

Phase Change Substance Property Tables

in

SI Units

for

**ME 201 Section 001
Spring 2012**

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Table C.1aSI Saturation Temperature Table for Steam in SI Units

T C	P_{sat} kPa	v_f m³/kg	v_g m³/kg	v_{fg} m³/kg	h_f kJ/kg	h_g kJ/kg	h_{fg} kJ/kg	u_f kJ/kg	u_g kJ/kg	u_{fg} kJ/kg	s_f kJ/kg K	s_g kJ/kg K	s_{fg} kJ/kg K
0	0.6119	0.000995	205.94	205.93	0.9007	2500.02	2499.12	0.9001	2374.02	2373.12	-0.0013	9.1582	9.1595
2	0.7066	0.000995	179.63	179.63	9.2488	2504.40	2495.15	9.2481	2377.48	2368.24	0.0297	9.1052	9.0755
4	0.8140	0.000996	157.04	157.04	17.5909	2508.60	2491.01	17.5901	2380.76	2363.17	0.0604	9.0531	8.9928
6	0.9357	0.000996	137.59	137.59	25.9279	2512.64	2486.72	25.9269	2383.90	2357.97	0.0908	9.0020	8.9113
8	1.0732	0.000997	120.82	120.82	34.2606	2516.58	2482.31	34.2595	2386.91	2352.66	0.1209	8.9519	8.8309
10	1.2282	0.000997	106.31	106.31	42.5897	2520.42	2477.83	42.5885	2389.84	2347.25	0.1508	8.9026	8.7518
12	1.4026	0.000998	93.74	93.74	50.9160	2524.19	2473.27	50.9146	2392.70	2341.79	0.1804	8.8542	8.6738
14	1.5985	0.000999	82.83	82.83	59.2401	2527.90	2468.66	59.2385	2395.51	2336.27	0.2098	8.8066	8.5969
16	1.8180	0.000999	73.33	73.33	67.5625	2531.58	2464.02	67.5607	2398.27	2330.71	0.2389	8.7599	8.5211
18	2.0635	0.001000	65.04	65.04	75.8837	2535.23	2459.34	75.8817	2401.01	2325.13	0.2678	8.7141	8.4463
20	2.3376	0.001000	57.80	57.80	84.2043	2538.85	2454.65	84.2020	2403.73	2319.53	0.2964	8.6690	8.3725
22	2.6431	0.001001	51.47	51.46	92.5247	2542.46	2449.94	92.5220	2406.43	2313.91	0.3249	8.6247	8.2998
24	2.9830	0.001002	45.90	45.90	100.845	2546.06	2445.21	100.842	2409.12	2308.28	0.3531	8.5811	8.2280
26	3.3604	0.001002	41.02	41.02	109.166	2549.65	2440.48	109.163	2411.81	2302.65	0.3811	8.5384	8.1572
28	3.7789	0.001003	36.72	36.71	117.488	2553.23	2435.74	117.484	2414.49	2297.01	0.4090	8.4963	8.0874
30	4.2420	0.001004	32.92	32.92	125.811	2556.81	2431.00	125.807	2417.17	2291.36	0.4366	8.4550	8.0184
32	4.7536	0.001005	29.57	29.56	134.136	2560.39	2426.25	134.131	2419.84	2285.71	0.4640	8.4143	7.9503
34	5.3181	0.001005	26.60	26.60	142.462	2563.96	2421.50	142.456	2422.52	2280.06	0.4913	8.3744	7.8831
36	5.9398	0.001006	23.96	23.96	150.790	2567.53	2416.74	150.784	2425.19	2274.40	0.5183	8.3351	7.8168
38	6.6235	0.001007	21.62	21.62	159.120	2571.09	2411.97	159.113	2427.86	2268.74	0.5452	8.2964	7.7512
40	7.3743	0.001008	19.54	19.54	167.452	2574.65	2407.20	167.444	2430.52	2263.08	0.5719	8.2584	7.6865
42	8.1975	0.001009	17.69	17.69	175.786	2578.20	2402.41	175.778	2433.18	2257.41	0.5985	8.2210	7.6226
44	9.0987	0.001009	16.04	16.03	184.123	2581.75	2397.63	184.114	2435.84	2251.73	0.6248	8.1843	7.5594
46	10.084	0.001010	14.56	14.56	192.463	2585.29	2392.83	192.452	2438.50	2246.04	0.6510	8.1481	7.4970
48	11.160	0.001011	13.23	13.23	200.805	2588.82	2388.02	200.794	2441.14	2240.35	0.6771	8.1125	7.4354
50	12.333	0.001012	12.05	12.04	209.150	2592.34	2383.19	209.137	2443.78	2234.65	0.7030	8.0775	7.3745
52	13.610	0.001013	10.98	10.98	217.498	2595.86	2378.36	217.484	2446.42	2228.93	0.7287	8.0430	7.3143

T	P_{sat}	v_f	v_g	v_{fg}	h_f	h_g	h_{fg}	u_f	u_g	u_{fg}	s_f	s_g	s_{fg}
C	kPa	m³/kg	m³/kg	m³/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg K	kJ/kg K	kJ/kg K
54	14.999	0.001014	10.02	10.02	225.848	2599.36	2373.51	225.833	2449.04	2223.21	0.7543	8.0091	7.2547
56	16.507	0.001015	9.159	9.158	234.202	2602.85	2368.65	234.185	2451.66	2217.48	0.7798	7.9757	7.1959
58	18.143	0.001016	8.381	8.380	242.558	2606.34	2363.78	242.540	2454.27	2211.73	0.8051	7.9428	7.1377
60	19.916	0.001017	7.679	7.678	250.918	2609.80	2358.89	250.898	2456.87	2205.97	0.8302	7.9104	7.0802
62	21.834	0.001018	7.044	7.043	259.281	2613.26	2353.98	259.259	2459.46	2200.20	0.8552	7.8786	7.0234
64	23.906	0.001019	6.470	6.469	267.647	2616.70	2349.05	267.623	2462.04	2194.41	0.8801	7.8472	6.9671
66	26.144	0.001020	5.949	5.948	276.016	2620.13	2344.11	275.990	2464.61	2188.62	0.9048	7.8163	6.9115
68	28.557	0.001021	5.476	5.475	284.389	2623.54	2339.15	284.360	2467.16	2182.80	0.9294	7.7859	6.8564
70	31.156	0.001023	5.047	5.046	292.765	2626.94	2334.18	292.733	2469.71	2176.97	0.9539	7.7559	6.8020
72	33.952	0.001024	4.656	4.655	301.144	2630.32	2329.18	301.109	2472.24	2171.13	0.9782	7.7263	6.7481
74	36.957	0.001025	4.300	4.299	309.527	2633.69	2324.16	309.489	2474.76	2165.27	1.0024	7.6972	6.6948
76	40.184	0.001026	3.976	3.975	317.913	2637.04	2319.13	317.872	2477.27	2159.40	1.0265	7.6686	6.6421
78	43.645	0.001028	3.680	3.679	326.303	2640.37	2314.07	326.258	2479.76	2153.51	1.0505	7.6403	6.5899
80	47.353	0.001029	3.409	3.408	334.696	2643.69	2308.99	334.648	2482.25	2147.60	1.0743	7.6125	6.5382
82	51.322	0.001030	3.162	3.161	343.093	2646.99	2303.90	343.040	2484.72	2141.68	1.0980	7.5850	6.4870
84	55.567	0.001032	2.935	2.934	351.494	2650.27	2298.78	351.437	2487.17	2135.74	1.1216	7.5579	6.4364
86	60.102	0.001033	2.727	2.726	359.899	2653.53	2293.64	359.837	2489.62	2129.78	1.1450	7.5313	6.3862
88	64.942	0.001034	2.537	2.536	368.308	2656.78	2288.47	368.240	2492.04	2123.80	1.1684	7.5050	6.3366
90	70.104	0.001036	2.361	2.360	376.720	2660.01	2283.29	376.648	2494.46	2117.81	1.1916	7.4790	6.2874
92	75.603	0.001037	2.200	2.199	385.137	2663.21	2278.08	385.059	2496.86	2111.80	1.2147	7.4534	6.2387
94	81.457	0.001039	2.052	2.051	393.558	2666.40	2272.84	393.474	2499.25	2105.77	1.2377	7.4282	6.1905
96	87.683	0.001040	1.915	1.914	401.984	2669.57	2267.58	401.893	2501.62	2099.73	1.2606	7.4033	6.1427
98	94.299	0.001042	1.789	1.788	410.414	2672.72	2262.30	410.316	2503.98	2093.66	1.2833	7.3787	6.0954
100	101.325	0.001043	1.673	1.672	418.849	2675.84	2256.99	418.743	2506.32	2087.57	1.3060	7.3545	6.0485
102	108.778	0.001045	1.566	1.565	427.289	2678.95	2251.66	427.175	2508.64	2081.47	1.3285	7.3306	6.0020
104	116.678	0.001046	1.466	1.465	435.733	2682.03	2246.30	435.611	2510.95	2075.34	1.3510	7.3070	5.9560
106	125.047	0.001048	1.374	1.373	444.183	2685.09	2240.91	444.052	2513.25	2069.19	1.3733	7.2837	5.9103
108	133.905	0.001050	1.289	1.288	452.638	2688.13	2235.49	452.498	2515.52	2063.03	1.3955	7.2606	5.8651
110	143.273	0.001051	1.210	1.209	461.099	2691.14	2230.04	460.948	2517.78	2056.83	1.4177	7.2379	5.8203

T	P_{sat}	v_f	v_g	v_{fg}	h_f	h_g	h_{fg}	u_f	u_g	u_{fg}	s_f	s_g	s_{fg}
C	kPa	m³/kg	m³/kg	m³/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg K	kJ/kg K	kJ/kg K
112	153.173	0.001053	1.137	1.136	469.565	2694.13	2224.57	469.404	2520.03	2050.62	1.4397	7.2155	5.7758
114	163.628	0.001055	1.069	1.068	478.038	2697.10	2219.06	477.865	2522.25	2044.38	1.4616	7.1933	5.7318
116	174.662	0.001057	1.005	1.004	486.516	2700.04	2213.52	486.332	2524.46	2038.12	1.4834	7.1715	5.6880
118	186.297	0.001058	0.946389	0.945331	495.001	2702.95	2207.95	494.804	2526.64	2031.84	1.5051	7.1498	5.6447
120	198.559	0.001060	0.891572	0.890512	503.493	2705.84	2202.35	503.282	2528.81	2025.53	1.5267	7.1285	5.6017
122	211.472	0.001062	0.840500	0.839438	511.991	2708.70	2196.71	511.766	2530.96	2019.19	1.5483	7.1074	5.5591
124	225.062	0.001064	0.792881	0.791817	520.496	2711.53	2191.04	520.257	2533.09	2012.83	1.5697	7.0865	5.5168
126	239.354	0.001066	0.748448	0.747382	529.009	2714.34	2185.33	528.754	2535.19	2006.44	1.5910	7.0659	5.4749
128	254.377	0.001068	0.706958	0.705890	537.530	2717.11	2179.58	537.258	2537.28	2000.02	1.6123	7.0455	5.4332
130	270.156	0.001070	0.668188	0.667118	546.058	2719.86	2173.80	545.769	2539.34	1993.57	1.6334	7.0254	5.3919
132	286.720	0.001072	0.631933	0.630861	554.595	2722.57	2167.98	554.287	2541.38	1987.09	1.6545	7.0054	5.3510
134	304.097	0.001074	0.598007	0.596933	563.140	2725.25	2162.11	562.813	2543.40	1980.59	1.6754	6.9857	5.3103
136	322.317	0.001076	0.566238	0.565162	571.693	2727.90	2156.21	571.347	2545.39	1974.05	1.6963	6.9662	5.2699
138	341.408	0.001078	0.536469	0.535391	580.256	2730.52	2150.26	579.888	2547.36	1967.47	1.7171	6.9469	5.2298
140	361.402	0.001080	0.508556	0.507476	588.828	2733.10	2144.27	588.438	2549.31	1960.87	1.7378	6.9279	5.1900
142	382.328	0.001082	0.482365	0.481283	597.410	2735.65	2138.24	596.996	2551.23	1954.23	1.7585	6.9090	5.1505
144	404.219	0.001084	0.457774	0.456690	606.002	2738.16	2132.16	605.564	2553.12	1947.55	1.7790	6.8903	5.1113
146	427.106	0.001086	0.434672	0.433585	614.604	2740.64	2126.03	614.140	2554.98	1940.84	1.7995	6.8718	5.0723
148	451.022	0.001089	0.412954	0.411865	623.217	2743.07	2119.86	622.726	2556.82	1934.10	1.8199	6.8535	5.0336
150	476.000	0.001091	0.392524	0.391433	631.841	2745.47	2113.63	631.322	2558.63	1927.31	1.8402	6.8353	4.9952
152	502.073	0.001093	0.373295	0.372202	640.477	2747.84	2107.36	639.928	2560.41	1920.49	1.8604	6.8174	4.9570
154	529.277	0.001095	0.355186	0.354090	649.124	2750.16	2101.04	648.544	2562.17	1913.62	1.8806	6.7996	4.9190
156	557.644	0.001098	0.338120	0.337023	657.783	2752.44	2094.66	657.170	2563.89	1906.72	1.9006	6.7819	4.8813
158	587.212	0.001100	0.322029	0.320930	666.454	2754.68	2088.23	665.808	2565.58	1899.77	1.9206	6.7645	4.8438
160	618.016	0.001102	0.306849	0.305747	675.138	2756.88	2081.74	674.457	2567.24	1892.79	1.9406	6.7472	4.8066
162	650.092	0.001105	0.292519	0.291414	683.836	2759.04	2075.20	683.117	2568.87	1885.75	1.9604	6.7300	4.7696
164	683.477	0.001107	0.278985	0.277878	692.546	2761.15	2068.60	691.790	2570.47	1878.68	1.9802	6.7130	4.7328
166	718.210	0.001110	0.266195	0.265085	701.271	2763.22	2061.95	700.474	2572.03	1871.56	2.0000	6.6961	4.6962
168	754.328	0.001112	0.254102	0.252990	710.010	2765.24	2055.23	709.171	2573.56	1864.39	2.0196	6.6794	4.6598

