$C(\tau) \rho_c^2 = \lim_{\delta \rightarrow 0} \phi_{\delta\delta}^r(\delta, \tau)$
Phase-equilibrium condition (Maxwell criterion)	$\frac{P\sigma}{RT\rho'} = 1 + \delta' \phi_{\delta'}^r(\delta', \tau) \quad ; \quad \frac{P\sigma}{RT\rho''} = 1 + \delta'' \phi_{\delta''}^r(\delta'', \tau)$ $\frac{P\sigma}{RT} \left( \frac{1}{\rho''} - \frac{1}{\rho'} \right) - \ln \left( \frac{\rho'}{\rho''} \right) = \phi^r(\delta', \tau) - \phi^r(\delta'', \tau)$

<sup>a</sup>  $\phi_\delta^r = \left[ \frac{\partial \phi^r}{\partial \delta} \right]_\tau$ ,  $\phi_{\delta\delta}^r = \left[ \frac{\partial^2 \phi^r}{\partial \delta^2} \right]_\tau$ ,  $\phi_\tau^r = \left[ \frac{\partial \phi^r}{\partial \tau} \right]_\delta$ ,  $\phi_{\tau\tau}^r = \left[ \frac{\partial^2 \phi^r}{\partial \tau^2} \right]_\delta$ ,  $\phi_{\delta\tau}^r = \left[ \frac{\partial^2 \phi^r}{\partial \delta \partial \tau} \right]$ ,  $\phi_\tau^0 = \left[ \frac{\partial \phi^0}{\partial \tau} \right]_\delta$ ,  $\phi_{\tau\tau}^0 = \left[ \frac{\partial^2 \phi^0}{\partial \tau^2} \right]_\delta$ .

Table 4. The ideal-gas part  $\phi^{\circ}$  of the dimensionless Helmholtz free energy and its derivatives<sup>a</sup>


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$\phi^{\circ}$	=	$\ln \delta$	+	$n_1^{\circ}$	+	$n_2^{\circ} \tau$	+	$n_3^{\circ} \ln \tau$	+	$\sum_{i=4}^8 n_i^{\circ} \ln(1 - e^{-\gamma_i^{\circ} \tau})$
$\phi_{\delta}^{\circ}$	=	$1/\delta$	+	0	+	0	+	0	+	0
$\phi_{\delta\delta}^{\circ}$	=	$-1/\delta^2$	+	0	+	0	+	0	+	0
$\phi_{\tau}^{\circ}$	=	0	+	0	+	$n_2^{\circ}$	+	$n_3^{\circ} / \tau$	+	$\sum_{i=4}^8 n_i^{\circ} \gamma_i^{\circ} \left[ (1 - e^{-\gamma_i^{\circ} \tau})^{-1} - 1 \right]$
$\phi_{\tau\tau}^{\circ}$	=	0	+	0	+	0	-	$n_3^{\circ} / \tau^2$	-	$\sum_{i=4}^8 n_i^{\circ} (\gamma_i^{\circ})^2 e^{-\gamma_i^{\circ} \tau} (1 - e^{-\gamma_i^{\circ} \tau})^{-2}$
$\phi_{\delta\tau}^{\circ}$	=	0	+	0	+	0	+	0	+	0

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$$^a \phi_{\delta}^{\circ} = \left[ \frac{\partial \phi^{\circ}}{\partial \delta} \right]_{\tau}, \quad \phi_{\delta\delta}^{\circ} = \left[ \frac{\partial^2 \phi^{\circ}}{\partial \delta^2} \right]_{\tau}, \quad \phi_{\tau}^{\circ} = \left[ \frac{\partial \phi^{\circ}}{\partial \tau} \right]_{\delta}, \quad \phi_{\tau\tau}^{\circ} = \left[ \frac{\partial^2 \phi^{\circ}}{\partial \tau^2} \right]_{\delta}, \quad \phi_{\delta\tau}^{\circ} = \left[ \frac{\partial^2 \phi^{\circ}}{\partial \delta \partial \tau} \right].$$

