APPENDIX 2

Table A2.1: Properties of SATURATED WATER – Pressure Table

P	T	v_l	v_{lg}	v_g	u_l	u_{lg}	u_g	h_l	h_{lg}	h_g	s_l	s_{lg}	s_g
kPa	^{0}C	m^3/kg	m^3/kg	m^3/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg.K	kJ/kg.K	kJ/kg.K
1.0	6.9696	0.001	129.19	129.19	29.287	2354.8	2384.1	29.288	2484.0	2513.3	0.1059	8.8678	8.9737
1.5	13.021	0.001001	87.970	87.971	54.634	2337.9	2392.5	54.635	2469.8	2524.4	0.1954	8.6304	8.8258
2.0	17.497	0.001001	66.997	66.998	73.364	2325.2	2398.6	73.366	2459.2	2532.6	0.2603	8.4613	8.7216
2.5	21.080	0.001002	54.248	54.249	88.353	2315.1	2403.5	88.356	2450.7	2539.1	0.3116	8.3295	8.6411
3.0	24.083	0.001003	45.660	45.661	100.92	2306.7	2407.6	100.92	2443.7	2544.6	0.3541	8.2214	8.5755
3.5	26.677	0.001003	39.473	39.474	111.77	2299.4	2411.2	111.77	2437.5	2549.3	0.3904	8.1299	8.5203
4.0	28.966	0.001004	34.797	34.798	121.34	2293.0	2414.3	121.35	2432.2	2553.5	0.4222	8.0503	8.4725
4.5	31.018	0.001005	31.136	31.137	129.93	2287.2	2417.1	129.93	2427.3	2557.2	0.4506	7.9799	8.4305
5.0	32.881	0.001005	28.190	28.191	137.72	2281.9	2419.6	137.72	2422.8	2560.5	0.4761	7.9169	8.3930
5.5	34.589	0.001006	25.767	25.768	144.86	2277.0	2421.9	144.87	2418.7	2563.6	0.4994	7.8598	8.3592
6.0	36.167	0.001006	23.737	23.738	151.46	2272.5	2424.0	151.47	2415.0	2566.5	0.5208	7.8075	8.3283
6.5	37.635	0.001007	22.013	22.014	157.60	2268.4	2426.0	157.61	2411.5	2569.1	0.5406	7.7594	8.3000
7.0	39.008	0.001008	20.528	20.529	163.35	2264.5	2427.9	163.35	2408.3	2571.6	0.5590	7.7148	8.2738
7.5	40.299	0.001008	19.236	19.237	168.75	2260.9	2429.6	168.76	2405.1	2573.9	0.5763	7.6731	8.2494
8.0	41.518	0.001008	18.102	18.103	173.85	2257.5	2431.3	173.85	2402.3	2576.1	0.5925	7.6342	8.2267
8.5	42.673	0.001009	17.098	17.099	178.68	2254.1	2432.8	178.68	2399.4	2578.1	0.6078	7.5975	8.2053
9.0	43.771	0.001009	16.202	16.203	183.27	2251.0	2434.3	183.27	2396.8	2580.1	0.6223	7.5629	8.1852
9.5	44.817	0.001010	15.398	15.399	187.64	2248.1	2435.7	187.65	2394.4	2582.0	0.6361	7.5301	8.1662
10	45.817	0.001010	14.673	14.674	191.82	2245.2	2437.0	191.83	2392.0	2583.8	0.6493	7.4989	8.1482
15	53.983	0.001014	10.022	10.023	225.97	2221.9	2447.9	225.98	2372.2	2598.2	0.7550	7.2516	8.0066
20	60.073	0.001017	7.6489	7.6499	251.44	2204.5	2455.9	251.46	2357.4	2608.9	0.8321	7.0747	7.9068
25	64.980	0.001020	6.2038	6.2048	271.97	2190.3	2462.3	271.99	2345.4	2617.4	0.8933	6.9365	7.8298
30	69.114	0.001022	5.2288	5.2298	289.27	2178.4	2467.7	289.30	2335.3	2624.6	0.9441	6.8231	7.7672
35	72.700	0.001024	4.5252	4.5262	304.28	2168.0	2472.3	304.32	2326.4	2630.7	0.9878	6.7266	7.7144
40	75.877	0.001026	3.9930	3.9940	317.59	2158.8	2476.4	317.64	2318.5	2636.1	1.0261	6.6427	7.6688
45	78.736	0.001028	3.5759	3.5769	329.58	2150.4	2480.0	329.62	2311.3	2640.9	1.0603	6.5684	7.6287
50	81.339	0.001030	3.2398	3.2408	340.49	2142.8	2483.3	340.54	2304.8	2645.3	1.0912	6.5016	7.5928
60	85.949	0.001033	2.7314	2.7324	359.84	2129.2	2489.0	359.90	2293.1	2653.0	1.1454	6.3856	7.5310
70	89.956	0.001036	2.3644	2.3654	376.68	2117.3	2494.0	376.75	2282.9	2659.6	1.1920	6.2869	7.4789
80	93.511	0.001038	2.0866	2.0876	391.63	2106.7	2498.3	391.71	2273.6	2665.3	1.2330	6.2009	7.4339
90	96.713	0.001041	1.8688	1.8698	405.11	2097.1	2502.2	405.20	2265.3	2670.5	1.2696	6.1247	7.3943
100	99.632	0.001043	1.6933	1.6943	417.41	2088.3	2505.7	417.51	2257.6	2675.1	1.3027	6.0562	7.3589
101.32	100.00	0.001043	1.6727	1.6737	418.96	2087.1	2506.1	419.06	2256.6	2675.7	1.3069	6.0476	7.3545
125	105.99	0.001048	1.3742	1.3752	444.25	2068.9	2513.2	444.38	2240.7	2685.1	1.3741	5.9100	7.2841
150	111.38	0.001053	1.1584	1.1595	467.02	2052.4	2519.4	467.18	2226.2	2693.4	1.4338	5.7894	7.2232
175	116.07	0.001057	1.0027	1.0038	486.89	2037.8	2524.7	487.08	2213.3	2700.4	1.4851	5.6866	7.1717
200	120.24	0.001060	0.8848	0.8859	504.59	2024.8	2529.4	504.80	2201.7	2706.5	1.5304	5.5968	7.1272
225	124.01	0.001064	0.7923	0.7934	520.59	2012.9	2533.5	520.83	2191.2	2712.0	1.5708	5.5172	7.0880
250	127.44	0.001067	0.7177	0.7188	535.22	2001.9	2537.1	535.49	2181.3	2716.8	1.6075	5.4454	7.0529
275	130.61	0.001070	0.6563	0.6574	548.73	1991.8	2540.5	549.02	2172.3	2721.3	1.6411	5.3800	7.0211

TABLE A2.1: Properties of SATURATED WATER – Pressure Table (Continued)