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C	kPa	m³/kg	m³/kg	m³/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg K	kJ/kg K	kJ/kg K
170	791.870	0.001115	0.242662	0.241547	718.764	2767.22	2048.45	717.881	2575.06	1857.18	2.0392	6.6628	4.6236
172	830.875	0.001117	0.231834	0.230717	727.532	2769.15	2041.62	726.604	2576.52	1849.92	2.0588	6.6464	4.5876
174	871.384	0.001120	0.221580	0.220461	736.316	2771.03	2034.71	735.340	2577.95	1842.61	2.0782	6.6301	4.5518
176	913.436	0.001122	0.211865	0.210743	745.116	2772.87	2027.75	744.091	2579.34	1835.25	2.0976	6.6139	4.5162
178	957.072	0.001125	0.202656	0.201531	753.931	2774.65	2020.72	752.855	2580.69	1827.84	2.1170	6.5978	4.4808
180	1002.34	0.001128	0.193922	0.192794	762.764	2776.39	2013.62	761.634	2582.01	1820.38	2.1363	6.5818	4.4456
182	1049.27	0.001130	0.185635	0.184504	771.613	2778.07	2006.46	770.427	2583.29	1812.87	2.1555	6.5660	4.4105
184	1097.91	0.001133	0.177767	0.176634	780.480	2779.71	1999.23	779.236	2584.54	1805.30	2.1747	6.5502	4.3756
186	1148.30	0.001136	0.170295	0.169159	789.364	2781.29	1991.93	788.060	2585.74	1797.68	2.1938	6.5346	4.3408
188	1200.50	0.001139	0.163195	0.162057	798.266	2782.82	1984.56	796.899	2586.91	1790.01	2.2129	6.5191	4.3062
190	1254.53	0.001141	0.156446	0.155304	807.187	2784.30	1977.11	805.755	2588.03	1782.28	2.2319	6.5037	4.2718
192	1310.45	0.001144	0.150027	0.148882	816.127	2785.72	1969.60	814.627	2589.12	1774.49	2.2508	6.4883	4.2375
194	1368.30	0.001147	0.143919	0.142772	825.086	2787.09	1962.01	823.516	2590.17	1766.65	2.2697	6.4731	4.2033
196	1428.14	0.001150	0.138105	0.136955	834.064	2788.41	1954.34	832.422	2591.18	1758.75	2.2886	6.4579	4.1693
198	1489.99	0.001153	0.132568	0.131415	843.063	2789.67	1946.61	841.345	2592.14	1750.80	2.3074	6.4428	4.1354
200	1553.92	0.001156	0.127293	0.126137	852.082	2790.87	1938.79	850.286	2593.07	1742.78	2.3262	6.4279	4.1017
202	1619.96	0.001159	0.122266	0.121106	861.123	2792.02	1930.89	859.244	2593.95	1734.71	2.3449	6.4129	4.0681
204	1688.17	0.001163	0.117472	0.116309	870.184	2793.11	1922.92	868.222	2594.79	1726.57	2.3635	6.3981	4.0346
206	1758.60	0.001166	0.112899	0.111733	879.268	2794.14	1914.87	877.217	2595.59	1718.38	2.3822	6.3833	4.0012
208	1831.29	0.001169	0.108535	0.107366	888.373	2795.11	1906.74	886.232	2596.35	1710.12	2.4007	6.3686	3.9679
210	1906.30	0.001172	0.104369	0.103196	897.501	2796.02	1898.52	895.267	2597.06	1701.80	2.4193	6.3540	3.9347
212	1983.67	0.001176	0.100390	0.099214	906.653	2796.88	1890.22	904.321	2597.74	1693.41	2.4377	6.3394	3.9017
214	2063.46	0.001179	0.096588	0.095409	915.828	2797.67	1881.84	913.395	2598.36	1684.97	2.4562	6.3249	3.8687
216	2145.71	0.001182	0.092955	0.091773	925.026	2798.40	1873.38	922.489	2598.95	1676.46	2.4746	6.3104	3.8358
218	2230.49	0.001186	0.089481	0.088295	934.250	2799.07	1864.82	931.605	2599.49	1667.88	2.4929	6.2960	3.8031
220	2317.83	0.001189	0.086158	0.084969	943.498	2799.68	1856.19	940.741	2599.98	1659.24	2.5113	6.2817	3.7704
222	2407.80	0.001193	0.082979	0.081785	952.772	2800.23	1847.46	949.899	2600.44	1650.54	2.5295	6.2673	3.7378
224	2500.45	0.001197	0.079935	0.078738	962.071	2800.72	1838.65	959.079	2600.84	1641.77	2.5478	6.2530	3.7053
226	2595.84	0.001200	0.077021	0.075820	971.397	2801.14	1829.74	968.281	2601.21	1632.93	2.5660	6.2388	3.6728

T C	P_{sat} kPa	v_f m³/kg	v_g m³/kg	v_{fg} m³/kg	h_f kJ/kg	h_g kJ/kg	h_{fg} kJ/kg	u_f kJ/kg	u_g kJ/kg	u_{fg} kJ/kg	s_f kJ/kg K	s_g kJ/kg K	s_{fg} kJ/kg K
228	2694.01	0.001204	0.074229	0.073025	980.750	2801.50	1820.75	977.506	2601.53	1624.02	2.5841	6.2246	3.6404
230	2795.02	0.001208	0.071555	0.070346	990.131	2801.80	1811.67	986.754	2601.80	1615.05	2.6023	6.2104	3.6081
232	2898.94	0.001212	0.068991	0.067779	999.539	2802.03	1802.49	996.025	2602.03	1606.00	2.6204	6.1963	3.5759
234	3005.81	0.001216	0.066532	0.065316	1008.98	2802.19	1793.22	1005.32	2602.21	1596.89	2.6384	6.1821	3.5437
236	3115.69	0.001220	0.064174	0.062954	1018.44	2802.30	1783.85	1014.64	2602.35	1587.71	2.6564	6.1680	3.5116
238	3228.65	0.001224	0.061911	0.060687	1027.94	2802.33	1774.39	1023.99	2602.44	1578.46	2.6744	6.1539	3.4795
240	3344.74	0.001228	0.059739	0.058511	1037.46	2802.30	1764.84	1033.36	2602.49	1569.13	2.6923	6.1398	3.4475
242	3464.02	0.001233	0.057654	0.056421	1047.02	2802.21	1755.19	1042.75	2602.49	1559.74	2.7102	6.1258	3.4155
244	3586.55	0.001237	0.055651	0.054414	1056.61	2802.05	1745.43	1052.17	2602.45	1550.28	2.7281	6.1117	3.3836
246	3712.39	0.001242	0.053727	0.052486	1066.23	2801.82	1735.58	1061.62	2602.36	1540.74	2.7460	6.0977	3.3517
248	3841.61	0.001246	0.051878	0.050632	1075.89	2801.52	1725.63	1071.10	2602.23	1531.13	2.7638	6.0836	3.3199
250	3974.26	0.001251	0.050100	0.048850	1085.58	2801.16	1715.58	1080.60	2602.05	1521.44	2.7815	6.0696	3.2880
252	4110.40	0.001256	0.048391	0.047135	1095.30	2800.73	1705.43	1090.14	2601.82	1511.68	2.7993	6.0555	3.2562
254	4250.11	0.001260	0.046747	0.045486	1105.06	2800.23	1695.17	1099.70	2601.55	1501.85	2.8170	6.0414	3.2245
256	4393.44	0.001265	0.045164	0.043899	1114.85	2799.66	1684.81	1109.29	2601.23	1491.94	2.8346	6.0273	3.1927
258	4540.47	0.001270	0.043641	0.042371	1124.69	2799.02	1674.34	1118.92	2600.87	1481.95	2.8523	6.0132	3.1610
260	4691.25	0.001275	0.042175	0.040900	1134.56	2798.32	1663.76	1128.57	2600.46	1471.89	2.8699	5.9991	3.1293
262	4845.85	0.001281	0.040763	0.039483	1144.47	2797.54	1653.08	1138.26	2600.01	1461.75	2.8874	5.9850	3.0976
264	5004.33	0.001286	0.039403	0.038117	1154.42	2796.70	1642.28	1147.98	2599.51	1451.53	2.9050	5.9708	3.0659
266	5166.78	0.001291	0.038093	0.036801	1164.41	2795.79	1631.38	1157.74	2598.97	1441.23	2.9225	5.9566	3.0342
268	5333.25	0.001297	0.036829	0.035532	1174.44	2794.80	1620.36	1167.53	2598.38	1430.86	2.9399	5.9424	3.0025
270	5503.82	0.001303	0.035612	0.034309	1184.52	2793.75	1609.23	1177.35	2597.75	1420.40	2.9574	5.9282	2.9708
272	5678.56	0.001309	0.034437	0.033129	1194.64	2792.62	1597.98	1187.21	2597.07	1409.86	2.9748	5.9139	2.9391
274	5857.53	0.001315	0.033304	0.031990	1204.81	2791.43	1586.62	1197.11	2596.35	1399.23	2.9921	5.8995	2.9074
276	6040.80	0.001321	0.032211	0.030891	1215.03	2790.16	1575.13	1207.05	2595.58	1388.53	3.0094	5.8852	2.8757
278	6228.47	0.001327	0.031157	0.029830	1225.29	2788.82	1563.53	1217.03	2594.76	1377.73	3.0267	5.8707	2.8440
280	6420.58	0.001333	0.030138	0.028805	1235.61	2787.41	1551.80	1227.05	2593.91	1366.86	3.0440	5.8562	2.8123
282	6617.23	0.001340	0.029155	0.027816	1245.98	2785.93	1539.95	1237.12	2593.01	1355.89	3.0612	5.8417	2.7805
284	6818.48	0.001346	0.028206	0.026859	1256.40	2784.38	1527.98	1247.22	2592.06	1344.84	3.0784	5.8271	2.7488

