

Appendix 8b: Properties of Saturated Water (Pressure Table)

Pressure, MPa	Temp., °C	Specific volume, m ³ /kg		Internal energy, kJ/kg		Enthalpy, kJ/kg		Entropy, kJ/kgK	
<i>P</i>	<i>T</i> _{sat}	<i>v</i> _{<i>f</i>}	<i>v</i> _{<i>g</i>}	<i>u</i> _{<i>f</i>}	<i>u</i> _{<i>g</i>}	<i>h</i> _{<i>f</i>}	<i>h</i> _{<i>g</i>}	<i>s</i> _{<i>f</i>}	<i>s</i> _{<i>g</i>}
0.0006113	0.01	0.001000	206.14	0	2375.3	0.00	2501.4	0.0000	9.1562
0.0010	6.98	0.001000	129.21	29.3	2385.0	29.30	2514.2	0.1059	8.9756
0.0015	13.03	0.001001	87.98	54.71	2393.3	54.71	2525.3	0.1957	8.8279
0.0020	17.50	0.001001	67.00	73.48	2399.5	73.48	2533.5	0.2607	8.7237
0.0025	21.08	0.001002	54.25	88.48	2404.4	88.49	2540.0	0.3120	8.6432
0.0030	24.08	0.001003	45.67	101.04	2408.5	101.05	2545.5	0.3545	8.5776
0.0040	28.96	0.001004	34.80	121.45	2415.2	121.46	2554.4	0.4226	8.4746
0.0050	32.88	0.001005	28.19	137.81	2420.5	137.82	2561.5	0.4764	8.3951
0.0075	40.29	0.001008	19.24	168.78	2430.5	168.79	2574.8	0.5764	8.2515
0.010	45.81	0.001010	14.67	191.82	2437.9	191.83	2584.7	0.6493	8.1502
0.015	53.97	0.001014	10.02	225.92	2448.7	225.94	2599.1	0.7549	8.0085
0.020	60.06	0.001017	7.649	251.38	2456.7	251.40	2609.7	0.8320	7.9085
0.025	64.97	0.001020	6.204	271.90	2463.1	271.93	2618.2	0.8931	7.8314
0.030	69.10	0.001022	5.229	289.20	2468.4	289.23	2625.3	0.9439	7.7686
0.040	75.87	0.001027	3.993	317.53	2477.0	317.58	2636.8	1.0259	7.6700
0.050	81.33	0.001030	3.240	340.44	2483.9	340.49	2645.9	1.0910	7.5939
0.075	91.78	0.001037	2.217	384.31	2496.7	384.39	2663.0	1.2130	7.4564
0.100	99.63	0.001043	1.694	417.36	2506.1	417.46	2675.5	1.3026	7.3594
0.125	105.99	0.001048	1.3749	444.19	2513.5	444.32	2685.4	1.3740	7.2844
0.150	111.37	0.001053	1.1593	466.94	2519.7	467.11	2693.6	1.4336	7.2233
0.175	116.06	0.001057	1.0036	486.80	2524.9	486.99	2700.6	1.4849	7.1717
0.200	120.23	0.001061	0.8857	504.49	2529.5	504.70	2706.7	1.5301	7.1271
0.225	124.00	0.001064	0.7933	520.47	2533.6	520.72	2712.1	1.5706	7.0878
0.250	127.44	0.001067	0.7187	535.10	2537.2	535.37	2716.9	1.6072	7.0527
0.275	130.60	0.001070	0.6573	548.59	2540.5	548.89	2721.3	1.6408	7.0209
0.300	133.55	0.001073	0.6058	561.15	2543.6	561.47	2725.3	1.6718	6.9919
0.325	136.30	0.001076	0.5620	572.90	2546.4	573.25	2729.0	1.7006	6.9652
0.350	138.88	0.001079	0.5243	583.95	2548.9	584.33	2732.4	1.7275	6.9405
0.375	141.32	0.001081	0.4914	594.40	2551.3	594.81	2735.6	1.7528	6.9175
0.40	143.63	0.001084	0.4625	604.31	2553.6	604.74	2738.6	1.7766	6.8959
0.45	147.93	0.001088	0.4140	622.77	2557.6	623.25	2743.9	1.8207	6.8565
0.50	151.86	0.001093	0.3749	639.68	2561.2	640.23	2748.7	1.8607	6.8213
0.55	155.48	0.001097	0.3427	655.32	2564.5	665.93	2753.0	1.8973	6.7893
0.60	158.85	0.001101	0.3157	669.90	2567.4	670.56	2756.8	1.9312	6.7600
0.65	162.01	0.001104	0.2927	683.56	2570.1	684.28	2760.3	1.9627	6.7331
0.70	164.97	0.001108	0.2729	696.44	2572.5	697.22	2763.5	1.9922	6.7080
0.75	167.78	0.001112	0.2556	708.64	2574.7	709.47	2766.4	2.0200	6.6847
0.80	170.43	0.001115	0.2404	720.22	2576.8	721.11	2769.1	2.0462	6.6628
0.85	172.96	0.001118	0.2270	731.27	2578.7	732.22	2771.6	2.0710	6.6421
0.90	175.38	0.001121	0.2150	741.83	2580.5	742.83	2773.9	2.0946	6.6226
0.95	177.69	0.001124	0.2042	751.95	2582.1	753.02	2776.1	2.1172	6.6041
1.00	179.91	0.001127	0.19444	761.68	2583.6	762.81	2778.1	2.1387	6.5865