P	T	v_l	v_{lg}	v_g	u_l	u_{lg}	u_g	h_l	h_{lg}	h_g	s_l	s_{lg}	s_g
kPa	^{0}C	m^3/kg	m^3/kg	m^3/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg.K	kJ/kg.K	kJ/kg.K
300	133.56	0.001073	0.6048	0.6059	561.29	1982.2	2543.5	561.61	2163.7	2725.3	1.6721	5.3200	6.9921
325	136.31	0.001076	0.5609	0.5620	573.04	1973.3	2546.3	573.39	2155.6	2729.0	1.7009	5.2645	6.9654
350	138.89	0.001079	0.5232	0.5243	584.10	1964.8	2548.9	584.48	2147.9	2732.4	1.7278	5.2129	6.9407
375	141.33	0.001081	0.4903	0.4914	594.56	1956.7	2551.3	594.96	2140.6	2735.6	1.7531	5.1646	6.9177
400	143.64	0.001084	0.4614	0.4625	604.47	1949.0	2553.5	604.91	2133.6	2738.5	1.7770	5.1191	6.8961
425	145.84	0.001086	0.4357	0.4368	613.91	1941.7	2555.6	614.37	2126.9	2741.3	1.7996	5.0762	6.8758
450	147.94	0.001088	0.4129	0.4140	622.93	1934.7	2557.6	623.42	2120.5	2743.9	1.8211	5.0356	6.8567
475	149.94	0.001090	0.3923	0.3934	631.56	1927.8	2559.4	632.07	2114.2	2746.3	1.8415	4.9971	6.8386
500	151.87	0.001093	0.3738	0.3749	639.84	1921.4	2561.2	640.38	2108.2	2748.6	1.8610	4.9604	6.8214
550	155.49	0.001097	0.3415	0.3426	655.48	1908.9	2564.4	656.08	2096.8	2752.9	1.8977	4.8917	6.7894
600	158.86	0.001101	0.3145	0.31560	670.05	1897.3	2567.3	670.71	2086.0	2756.7	1.9315	4.8286	6.7601
650	162.02	0.001104	0.2915	0.2926	683.71	1886.2	2569.9	684.42	2075.8	2760.2	1.9631	4.7699	6.7330
700	164.98	0.001108	0.2717	0.2728	696.58	1875.8	2572.4	697.35	2066.0	2763.3	1.9925	4.7154	6.7079
750	167.79	0.001111	0.2544	0.2555	708.76	1865.8	2574.6	709.59	2056.6	2766.2	2.0203	4.6642	6.6845
800	170.44	0.001115	0.2393	0.2404	720.33	1856.3	2576.6	721.23	2047.7	2768.9	2.0464	4.6161	6.6625
850	172.97	0.001118	0.2258	0.2269	731.37	1847.1	2578.5	732.32	2039.1	2771.4	2.0712	4.5706	6.6418
900	175.39	0.001121	0.2138	0.2149	741.92	1838.3	2580.2	742.93	2030.7	2773.6	2.0948	4.5274	6.6222
950	177.70	0.001124	0.2030	0.2041	752.03	1829.8	2581.8	753.10	2022.6	2775.7	2.1173	4.4863	6.6036
1000	179.92	0.001127	0.1933	0.1944	761.75	1821.6	2583.3	762.88	2014.8	2777.7	2.1388	4.4471	6.5859
1100	184.10	0.001133	0.1764	0.1775	780.14	1805.9	2586.0	781.38	1999.8	2781.2	2.1793	4.3736	6.5529
1200	188.00	0.001138	0.1622	0.1633	797.31	1791.1	2588.4	798.68	1985.6	2784.3	2.2167	4.3059	6.5226
1300	191.64	0.001144	0.1501	0.1512	813.44	1777.1	2590.5	814.93	1972.1	2787.0	2.2515	4.2430	6.4945
1400	195.08	0.001149	0.1397	0.1408	828.67	1763.6	2592.3	830.28	1959.1	2789.4	2.2842	4.1841	6.4683
1500	198.33	0.001154	0.1305	0.1317	843.12	1750.8	2593.9	844.85	1946.7	2791.5	2.3150	4.1288	6.4438
1600	201.41	0.001159	0.1225	0.1237	856.88	1738.4	2595.3	858.73	1934.6	2793.3	2.3441	4.0766	6.4207
1700	204.35	0.001163	0.1155	0.1167	870.02	1726.6	2596.6	872.00	1923.0	2795.0	2.3717	4.0272	6.3989
1800	207.15	0.001168	0.1092	0.1104	882.61	1715.1	2597.7	884.71	1911.7	2796.4	2.3980	3.9801	6.3781
1900	209.84	0.001172	0.1035	0.1047	894.70	1704.0	2598.7	896.92	1900.7	2797.6	2.4231	3.9353	6.3584
2000	212.42	0.001177	0.09841	0.09959	906.33	1693.2	2599.5	908.69	1890.0	2798.7	2.4471	3.8925	6.3396
2250	218.45	0.001187	0.08753	0.08872	933.70	1667.5	2601.2	936.37	1864.4	2800.8	2.5032	3.7926	6.2958
2500	223.99	0.001197	0.07875	0.07995	958.98	1643.3	2602.3	961.97	1840.2	2802.2	2.5544	3.7016	6.2560
2750	229.11	0.001207	0.07151	0.07272	982.53	1620.5	2603.0	985.85	1817.2	2803.0	2.6016	3.6178	6.2194
3000	233.89	0.001217	0.06544	0.06666	1004.6	1598.7	2603.3	1008.3	1795.0	2803.3	2.6454	3.5401	6.1855
3250	238.37	0.001226	0.06027	0.06150	1025.5	1577.7	2603.2	1029.5	1773.6	2803.1	2.6865	3.4673	6.1538
3500	242.60	0.001235	0.05582	0.05705	1045.3	1557.6	2602.9	1049.6	1753.0	2802.6	2.7251	3.3989	6.1240
3750	246.59	0.001244	0.05194	0.05318	1064.2	1538.1	2602.3	1068.8	1732.9	2801.7	2.7616	3.3341	6.0957
4000	250.39	0.001252	0.04852	0.04977	1082.2	1519.3	2601.5	1087.2	1713.4	2800.6	2.7962	3.2727	6.0689
5000	263.98	0.001286	0.03815	0.03944	1147.8	1448.7	2596.5	1154.2	1639.5	2793.7	2.9201	3.0524	5.9725
6000	275.62	0.001319	0.03112	0.03244	1205.4	1383.9	2589.3	1213.3	1570.6	2783.9	3.0266	2.8620	5.8886
7000	285.86	0.001352	0.02602	0.02737	1257.5	1322.7	2580.2	1267.0	1504.8	2771.8	3.1211	2.6919	5.8130

TABLE A2.1: Properties of SATURATED WATER – Pressure Table (Continued)