T	P_{sat}	v_f	v_g	v_{fg}	h_f	h_g	h_{fg}	u_f	u_g	u_{fg}	s_f	s_g	s_{fg}
C	kPa	m³/kg	m³/kg	m³/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg K	kJ/kg K	kJ/kg K
286	7024.42	0.001353	0.027288	0.025935	1266.88	2782.75	1515.87	1257.38	2591.07	1333.69	3.0955	5.8125	2.7170
288	7235.11	0.001360	0.026402	0.025042	1277.42	2781.06	1503.64	1267.58	2590.03	1322.46	3.1126	5.7977	2.6852
290	7450.65	0.001367	0.025545	0.024178	1288.01	2779.29	1491.27	1277.83	2588.96	1311.13	3.1296	5.7830	2.6533
292	7671.10	0.001374	0.024717	0.023343	1298.67	2777.44	1478.77	1288.13	2587.83	1299.71	3.1466	5.7681	2.6215
294	7896.54	0.001382	0.023917	0.022535	1309.39	2775.53	1466.14	1298.48	2586.67	1288.19	3.1635	5.7532	2.5896
296	8127.07	0.001389	0.023142	0.021753	1320.18	2773.54	1453.36	1308.89	2585.46	1276.57	3.1804	5.7382	2.5578
298	8362.76	0.001397	0.022393	0.020996	1331.03	2771.47	1440.44	1319.35	2584.20	1264.85	3.1972	5.7231	2.5259
300	8603.69	0.001405	0.021669	0.020263	1341.96	2769.34	1427.38	1329.87	2582.91	1253.04	3.2139	5.7079	2.4940
302	8849.96	0.001413	0.020967	0.019554	1352.96	2767.13	1414.16	1340.45	2581.57	1241.11	3.2306	5.6927	2.4621
304	9101.63	0.001421	0.020288	0.018867	1364.04	2764.84	1400.80	1351.10	2580.18	1229.08	3.2472	5.6773	2.4302
306	9358.81	0.001430	0.019631	0.018201	1375.19	2762.48	1387.29	1361.81	2578.76	1216.95	3.2636	5.6619	2.3982
308	9621.58	0.001439	0.018995	0.017556	1386.43	2760.05	1373.62	1372.59	2577.29	1204.70	3.2800	5.6463	2.3664
310	9890.03	0.001448	0.018379	0.016931	1397.76	2757.54	1359.78	1383.44	2575.77	1192.34	3.2962	5.6307	2.3345
312	10164.24	0.001457	0.017782	0.016325	1409.17	2754.96	1345.79	1394.36	2574.22	1179.86	3.3123	5.6150	2.3027
314	10444.32	0.001466	0.017203	0.015737	1420.68	2752.30	1331.62	1405.36	2572.62	1167.26	3.3282	5.5991	2.2709
316	10730.34	0.001476	0.016643	0.015167	1432.28	2749.56	1317.28	1416.44	2570.98	1154.54	3.3439	5.5832	2.2393
318	11022.41	0.001486	0.016100	0.014614	1443.98	2746.75	1302.77	1427.61	2569.30	1141.69	3.3594	5.5671	2.2077
320	11320.63	0.001496	0.015573	0.014078	1455.79	2743.87	1288.08	1438.86	2567.57	1128.71	3.3746	5.5510	2.1764
322	11625.08	0.001506	0.015063	0.013557	1467.71	2740.91	1273.20	1450.20	2565.80	1115.60	3.3895	5.5347	2.1452
324	11935.86	0.001517	0.014568	0.013052	1479.74	2737.87	1258.13	1461.64	2563.99	1102.35	3.4041	5.5183	2.1142
326	12253.07	0.001527	0.014088	0.012561	1491.88	2734.76	1242.87	1473.17	2562.13	1088.96	3.4182	5.5018	2.0836
328	12576.82	0.001538	0.013623	0.012084	1504.15	2731.57	1227.41	1484.81	2560.24	1075.43	3.4318	5.4851	2.0533
330	12907.21	0.001550	0.013171	0.011622	1516.55	2728.30	1211.75	1496.55	2558.29	1061.74	3.4448	5.4684	2.0235
332	13244.33	0.001561	0.012733	0.011172	1529.09	2724.96	1195.87	1508.41	2556.31	1047.90	3.4571	5.4515	1.9944
334	13588.29	0.001573	0.012308	0.010735	1541.76	2721.54	1179.78	1520.38	2554.28	1033.90	3.4685	5.4344	1.9659
336	13939.20	0.001585	0.011896	0.010311	1554.57	2718.04	1163.46	1532.48	2552.21	1019.74	3.4788	5.4173	1.9384
338	14297.16	0.001598	0.011496	0.009898	1567.54	2714.46	1146.92	1544.70	2550.10	1005.40	3.4879	5.4000	1.9121
340	14662.29	0.001611	0.011108	0.009497	1580.67	2710.81	1130.14	1557.05	2547.94	990.89	3.4953	5.3825	1.8872
342	15034.68	0.001624	0.010731	0.009107	1593.96	2707.08	1113.11	1569.55	2545.74	976.19	3.5009	5.3649	1.8641

T	P_{sat}	v_f	v_g	v_{fg}	h_f	h_g	h_{fg}	u_f	u_g	u_{fg}	s_f	s_g	s_{fg}
C	kPa	m³/kg	m³/kg	m³/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg	kJ/kg K	kJ/kg K	kJ/kg K
344	15414.47	0.001637	0.010365	0.008728	1607.42	2703.26	1095.84	1582.19	2543.50	961.31	3.5040	5.3472	1.8433
346	15801.74	0.001651	0.010009	0.008359	1621.07	2699.38	1078.31	1594.98	2541.21	946.23	3.5040	5.3294	1.8254
348	16196.63	0.001665	0.009664	0.008000	1634.90	2695.41	1060.51	1607.93	2538.88	930.94	3.5002	5.3114	1.8111
350	16599.25	0.001679	0.009330	0.007650	1648.92	2691.36	1042.44	1621.05	2536.50	915.45	3.4915	5.2932	1.8017
352	17009.71	0.001694	0.009004	0.007311	1663.15	2687.24	1024.08	1634.34	2534.07	899.73	3.4764	5.2749	1.7985
354	17428.13	0.001709	0.008689	0.006980	1677.60	2683.03	1005.43	1647.81	2531.60	883.79	3.4528	5.2565	1.8036
356	17854.64	0.001724	0.008382	0.006658	1692.26	2678.75	986.48	1661.47	2529.09	867.61	3.4179	5.2378	1.8199
358	18289.36	0.001740	0.008084	0.006344	1707.16	2674.38	967.22	1675.33	2526.52	851.19	3.3676	5.2191	1.8515
360	18732.41	0.001756	0.007795	0.006039	1722.30	2669.94	947.64	1689.40	2523.91	834.51	3.2954	5.2002	1.9047
362	19183.91	0.001773	0.007514	0.005741	1737.69	2665.41	927.72	1703.68	2521.26	817.57	3.1918	5.1811	1.9893
364	19644.00	0.001790	0.007242	0.005452	1753.35	2660.81	907.45	1718.19	2518.55	800.36	3.0409	5.1619	2.1210
366	20112.81	0.001807	0.006977	0.005170	1769.28	2656.12	886.84	1732.93	2515.79	782.86	2.8150	5.1425	2.3276
368	20590.46	0.001825	0.006720	0.004895	1785.50	2651.35	865.85	1747.93	2512.99	765.06	2.4610	5.1230	2.6620
370	21077.08	0.001843	0.006470	0.004627	1802.03	2646.50	844.48	1763.17	2510.13	746.95	1.8582	5.1033	3.2451
372	21572.82	0.001862	0.006228	0.004366	1818.86	2641.57	822.71	1778.69	2507.22	728.53	0.5970	5.0835	4.4864
374	22077.81	0.001881	0.005993	0.004111	1836.02	2636.56	800.54	1794.49	2504.26	709.77	-19.7443	5.0635	24.8077

Table C.1bSI Saturation Pressure Table for Steam in SI Units

P kPa	T °C	v_f m ³ /kg	v_g m ³ /kg	v_{fg} m ³ /kg	h_f kJ/kg	h_g kJ/kg	h_{fg} kJ/kg	u_f kJ/kg	u_g kJ/kg	u_{fg} kJ/kg	S_f kJ/(kg K)	S_g kJ/(kg K)	S_{fg} kJ/(kg K)
1	6.99	0.000997	128.97	128.97	29.40	2514.61	2485.21	29.40	2385.64	2356.24	0.1058	8.9770	8.8713
2	17.50	0.001000	67.00	67.00	73.42	2534.32	2460.90	73.42	2400.31	2326.89	0.2606	8.7254	8.4648
3	24.09	0.001002	45.66	45.66	100.97	2546.23	2445.26	100.97	2409.25	2308.28	0.3544	8.5791	8.2247
4	28.98	0.001003	34.79	34.79	121.38	2554.99	2433.61	121.38	2415.82	2294.44	0.4225	8.4759	8.0534
5	32.90	0.001005	28.19	28.18	137.74	2561.99	2424.25	137.73	2421.06	2283.33	0.4763	8.3963	7.9200
6	36.19	0.001006	23.73	23.73	151.46	2567.86	2416.40	151.45	2425.46	2274.00	0.5208	8.3314	7.8106
7	39.03	0.001007	20.52	20.52	163.32	2572.92	2409.60	163.32	2429.25	2265.93	0.5590	8.2768	7.7178
8	41.54	0.001008	18.10	18.10	173.80	2577.38	2403.58	173.79	2432.59	2258.79	0.5924	8.2296	7.6372
9	43.79	0.001009	16.20	16.20	183.21	2581.38	2398.17	183.20	2435.58	2252.38	0.6221	8.1881	7.5660
10	45.84	0.001010	14.67	14.67	191.75	2585.00	2393.25	191.74	2438.29	2246.55	0.6489	8.1510	7.5021
15	54.00	0.001014	10.02	10.02	225.85	2599.36	2373.51	225.84	2449.04	2223.20	0.7543	8.0091	7.2547
20	60.09	0.001017	7.65	7.65	251.31	2609.96	2358.65	251.29	2456.97	2205.68	0.8313	7.9090	7.0777
25	64.99	0.001020	6.20	6.20	271.83	2618.41	2346.58	271.80	2463.30	2191.49	0.8924	7.8318	6.9394
30	69.13	0.001022	5.23	5.23	289.13	2625.46	2336.33	289.10	2468.58	2179.48	0.9432	7.7689	6.8257
35	72.71	0.001024	4.53	4.52	304.15	2631.52	2327.37	304.11	2473.12	2169.01	0.9869	7.7159	6.7291
40	75.89	0.001026	3.99	3.99	317.46	2636.85	2319.39	317.42	2477.11	2159.69	1.0252	7.6702	6.6450
45	78.74	0.001028	3.58	3.58	329.45	2641.61	2312.16	329.40	2480.68	2151.27	1.0594	7.6299	6.5705
50	81.35	0.001030	3.24	3.24	340.37	2645.91	2305.54	340.32	2483.90	2143.58	1.0903	7.5939	6.5036
55	83.74	0.001031	2.96	2.96	350.42	2649.84	2299.43	350.36	2486.84	2136.48	1.1185	7.5615	6.4429
60	85.96	0.001033	2.73	2.73	359.73	2653.46	2293.73	359.67	2489.55	2129.89	1.1446	7.5319	6.3873
65	88.02	0.001034	2.53	2.53	368.42	2656.82	2288.40	368.35	2492.07	2123.72	1.1687	7.5047	6.3360
70	89.96	0.001036	2.36	2.36	376.57	2659.94	2283.38	376.49	2494.41	2117.92	1.1912	7.4795	6.2883
75	91.79	0.001037	2.22	2.22	384.25	2662.87	2278.62	384.17	2496.61	2112.43	1.2123	7.4561	6.2438
80	93.51	0.001038	2.09	2.09	391.52	2665.63	2274.11	391.44	2498.67	2107.23	1.2322	7.4343	6.2021
85	95.15	0.001040	1.97	1.97	398.43	2668.23	2269.81	398.34	2500.62	2102.28	1.2510	7.4138	6.1628
90	96.72	0.001041	1.87	1.87	405.00	2670.70	2265.69	404.91	2502.47	2097.56	1.2688	7.3945	6.1256
95	98.21	0.001042	1.78	1.78	411.29	2673.04	2261.75	411.19	2504.23	2093.04	1.2858	7.3762	6.0904