(continued)

Pressure, MPa	Temp., °C	Specific volume, m ³ /kg		Internal energy, kJ/kg		Enthalpy, kJ/kg		Entropy, kJ/kgK	
<i>P</i>	<i>T</i> _{sat}	<i>v</i> _f	<i>v</i> _g	<i>u</i> _f	<i>u</i> _g	<i>h</i> _f	<i>h</i> _g	<i>s</i> _f	<i>s</i> _g
1.10	184.09	0.001133	0.17753	780.09	2586.4	781.34	2871.7	2.1792	6.5536
1.20	187.99	0.001139	0.16333	797.29	2588.8	798.65	2784.8	2.2166	6.5233
1.30	191.64	0.001144	0.15125	813.44	2591.0	814.93	2787.6	2.2515	6.4953
1.40	195.07	0.001149	0.14084	828.70	2592.8	830.30	2790.0	2.2842	6.4693
1.50	198.32	0.001154	0.13177	843.16	2594.5	844.89	2792.2	2.3150	6.4448
1.75	205.76	0.001166	0.11349	876.46	2597.8	878.50	2796.4	2.3851	6.3896
2.00	212.42	0.001177	0.09963	906.44	2600.3	908.79	2799.5	2.4474	6.3409
2.25	218.45	0.001187	0.08875	933.83	2602.0	936.49	2801.7	2.5035	6.2972
2.50	223.99	0.001197	0.07998	959.11	2603.1	962.11	2803.1	2.5547	6.2575
3.00	233.90	0.001217	0.06668	1004.78	2604.1	1008.42	2804.2	2.6457	6.1869
3.50	242.60	0.001235	0.05707	1045.43	2603.7	1049.75	2803.4	2.7253	6.1253
4	250.40	0.001252	0.04978	1082.31	2602.3	1087.31	2801.4	2.7964	6.0701
5	263.99	0.001286	0.03944	1147.81	2597.1	1154.23	2794.3	2.9202	5.9734
6	275.64	0.001319	0.03244	1205.44	2589.7	1213.35	2784.3	3.0267	5.8892
7	285.88	0.001351	0.02737	1257.55	2580.5	1267.00	2772.1	3.1211	5.8133
8	295.06	0.001384	0.02352	1305.57	2569.8	1316.64	2758.0	3.2068	5.7432
9	303.40	0.001418	0.02048	1350.51	2557.8	1363.26	2742.1	3.2858	5.6722
10	311.06	0.001452	0.018026	1393.04	2544.4	1407.56	2724.7	3.3596	5.6141
11	318.15	0.001489	0.015987	1433.7	2529.8	1450.1	2705.6	3.4295	5.5527
12	324.75	0.001527	0.014263	1473.0	2513.7	1491.3	2684.9	3.4962	5.4924
13	330.93	0.001567	0.012780	1511.1	2496.1	1531.5	2662.2	3.5606	5.4323
14	336.75	0.001611	0.011485	1548.6	2476.8	1571.1	2637.6	3.6232	5.3717
15	342.24	0.001658	0.010337	1585.6	2455.5	1610.5	2610.5	3.6848	5.3098
16	347.44	0.001711	0.009306	1622.7	2431.7	1650.1	2580.6	3.7461	5.2455
17	352.37	0.001770	0.008364	1660.2	2405.0	1690.3	2547.2	3.8079	5.1777
18	357.06	0.001840	0.007489	1698.9	2374.3	1732.0	2509.1	3.8715	5.1044
19	361.54	0.001924	0.006657	1739.9	2338.1	1776.5	2464.5	3.9388	5.0228
20	365.81	0.002036	0.005834	1785.6	2293.0	1826.3	2409.7	4.0139	4.9269
21	369.89	0.002207	0.004952	1842.1	2230.6	1888.4	2334.6	4.1075	4.8013
22	373.80	0.002742	0.003568	1961.9	2087.1	2022.2	2165.6	4.3110	4.5327
22.09	374.14	0.003155	0.003155	2029.6	2029.6	2099.3	2099.3	4.4298	4.4298