P	T	v_l	v_{lg}	v_g	u_l	u_{lg}	u_g	h_l	h_{lg}	h_g	s_l	s_{lg}	s_g
kPa	^{0}C	m^3/kg	m^3/kg	m^3/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg.K	kJ/kg.K	kJ/kg.K
8000	295.04	0.001384	0.02214	0.02352	1305.5	1264.1	2569.6	1316.6	1441.2	2757.8	3.2066	2.5365	5.7431
9000	303.38	0.001418	0.01906	0.02048	1350.3	1207.3	2557.6	1363.1	1378.9	2742.0	3.2855	2.3916	5.6771
10,000	311.03	0.001452	0.01658	0.01803	1392.8	1151.4	2544.2	1407.3	1317.2	2724.5	3.3591	2.2548	5.6139
11,000	318.11	0.001488	0.01450	0.01599	1433.3	1096.2	2529.5	1449.7	1255.7	2705.4	3.4287	2.1238	5.5525
12,000	324.71	0.001526	0.01273	0.01426	1472.4	1041.0	2513.4	1490.7	1193.8	2684.5	3.4953	1.9968	5.4921
13,000	330.89	0.001566	0.01121	0.01278	1510.5	985.20	2495.7	1530.9	1130.9	2661.8	3.5595	1.8723	5.4318
14,000	336.70	0.001610	0.009870	0.01148	1547.9	928.40	2476.3	1570.4	1066.7	2637.1	3.6220	1.7491	5.3711
15,000	342.19	0.001657	0.008683	0.01034	1585.0	870.00	2455.0	1609.8	1000.3	2610.1	3.6837	1.6255	5.3092
16,000	347.39	0.001710	0.007600	0.009310	1622.1	809.20	2431.3	1649.5	930.80	2580.3	3.7452	1.4999	5.2451
17,000	352.34	0.001770	0.006603	0.008373	1659.9	744.90	2404.8	1690.0	857.10	2547.1	3.8073	1.3704	5.1777
18,000	357.04	0.001840	0.005665	0.007505	1698.9	675.70	2374.6	1732.0	777.70	2509.7	3.8714	1.2340	5.1054
19,000	361.52	0.001925	0.004756	0.006681	1740.3	599.00	2339.3	1776.8	689.40	2466.2	3.9393	1.0862	5.0255
20,000	365.80	0.002036	0.003838	0.005874	1786.0	510.10	2296.1	1826.7	586.90	2413.6	4.0146	0.9184	4.9330
21,000	369.88	0.002200	0.002820	0.005020	1841.4	396.00	2237.4	1887.6	455.20	2342.8	4.1062	0.7079	4.8141
22,000	373.77	0.002702	0.000952	0.003654	1953.4	142.80	2096.2	2012.8	163.60	2176.5	4.2866	0.2530	4.5486
22,055	373.98	0.00311	-	0.00311	2017	-	2017	2086	-	2086	4.409	-	4.409

Table A2.2: Properties of SATURATED WATER – Temperature Table

T	P	v_l	v_{lg}	v_g	u_l	u_{lg}	u_g	h_l	h_{lg}	h_g	s_l	s_{lg}	s_g
^{0}C	kPa	m^3/kg	m^3/kg	m^3/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg.K	kJ/kg.K	kJ/kg.K
5	0.8726	0.001000	147.02	147.02	21.020	2360.4	2381.4	21.021	2488.7	2509.7	0.07626	8.9473	9.0236
10	1.2281	0.001000	106.32	106.32	41.986	2346.3	2388.3	41.988	2476.9	2518.9	0.1510	8.7476	8.8986
15	1.7056	0.001001	77.896	77.897	62.915	2332.3	2395.2	62.917	2465.1	2528.0	0.2242	8.5550	8.7792
20	2.3388	0.001002	57.777	57.778	83.833	2318.2	2402.0	83.835	2453.4	2537.2	0.2962	8.3689	8.6651
25	3.1690	0.001003	43.356	43.357	104.75	2304.1	2408.9	104.75	2441.6	2546.3	0.3670	8.1888	8.5558
30	4.2455	0.001004	32.895	32.896	125.67	2290.0	2415.7	125.67	2429.6	2555.3	0.4365	8.0148	8.4513
35	5.6267	0.001006	25.219	25.220	146.58	2275.9	2422.5	146.59	2417.8	2564.4	0.5050	7.8461	8.3511
40	7.3814	0.001008	19.527	19.528	167.50	2261.7	2429.2	167.50	2405.9	2573.4	0.5723	7.6827	8.2550
45	9.5898	0.001010	15.262	15.263	188.41	2247.5	2435.9	188.42	2393.9	2582.3	0.6385	7.5244	8.1629
50	12.344	0.001012	12.036	12.037	209.31	2233.3	2442.6	209.33	2381.9	2591.2	0.7037	7.3708	8.0745
55	15.752	0.001015	9.5716	9.5726	230.22	2219.0	2449.2	230.24	2369.8	2600.0	0.7679	7.2217	7.9896
60	19.932	0.001017	7.6733	7.6743	251.13	2204.7	2455.8	251.15	2357.7	2608.8	0.8312	7.0768	7.9080
65	25.022	0.001020	6.1986	6.1996	272.05	2190.3	2462.4	272.08	2345.4	2617.5	0.8935	6.9360	7.8295
70	31.176	0.001023	5.0437	5.0447	292.98	2175.8	2468.8	293.01	2333.1	2626.1	0.9549	6.7991	7.7540
75	38.563	0.001026	4.1323	4.1333	313.92	2161.3	2475.2	313.96	2320.6	2634.6	1.0155	6.6658	7.6813
80	47.373	0.001029	3.4078	3.4088	334.88	2146.7	2481.6	334.93	2308.2	2643.1	1.0753	6.5359	7.6112
85	57.815	0.001032	2.8279	2.8289	355.86	2132.0	2487.9	355.92	2295.5	2651.4	1.1343	6.4093	7.5436
90	70.117	0.001036	2.3607	2.3617	376.86	2117.1	2494.0	376.93	2282.7	2659.6	1.1925	6.2859	7.4784
95	84.529	0.001040	1.9818	1.9828	397.89	2102.2	2500.1	397.98	2269.7	2667.7	1.2501	6.1653	7.4154
100	101.32	0.001043	1.6726	1.6736	418.96	2087.1	2506.1	419.06	2256.6	2675.7	1.3069	6.0476	7.3545
105	120.79	0.001047	1.4190	1.4200	440.05	2072.1	2512.1	440.18	2243.4	2683.6	1.3630	5.9326	7.2956
110	143.24	0.001052	1.2095	1.2106	461.19	2056.7	2517.9	461.34	2230.0	2691.3	1.4186	5.8200	7.2386
115	169.02	0.001056	1.0359	1.0370	482.36	2041.1	2523.5	482.54	2216.3	2698.8	1.4735	5.7098	7.1833
120	198.48	0.001060	0.8911	0.8922	503.57	2025.5	2529.1	503.78	2202.4	2706.2	1.5278	5.6019	7.1297
125	232.01	0.001065	0.7698	0.7709	524.82	2009.7	2534.5	525.07	2188.3	2713.4	1.5815	5.4962	7.0777
130	270.02	0.001070	0.6676	0.6687	546.12	1993.7	2539.8	546.41	2174.0	2720.4	1.6346	5.3926	7.0272
135	312.93	0.001075	0.5813	0.5824	567.46	1977.5	2545.0	567.80	2159.4	2727.2	1.6873	5.2907	6.9780
140	361.19	0.001080	0.5079	0.5090	588.85	1961.2	2550.0	589.24	2144.6	2733.8	1.7394	5.1908	6.9302
145	415.29	0.001085	0.4453	0.4464	610.30	1944.5	2554.8	610.75	2129.4	2740.2	1.7910	5.0926	6.8836
150	475.72	0.001090	0.3918	0.3929	631.80	1927.7	2559.5	632.32	2114.1	2746.4	1.8421	4.9960	6.8381
155	542.99	0.001096	0.3457	0.3468	653.35	1910.7	2564.0	653.95	2098.4	2752.3	1.8927	4.9010	6.7937
160	617.66	0.001102	0.3060	0.3071	674.97	1893.3	2568.3	675.65	2082.3	2758.0	1.9429	4.8074	6.7503
165	700.29	0.001108	0.2716	0.2727	696.65	1875.7	2572.4	697.43	2065.9	2763.3	1.9927	4.7151	6.7078
170	791.47	0.001114	0.2417	0.2428	718.40	1857.9	2576.3	719.28	2049.2	2768.5	2.0421	4.6241	6.6662
175	891.80	0.001121	0.2157	0.2168	740.22	1839.7	2579.9	741.22	2032.1	2773.3	2.0910	4.5344	6.6254
180	1001.9	0.001127	0.1929	0.1940	762.12	1821.3	2583.4	763.25	2014.6	2777.8	2.1397	4.4456	6.5853
185	1122.5	0.001134	0.1730	0.1741	784.10	1802.5	2586.6	785.37	1996.6	2782.0	2.1879	4.3580	6.5459
190	1254.2	0.001141	0.1554	0.1565	806.17	1783.4	2589.6	807.60	1978.2	2785.8	2.2358	4.2713	6.5071
195	1397.6	0.001149	0.1399	0.1410	828.33	1764.0	2592.3	829.93	1959.5	2789.4	2.2834	4.1855	6.4689
200	1553.6	0.001156	0.1261	0.1273	850.58	1744.1	2594.7	852.38	1940.1	2792.5	2.3308	4.1004	6.4312