Table 5. The residual part  $\phi^r$  of the dimensionless Helmholtz free energy and its derivatives<sup>a</sup>

$$\begin{aligned}
 \phi^r &= \sum_{i=1}^7 n_i d_i \delta^{d_i} \tau^{i-1} + \sum_{i=8}^{51} n_i \delta^{d_i} \tau^{i-1} e^{-\delta^{c_i}} + \sum_{i=52}^{54} n_i \delta^{d_i} \tau^{i-1} e^{-\alpha_i(\delta-\varepsilon_i)^2 - \beta_i(\tau-\gamma_i)^2} + \sum_{i=55}^{56} n_i \Delta^{b_i} \delta \psi \\
 &\quad \text{with } \Delta = \theta^2 + B_i [(\delta-1)^2]^{a_i} \\
 \theta &= (1-\tau) + A_i [(\delta-1)^2]^{2\beta_i} \\
 \psi &= e^{-C_i(\delta-1)^2 - D_i(\tau-1)^2} \\
 \phi_{\delta}^r &= \sum_{i=1}^7 n_i d_i \delta^{d_i-1} \tau^{i-1} + \sum_{i=8}^{51} n_i e^{-\delta^{c_i}} \left[ \delta^{d_i-1} \tau^{i-1} (d_i - c_i \delta^{c_i}) \right] + \sum_{i=52}^{54} n_i \delta^{d_i} \tau^{i-1} e^{-\alpha_i(\delta-\varepsilon_i)^2 - \beta_i(\tau-\gamma_i)^2} \left[ \frac{d_i}{\delta} - 2\alpha_i(\delta-\varepsilon_i) \right] + \sum_{i=55}^{56} n_i \Delta^{b_i} \left( \psi + \delta \frac{\partial \psi}{\partial \delta} \right) + \frac{\partial \Delta^{b_i}}{\partial \delta} \delta \psi \\
 \phi_{\delta\delta}^r &= \sum_{i=1}^7 n_i d_i (d_i - 1) \delta^{d_i-2} \tau^{i-1} + \sum_{i=8}^{51} n_i e^{-\delta^{c_i}} \left[ \delta^{d_i-2} \tau^{i-1} \left( (d_i - c_i \delta^{c_i}) (d_i - 1 - c_i \delta^{c_i}) - c_i^2 \delta^{c_i} \right) \right] + \sum_{i=52}^{54} n_i \tau^{i-1} e^{-\alpha_i(\delta-\varepsilon_i)^2 - \beta_i(\tau-\gamma_i)^2} \\
 &\quad \cdot \left[ -2\alpha_i \delta^{d_i} + 4\alpha_i^2 \delta^{d_i} (\delta - \varepsilon_i)^2 - 4d_i \alpha_i \delta^{d_i-1} (\delta - \varepsilon_i) + d_i (d_i - 1) \delta^{d_i-2} \right] + \sum_{i=55}^{56} n_i \Delta^{b_i} \left( 2 \frac{\partial \psi}{\partial \delta} + \delta \frac{\partial^2 \psi}{\partial \delta^2} \right) + 2 \frac{\partial \Delta^{b_i}}{\partial \delta} \left( \psi + \delta \frac{\partial \psi}{\partial \delta} \right) + \frac{\partial^2 \Delta^{b_i}}{\partial \delta^2} \delta \psi \\
 \phi_{\tau}^r &= \sum_{i=1}^7 n_i d_i \delta^{d_i} \tau^{i-1} + \sum_{i=8}^{51} n_i d_i \delta^{d_i} \tau^{i-1} e^{-\delta^{c_i}} + \sum_{i=52}^{54} n_i \delta^{d_i} \tau^{i-1} e^{-\alpha_i(\delta-\varepsilon_i)^2 - \beta_i(\tau-\gamma_i)^2} \left[ \frac{\tau}{i} - 2\beta_i(\tau-\gamma_i) \right] + \sum_{i=55}^{56} n_i \delta \left[ \frac{\partial \Delta^{b_i}}{\partial \tau} \psi + \Delta^{b_i} \frac{\partial \psi}{\partial \tau} \right] + \sum_{i=55}^{56} n_i \delta \left[ \frac{\partial \Delta^{b_i}}{\partial \tau} \psi + \Delta^{b_i} \frac{\partial \psi}{\partial \tau} \right] \\
 \phi_{\tau\tau}^r &= \sum_{i=1}^7 n_i d_i (d_i - 1) \delta^{d_i} \tau^{i-2} + \sum_{i=8}^{51} n_i d_i (d_i - 1) \delta^{d_i} \tau^{i-2} e^{-\delta^{c_i}} + \sum_{i=52}^{54} n_i \delta^{d_i} \tau^{i-2} e^{-\alpha_i(\delta-\varepsilon_i)^2 - \beta_i(\tau-\gamma_i)^2} \left[ \frac{\tau}{i} - 2\beta_i(\tau-\gamma_i) \right] \\
 &\quad + \sum_{i=55}^{56} n_i \delta \left[ \frac{\partial^2 \Delta^{b_i}}{\partial \tau^2} \psi + 2 \frac{\partial \psi}{\partial \tau} \frac{\partial \Delta^{b_i}}{\partial \tau} + \Delta^{b_i} \frac{\partial^2 \psi}{\partial \tau^2} \right] \\
 \phi_{\delta\tau}^r &= \sum_{i=1}^7 n_i d_i \delta^{d_i-1} \tau^{i-1} + \sum_{i=8}^{51} n_i d_i \delta^{d_i-1} \tau^{i-1} e^{-\delta^{c_i}} + \sum_{i=52}^{54} n_i \delta^{d_i} \tau^{i-1} e^{-\alpha_i(\delta-\varepsilon_i)^2 - \beta_i(\tau-\gamma_i)^2} \left[ \frac{d_i}{\delta} - 2\alpha_i(\delta-\varepsilon_i) \right] \left[ \frac{\tau}{i} - 2\beta_i(\tau-\gamma_i) \right] \\
 &\quad + \sum_{i=55}^{56} n_i \Delta^{b_i} \left[ \frac{\partial \psi}{\partial \delta} \frac{\partial \tau}{\partial \delta} + \left( \frac{\partial \psi}{\partial \delta} \frac{\partial \tau}{\partial \delta} + \frac{\partial \psi}{\partial \delta} \frac{\partial \tau}{\partial \delta} \right) \frac{\partial \Delta^{b_i}}{\partial \tau} + \left( \frac{\partial \psi}{\partial \delta} \frac{\partial \tau}{\partial \delta} + \frac{\partial \psi}{\partial \delta} \frac{\partial \tau}{\partial \delta} \right) \frac{\partial \Delta^{b_i}}{\partial \tau} \right]
 \end{aligned}$$