P kPa	T °C	v_f m ³ /kg	v_g m ³ /kg	v_{fg} m ³ /kg	h_f kJ/kg	h_g kJ/kg	h_{fg} kJ/kg	u_f kJ/kg	u_g kJ/kg	u_{fg} kJ/kg	s_f kJ/(kg K)	s_g kJ/(kg K)	s_{fg} kJ/(kg K)
100	99.63	0.001043	1.69	1.69	417.31	2675.27	2257.96	417.20	2505.90	2088.70	1.3020	7.3589	6.0569
125	105.99	0.001048	1.37	1.37	444.14	2685.08	2240.93	444.01	2513.25	2069.24	1.3734	7.2838	5.9104
150	111.37	0.001053	1.16	1.16	466.91	2693.20	2226.29	466.75	2519.34	2052.59	1.4330	7.2225	5.7895
175	116.06	0.001057	1.00	1.00	486.78	2700.13	2213.35	486.59	2524.54	2037.95	1.4843	7.1708	5.6865
200	120.23	0.001061	0.8855	0.8844	504.47	2706.17	2201.70	504.26	2529.07	2024.82	1.5295	7.1260	5.5966
225	123.99	0.001064	0.7930	0.7920	520.46	2711.52	2191.06	520.22	2533.09	2012.86	1.5699	7.0866	5.5167
250	127.43	0.001067	0.7185	0.7175	535.09	2716.32	2181.23	534.83	2536.69	2001.86	1.6065	7.0513	5.4448
275	130.60	0.001070	0.6571	0.6561	548.60	2720.67	2172.07	548.30	2539.95	1991.65	1.6400	7.0194	5.3794
300	133.54	0.001073	0.6057	0.6046	561.16	2724.63	2163.47	560.84	2542.93	1982.09	1.6710	6.9903	5.3193
325	136.29	0.001076	0.5619	0.5608	572.92	2728.28	2155.36	572.57	2545.67	1973.10	1.6997	6.9635	5.2637
350	138.87	0.001079	0.5241	0.5230	583.98	2731.64	2147.66	583.61	2548.20	1964.59	1.7266	6.9386	5.2120
375	141.31	0.001081	0.4913	0.4902	594.44	2734.77	2140.33	594.04	2550.55	1956.51	1.7518	6.9155	5.1637
400	143.62	0.001084	0.4624	0.4613	604.37	2737.68	2133.31	603.93	2552.74	1948.80	1.7756	6.8938	5.1182
425	145.81	0.001086	0.4368	0.4357	613.82	2740.41	2126.59	613.36	2554.79	1941.43	1.7982	6.8735	5.0753
450	147.91	0.001088	0.4139	0.4128	622.85	2742.97	2120.12	622.36	2556.71	1934.36	1.8196	6.8543	5.0347
475	149.91	0.001091	0.3934	0.3923	631.49	2745.37	2113.88	630.97	2558.52	1927.55	1.8400	6.8361	4.9961
500	151.84	0.001093	0.3748	0.3737	639.79	2747.64	2107.86	639.24	2560.23	1920.99	1.8595	6.8188	4.9594
525	153.68	0.001095	0.3580	0.3569	647.77	2749.79	2102.02	647.19	2561.85	1914.65	1.8781	6.8024	4.9243
550	155.46	0.001097	0.3426	0.3415	655.46	2751.83	2096.37	654.86	2563.38	1908.52	1.8960	6.7867	4.8907
575	157.17	0.001099	0.3286	0.3275	662.89	2753.76	2090.87	662.26	2564.83	1902.58	1.9132	6.7717	4.8585
600	158.83	0.001101	0.3156	0.3145	670.07	2755.60	2085.52	669.41	2566.22	1896.80	1.9298	6.7573	4.8275
625	160.43	0.001103	0.3037	0.3026	677.03	2757.35	2080.32	676.34	2567.54	1891.19	1.9458	6.7435	4.7977
650	161.98	0.001105	0.2927	0.2915	683.78	2759.02	2075.24	683.06	2568.79	1885.73	1.9612	6.7302	4.7690
675	163.49	0.001106	0.2824	0.2813	690.33	2760.61	2070.28	689.58	2569.99	1880.41	1.9762	6.7174	4.7412
700	164.95	0.001108	0.2728	0.2717	696.70	2762.13	2065.43	695.92	2571.14	1875.22	1.9906	6.7050	4.7144
725	166.37	0.001110	0.2639	0.2628	702.90	2763.59	2060.69	702.09	2572.24	1870.15	2.0047	6.6931	4.6884
750	167.75	0.001112	0.2556	0.2545	708.93	2764.99	2056.05	708.10	2573.29	1865.19	2.0183	6.6815	4.6632
775	169.09	0.001113	0.2478	0.2467	714.82	2766.33	2051.51	713.96	2574.30	1860.35	2.0315	6.6703	4.6388
800	170.40	0.001115	0.2404	0.2393	720.57	2767.61	2047.05	719.67	2575.27	1855.60	2.0444	6.6595	4.6151

P kPa	T °C	v_f m ³ /kg	v_g m ³ /kg	v_{fg} m ³ /kg	h_f kJ/kg	h_g kJ/kg	h_{fg} kJ/kg	u_f kJ/kg	u_g kJ/kg	u_{fg} kJ/kg	s_f kJ/(kg K)	s_g kJ/(kg K)	s_{fg} kJ/(kg K)
825	171.68	0.001117	0.2335	0.2324	726.18	2768.85	2042.67	725.25	2576.20	1850.95	2.0570	6.6490	4.5920
850	172.93	0.001118	0.2270	0.2259	731.66	2770.03	2038.37	730.71	2577.10	1846.39	2.0692	6.6388	4.5696
875	174.15	0.001120	0.2208	0.2197	737.02	2771.17	2034.15	736.04	2577.96	1841.92	2.0811	6.6288	4.5477
900	175.35	0.001121	0.2150	0.2139	742.27	2772.27	2030.00	741.26	2578.79	1837.53	2.0927	6.6191	4.5264
925	176.51	0.001123	0.2094	0.2083	747.41	2773.33	2025.92	746.37	2579.59	1833.22	2.1041	6.6097	4.5056
950	177.66	0.001124	0.2042	0.2031	752.45	2774.35	2021.90	751.38	2580.36	1828.98	2.1152	6.6005	4.4853
975	178.78	0.001126	0.1992	0.1981	757.39	2775.33	2017.95	756.29	2581.10	1824.82	2.1261	6.5916	4.4655
1000	179.87	0.001127	0.1945	0.1933	762.23	2776.28	2014.05	761.10	2581.82	1820.72	2.1367	6.5828	4.4462
1250	189.80	0.001141	0.1571	0.1560	806.32	2784.16	1977.84	804.89	2587.79	1782.90	2.2321	6.5052	4.2730
1500	198.28	0.001154	0.1318	0.1307	844.32	2789.84	1945.52	842.59	2592.12	1749.53	2.3127	6.4407	4.1280
1750	205.72	0.001165	0.1135	0.1124	877.95	2793.99	1916.04	875.91	2595.31	1719.40	2.3828	6.3854	4.0026
2000	212.37	0.001176	0.099676	0.098500	908.29	2797.03	1888.74	905.94	2597.67	1691.74	2.4450	6.3367	3.8917
2250	218.40	0.001187	0.088799	0.087612	936.04	2799.20	1863.16	933.37	2599.41	1666.04	2.5012	6.2931	3.7920
2500	223.94	0.001197	0.080025	0.078828	961.70	2800.70	1839.01	958.71	2600.64	1641.94	2.5524	6.2535	3.7010
2750	229.06	0.001206	0.072792	0.071586	985.63	2801.67	1816.03	982.31	2601.49	1619.17	2.5997	6.2170	3.6173
3000	233.84	0.001216	0.066724	0.065508	1008.11	2802.18	1794.07	1004.47	2602.01	1597.55	2.6437	6.1832	3.5396
3250	238.32	0.001225	0.061557	0.060332	1029.35	2802.33	1772.98	1025.37	2602.27	1576.90	2.6848	6.1517	3.4669
3500	242.54	0.001234	0.057103	0.055869	1049.52	2802.17	1752.65	1045.20	2602.31	1557.11	2.7234	6.1220	3.3985
3750	246.54	0.001243	0.053222	0.051979	1068.75	2801.74	1732.99	1064.09	2602.16	1538.07	2.7600	6.0939	3.3339
4000	250.34	0.001252	0.049808	0.048557	1087.16	2801.09	1713.93	1082.15	2601.86	1519.71	2.7947	6.0672	3.2725
4250	253.96	0.001260	0.046782	0.045522	1104.83	2800.24	1695.41	1099.48	2601.41	1501.94	2.8277	6.0417	3.2140
4500	257.42	0.001269	0.044080	0.042811	1121.85	2799.22	1677.37	1116.14	2600.86	1484.71	2.8593	6.0174	3.1581
4750	260.73	0.001277	0.041652	0.040375	1138.28	2798.04	1659.76	1132.21	2600.19	1467.98	2.8895	5.9940	3.1044
5000	263.92	0.001286	0.039458	0.038173	1154.18	2796.74	1642.55	1147.75	2599.44	1451.69	2.9186	5.9714	3.0528
5250	266.98	0.001294	0.037466	0.036171	1169.60	2795.31	1625.71	1162.81	2598.62	1435.81	2.9466	5.9497	3.0031
5500	269.94	0.001303	0.035648	0.034345	1184.58	2793.78	1609.20	1177.41	2597.72	1420.30	2.9736	5.9286	2.9550
5750	272.80	0.001311	0.033982	0.032671	1199.16	2792.16	1593.00	1191.62	2596.76	1405.14	2.9998	5.9082	2.9084
6000	275.56	0.001319	0.032449	0.031130	1213.37	2790.45	1577.08	1205.45	2595.75	1390.30	3.0251	5.8883	2.8633
6250	278.23	0.001328	0.031035	0.029708	1227.24	2788.66	1561.42	1218.94	2594.69	1375.75	3.0496	5.8690	2.8194