Table A2.2: Properties of SATURATED WATER – Temperature Table (Continued)

T	P	v_l	v_{lg}	v_g	u_l	u_{lg}	u_g	h_l	h_{lg}	h_g	s_l	s_{lg}	s_g
^{0}C	kPa	m^3/kg	m^3/kg	m^3/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg.K	kJ/kg.K	kJ/kg.K
205	1722.9	0.001164	0.1140	0.1152	872.95	1723.9	2596.9	874.95	1920.4	2795.3	2.3778	4.0162	6.3940
210	1906.2	0.001173	0.1032	0.1044	895.43	1703.3	2598.7	897.66	1900.0	2797.7	2.4246	3.9326	6.3572
215	2104.2	0.001181	0.09357	0.09475	918.02	1682.3	2600.3	920.51	1879.2	2799.7	2.4712	3.8496	6.3208
220	2317.8	0.001190	0.08497	0.08616	940.75	1660.9	2601.6	943.51	1857.8	2801.3	2.5175	3.7672	6.2847
225	2547.9	0.001199	0.07726	0.07846	963.61	1638.9	2602.5	966.67	1835.7	2802.4	2.5637	3.6851	6.2488
230	2795.1	0.001209	0.07034	0.07155	986.62	1616.5	2603.1	990.00	1813.1	2803.1	2.6097	3.6034	6.2131
235	3060.4	0.001219	0.06412	0.06534	1009.8	1593.5	2603.3	1013.5	1789.8	2803.3	2.6556	3.5221	6.1777
240	3344.7	0.001229	0.05851	0.05974	1033.1	1570.0	2603.1	1037.2	1765.8	2803.0	2.7013	3.4410	6.1423
245	3648.8	0.001240	0.05345	0.05469	1056.6	1546.0	2602.6	1061.2	1740.9	2802.1	2.7470	3.3600	6.1070
250	3973.6	0.001251	0.04886	0.05011	1080.3	1521.3	2601.6	1085.3	1715.4	2800.7	2.7926	3.2791	6.0717
255	4320.2	0.001263	0.04470	0.04596	1104.3	1495.9	2600.2	1109.7	1689.1	2798.8	2.8382	3.1981	6.0363
260	4689.4	0.001276	0.04091	0.04219	1128.4	1470.0	2598.4	1134.4	1661.8	2796.2	2.8838	3.1171	6.0009
265	5082.3	0.001289	0.03747	0.03876	1152.8	1443.2	2596.0	1159.3	1633.7	2793.0	2.9294	3.0358	5.9652
270	5499.9	0.001303	0.03434	0.03564	1177.4	1415.8	2593.2	1184.6	1604.5	2789.1	2.9751	2.9542	5.9293
275	5943.1	0.001317	0.03146	0.03278	1202.3	1387.4	2589.7	1210.1	1574.4	2784.5	3.0209	2.8722	5.8931
280	6413.2	0.001332	0.02883	0.03016	1227.5	1358.2	2585.7	1236.1	1543.1	2779.2	3.0669	2.7896	5.8565
285	6911.1	0.001349	0.02642	0.02777	1253.1	1328.0	2581.1	1262.4	1510.6	2773.0	3.1131	2.7064	5.8195
290	7438.0	0.001366	0.02419	0.02556	1279.0	1296.7	2575.7	1289.1	1476.8	2765.9	3.1595	2.6223	5.7818
295	7995.2	0.001384	0.02216	0.02354	1305.3	1264.4	2569.7	1316.3	1441.5	2757.8	3.2062	2.5372	5.7454
300	8583.8	0.001404	0.02027	0.02167	1332.0	1230.8	2562.8	1344.1	1404.6	2748.7	3.2534	2.4569	5.7042
305	9205.1	0.001425	0.01852	0.01994	1359.2	1195.8	2555.0	1372.3	1366.2	2738.5	3.3010	2.3630	5.6640
310	9860.5	0.001447	0.01689	0.01834	1387.0	1159.2	2546.2	1401.2	1325.8	2727.0	3.3491	2.2735	5.6226
315	10,550	0.001472	0.01539	0.01686	1415.3	1121.0	2536.3	1430.8	1283.4	2714.2	3.3979	2.1820	5.5799
320	11,280	0.001498	0.01398	0.01548	1444.4	1080.8	2525.2	1461.3	1238.4	2699.7	3.4476	2.0880	5.5356
325	12,050	0.001528	0.01266	0.01419	1474.2	1038.4	2512.6	1492.6	1190.9	2683.5	3.4983	1.9910	5.4893
330	12,850	0.001560	0.01142	0.01298	1504.9	993.50	2498.4	1525.0	1140.3	2665.3	3.5501	1.8906	5.4407
335	13,700	0.001596	0.01025	0.01185	1536.8	945.50	2482.3	1558.6	1086.1	2644.7	3.6035	1.7854	5.3894
340	14,590	0.001637	0.009153	0.01079	1569.9	894.00	2463.9	1593.8	1027.5	2621.3	3.6587	1.6758	5.3345
345	15,530	0.001684	0.008094	0.009778	1604.7	838.00	2442.7	1630.9	963.60	2594.5	3.7164	1.5589	5.2753
350	16,520	0.001740	0.007072	0.008812	1641.7	776.20	2417.9	1670.4	893.10	2563.5	3.7774	1.4331	5.2105
355	17,560	0.001808	0.006071	0.007879	1681.5	706.90	2388.4	1713.3	813.40	2526.7	3.8429	1.2950	5.1379
360	18,660	0.001894	0.005068	0.006962	1725.6	626.60	2352.2	1761.0	721.00	2482.0	3.9153	1.1389	5.0542
365	19,810	0.002012	0.004017	0.006029	1776.8	528.40	2305.2	1816.7	607.90	2424.6	3.9994	0.9526	4.9520
370	21,030	0.002207	0.002786	0.004993	1843.3	391.90	2235.2	1889.7	450.50	2340.2	4.1094	0.7004	4.8098
373	22,055	0.00311	-	0.00311	2017	-	2017	2086	-	2086	4.409	-	4.409

Table A2.3: Properties of WATER in Compressed Liquid State

P kPa	T ^{0}C	v m^3/kg	u kJ/kg	h kJ/kg	s kJ/kg.K
5,000	10	0.000998	41.860	46.850	0.1505
	30	0.001002	125.21	130.22	0.4350
	50	0.001010	208.58	213.63	0.7014
	70	0.001020	291.97	297.07	0.9520
	90	0.001034	375.59	380.75	1.1890
	110	0.001049	459.63	464.88	1.4145
	130	0.001067	544.28	549.61	1.6301
	150	0.001087	629.68	635.12	1.8371
	170	0.001111	716.04	721.59	2.0367
	190	0.001138	803.64	809.33	2.2304
	210	0.001169	892.89	898.74	2.4193
	230	0.001206	984.40	990.43	2.6053
	250	0.001250	1079.0	1085.3	2.7901