Table 5. Continued

Derivatives of the distance function  $\Delta^{b_i}$ :

$$\frac{\partial \Delta^{b_i}}{\partial \delta} = b_i \Delta^{b_i-1} \frac{\partial \Delta}{\partial \delta}$$

$$\frac{\partial^2 \Delta^{b_i}}{\partial \delta^2} = b_i \left\{ \Delta^{b_i-1} \frac{\partial^2 \Delta}{\partial \delta^2} + (b_i - 1) \Delta^{b_i-2} \left( \frac{\partial \Delta}{\partial \delta} \right)^2 \right\}$$

$$\frac{\partial \Delta^{b_i}}{\partial \tau} = -2\theta b_i \Delta^{b_i-1}$$

$$\frac{\partial^2 \Delta^{b_i}}{\partial \tau^2} = 2b_i \Delta^{b_i-1} + 4\theta^2 b_i (b_i - 1) \Delta^{b_i-2}$$

$$\frac{\partial^2 \Delta^{b_i}}{\partial \delta \partial \tau} = -A_i b_i \frac{2}{\beta_i} \Delta^{b_i-1} (\delta - 1) \left[ (\delta - 1)^2 \right]^{\frac{1}{2}\beta_i-1} - 2\theta b_i (b_i - 1) \Delta^{b_i-2} \frac{\partial \Delta}{\partial \delta}$$

$$\text{with } \frac{\partial \Delta}{\partial \delta} = (\delta - 1) \left\{ A_i \theta \frac{2}{\beta_i} \left[ (\delta - 1)^2 \right]^{\frac{1}{2}\beta_i-1} + 2B_i a_i \left[ (\delta - 1)^2 \right]^{a_i-1} \right\}$$

$$\frac{\partial^2 \Delta}{\partial \delta^2} = \frac{1}{(\delta - 1) \partial \delta} + (\delta - 1)^2 \left\{ 4B_i a_i (a_i - 1) \left[ (\delta - 1)^2 \right]^{a_i-2} + 2A_i^2 \left( \frac{1}{\beta_i} \right)^2 \left[ (\delta - 1)^2 \right]^{\frac{1}{2}\beta_i-1} \right\} \\ + A_i \theta \frac{4}{\beta_i} \left( \frac{1}{2\beta_i} - 1 \right) \left[ (\delta - 1)^2 \right]^{\frac{1}{2}\beta_i-2}$$

$${}^a \phi_\delta^r = \left[ \frac{\partial \phi^r}{\partial \delta} \right]_\tau, \phi_{\delta\delta}^r = \left[ \frac{\partial^2 \phi^r}{\partial \delta^2} \right]_\tau, \phi_\tau^r = \left[ \frac{\partial \phi^r}{\partial \tau} \right]_\delta, \phi_{\tau\tau}^r = \left[ \frac{\partial^2 \phi^r}{\partial \tau^2} \right]_\delta, \phi_{\delta\tau}^r = \left[ \frac{\partial^2 \phi^r}{\partial \delta \partial \tau} \right]$$