P kPa	T °C	v_f m ³ /kg	v_g m ³ /kg	v_{fg} m ³ /kg	h_f kJ/kg	h_g kJ/kg	h_{fg} kJ/kg	u_f kJ/kg	u_g kJ/kg	u_{fg} kJ/kg	s_f kJ/(kg K)	s_g kJ/(kg K)	s_{fg} kJ/(kg K)
6500	280.83	0.001336	0.029726	0.028390	1240.80	2786.81	1546.01	1232.11	2593.59	1361.47	3.0735	5.8502	2.7767
6750	283.35	0.001344	0.028510	0.027166	1254.07	2784.89	1530.82	1245.00	2592.45	1347.45	3.0968	5.8319	2.7351
7000	285.80	0.001352	0.027377	0.026025	1267.07	2782.92	1515.84	1257.61	2591.28	1333.67	3.1194	5.8139	2.6945
7250	288.19	0.001361	0.026320	0.024960	1279.83	2780.89	1501.06	1269.97	2590.07	1320.10	3.1415	5.7964	2.6548
7500	290.51	0.001369	0.025331	0.023962	1292.36	2778.82	1486.46	1282.09	2588.84	1306.75	3.1631	5.7792	2.6160
7750	292.78	0.001377	0.024403	0.023026	1304.67	2776.71	1472.03	1294.00	2587.58	1293.58	3.1843	5.7623	2.5780
8000	294.99	0.001385	0.023531	0.022145	1316.79	2774.55	1457.76	1305.70	2586.30	1280.60	3.2050	5.7458	2.5408
8250	297.15	0.001394	0.022710	0.021316	1328.72	2772.36	1443.64	1317.22	2585.01	1267.79	3.2253	5.7295	2.5043
8500	299.26	0.001402	0.021935	0.020533	1340.47	2770.14	1429.66	1328.56	2583.69	1255.13	3.2452	5.7136	2.4684
8750	301.32	0.001410	0.021203	0.019793	1352.07	2767.89	1415.82	1339.73	2582.36	1242.63	3.2647	5.6979	2.4331
9000	303.34	0.001419	0.020511	0.019092	1363.51	2765.61	1402.09	1350.75	2581.01	1230.26	3.2840	5.6824	2.3984
9250	305.31	0.001427	0.019854	0.018427	1374.82	2763.30	1388.48	1361.62	2579.65	1218.03	3.3029	5.6672	2.3643
9500	307.25	0.001435	0.019231	0.017795	1385.99	2760.97	1374.98	1372.35	2578.28	1205.92	3.3215	5.6522	2.3306
9750	309.15	0.001444	0.018638	0.017194	1397.04	2758.62	1361.58	1382.96	2576.89	1193.93	3.3399	5.6374	2.2975
10000	311.01	0.001452	0.018074	0.016622	1407.97	2756.24	1348.28	1393.44	2575.50	1182.05	3.3580	5.6228	2.2647
10500	314.63	0.001469	0.017025	0.015555	1429.51	2751.44	1321.93	1414.09	2572.68	1158.60	3.3936	5.5941	2.2005
11000	318.12	0.001486	0.016067	0.014581	1450.68	2746.58	1295.90	1434.33	2569.84	1135.51	3.4283	5.5662	2.1378
11500	321.50	0.001503	0.015190	0.013687	1471.51	2741.66	1270.15	1454.23	2566.97	1112.75	3.4624	5.5388	2.0764
12000	324.76	0.001521	0.014384	0.012864	1492.06	2736.70	1244.64	1473.81	2564.09	1090.28	3.4958	5.5120	2.0162
12500	327.92	0.001538	0.013641	0.012103	1512.35	2731.69	1219.34	1493.13	2561.18	1068.06	3.5287	5.4858	1.9571
13000	330.99	0.001555	0.012953	0.011398	1532.43	2726.66	1194.23	1512.21	2558.27	1046.06	3.5611	5.4600	1.8989
13500	333.97	0.001573	0.012315	0.010742	1552.32	2721.59	1169.27	1531.08	2555.34	1024.26	3.5932	5.4347	1.8415
14000	336.87	0.001591	0.011721	0.010131	1572.04	2716.50	1144.45	1549.77	2552.40	1002.62	3.6250	5.4098	1.7848
14500	339.69	0.001609	0.011168	0.009559	1591.64	2711.39	1119.75	1568.32	2549.45	981.14	3.6564	5.3853	1.7288
15000	342.43	0.001627	0.010650	0.009024	1611.12	2706.26	1095.13	1586.72	2546.50	959.78	3.6877	5.3611	1.6734
15500	345.11	0.001645	0.010166	0.008521	1630.52	2701.11	1070.60	1605.02	2543.54	938.52	3.7189	5.3373	1.6184
16000	347.73	0.001663	0.009711	0.008048	1649.84	2695.96	1046.12	1623.23	2540.58	917.35	3.7499	5.3138	1.5639
16500	350.28	0.001681	0.009284	0.007602	1669.11	2690.79	1021.68	1641.37	2537.61	896.24	3.7808	5.2907	1.5098
17000	352.77	0.001700	0.008881	0.007181	1688.34	2685.62	997.28	1659.45	2534.64	875.19	3.8118	5.2678	1.4560

P kPa	T °C	v_f m ³ /kg	v_g m ³ /kg	v_{fg} m ³ /kg	h_f kJ/kg	h_g kJ/kg	h_{fg} kJ/kg	u_f kJ/kg	u_g kJ/kg	u_{fg} kJ/kg	s_f kJ/(kg K)	s_g kJ/(kg K)	s_{fg} kJ/(kg K)
17500	355.21	0.001718	0.008501	0.006783	1707.55	2680.44	972.89	1677.48	2531.66	854.18	3.8427	5.2452	1.4025
18000	357.60	0.001737	0.008143	0.006406	1726.76	2675.26	948.50	1695.49	2528.68	833.19	3.8737	5.2228	1.3492
18500	359.94	0.001756	0.007804	0.006048	1745.97	2670.07	924.10	1713.48	2525.70	812.22	3.9047	5.2007	1.2960
19000	362.23	0.001775	0.007482	0.005708	1765.20	2664.88	899.69	1731.47	2522.72	791.24	3.9359	5.1789	1.2430
19500	364.48	0.001794	0.007178	0.005384	1784.46	2659.70	875.24	1749.47	2519.73	770.25	3.9671	5.1573	1.1902
20000	366.68	0.001813	0.006889	0.005076	1803.76	2654.51	850.75	1767.49	2516.73	749.24	3.9986	5.1359	1.1373
20500	368.84	0.001833	0.006614	0.004781	1823.11	2649.32	826.21	1785.54	2513.74	728.19	4.0302	5.1147	1.0845
21000	370.96	0.001852	0.006353	0.004501	1842.53	2644.14	801.61	1803.63	2510.73	707.10	4.0620	5.0938	1.0318
21500	373.05	0.001872	0.006104	0.004232	1862.01	2638.96	776.95	1821.77	2507.73	685.96	4.0941	5.0730	0.9790
22000	375.09	0.001892	0.005867	0.003975	1881.57	2633.79	752.21	1839.96	2504.72	664.76	4.1264	5.0525	0.9261

Table C.1cSI Superheated Vapor Table for Steam in SI Units

P=0.01 MPa					P=0.05 MPa					P=0.1 MPa				
T	v	h	u	s	T	v	h	u	s	T	v	h	u	s
°C	m ³ /kg	kJ/kg	kJ/kg	kJ/(kg·K)	°C	m ³ /kg	kJ/kg	kJ/kg	kJ/(kg·K)	°C	m ³ /kg	kJ/kg	kJ/kg	kJ/(kg·K)
45.84	14.6711	2585.00	2438.29	8.1510	81.35	3.2403	2645.91	2483.90	7.5939	99.63	1.6937	2675.27	2505.90	7.3589
50	14.8674	2592.98	2444.31	8.1759										
100	17.1975	2688.13	2516.16	8.4497	100	3.4187	2682.94	2512.00	7.6959	100	1.6956	2676.01	2506.45	7.3610
150	19.5146	2783.36	2588.21	8.6891	150	3.8901	2780.49	2585.99	7.9412	150	1.9369	2776.81	2583.13	7.6146
200	21.8271	2879.50	2661.23	8.9039	200	4.3566	2877.68	2659.85	8.1583	200	2.1727	2875.37	2658.10	7.8347
250	24.1377	2976.88	2735.50	9.0995	250	4.8211	2975.61	2734.56	8.3550	250	2.4064	2974.01	2733.36	8.0329
300	26.4473	3075.66	2811.18	9.2798	300	5.2845	3074.71	2810.49	8.5359	300	2.6391	3073.52	2809.61	8.2146
350	28.7562	3175.93	2888.37	9.4475	350	5.7473	3175.19	2887.83	8.7040	350	2.8712	3174.27	2887.15	8.3831
400	31.0649	3277.76	2967.11	9.6047	400	6.2097	3277.17	2966.68	8.8614	400	3.1029	3276.43	2966.14	8.5407
450	33.3733	3381.21	3047.48	9.7529	450	6.6720	3380.72	3047.12	9.0097	450	3.3343	3380.11	3046.68	8.6893
500	35.6815	3486.32	3129.50	9.8934	500	7.1341	3485.90	3129.20	9.1504	500	3.5657	3485.38	3128.82	8.8300
550	37.9896	3593.10	3213.21	10.0272	550	7.5961	3592.75	3212.95	9.2843	550	3.7969	3592.31	3212.62	8.9640
600	40.2977	3701.60	3298.63	10.1552	600	8.0580	3701.29	3298.40	9.4123	600	4.0280	3700.91	3298.11	9.0921
650	42.6057	3811.83	3385.77	10.2779	650	8.5198	3811.56	3385.57	9.5350	650	4.2591	3811.22	3385.31	9.2149
700	44.9137	3923.81	3474.67	10.3960	700	8.9816	3923.57	3474.49	9.6532	700	4.4901	3923.26	3474.26	9.3331
750	47.2216	4037.54	3565.33	10.5100	750	9.4434	4037.33	3565.16	9.7672	750	4.7211	4037.06	3564.95	9.4471
800	49.5295	4153.05	3657.76	10.6202	800	9.9051	4152.86	3657.61	9.8774	800	4.9520	4152.62	3657.42	9.5574
850	51.8373	4270.35	3751.98	10.7270	850	10.3668	4270.18	3751.84	9.9843	850	5.1830	4269.96	3751.66	9.6642
900	54.1452	4389.44	3847.99	10.8308	900	10.8285	4389.28	3847.86	10.0880	900	5.4139	4389.08	3847.69	9.7680
950	56.4530	4510.33	3945.80	10.9317	950	11.2902	4510.19	3945.68	10.1889	950	5.6448	4510.01	3945.53	9.8689
1000	58.7608	4633.03	4045.42	11.0300	1000	11.7518	4632.90	4045.31	10.2872	1000	5.8757	4632.74	4045.17	9.9673
1050	61.0686	4757.55	4146.86	11.1259	1050	12.2135	4757.43	4146.76	10.3832	1050	6.1066	4757.28	4146.62	10.0632
1100	63.3764	4883.89	4250.12	11.2196	1100	12.6751	4883.78	4250.02	10.4769	1100	6.3374	4883.64	4249.89	10.1569
1150	65.6842	5012.05	4355.21	11.3113	1150	13.1367	5011.95	4355.11	10.5686	1150	6.5683	5011.82	4354.99	10.2486
1200	67.9920	5142.04	4462.12	11.4010	1200	13.5983	5141.95	4462.03	10.6583	1200	6.7991	5141.83	4461.92	10.3384
1250	70.2997	5273.87	4570.87	11.4890	1250	14.0600	5273.78	4570.78	10.7463	1250	7.0300	5273.67	4570.68	10.4264
1300	72.6075	5407.53	4681.46	11.5754	1300	14.5216	5407.45	4681.38	10.8327	1300	7.2608	5407.35	4681.27	10.5128

P=0.2 MPa					P=0.3 MPa				
T	v	h	u	s	T	v	h	u	s
°C	m³/kg	kJ/kg	kJ/kg	kJ/(kg·K)	°C	m³/kg	kJ/kg	kJ/kg	kJ/(kg·K)
120.23	0.8855	2706.17	2529.07	7.1260	133.54	0.6057	2724.63	2542.93	6.9903
150	0.9599	2769.10	2577.12	7.2804	150	0.6340	2760.92	2570.72	7.0779
200	1.0807	2870.64	2654.50	7.5073	200	0.7166	2865.77	2650.79	7.3122
250	1.1991	2970.76	2730.94	7.7084	250	0.7966	2967.47	2728.48	7.5166
300	1.3164	3071.13	2807.85	7.8916	300	0.8755	3068.72	2806.07	7.7014
350	1.4331	3172.42	2885.80	8.0610	350	0.9537	3170.55	2884.44	7.8717
400	1.5494	3274.94	2965.06	8.2193	400	1.0316	3273.44	2963.97	8.0306
450	1.6655	3378.88	3045.78	8.3682	450	1.1092	3377.65	3044.88	8.1799
500	1.7814	3484.35	3128.06	8.5092	500	1.1867	3483.31	3127.30	8.3211
550	1.8973	3591.42	3211.96	8.6434	550	1.2641	3590.53	3211.31	8.4555
600	2.0130	3700.13	3297.53	8.7716	600	1.3413	3699.36	3296.96	8.5838
650	2.1287	3810.54	3384.80	8.8945	650	1.4186	3809.86	3384.29	8.7069
700	2.2443	3922.66	3473.79	9.0128	700	1.4958	3922.06	3473.33	8.8252
750	2.3599	4036.52	3564.53	9.1269	750	1.5729	4035.98	3564.11	8.9394
800	2.4755	4152.14	3657.03	9.2372	800	1.6500	4151.65	3656.65	9.0497
850	2.5911	4269.52	3751.31	9.3441	850	1.7271	4269.08	3750.95	9.1567
900	2.7066	4388.69	3847.37	9.4479	900	1.8042	4388.29	3847.04	9.2605
950	2.8221	4509.65	3945.22	9.5488	950	1.8812	4509.28	3944.92	9.3615
1000	2.9376	4632.41	4044.88	9.6472	1000	1.9583	4632.08	4044.59	9.4599
1050	3.0531	4756.97	4146.35	9.7432	1050	2.0353	4756.67	4146.08	9.5559
1100	3.1686	4883.36	4249.64	9.8369	1100	2.1123	4883.08	4249.38	9.6496
1150	3.2841	5011.56	4354.75	9.9286	1150	2.1893	5011.31	4354.51	9.7413
1200	3.3995	5141.59	4461.69	10.0184	1200	2.2663	5141.36	4461.46	9.8311
1250	3.5150	5273.46	4570.46	10.1064	1250	2.3433	5273.24	4570.24	9.9192
1300	3.6305	5407.15	4681.06	10.1928	1300	2.4203	5406.95	4680.85	10.0055