P kPa	T ^{0}C	v m^3/kg	u kJ/kg	h kJ/kg	s kJ/kg.K
10,000	10	0.000996	41.729	51.685	0.1500
	30	0.001000	124.75	134.75	0.4334
	50	0.001008	207.85	217.93	0.6991
	70	0.001018	290.98	301.16	0.9491
	90	0.001031	374.32	384.63	1.1855
	110	0.001046	458.07	468.53	1.4104
	130	0.001064	542.38	553.02	1.6253
	150	0.001084	627.41	638.25	1.8316
	170	0.001107	713.31	724.39	2.0305
	190	0.001133	800.37	811.70	2.2232
	210	0.001164	888.94	900.57	2.4111
	230	0.001199	979.55	991.54	2.5955
	250	0.001241	1073.0	1085.4	2.7784
	270	0.001292	1170.3	1183.2	2.9619
	290	0.001357	1273.5	1287.1	3.1497

P kPa	T ^{0}C	v m^3/kg	u kJ/kg	h kJ/kg	s kJ/kg.K
15,000	10	0.000993	41.593	56.493	0.1494
	30	0.000998	124.30	139.27	0.4319
	50	0.001006	207.13	222.22	0.6968
	70	0.001016	290.01	305.25	0.9461
	90	0.001029	373.08	388.51	1.1820
	110	0.001044	456.54	472.20	1.4063
	130	0.001061	540.53	556.45	1.6206
	150	0.001081	625.19	641.41	1.8263
	170	0.001104	710.67	727.22	2.0244
	190	0.001129	797.20	814.14	2.2163
	210	0.001159	885.13	902.51	2.4030
	230	0.001193	974.91	992.80	2.5862
	250	0.001233	1067.2	1085.7	2.7672
	270	0.001281	1163.0	1182.2	2.9481
	290	0.001341	1263.7	1283.8	3.1319
	310	0.001421	1372.1	1393.5	3.3231
	330	0.001539	1494.7	1517.8	3.5327

P kPa	T ^{0}C	v m^3/kg	u kJ/kg	h kJ/kg	s kJ/kg.K
20,000	10	0.000991	41.453	61.274	0.1488
	30	0.000996	123.86	143.77	0.4303
	50	0.001003	206.43	226.50	0.6946
	70	0.001014	289.05	309.33	0.9432
	90	0.001026	371.86	392.39	1.1785
	110	0.001041	455.04	475.87	1.4023
	130	0.001058	538.73	559.90	1.6160
	150	0.001078	623.03	644.59	1.8211
	170	0.001100	708.10	730.10	2.0185
	190	0.001125	794.14	816.64	2.2095
	210	0.001154	881.46	904.53	2.3953
	230	0.001187	970.48	994.21	2.5771
	250	0.001225	1061.8	1086.3	2.7565
	270	0.001271	1156.1	1181.5	2.9352
	290	0.001327	1254.7	1281.3	3.1155
	310	0.001399	1359.7	1387.7	3.3011
	330	0.001499	1475.0	1505.0	3.4988
	350	0.001665	1612.1	1645.4	3.7277

Table A2.3: Properties of WATER in Compressed Liquid State (Continued)

P	T	v	u	h	s
kPa	^{0}C	m^3/kg	kJ/kg	kJ/kg	kJ/kg.K
30,000	10	0.000987	41.158	70.757	0.1473
	30	0.000992	122.99	152.73	0.4271
	50	0.000999	205.07	235.05	0.6900
	70	0.001010	287.20	317.49	0.9375
	90	0.001022	369.51	400.16	1.1717
	110	0.001036	452.15	483.24	1.3944
	130	0.001053	535.24	566.83	1.6070
	150	0.001072	618.87	651.03	1.8109
	170	0.001093	703.17	735.96	2.0070
	190	0.001117	788.29	821.81	2.1965
	210	0.001144	874.50	908.83	2.3804
	230	0.001175	962.13	997.39	2.5600
	250	0.001211	1051.6	1088.0	2.7365
	270	0.001253	1143.6	1181.2	2.9113
	290	0.001303	1238.8	1277.9	3.0862
	310	0.001364	1338.6	1379.5	3.2635
	330	0.001443	1444.9	1488.1	3.4466
	350	0.001552	1561.5	1608.1	3.6421
	370	0.001726	1697.8	1749.6	3.8656

P	T	v	u	h	s
kPa	^{0}C	m^3/kg	kJ/kg	kJ/kg	kJ/kg.K
50,000	10	0.000978	40.519	89.428	0.1439
	30	0.000984	121.31	170.48	0.4205
	50	0.000991	202.46	252.03	0.6810
	70	0.001001	283.69	333.76	0.9264
	90	0.001013	365.06	415.73	1.1585
	110	0.001027	446.70	498.06	1.3792
	130	0.001043	528.70	580.85	1.5898
	150	0.001061	611.12	664.16	1.7915
	170	0.001081	694.04	748.07	1.9853
	190	0.001103	777.56	832.70	2.1720
	210	0.001128	861.87	918.25	2.3529
	230	0.001155	947.19	1005.0	2.5287
	250	0.001187	1033.8	1093.2	2.7006
	270	0.001223	1122.1	1183.3	2.8696
	290	0.001264	1212.5	1275.8	3.0368
	310	0.001313	1305.6	1371.3	3.2035
	330	0.001371	1402.2	1470.7	3.3712
	350	0.001442	1503.2	1575.3	3.5417
	370	0.001533	1610.2	1686.9	3.7179

Table A2.4: Properties of Superheated Steam

P kPa	T ^{0}C	v m^3/kg	u kJ/kg	h kJ/kg	s kJ/kg.K
10	(45.82)	(14.674)	(2437.0)	(2583.8)	(8.1482)
	50	14.869	2443.1	2591.8	8.1731
	100	17.196	2515.0	2687.0	8.4471
	150	19.513	2587.4	2782.5	8.6873
	200	21.826	2660.8	2879.0	8.9030
	250	24.136	2735.5	2976.9	9.0995
	300	26.446	2811.7	3076.2	9.2808
	350	28.755	2889.5	3177.0	9.4494
	400	31.063	2968.8	3279.4	9.6075
	450	33.372	3049.7	3383.4	9.7565
	500	35.680	3132.4	3489.2	9.8979
	550	37.988	3216.7	3596.6	10.032
	600	40.296	3302.8	3705.7	10.161
	650	42.604	3390.6	3816.7	10.285
	700	44.912	3480.2	3929.4	10.404
	750	47.220	3571.6	4043.8	10.518
	800	49.527	3664.8	4160.1	10.629
	850	51.835	3759.7	4278.1	10.737