Derivatives of the exponential function  $\psi$ :

$$\frac{\partial \psi}{\partial \delta} = -2C_i (\delta - 1) \psi$$

$$\frac{\partial^2 \psi}{\partial \delta^2} = \{ 2C_i (\delta - 1)^2 - 1 \} 2C_i \psi$$

$$\frac{\partial \psi}{\partial \tau} = -2D_i (\tau - 1) \psi$$

$$\frac{\partial^2 \psi}{\partial \tau^2} = \{ 2D_i (\tau - 1)^2 - 1 \} 2D_i \psi$$

$$\frac{\partial^2 \psi}{\partial \delta \partial \tau} = 4C_i D_i (\delta - 1) (\tau - 1) \psi$$

Table 6. Values for the ideal-gas part  $\phi^o$ , Eq. (5), and for the residual part  $\phi^r$ , Eq. (6), of the dimensionless Helmholtz free energy together with the corresponding derivatives<sup>a</sup> for  $T = 500$  K and  $\rho = 838.025$  kg m<sup>-3</sup>

$\phi^o$	$= 0.204\ 797\ 734 \times 10^1$	$\phi^r$	$= -0.342\ 693\ 206 \times 10^1$
$\phi_{\delta}^o$	$= 0.384\ 236\ 747$	$\phi_{\delta}^r$	$= -0.364\ 366\ 650$
$\phi_{\delta\delta}^o$	$= -0.147\ 637\ 878$	$\phi_{\delta\delta}^r$	$= 0.856\ 063\ 701$
$\phi_{\tau}^o$	$= 0.904\ 611\ 106 \times 10^1$	$\phi_{\tau}^r$	$= -0.581\ 403\ 435 \times 10^1$
$\phi_{\tau\tau}^o$	$= -0.193\ 249\ 185 \times 10^1$	$\phi_{\tau\tau}^r$	$= -0.223\ 440\ 737 \times 10^1$
$\phi_{\delta\tau}^o$	$= 0$	$\phi_{\delta\tau}^r$	$= -0.112\ 176\ 915 \times 10^1$

<sup>a</sup> For the abbreviated notation of the derivatives of  $\phi^o$  and  $\phi^r$  see the footnotes of Tables 4 and 5, respectively.

Table 7. Thermodynamic property values in the single-phase region for selected values of  $T$  and  $\rho$

$T/K$	$\rho/(kg\ m^{-3})$	$p/MPa$	$c_v/(kJ\ kg^{-1}\ K^{-1})$	$w/(m\ s^{-1})$	$s/(kJ\ kg^{-1}\ K^{-1})$
300	$0.996\ 556\ 0 \times 10^3$	$0.992\ 42 \times 10^{-1a}$	$0.413\ 018\ 111 \times 10^1$	$0.150\ 151\ 914 \times 10^4$	$0.393\ 062\ 642$
	$0.100\ 530\ 8 \times 10^4$	$0.200\ 022\ 514 \times 10^2$	$0.406\ 798\ 347 \times 10^1$	$0.153\ 492\ 501 \times 10^4$	$0.387\ 405\ 401$
	$0.118\ 820\ 2 \times 10^4$	$0.700\ 004\ 704 \times 10^3$	$0.346\ 135\ 580 \times 10^1$	$0.244\ 357\ 992 \times 10^4$	$0.132\ 609\ 616$
500	$0.435\ 000\ 0$	$0.999\ 679\ 423 \times 10^{-1}$	$0.150\ 817\ 541 \times 10^1$	$0.548\ 314\ 253 \times 10^3$	$0.794\ 488\ 271 \times 10^1$
	$0.453\ 200\ 0 \times 10^1$	$0.999\ 938\ 125$	$0.166\ 991\ 025 \times 10^1$	$0.535\ 739\ 001 \times 10^3$	$0.682\ 502\ 725 \times 10^1$
	$0.838\ 025\ 0 \times 10^3$	$0.100\ 003\ 858 \times 10^2$	$0.322\ 106\ 219 \times 10^1$	$0.127\ 128\ 441 \times 10^4$	$0.256\ 690\ 918 \times 10^1$
	$0.108\ 456\ 4 \times 10^4$	$0.700\ 000\ 405 \times 10^3$	$0.307\ 437\ 693 \times 10^1$	$0.241\ 200\ 877 \times 10^4$	$0.203\ 237\ 509 \times 10^1$
647	$0.358\ 000\ 0 \times 10^3$	$0.220\ 384\ 756 \times 10^2$	$0.618\ 315\ 728 \times 10^1$	$0.252\ 145\ 078 \times 10^3$	$0.432\ 092\ 307 \times 10^1$
900	$0.241\ 000\ 0$	$0.100\ 062\ 559$	$0.175\ 890\ 657 \times 10^1$	$0.724\ 027\ 147 \times 10^3$	$0.916\ 653\ 194 \times 10^1$
	$0.526\ 150\ 0 \times 10^2$	$0.200\ 000\ 690 \times 10^2$	$0.193\ 510\ 526 \times 10^1$	$0.698\ 445\ 674 \times 10^3$	$0.659\ 070\ 225 \times 10^1$
	$0.870\ 769\ 0 \times 10^3$	$0.700\ 000\ 006 \times 10^3$	$0.266\ 422\ 350 \times 10^1$	$0.201\ 933\ 608 \times 10^4$	$0.417\ 223\ 802 \times 10^1$