P=0.4 MPa					P=0.5 MPa					P=0.6 MPa				
T	v	h	u	s	T	v	h	u	s	T	v	h	u	s
°C	m ³ /kg	kJ/kg	kJ/kg	kJ/(kg·K)	°C	m ³ /kg	kJ/kg	kJ/kg	kJ/(kg·K)	°C	m ³ /kg	kJ/kg	kJ/kg	kJ/(kg·K)
143.62	0.4624	2737.68	2552.74	6.8938	151.84	0.3748	2747.64	2560.23	6.8188	158.83	0.3156	2755.60	2566.22	6.7573
150	0.4708	2752.26	2563.93	6.9288										
200	0.5345	2860.75	2646.96	7.1713	200	0.4251	2855.58	2643.01	7.0598	200	0.3522	2850.25	2638.93	6.9669
250	0.5953	2964.11	2725.97	7.3790	250	0.4746	2960.70	2723.42	7.2711	250	0.3940	2957.24	2720.82	7.1820
300	0.6550	3066.28	2804.27	7.5655	300	0.5227	3063.82	2802.46	7.4594	300	0.4345	3061.33	2800.62	7.3720
350	0.7140	3168.68	2883.06	7.7368	350	0.5702	3166.79	2881.68	7.6316	350	0.4743	3164.89	2880.29	7.5452
400	0.7727	3271.94	2962.87	7.8962	400	0.6173	3270.44	2961.78	7.7916	400	0.5138	3268.93	2960.67	7.7058
450	0.8311	3376.41	3043.98	8.0459	450	0.6642	3375.17	3043.08	7.9416	450	0.5529	3373.93	3042.17	7.8563
500	0.8893	3482.27	3126.54	8.1874	500	0.7109	3481.23	3125.78	8.0834	500	0.5920	3480.18	3125.01	7.9983
550	0.9475	3589.63	3210.65	8.3219	550	0.7575	3588.74	3209.99	8.2182	550	0.6309	3587.85	3209.33	8.1332
600	1.0055	3698.59	3296.38	8.4504	600	0.8040	3697.81	3295.80	8.3468	600	0.6697	3697.04	3295.23	8.2620
650	1.0635	3809.18	3383.78	8.5736	650	0.8505	3808.50	3383.26	8.4700	650	0.7085	3807.82	3382.75	8.3854
700	1.1215	3921.46	3472.87	8.6920	700	0.8969	3920.86	3472.41	8.5886	700	0.7472	3920.25	3471.95	8.5040
750	1.1794	4035.45	3563.70	8.8062	750	0.9433	4034.91	3563.28	8.7028	750	0.7859	4034.37	3562.86	8.6183
800	1.2373	4151.17	3656.27	8.9166	800	0.9896	4150.69	3655.88	8.8133	800	0.8245	4150.20	3655.50	8.7288
850	1.2951	4268.65	3750.60	9.0236	850	1.0359	4268.21	3750.25	8.9203	850	0.8631	4267.77	3749.89	8.8359
900	1.3530	4387.89	3846.71	9.1275	900	1.0822	4387.50	3846.38	9.0242	900	0.9017	4387.10	3846.06	8.9398
950	1.4108	4508.92	3944.61	9.2285	950	1.1285	4508.56	3944.31	9.1253	950	0.9403	4508.20	3944.00	9.0409
1000	1.4686	4631.75	4044.31	9.3269	1000	1.1748	4631.42	4044.02	9.2237	1000	0.9789	4631.09	4043.74	9.1394
1050	1.5264	4756.37	4145.81	9.4229	1050	1.2210	4756.07	4145.54	9.3197	1050	1.0175	4755.77	4145.27	9.2354
1100	1.5842	4882.80	4249.13	9.5167	1100	1.2673	4882.53	4248.88	9.4135	1100	1.0560	4882.25	4248.62	9.3292
1150	1.6420	5011.05	4354.27	9.6084	1150	1.3135	5010.80	4354.03	9.5053	1150	1.0946	5010.54	4353.79	9.4210
1200	1.6997	5141.12	4461.23	9.6982	1200	1.3598	5140.89	4461.00	9.5951	1200	1.1331	5140.65	4460.77	9.5108
1250	1.7575	5273.02	4570.02	9.7863	1250	1.4060	5272.81	4569.80	9.6832	1250	1.1717	5272.59	4569.58	9.5989
1300	1.8153	5406.75	4680.65	9.8727	1300	1.4522	5406.55	4680.44	9.7696	1300	1.2102	5406.35	4680.23	9.6853

P=0.7 MPa					P=0.8 MPa					P=0.9 MPa				
T °C	v m ³ /kg	h kJ/kg	u kJ/kg	s kJ/(kg·K)	T °C	v m ³ /kg	h kJ/kg	u kJ/kg	s kJ/(kg·K)	T °C	v m ³ /kg	h kJ/kg	u kJ/kg	s kJ/(kg·K)
164.95	0.2728	2762.13	2571.14	6.7050	170.40	0.2404	2767.61	2575.27	6.6595	175.35	0.2150	2772.27	2578.79	6.6191
200	0.3001	2844.77	2634.73	6.8867	200	0.2609	2839.14	2630.40	6.8157	200	0.2304	2833.34	2625.94	6.7517
250	0.3365	2953.72	2718.18	7.1057	250	0.2933	2950.14	2715.49	7.0389	250	0.2597	2946.51	2712.76	6.9792
300	0.3715	3058.82	2798.77	7.2976	300	0.3242	3056.29	2796.89	7.2327	300	0.2875	3053.73	2795.00	7.1750
350	0.4058	3162.98	2878.90	7.4718	350	0.3545	3161.06	2877.49	7.4080	350	0.3145	3159.13	2876.07	7.3513
400	0.4398	3267.41	2959.57	7.6330	400	0.3843	3265.89	2958.46	7.5697	400	0.3411	3264.36	2957.34	7.5137
450	0.4735	3372.69	3041.26	7.7839	450	0.4139	3371.44	3040.35	7.7210	450	0.3675	3370.19	3039.44	7.6654
500	0.5070	3479.14	3124.25	7.9262	500	0.4433	3478.09	3123.48	7.8636	500	0.3937	3477.04	3122.71	7.8082
550	0.5404	3586.96	3208.67	8.0613	550	0.4726	3586.06	3208.01	7.9989	550	0.4198	3585.16	3207.35	7.9437
600	0.5737	3696.26	3294.65	8.1902	600	0.5018	3695.49	3294.07	8.1279	600	0.4458	3694.71	3293.49	8.0729
650	0.6070	3807.14	3382.24	8.3137	650	0.5309	3806.46	3381.72	8.2515	650	0.4717	3805.78	3381.21	8.1966
700	0.6402	3919.65	3471.49	8.4324	700	0.5600	3919.05	3471.03	8.3703	700	0.4976	3918.44	3470.57	8.3154
750	0.6734	4033.83	3562.44	8.5468	750	0.5891	4033.29	3562.02	8.4847	750	0.5235	4032.75	3561.60	8.4300
800	0.7066	4149.72	3655.12	8.6573	800	0.6181	4149.23	3654.73	8.5954	800	0.5493	4148.75	3654.35	8.5406
850	0.7397	4267.34	3749.54	8.7644	850	0.6471	4266.90	3749.19	8.7025	850	0.5751	4266.46	3748.83	8.6478
900	0.7728	4386.70	3845.73	8.8684	900	0.6761	4386.31	3845.40	8.8065	900	0.6009	4385.91	3845.07	8.7519
950	0.8059	4507.84	3943.69	8.9695	950	0.7051	4507.48	3943.39	8.9077	950	0.6267	4507.12	3943.08	8.8531
1000	0.8390	4630.76	4043.45	9.0680	1000	0.7341	4630.43	4043.16	9.0062	1000	0.6525	4630.10	4042.88	8.9516
1050	0.8721	4755.46	4145.00	9.1641	1050	0.7630	4755.16	4144.74	9.1023	1050	0.6782	4754.86	4144.47	9.0477
1100	0.9051	4881.97	4248.37	9.2579	1100	0.7920	4881.69	4248.11	9.1961	1100	0.7040	4881.42	4247.86	9.1416
1150	0.9382	5010.29	4353.54	9.3497	1150	0.8209	5010.03	4353.30	9.2879	1150	0.7297	5009.78	4353.06	9.2334
1200	0.9713	5140.42	4460.54	9.4396	1200	0.8498	5140.18	4460.31	9.3778	1200	0.7554	5139.95	4460.09	9.3233
1250	1.0043	5272.37	4569.37	9.5276	1250	0.8788	5272.15	4569.15	9.4659	1250	0.7811	5271.94	4568.93	9.4114
1300	1.0373	5406.15	4680.02	9.6140	1300	0.9077	5405.95	4679.81	9.5523	1300	0.8068	5405.75	4679.61	9.4978

P=1 MPa					P=2 MPa					P=3 MPa				
T °C	v m ³ /kg	h kJ/kg	u kJ/kg	s kJ/(kg·K)	T °C	v m ³ /kg	h kJ/kg	u kJ/kg	s kJ/(kg·K)	T °C	v m ³ /kg	h kJ/kg	u kJ/kg	s kJ/(kg·K)
179.87	0.1945	2776.28	2581.82	6.5828	212.37	0.0997	2797.03	2597.67	6.3367	233.84	0.0667	2802.18	2602.01	6.1832
200	0.2060	2827.37	2621.35	6.6931										
250	0.2328	2942.81	2709.98	6.9252	250	0.1115	2902.49	2679.45	6.5453	250	0.0706	2854.98	2643.17	6.2856
300	0.2581	3051.15	2793.09	7.1230	300	0.1256	3023.98	2772.87	6.7673	300	0.0812	2994.15	2750.54	6.5400
350	0.2825	3157.19	2874.65	7.3004	350	0.1386	3137.15	2859.90	6.9566	350	0.0906	3115.95	2844.23	6.7439
400	0.3066	3262.82	2956.22	7.4634	400	0.1512	3247.18	2944.77	7.1265	400	0.0994	3230.96	2932.87	6.9215
450	0.3304	3368.93	3038.52	7.6155	450	0.1635	3356.24	3029.24	7.2827	450	0.1078	3343.24	3019.72	7.0824
500	0.3541	3475.99	3121.94	7.7586	500	0.1756	3465.40	3114.17	7.4287	500	0.1161	3454.64	3106.27	7.2313
550	0.3776	3584.27	3206.69	7.8943	550	0.1876	3575.25	3200.03	7.5664	550	0.1243	3566.13	3193.30	7.3710
600	0.4010	3693.93	3292.91	8.0236	600	0.1995	3686.13	3287.10	7.6971	600	0.1323	3678.27	3281.24	7.5033
650	0.4244	3805.10	3380.70	8.1474	650	0.2114	3798.26	3375.54	7.8220	650	0.1403	3791.39	3370.36	7.6293
700	0.4477	3917.84	3470.10	8.2663	700	0.2232	3911.79	3465.48	7.9417	700	0.1483	3905.72	3460.83	7.7499
750	0.4710	4032.22	3561.18	8.3809	750	0.2349	4026.82	3556.99	8.0570	750	0.1562	4021.41	3552.78	7.8658
800	0.4943	4148.27	3653.97	8.4917	800	0.2466	4143.42	3650.13	8.1682	800	0.1641	4138.57	3646.28	7.9776
850	0.5175	4266.03	3748.48	8.5989	850	0.2584	4261.65	3744.94	8.2759	850	0.1720	4257.27	3741.40	8.0857
900	0.5408	4385.52	3844.74	8.7030	900	0.2700	4381.55	3841.47	8.3804	900	0.1798	4377.58	3838.18	8.1905
950	0.5640	4506.76	3942.78	8.8042	950	0.2817	4503.14	3939.72	8.4818	950	0.1876	4499.53	3936.66	8.2922
1000	0.5872	4629.77	4042.59	8.9027	1000	0.2934	4626.47	4039.73	8.5807	1000	0.1954	4623.16	4036.86	8.3913
1050	0.6104	4754.56	4144.20	8.9989	1050	0.3050	4751.53	4141.50	8.6770	1050	0.2032	4748.51	4138.81	8.4879
1100	0.6335	4881.14	4247.60	9.0928	1100	0.3166	4878.36	4245.06	8.7711	1100	0.2110	4875.58	4242.52	8.5821
1150	0.6567	5009.52	4352.82	9.1846	1150	0.3283	5006.97	4350.41	8.8631	1150	0.2188	5004.41	4348.00	8.6743
1200	0.6799	5139.71	4459.86	9.2745	1200	0.3399	5137.36	4457.57	8.9531	1200	0.2266	5135.01	4455.28	8.7644
1250	0.7030	5271.72	4568.71	9.3626	1250	0.3515	5269.55	4566.53	9.0413	1250	0.2343	5267.38	4564.35	8.8528
1300	0.7262	5405.55	4679.40	9.4491	1300	0.3631	5403.55	4677.31	9.1279	1300	0.2421	5401.54	4675.23	8.9395