P kPa	T ^{0}C	v m^3/kg	u kJ/kg	h kJ/kg	s kJ/kg.K
50	(81.33)	(3.2408)	(2483.3)	(2645.3)	(7.5928)
	100	3.4188	2511.2	2682.1	7.6941
	150	3.8895	2585.2	2779.7	7.9394
	200	4.3560	2659.4	2877.2	8.1572
	250	4.8205	2734.5	2975.6	8.3548
	300	5.2840	2811.0	3075.2	8.5367
	350	5.7469	2888.9	3176.2	8.7057
	400	6.2094	2968.3	3278.8	8.8640
	450	6.6717	3049.3	3382.9	9.0132
	500	7.1338	3132.0	3488.7	9.1547
	550	7.5958	3216.4	3596.2	9.2894
	600	8.0577	3302.5	3705.4	9.4182
	650	8.5195	3390.4	3816.4	9.5417
	700	8.9813	3480.1	3929.1	9.6606
	750	9.4430	3571.5	4043.6	9.7754
	800	9.9047	3664.7	4159.9	9.8863
	850	10.366	3759.6	4277.9	9.9938

P kPa	T ^{0}C	v m^3/kg	u kJ/kg	h kJ/kg	s kJ/kg.K
100	(99.63)	(1.6943)	(2505.7)	(2675.1)	(7.3589)
	100	1.6961	2506.3	2675.9	7.3609
	150	1.9364	2582.4	2776.1	7.6129
	200	2.1723	2657.6	2874.8	7.8335
	250	2.4061	2733.3	2973.9	8.0325
	300	2.6388	2810.1	3073.9	8.2152
	350	2.8709	2888.2	3175.3	8.3846
	400	3.1027	2967.7	3278.0	8.5432
	450	3.3342	3048.9	3382.3	8.6927
	500	3.5655	3131.6	3488.2	8.8342
	550	3.7968	3216.1	3595.8	8.9690
	600	4.0279	3302.3	3705.0	9.0979
	650	4.2590	3390.2	3816.1	9.2216
	700	4.4900	3479.8	3928.8	9.3405
	750	4.7210	3571.3	4043.4	9.4553
	800	4.9519	3664.5	4159.7	9.5662
	850	5.1828	3759.4	4277.7	9.6738

P kPa	T ^{0}C	v m^3/kg	u kJ/kg	h kJ/kg	s kJ/kg.K
101.33	(100.00)	(1.6737)	(2506.1)	(2675.7)	(7.3545)
	150	1.9108	2582.3	2776.0	7.6066
	200	2.1436	2657.5	2874.8	7.8273
	250	2.3744	2733.3	2973.8	8.0264
	300	2.6041	2810.0	3073.9	8.2090
	350	2.8332	2888.1	3175.2	8.3785
	400	3.0619	2967.7	3278.0	8.5371
	450	3.2904	3048.9	3382.3	8.6865
	500	3.5187	3131.6	3488.2	8.8281
	550	3.7469	3216.1	3595.8	8.9629
	600	3.9750	3302.2	3705.0	9.0918
	650	4.2030	3390.2	3816.1	9.2154
	700	4.4310	3479.8	3928.8	9.3344
	750	4.6590	3571.3	4043.4	9.4492
	800	4.8869	3664.5	4159.7	9.5601
	850	5.1148	3759.4	4277.7	9.6677

Table A2.4: Properties of Superheated Steam (Continued)

P kPa	T ^{0}C	v m^3/kg	u kJ/kg	h kJ/kg	s kJ/kg.K
200	(120.24)	(0.8859)	(2529.4)	(2706.5)	(7.1272)
	150	0.9597	2576.7	2768.6	7.2793
	200	1.0803	2653.9	2870.0	7.5059
	250	1.1988	2730.8	2970.5	7.7078
	300	1.3162	2808.2	3071.4	7.8920
	350	1.4329	2886.7	3173.3	8.0624
	400	1.5493	2966.6	3276.4	8.2216
	450	1.6655	3047.9	3381.0	8.3714
	500	1.7814	3130.8	3487.1	8.5133
	550	1.8973	3215.4	3594.9	8.6483
	600	2.0130	3301.7	3704.3	8.7773
	650	2.1287	3389.7	3815.4	8.9011
	700	2.2443	3479.4	3928.3	9.0201
	750	2.3599	3570.9	4042.9	9.1350
	800	2.4755	3664.1	4159.2	9.2460
	850	2.5910	3759.1	4277.3	9.3536

P kPa	T ^{0}C	v m^3/kg	u kJ/kg	h kJ/kg	s kJ/kg.K
300	(133.56)	(0.6059)	(2543.5)	(2725.3)	(6.9921)
	150	0.6339	2570.7	2760.9	7.0779
	200	0.7163	2650.2	2865.1	7.3108
	250	0.7963	2728.2	2967.1	7.5157
	300	0.8753	2806.3	3068.9	7.7015
	350	0.9536	2885.3	3171.3	7.8729
	400	1.0315	2965.4	3274.9	8.0327
	450	1.1092	3047.0	3379.7	8.1830
	500	1.1867	3130.1	3486.1	8.3252
	550	1.2641	3214.7	3594.0	8.4604
	600	1.3414	3301.1	3703.5	8.5895
	650	1.4186	3389.1	3814.7	8.7134
	700	1.4958	3478.9	3927.7	8.8325
	750	1.5729	3570.5	4042.3	8.9475
	800	1.6500	3663.8	4158.8	9.0585
	850	1.7271	3758.8	4276.9	9.1661

P kPa	T ^{0}C	v m^3/kg	u kJ/kg	h kJ/kg	s kJ/kg.K
400	(143.64)	(0.4625)	(2553.5)	(2738.5)	(6.8961)
	150	0.4708	2564.4	2752.8	6.9300
	200	0.5342	2646.4	2860.1	7.1699
	250	0.5951	2725.6	2963.6	7.3779
	300	0.6548	2804.4	3066.3	7.5654
	350	0.7139	2883.8	3169.4	7.7378
	400	0.7726	2964.3	3273.3	7.8982
	450	0.8311	3046.0	3378.5	8.0489
	500	0.8894	3129.3	3485.0	8.1914
	550	0.9475	3214.1	3593.1	8.3268
	600	1.0056	3300.5	3702.7	8.4561
	650	1.0636	3388.6	3814.1	8.5801
	700	1.1215	3478.5	3927.1	8.6993
	750	1.1794	3570.1	4041.8	8.8143
	800	1.2373	3663.4	4158.3	8.9254
	850	1.2951	3758.4	4276.5	9.0331

P kPa	T ^{0}C	v m^3/kg	u kJ/kg	h kJ/kg	s kJ/kg.K
600	(158.86)	(0.3156)	(2567.3)	(2756.7)	(6.7601)
	200	0.3520	2638.5	2849.7	6.9658
	250	0.3938	2720.3	2956.6	7.1806
	300	0.4344	2800.5	3061.2	7.3716
	350	0.4742	2880.9	3165.4	7.5459
	400	0.5137	2961.9	3270.2	7.7076
	450	0.5529	3044.1	3375.9	7.8591
	500	0.5920	3127.7	3482.9	8.0022
	550	0.6309	3212.7	3591.2	8.1380
	600	0.6697	3299.3	3701.2	8.2676
	650	0.7085	3387.6	3812.7	8.3918
	700	0.7472	3477.6	3925.9	8.5112
	750	0.7859	3569.2	4040.8	8.6264
	800	0.8246	3662.7	4157.4	8.7376
	850	0.8632	3757.8	4275.7	8.8453

Table A2.4: Properties of Superheated Steam (Continued)