<sup>a</sup> In the liquid-water region at low pressures small changes in density along an isotherm cause large changes in pressure. For this reason, due to an accumulation of small errors, a particular computer code or a particular PC may fail to reproduce the pressure value with nine decimal figures. Thus, here only five decimal figures are given.

Table 8. Thermodynamic property values in the two-phase region for selected values of temperature<sup>a</sup>

	$T = 275$ K	$T = 450$ K	$T = 625$ K
$p_{\sigma}/MPa$	$0.698\ 451\ 167 \times 10^{-3}$	$0.932\ 203\ 564$	$0.169\ 082\ 693 \times 10^2$
$\rho'/(kg\ m^{-3})$	$0.999\ 887\ 406 \times 10^3$	$0.890\ 341\ 250 \times 10^3$	$0.567\ 090\ 385 \times 10^3$
$\rho''/(kg\ m^{-3})$	$0.550\ 664\ 919 \times 10^{-2}$	$0.481\ 200\ 360 \times 10^1$	$0.118\ 290\ 280 \times 10^3$
$h'/(kJ\ kg^{-1})$	$0.775\ 972\ 200 \times 10^1$	$0.749\ 161\ 585 \times 10^3$	$0.168\ 626\ 976 \times 10^4$
$h''/(kJ\ kg^{-1})$	$0.250\ 428\ 995 \times 10^4$	$0.277\ 441\ 078 \times 10^4$	$0.255\ 071\ 625 \times 10^4$
$s'/(kJ\ kg^{-1}\ K^{-1})$	$0.283\ 094\ 669 \times 10^{-1}$	$0.210\ 865\ 845 \times 10^1$	$0.380\ 194\ 683 \times 10^1$
$s''/(kJ\ kg^{-1}\ K^{-1})$	$0.910\ 660\ 120 \times 10^1$	$0.660\ 921\ 221 \times 10^1$	$0.518\ 506\ 121 \times 10^1$

<sup>a</sup> All these test values were calculated from the Helmholtz free energy, Eq. (4), by applying the phase-equilibrium condition (Maxwell criterion).