P=4 MPa					P=5 MPa					P=6 MPa				
T	v	h	u	s	T	v	h	u	s	T	v	h	u	s
°C	m ³ /kg	kJ/kg	kJ/kg	kJ/(kg·K)	°C	m ³ /kg	kJ/kg	kJ/kg	kJ/(kg·K)	°C	m ³ /kg	kJ/kg	kJ/kg	kJ/(kg·K)
250.34	0.0498	2801.09	2601.86	6.0672	263.92	0.0395	2796.74	2599.44	5.9714	275.56	0.0324	2790.45	2595.75	5.8883
300	0.0589	2961.28	2725.77	6.3624	300	0.0453	2924.84	2698.15	6.2087	300	0.0362	2884.12	2667.11	6.0671
350	0.0665	3093.49	2827.56	6.5837	350	0.0520	3069.68	2809.80	6.4513	350	0.0423	3044.35	2790.83	6.3356
400	0.0734	3214.16	2920.50	6.7700	400	0.0578	3196.74	2907.63	6.6476	400	0.0474	3178.68	2894.25	6.5431
450	0.0800	3329.95	3009.96	6.9360	450	0.0633	3316.34	2999.95	6.8190	450	0.0521	3302.42	2989.68	6.7204
500	0.0864	3443.72	3098.24	7.0881	500	0.0685	3432.63	3090.07	6.9745	500	0.0566	3421.38	3081.77	6.8795
550	0.0926	3556.93	3186.49	7.2300	550	0.0736	3547.62	3179.60	7.1186	550	0.0609	3538.23	3172.64	7.0260
600	0.0988	3670.36	3275.33	7.3638	600	0.0786	3662.39	3269.38	7.2539	600	0.0652	3654.36	3263.39	7.1629
650	0.1048	3784.49	3365.15	7.4909	650	0.0835	3777.56	3359.91	7.3822	650	0.0693	3770.59	3354.64	7.2924
700	0.1109	3899.64	3456.17	7.6123	700	0.0884	3893.53	3451.49	7.5045	700	0.0734	3887.40	3446.80	7.4156
750	0.1169	4016.00	3548.56	7.7289	750	0.0932	4010.56	3544.33	7.6218	750	0.0775	4005.12	3540.10	7.5335
800	0.1228	4133.71	3642.43	7.8412	800	0.0981	4128.85	3638.57	7.7347	800	0.0815	4123.97	3634.71	7.6469
850	0.1288	4252.89	3737.86	7.9498	850	0.1028	4248.50	3734.31	7.8436	850	0.0856	4244.11	3730.76	7.7563
900	0.1347	4373.60	3834.90	8.0549	900	0.1076	4369.63	3831.61	7.9491	900	0.0896	4365.65	3828.33	7.8622
950	0.1406	4495.91	3933.60	8.1570	950	0.1124	4492.30	3930.54	8.0515	950	0.0935	4488.68	3927.48	7.9649
1000	0.1465	4619.86	4034.00	8.2563	1000	0.1171	4616.56	4031.13	8.1511	1000	0.0975	4613.25	4028.27	8.0647
1050	0.1523	4745.48	4136.12	8.3531	1050	0.1218	4742.46	4133.42	8.2481	1050	0.1015	4739.43	4130.73	8.1619
1100	0.1582	4872.81	4239.98	8.4475	1100	0.1265	4870.03	4237.43	8.3427	1100	0.1054	4867.25	4234.89	8.2567
1150	0.1641	5001.86	4345.59	8.5398	1150	0.1312	4999.30	4343.19	8.4352	1150	0.1093	4996.75	4340.78	8.3493
1200	0.1699	5132.65	4452.99	8.6301	1200	0.1359	5130.30	4450.70	8.5256	1200	0.1133	5127.95	4448.41	8.4399
1250	0.1758	5265.21	4562.17	8.7186	1250	0.1406	5263.04	4559.99	8.6142	1250	0.1172	5260.87	4557.81	8.5287
1300	0.1816	5399.54	4673.15	8.8054	1300	0.1453	5397.54	4671.07	8.7011	1300	0.1211	5395.54	4668.98	8.6157

P=7 MPa					P=8 MPa					P=9 MPa				
T	v	h	u	s	T	v	h	u	s	T	v	h	u	s
°C	m ³ /kg	kJ/kg	kJ/kg	kJ/(kg·K)	°C	m ³ /kg	kJ/kg	kJ/kg	kJ/(kg·K)	°C	m ³ /kg	kJ/kg	kJ/kg	kJ/(kg·K)
285.80	0.0274	2782.92	2591.28	5.8139	294.99	0.0235	2774.55	2586.30	5.7458	303.34	0.0205	2765.61	2581.01	5.6824
300	0.0295	2838.29	2632.00	5.9301	300	0.0243	2786.34	2592.01	5.7928					
350	0.0353	3017.34	2770.51	6.2303	350	0.0300	2988.43	2748.67	6.1318	350	0.0258	2957.37	2725.10	6.0373
400	0.0399	3159.93	2880.32	6.4506	400	0.0343	3140.45	2865.79	6.3667	400	0.0299	3120.18	2850.63	6.2890
450	0.0441	3288.18	2979.16	6.6345	450	0.0382	3273.60	2968.36	6.5576	450	0.0335	3258.67	2957.29	6.4876
500	0.0481	3409.96	3073.33	6.7973	500	0.0417	3398.36	3064.76	6.7245	500	0.0367	3386.60	3056.04	6.6587
550	0.0519	3528.74	3165.60	6.9462	550	0.0451	3519.16	3158.49	6.8759	550	0.0398	3509.48	3151.30	6.8127
600	0.0556	3646.29	3257.35	7.0848	600	0.0484	3638.15	3251.27	7.0162	600	0.0428	3629.97	3245.14	6.9548
650	0.0592	3763.59	3349.35	7.2155	650	0.0516	3756.56	3344.04	7.1481	650	0.0456	3749.49	3338.69	7.0879
700	0.0627	3881.25	3442.09	7.3396	700	0.0547	3875.09	3437.36	7.2731	700	0.0485	3868.90	3432.62	7.2139
750	0.0663	3999.67	3535.85	7.4582	750	0.0578	3994.20	3531.59	7.3925	750	0.0513	3988.72	3527.32	7.3339
800	0.0698	4119.09	3630.84	7.5722	800	0.0609	4114.20	3626.96	7.5070	800	0.0540	4109.31	3623.08	7.4490
850	0.0732	4239.71	3727.20	7.6820	850	0.0640	4235.31	3723.64	7.6173	850	0.0568	4230.91	3720.08	7.5597
900	0.0767	4361.67	3825.04	7.7883	900	0.0670	4357.68	3821.74	7.7238	900	0.0595	4353.70	3818.45	7.6667
950	0.0801	4485.05	3924.42	7.8913	950	0.0700	4481.43	3921.35	7.8271	950	0.0622	4477.81	3918.28	7.7703
1000	0.0835	4609.95	4025.40	7.9913	1000	0.0730	4606.64	4022.53	7.9275	1000	0.0649	4603.33	4019.66	7.8708
1050	0.0869	4736.40	4128.03	8.0887	1050	0.0760	4733.38	4125.33	8.0251	1050	0.0675	4730.35	4122.64	7.9687
1100	0.0903	4864.48	4232.34	8.1837	1100	0.0790	4861.70	4229.80	8.1203	1100	0.0702	4858.92	4227.25	8.0641
1150	0.0937	4994.20	4338.37	8.2765	1150	0.0820	4991.64	4335.96	8.2132	1150	0.0728	4989.09	4333.55	8.1572
1200	0.0971	5125.60	4446.12	8.3673	1200	0.0849	5123.24	4443.83	8.3041	1200	0.0755	5120.89	4441.54	8.2482
1250	0.1004	5258.70	4555.63	8.4561	1250	0.0879	5256.53	4553.45	8.3931	1250	0.0781	5254.36	4551.27	8.3373
1300	0.1038	5393.53	4666.90	8.5432	1300	0.0908	5391.53	4664.82	8.4803	1300	0.0808	5389.53	4662.74	8.4246

P=10 MPa					P=15 MPa					P=20 MPa				
T	v	h	u	s	T	v	h	u	s	T	v	h	u	s
°C	m ³ /kg	kJ/kg	kJ/kg	kJ/(kg·K)	°C	m ³ /kg	kJ/kg	kJ/kg	kJ/(kg·K)	°C	m ³ /kg	kJ/kg	kJ/kg	kJ/(kg·K)
311.01	0.0181	2756.24	2575.50	5.6228	342.43	0.0107	2706.26	2546.50	5.3611	366.689	0.0069	2654.51	2516.73	5.1359
350	0.0224	2923.89	2699.59	5.9450	350	0.0117	2708.18	2533.17	5.4669					
400	0.0264	3099.05	2834.78	6.2158	400	0.0157	2977.97	2742.95	5.8848	400	0.0100	2822.06	2622.61	5.5597
450	0.0297	3243.39	2945.92	6.4228	450	0.0185	3161.01	2884.18	6.1475	450	0.0127	3066.73	2812.55	5.9112
500	0.0327	3374.66	3047.18	6.5984	500	0.0208	3312.26	3000.66	6.3498	500	0.0147	3245.05	2950.09	6.1499
550	0.0356	3499.71	3144.03	6.7551	550	0.0229	3449.49	3106.55	6.5219	550	0.0165	3396.99	3067.15	6.3405
600	0.0383	3621.73	3238.97	6.8991	600	0.0248	3579.77	3207.48	6.6756	600	0.0181	3536.61	3174.96	6.5052
650	0.0409	3742.40	3333.32	7.0334	650	0.0267	3706.47	3306.10	6.8167	650	0.0196	3669.85	3278.29	6.6536
700	0.0435	3862.69	3427.86	7.1603	700	0.0285	3831.39	3403.84	6.9485	700	0.0210	3799.67	3379.45	6.7905
750	0.0460	3983.23	3523.05	7.2811	750	0.0303	3955.60	3501.51	7.0729	750	0.0224	3927.72	3479.76	6.9188
800	0.0485	4104.40	3619.19	7.3967	800	0.0320	4079.78	3599.66	7.1914	800	0.0238	4054.99	3579.98	7.0403
850	0.0510	4226.50	3716.51	7.5079	850	0.0337	4204.38	3698.61	7.3049	850	0.0251	4182.16	3680.63	7.1561
900	0.0535	4349.71	3815.15	7.6153	900	0.0354	4329.72	3798.62	7.4141	900	0.0264	4309.66	3782.04	7.2672
950	0.0559	4474.18	3915.21	7.7191	950	0.0371	4456.02	3899.85	7.5195	950	0.0277	4437.83	3884.45	7.3741
1000	0.0583	4600.02	4016.79	7.8200	1000	0.0387	4583.47	4002.43	7.6216	1000	0.0289	4566.88	3988.04	7.4775
1050	0.0607	4727.32	4119.94	7.9180	1050	0.0404	4712.17	4106.45	7.7207	1050	0.0302	4697.01	4092.94	7.5778
1100	0.0631	4856.14	4224.71	8.0136	1100	0.0420	4842.24	4211.98	7.8172	1100	0.0315	4828.34	4199.24	7.6752
1150	0.0655	4986.53	4331.14	8.1069	1150	0.0436	4973.75	4319.09	7.9113	1150	0.0327	4960.97	4307.03	7.7701
1200	0.0679	5118.54	4439.25	8.1980	1200	0.0453	5106.77	4427.81	8.0031	1200	0.0339	5095.00	4416.36	7.8626
1250	0.0703	5252.19	4549.09	8.2872	1250	0.0469	5241.34	4538.18	8.0930	1250	0.0352	5230.49	4527.28	7.9531
1300	0.0727	5387.52	4660.65	8.3746	1300	0.0485	5377.51	4650.24	8.1809	1300	0.0364	5367.50	4639.83	8.0416