P kPa	T ^{0}C	v m^3/kg	u kJ/kg	h kJ/kg	s kJ/kg.K
800	(170.44)	(0.2404)	(2576.6)	(2768.9)	(6.6625)
	200	0.2607	2630.2	2838.8	6.8151
	250	0.2931	2714.8	2949.3	7.0373
	300	0.3241	2796.6	3055.9	7.2319
	350	0.3544	2877.9	3161.4	7.4084
	400	0.3843	2959.6	3267.0	7.5713
	450	0.4139	3042.2	3373.3	7.7237
	500	0.4433	3126.1	3480.7	7.8673
	550	0.4726	3211.3	3589.4	8.0036
	600	0.5018	3298.1	3699.6	8.1335
	650	0.5310	3386.6	3811.4	8.2579
	700	0.5601	3476.7	3924.7	8.3775
	750	0.5892	3568.4	4039.8	8.4928
	800	0.6182	3661.9	4156.5	8.6041
	850	0.6472	3757.1	4274.9	8.7120

P kPa	T ^{0}C	v m^3/kg	u kJ/kg	h kJ/kg	s kJ/kg.K
1000	(179.92)	(0.1944)	(2583.3)	(2781.2)	(6.5529)
	200	0.2059	2621.5	2827.4	6.6932
	250	0.2326	2709.2	2941.9	6.9235
	300	0.2579	2792.7	3050.6	7.1219
	350	0.2825	2874.9	3157.3	7.3005
	400	0.3066	2957.2	3263.8	7.4648
	450	0.3304	3040.3	3370.7	7.6180
	500	0.3541	3124.5	3478.6	7.7622
	550	0.3776	3210.0	3587.6	7.8989
	600	0.4011	3297.0	3698.1	8.0292
	650	0.4245	3385.5	3810.0	8.1538
	700	0.4478	3475.7	3923.6	8.2736
	750	0.4711	3567.6	4038.7	8.3890
	800	0.4944	3661.2	4155.5	8.5005
	850	0.5176	3756.4	4274.0	8.6084

P kPa	T ^{0}C	v m^3/kg	u kJ/kg	h kJ/kg	s kJ/kg.K
1500	(198.33)	(0.1317)	(2593.9)	(2791.5)	(6.4438)
	200	0.1324	2597.5	2796.1	6.4536
	250	0.1519	2694.6	2922.4	6.7077
	300	0.1696	2782.5	3036.9	6.9168
	350	0.1866	2867.2	3147.1	7.1011
	400	0.2030	2951.2	3255.7	7.2687
	450	0.2192	3035.4	3364.2	7.4242
	500	0.2351	3120.4	3473.1	7.5699
	550	0.2510	3206.5	3583.0	7.7076
	600	0.2668	3294.0	3694.2	7.8386
	650	0.2825	3382.9	3806.6	7.9639
	700	0.2981	3473.4	3920.6	8.0841
	750	0.3137	3565.6	4036.1	8.1999
	800	0.3293	3659.3	4153.2	8.3116
	850	0.3448	3754.8	4272.0	8.4198

P kPa	T ^{0}C	v m^3/kg	u kJ/kg	h kJ/kg	s kJ/kg.K
2000	(212.42)	(0.09959)	(2599.5)	(2798.7)	(6.3396)
	250	0.1114	2678.8	2901.6	6.5438
	300	0.1254	2771.8	3022.7	6.7651
	350	0.1386	2859.4	3136.6	6.9556
	400	0.1512	2945.1	3247.5	7.1269
	450	0.1635	3030.5	3357.5	7.2845
	500	0.1757	3116.3	3467.7	7.4318
	550	0.1877	3203.1	3578.4	7.5706
	600	0.1996	3291.0	3690.2	7.7024
	650	0.2114	3380.3	3803.2	7.8283
	700	0.2232	3471.1	3917.6	7.9490
	750	0.2350	3563.5	4033.5	8.0651
	800	0.2467	3657.5	4150.9	8.1771
	850	0.2584	3753.1	4269.9	8.2855

Table A2.4: Properties of Superheated Steam (Continued)

P kPa	T ^{0}C	v m^3/kg	u kJ/kg	h kJ/kg	s kJ/kg.K
2500	(223.99)	(0.07995)	(2602.3)	(2802.2)	(6.2560)
	250	0.08698	2661.7	2879.1	6.4069
	300	0.09888	2760.8	3008.0	6.6424
	350	0.1097	2851.4	3125.8	6.8395
	400	0.1201	2938.9	3239.2	7.0146
	450	0.1301	3025.5	3350.9	7.1746
	500	0.1400	3112.2	3462.2	7.3235
	550	0.1497	3199.6	3573.8	7.4634
	600	0.1593	3288.0	3686.3	7.5960
	650	0.1688	3377.7	3799.8	7.7225
	700	0.1783	3468.8	3914.7	7.8436
	750	0.1878	3561.4	4030.9	7.9601
	800	0.1972	3655.6	4148.6	8.0724
	850	0.2066	3751.4	4267.9	8.1810

P kPa	T ^{0}C	v m^3/kg	u kJ/kg	h kJ/kg	s kJ/kg.K
3000	(233.89)	(0.06666)	(2603.3)	(2803.3)	(6.1855)
	250	0.07056	2643.1	2854.8	6.2857
	300	0.08113	2749.2	2992.6	6.5375
	350	0.09052	2843.2	3114.8	6.7420
	400	0.09935	2932.7	3230.7	6.9210
	450	0.1079	3020.5	3344.1	7.0835
	500	0.1162	3108.1	3456.6	7.2339
	550	0.1244	3196.1	3569.1	7.3750
	600	0.1324	3285.0	3682.3	7.5084
	650	0.1404	3375.1	3796.4	7.6355
	700	0.1484	3466.5	3911.7	7.7571
	750	0.1563	3559.4	4028.3	7.8739
	800	0.1642	3653.8	4146.3	7.9865
	850	0.1720	3749.7	4265.8	8.0954

P kPa	T ^{0}C	v m^3/kg	u kJ/kg	h kJ/kg	s kJ/kg.K
4000	(250.39)	(0.04977)	(2601.5)	(2800.6)	(6.0689)
	300	0.05882	2724.4	2959.7	6.3598
	350	0.06644	2826.1	3091.8	6.5811
	400	0.07340	2919.8	3213.4	6.7688
	450	0.08002	3010.3	3330.4	6.9364
	500	0.08642	3099.7	3445.4	7.0902
	550	0.09268	3189.0	3559.7	7.2335
	600	0.09884	3278.9	3674.3	7.3687
	650	0.1049	3369.8	3789.5	7.4970
	700	0.1110	3461.8	3905.7	7.6195
	750	0.1170	3555.2	4023.0	7.7371
	800	0.1229	3650.0	4141.7	7.8503
	850	0.1288	3746.3	4261.7	7.9596

P kPa	T ^{0}C	v m^3/kg	u kJ/kg	h kJ/kg	s kJ/kg.K
5000	(263.98)	(0.03944)	(2596.5)	(2793.7)	(5.9725)
	300	0.04530	2697.0	2923.5	6.2067
	350	0.05193	2808.0	3067.7	6.4482
	400	0.05781	2906.5	3195.5	6.6456
	450	0.06330	2999.8	3316.3	6.8187
	500	0.06856	3091.1	3433.9	6.9760
	550	0.07367	3181.8	3550.2	7.1218
	600	0.07869	3272.8	3666.2	7.2586
	650	0.08362	3364.5	3782.6	7.3882
	700	0.08850	3457.1	3899.7	7.5117
	750	0.09334	3551.0	4017.7	7.6300
	800	0.09815	3646.3	4137.0	7.7438
	850	0.1029	3742.9	4257.5	7.8536