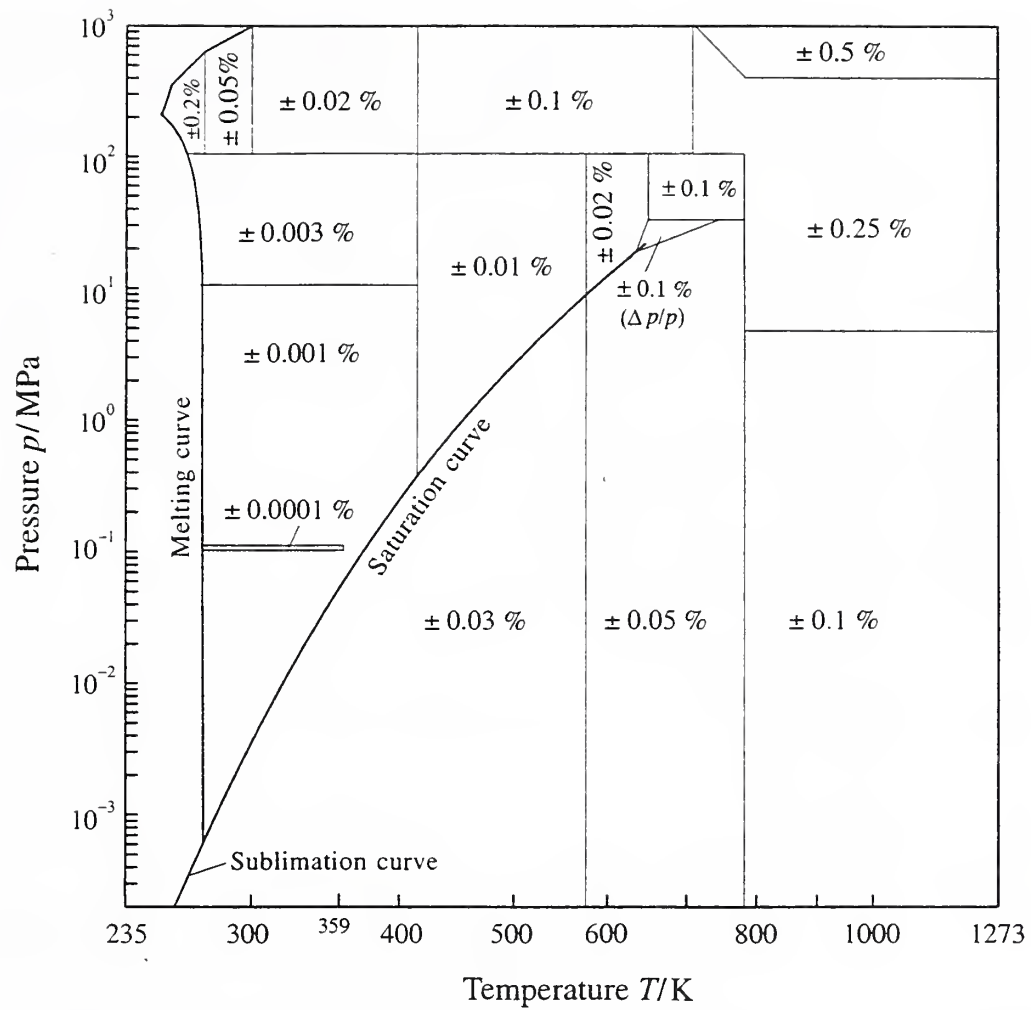


Fig. 1. Uncertainties in density,  $\Delta\rho/\rho$ , estimated for Eq. (4). In the enlarged critical region (triangle), the uncertainty is given as percentage uncertainty in pressure,  $\Delta p/p$ . This region is bordered by the two isochores  $527 \text{ kg m}^{-3}$  and  $144 \text{ kg m}^{-3}$  and by the 30 MPa isobar. The positions of the lines separating the uncertainty regions are approximate.

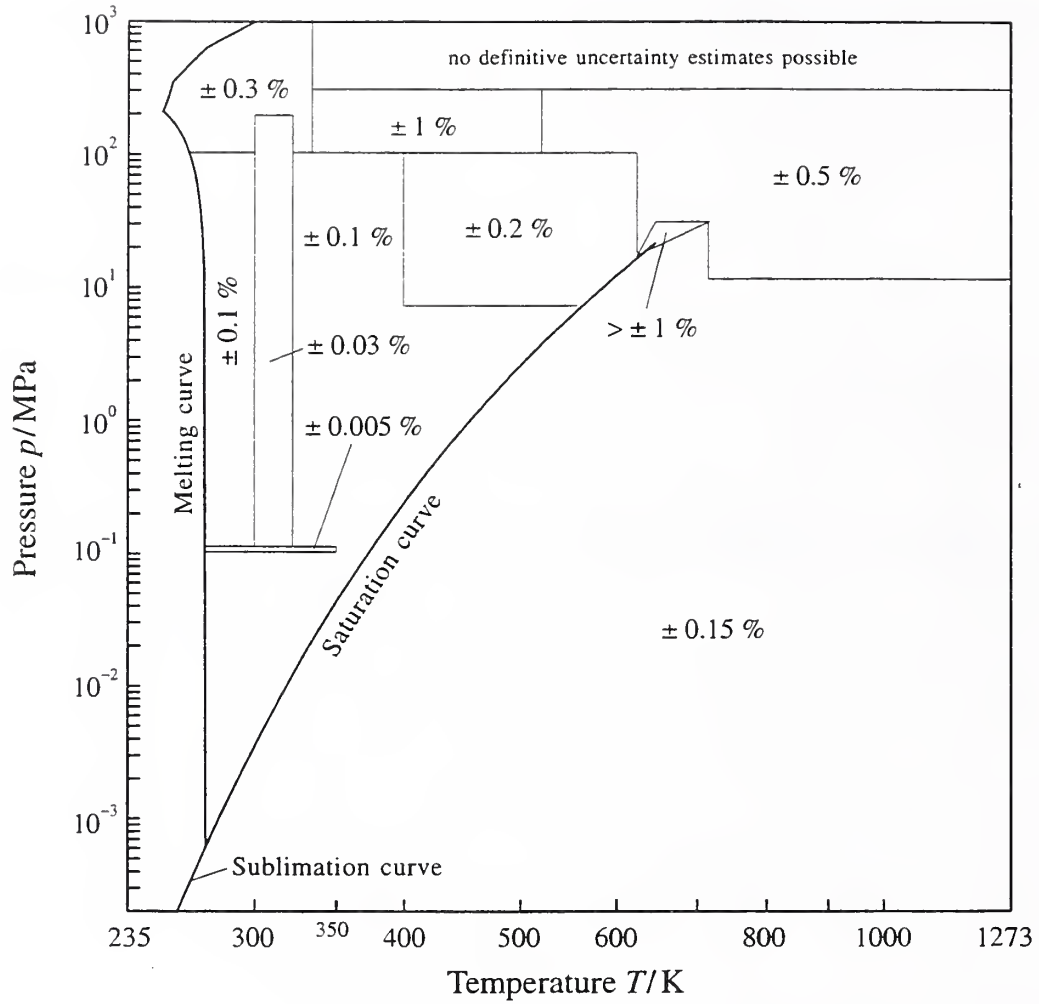


Fig. 2. Uncertainties in speed of sound,  $\Delta w/w$ , estimated for Eq. (4). For the uncertainty in the triangle around the critical point, see the remark in Section 6; for the definition of this region, see Fig. 1. The positions of the lines separating the uncertainty regions are approximate.