Table A2.4: Properties of Superheated Steam (Continued)

P kPa	T ^{0}C	v m^3/kg	u kJ/kg	h kJ/kg	s kJ/kg.K
6000	(275.62)	(0.03244)	(2589.3)	(2783.9)	(5.8886)
	300	0.03615	2666.3	2883.2	6.0659
	350	0.04222	2788.9	3042.2	6.3322
	400	0.04739	2892.7	3177.0	6.5404
	450	0.05214	2989.1	3301.9	6.7195
	500	0.05665	3082.4	3422.3	6.8805
	550	0.06100	3174.6	3540.6	7.0287
	600	0.06525	3266.6	3658.1	7.1673
	650	0.06942	3359.1	3775.6	7.2982
	700	0.07353	3452.4	3893.6	7.4227
	750	0.07760	3546.8	4012.4	7.5418
	800	0.08164	3642.5	4132.3	7.6561
	850	0.08565	3739.5	4253.4	7.7664

P kPa	T ^{0}C	v m^3/kg	u kJ/kg	h kJ/kg	s kJ/kg.K
7000	(285.86)	(0.02737)	(2580.2)	(2771.8)	(5.8130)
	300	0.02946	2631.4	2837.6	5.9293
	350	0.03523	2768.5	3015.1	6.2269
	400	0.03993	2878.4	3157.9	6.4474
	450	0.04416	2978.1	3287.3	6.6329
	500	0.04813	3073.6	3410.5	6.7978
	550	0.05194	3167.2	3530.8	6.9486
	600	0.05565	3260.3	3649.8	7.0889
	650	0.05927	3353.6	3768.5	7.2211
	700	0.06284	3447.6	3887.5	7.3466
	750	0.06636	3542.6	4007.1	7.4665
	800	0.06985	3638.7	4127.6	7.5815
	850	0.07331	3736.1	4249.2	7.6922

P kPa	T ^{0}C	v m^3/kg	u kJ/kg	h kJ/kg	s kJ/kg.K
8000	(295.04)	(0.02352)	(2569.6)	(2757.8)	(5.7431)
	300	0.02426	2590.5	2784.6	5.7901
	350	0.02995	2746.7	2986.3	6.1286
	400	0.03431	2863.5	3138.0	6.3630
	450	0.03816	2966.9	3272.2	6.5554
	500	0.04174	3064.6	3398.5	6.7243
	550	0.04515	3159.8	3521.0	6.8778
	600	0.04845	3254.0	3641.5	7.0200
	650	0.05166	3348.1	3761.4	7.1535
	700	0.05482	3442.8	3881.4	7.2800
	750	0.05793	3538.3	4001.7	7.4007
	800	0.06101	3634.9	4122.9	7.5163
	850	0.06406	3732.6	4245.1	7.6275

P kPa	T ^{0}C	v m^3/kg	u kJ/kg	h kJ/kg	s kJ/kg.K
10,000	(311.03)	(0.01803)	(2544.2)	(2724.5)	(5.6139)
	350	0.02242	2698.1	2922.2	5.9425
	400	0.02641	2832.0	3096.1	6.2114
	450	0.02975	2943.6	3241.1	6.4194
	500	0.03278	3046.2	3374.0	6.5971
	550	0.03563	3144.6	3500.9	6.7561
	600	0.03836	3241.1	3624.7	6.9022
	650	0.04101	3337.1	3747.1	7.0385
	700	0.04359	3433.1	3869.0	7.1671
	750	0.04613	3529.7	3991.0	7.2893
	800	0.04863	3627.2	4113.5	7.4062
	850	0.05110	3725.7	4236.7	7.5184

Table A2.4: Properties of Superheated Steam (Continued)

P kPa	T ^{0}C	v m^3/kg	u kJ/kg	h kJ/kg	s kJ/kg.K
15,000	(342.19)	(0.01034)	(2455.0)	(2610.1)	(5.3092)
	350	0.01147	2519.3	2691.3	5.4404
	400	0.01565	2739.9	2974.7	5.8799
	450	0.01845	2879.9	3156.6	6.1410
	500	0.02080	2997.3	3309.3	6.3452
	550	0.02292	3104.9	3448.8	6.5201
	600	0.02490	3207.9	3581.5	6.6767
	650	0.02679	3308.6	3710.5	6.8204
	700	0.02862	3408.3	3837.6	6.9544
	750	0.03039	3507.8	3963.7	7.0808
	800	0.03213	3607.6	4089.6	7.2009
	850	0.03384	3708.1	4215.6	7.3158

P kPa	T ^{0}C	v m^3/kg	u kJ/kg	h kJ/kg	s kJ/kg.K
20,000	(365.80)	(0.005874)	(2296.1)	(2413.6)	(4.9330)
	400	0.009946	2617.9	2816.9	5.5521
	450	0.01270	2806.8	3060.8	5.9026
	500	0.01477	2944.1	3239.4	6.1417
	550	0.01655	3063.0	3393.9	6.3355
	600	0.01817	3173.3	3536.7	6.5039
	650	0.01969	3279.2	3672.9	6.6557
	700	0.02113	3382.8	3805.5	6.7955
	750	0.02253	3485.4	3936.0	6.9263
	800	0.02388	3587.8	4065.4	7.0498
	850	0.02521	3690.3	4194.4	7.1673

P kPa	T ^{0}C	v m^3/kg	u kJ/kg	h kJ/kg	s kJ/kg.K
25,000	500	0.01112	2886.1	3164.2	5.9616
	550	0.01272	3018.6	3336.5	6.1778
	600	0.01413	3137.3	3490.4	6.3593
	650	0.01542	3249.0	3634.5	6.5198
	700	0.01664	3356.8	3773.0	6.6659
	750	0.01781	3462.7	3908.0	6.8012
	800	0.01894	3567.6	4041.1	6.9282
	850	0.02003	3672.3	4173.1	7.0485

P kPa	T ^{0}C	v m^3/kg	u kJ/kg	h kJ/kg	s kJ/kg.K
30,000	500	0.008676	2823.2	3083.5	5.7936
	550	0.01016	2972.0	3276.8	6.0362
	600	0.01143	3100.1	3443.1	6.2324
	650	0.01258	3218.0	3595.5	6.4022
	700	0.01365	3330.4	3740.1	6.5547
	750	0.01467	3439.7	3879.8	6.6948
	800	0.01564	3547.3	4016.7	6.8254
	850	0.01659	3654.2	4151.8	6.9484

P kPa	T ^{0}C	v m^3/kg	u kJ/kg	h kJ/kg	s kJ/kg.K
35,000	600	0.009511	3061.9	3394.7	6.1174
	650	0.01056	3186.5	3556.0	6.2971
	700	0.01152	3303.6	3706.9	6.4563
	750	0.01243	3416.5	3851.6	6.6012
	800	0.01330	3526.9	3992.2	6.7355
	850	0.01413	3636.0	4130.4	6.8614

P kPa	T ^{0}C	v m^3/kg	u kJ/kg	h kJ/kg	s kJ/kg.K
40,000	650	0.009046	3154.5	3516.3	6.2012
	700	0.009930	3276.6	3673.8	6.3673
	750	0.01075	3393.1	3823.3	6.5171
	800	0.01154	3506.4	3967.8	6.6551
	850	0.01229	3617.7	4109.2	6.7838