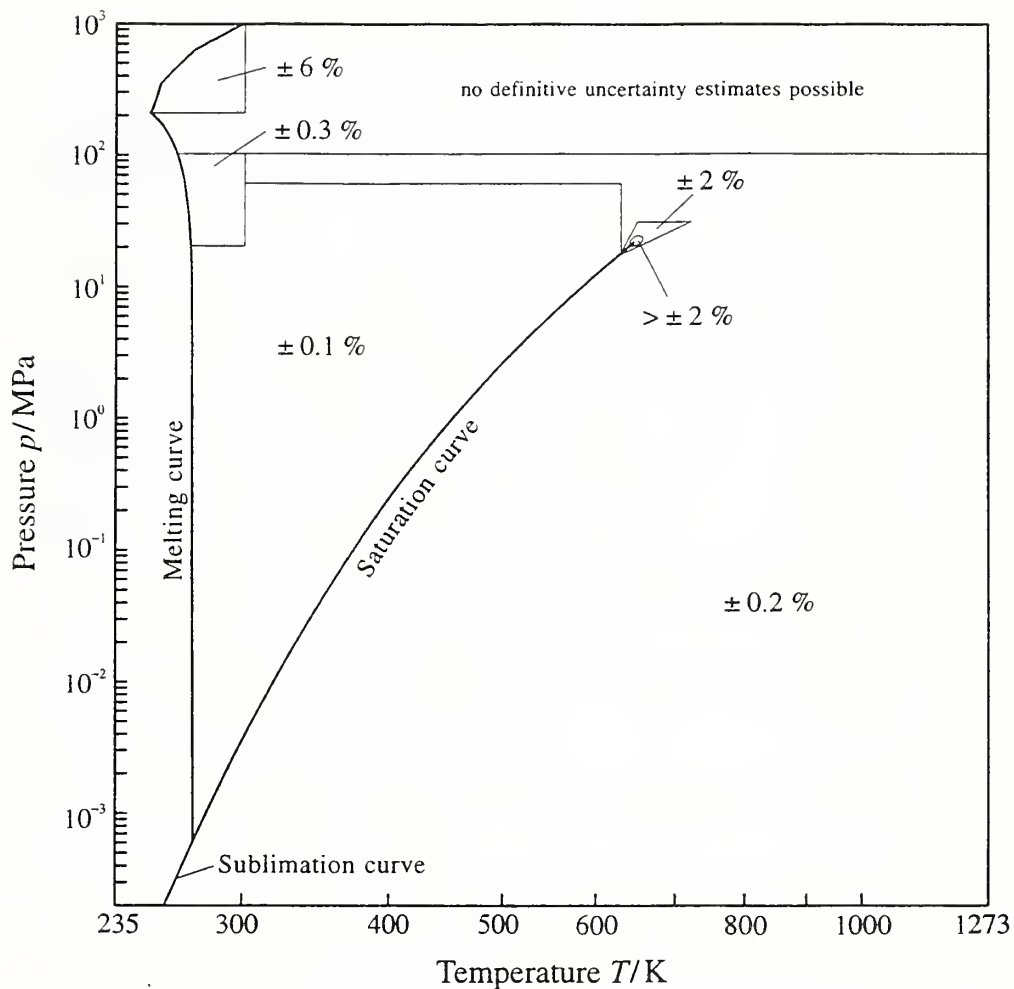


Fig. 3. Uncertainties in specific isobaric heat capacity,  $\Delta c_p/c_p$ , estimated for Eq. (4). For the uncertainty in the immediate vicinity of the critical point, see the remark in Section 6; for the definition of the triangle around the critical point, see Fig. 1. The positions of the lines separating the uncertainty regions are approximate.

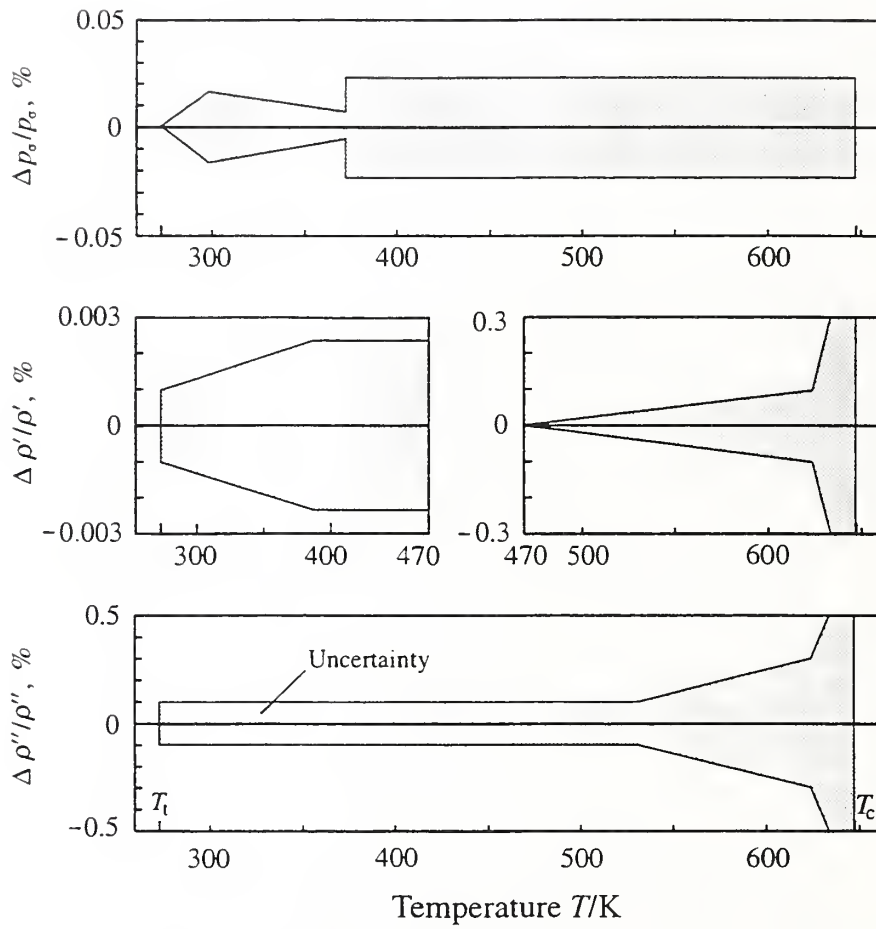


Fig. 4. Uncertainties in vapor pressure,  $\Delta p_\sigma/p_\sigma$ , in saturated liquid density,  $\Delta \rho'/\rho'$ , and in saturated vapor density,  $\Delta \rho''/\rho''$ , estimated for Eq. (4).