P=25 MPa					P=30 MPa					P=35 MPa				
T °C	v m ³ /kg	h kJ/kg	u kJ/kg	s kJ/(kg·K)	T °C	v m ³ /kg	h kJ/kg	u kJ/kg	s kJ/(kg·K)	T °C	v m ³ /kg	h kJ/kg	u kJ/kg	s kJ/(kg·K)
375	0.0037	2323.01	2230.15	4.7502	375	0.0000	1864.90	1865.05	4.0293					
400	0.0062	2615.28	2460.46	5.1933	400	0.0033	2337.03	2239.35	4.7452	400	0.0007	1962.14	1938.34	4.1738
450	0.0092	2957.09	2727.97	5.6848	450	0.0067	2827.66	2626.51	5.4515	450	0.0048	2673.01	2503.38	5.1979
500	0.0111	3172.48	2894.88	5.9733	500	0.0087	3093.85	2834.28	5.8082	500	0.0069	3008.30	2767.38	5.6477
550	0.0127	3342.29	3025.80	6.1863	550	0.0101	3285.47	2982.50	6.0487	550	0.0083	3226.63	2937.20	5.9217
600	0.0140	3492.38	3141.50	6.3634	600	0.0113	3447.25	3107.20	6.2396	600	0.0094	3401.45	3072.17	6.1280
650	0.0153	3632.64	3249.95	6.5197	650	0.0125	3594.97	3221.19	6.4041	650	0.0104	3557.00	3192.09	6.3013
700	0.0165	3767.59	3354.76	6.6620	700	0.0135	3735.24	3329.81	6.5521	700	0.0114	3702.71	3304.68	6.4551
750	0.0177	3899.60	3457.81	6.7943	750	0.0145	3871.31	3435.69	6.6885	750	0.0123	3842.89	3413.46	6.5956
800	0.0188	4030.06	3560.18	6.9188	800	0.0155	4005.00	3540.27	6.8161	800	0.0131	3979.86	3520.28	6.7263
850	0.0199	4159.84	3662.56	7.0370	850	0.0164	4137.45	3644.42	6.9367	850	0.0140	4114.98	3626.22	6.8493
900	0.0210	4289.55	3765.40	7.1500	900	0.0174	4269.38	3748.72	7.0516	900	0.0148	4249.17	3731.99	6.9662
950	0.0220	4419.59	3869.02	7.2585	950	0.0183	4401.33	3853.55	7.1618	950	0.0156	4383.03	3838.06	7.0780
1000	0.0231	4550.28	3973.64	7.3633	1000	0.0191	4533.65	3959.21	7.2678	1000	0.0163	4517.01	3944.77	7.1853
1050	0.0241	4681.83	4079.42	7.4646	1050	0.0200	4666.65	4065.89	7.3702	1050	0.0171	4651.44	4052.35	7.2889
1100	0.0251	4814.43	4186.50	7.5630	1100	0.0209	4800.51	4173.75	7.4695	1100	0.0179	4786.58	4161.00	7.3891
1150	0.0261	4948.19	4294.97	7.6586	1150	0.0217	4935.41	4282.91	7.5660	1150	0.0186	4922.62	4270.85	7.4864
1200	0.0271	5083.24	4404.91	7.7519	1200	0.0226	5071.47	4393.46	7.6600	1200	0.0194	5059.70	4382.01	7.5811
1250	0.0281	5219.64	4516.38	7.8429	1250	0.0234	5208.80	4505.48	7.7517	1250	0.0201	5197.95	4494.57	7.6734
1300	0.0291	5357.49	4629.42	7.9320	1300	0.0243	5347.47	4619.01	7.8412	1300	0.0208	5337.46	4608.60	7.7635

P=40 MPa					P=45 MPa					P=50 MPa				
T °C	v m ³ /kg	h kJ/kg	u kJ/kg	s kJ/(kg·K)	T °C	v m ³ /kg	h kJ/kg	u kJ/kg	s kJ/(kg·K)	T °C	v m ³ /kg	h kJ/kg	u kJ/kg	s kJ/(kg·K)
450	0.0033	2486.71	2352.91	4.9122	450	0.0021	2261.37	2168.54	4.5820	450	0.0009	1988.61	1942.86	4.1946
500	0.0055	2914.81	2693.09	5.4868	500	0.0045	2812.23	2610.16	5.3218	500	0.0036	2699.21	2517.17	5.1494
550	0.0069	3165.89	2889.87	5.8020	550	0.0058	3103.38	2840.46	5.6875	550	0.0050	3039.26	2788.95	5.5768
600	0.0080	3355.22	3036.56	6.0255	600	0.0069	3308.86	3000.54	5.9302	600	0.0060	3262.71	2964.29	5.8407
650	0.0089	3518.92	3162.81	6.2079	650	0.0077	3480.97	3133.47	6.1219	650	0.0068	3443.38	3104.25	6.0420
700	0.0098	3670.12	3279.45	6.3675	700	0.0085	3637.61	3254.22	6.2872	700	0.0075	3605.33	3229.10	6.2130
750	0.0106	3814.42	3391.16	6.5121	750	0.0093	3785.96	3368.84	6.4359	750	0.0082	3757.62	3346.57	6.3656
800	0.0114	3954.66	3500.23	6.6459	800	0.0100	3929.44	3480.15	6.5728	800	0.0089	3904.26	3460.08	6.5055
850	0.0121	4092.47	3607.98	6.7714	850	0.0107	4069.93	3589.70	6.7008	850	0.0095	4047.39	3571.42	6.6359
900	0.0128	4228.91	3715.23	6.8903	900	0.0113	4208.63	3698.45	6.8216	900	0.0101	4188.34	3681.64	6.7587
950	0.0136	4364.70	3822.55	7.0036	950	0.0120	4346.35	3807.01	6.9366	950	0.0107	4327.98	3791.46	6.8752
1000	0.0143	4500.34	3930.31	7.1123	1000	0.0126	4483.66	3915.83	7.0466	1000	0.0113	4466.97	3901.35	6.9866
1050	0.0149	4636.23	4038.80	7.2170	1050	0.0132	4621.01	4025.24	7.1524	1050	0.0119	4605.78	4011.67	7.0935
1100	0.0156	4772.65	4148.24	7.3182	1100	0.0138	4758.71	4135.47	7.2546	1100	0.0124	4744.77	4122.70	7.1966
1150	0.0163	4909.82	4258.78	7.4163	1150	0.0145	4897.03	4246.71	7.3535	1150	0.0130	4884.23	4234.64	7.2964
1200	0.0169	5047.93	4370.56	7.5117	1200	0.0150	5036.15	4359.11	7.4496	1200	0.0135	5024.38	4347.65	7.3932
1250	0.0176	5187.10	4483.67	7.6046	1250	0.0156	5176.25	4472.77	7.5431	1250	0.0141	5165.40	4461.87	7.4873
1300	0.0182	5327.45	4598.19	7.6952	1300	0.0162	5317.44	4587.79	7.6343	1300	0.0146	5307.43	4577.38	7.5790

Table C.1dSI Compressed Liquid Table for Steam in SI Units

P=5 MPa					P=10 MPa					P=15 MPa				
T	v	h	u	s	T	v	h	u	s	T	v	h	u	s
°C	m ³ /kg	kJ/kg	kJ/kg	kJ/(kg·K)	°C	m ³ /kg	kJ/kg	kJ/kg	kJ/(kg·K)	°C	m ³ /kg	kJ/kg	kJ/kg	kJ/(kg·K)
0	0.000995	5.91	0.94	-0.0057	0	0.000995	10.85	0.91	-0.0100	0	0.000995	15.72	0.80	-0.0143
20	0.001000	88.93	83.93	0.2919	20	0.001000	93.59	83.59	0.2873	20	0.001000	98.20	83.20	0.2828
40	0.001008	171.90	166.86	0.5671	40	0.001008	176.32	166.24	0.5623	40	0.001008	180.69	165.57	0.5576
60	0.001017	255.11	250.02	0.8251	60	0.001017	259.29	249.12	0.8201	60	0.001017	263.45	248.19	0.8151
80	0.001029	338.63	333.49	1.0689	80	0.001029	342.60	332.31	1.0636	80	0.001029	346.55	331.12	1.0583
100	0.001043	422.52	417.30	1.3003	100	0.001043	426.27	415.84	1.2946	100	0.001043	430.03	414.38	1.2890
120	0.001060	506.87	501.57	1.5208	120	0.001060	510.40	499.80	1.5147	120	0.001060	513.94	498.04	1.5086
140	0.001080	591.85	586.45	1.7316	140	0.001080	595.13	584.33	1.7250	140	0.001080	598.43	582.23	1.7185
160	0.001102	677.72	672.20	1.9342	160	0.001102	680.69	669.67	1.9270	160	0.001102	683.71	667.17	1.9200
180	0.001128	764.80	759.16	2.1299	180	0.001128	767.39	756.11	2.1220	180	0.001128	770.03	753.12	2.1143
200	0.001156	853.48	847.69	2.3200	200	0.001156	855.56	844.00	2.3113	200	0.001156	857.73	840.39	2.3028
220	0.001189	944.22	938.27	2.5059	220	0.001189	945.65	933.75	2.4961	220	0.001189	947.19	929.35	2.4866
240	0.001228	1037.62	1031.47	2.6885	240	0.001228	1038.19	1025.90	2.6773	240	0.001228	1038.94	1020.51	2.6664
260	0.001275	1134.52	1128.14	2.8690	260	0.001275	1133.98	1121.23	2.8557	260	0.001275	1133.71	1114.58	2.8430
					280	0.001333	1234.26	1220.93	3.0324	280	0.001333	1232.70	1212.70	3.0170
					300	0.001405	1340.98	1326.93	3.2082	300	0.001405	1337.81	1316.74	3.1884
										320	0.001496	1452.08	1429.64	3.3544
										340	0.001611	1580.19	1556.03	3.4924
263.92	0.001286	1154.18	1147.75	2.9186	311.01	0.001452	1407.97	1393.44	3.3580	342.43	0.001627	1611.12	1586.72	3.6877

P=20 MPa					P=30 MPa					P=50 MPa				
T	v	h	u	s	T	v	h	u	s	T	v	h	u	s
°C	m ³ /kg	kJ/kg	kJ/kg	kJ/(kg·K)	°C	m ³ /kg	kJ/kg	kJ/kg	kJ/(kg·K)	°C	m ³ /kg	kJ/kg	kJ/kg	kJ/(kg·K)
0	0.000995	20.52	0.62	-0.0185	0	0.000995	29.89	0.05	-0.0269	0	0.000995	47.79	-1.94	-0.0434
20	0.001000	102.75	82.74	0.2784	20	0.001000	111.68	81.66	0.2695	20	0.001000	128.83	78.80	0.2523
40	0.001008	185.02	164.87	0.5529	40	0.001008	193.55	163.32	0.5436	40	0.001008	210.12	159.74	0.5256
60	0.001017	267.58	247.24	0.8101	60	0.001017	275.77	245.26	0.8004	60	0.001017	291.85	241.00	0.7814
80	0.001029	350.50	329.92	1.0530	80	0.001029	358.36	327.50	1.0427	80	0.001029	373.98	322.54	1.0227
100	0.001043	433.79	412.92	1.2834	100	0.001043	441.33	410.03	1.2725	100	0.001043	456.45	404.28	1.2513
120	0.001060	517.51	496.30	1.5027	120	0.001060	524.68	492.87	1.4910	120	0.001060	539.22	486.20	1.4686
140	0.001080	601.77	580.17	1.7121	140	0.001080	608.51	576.11	1.6996	140	0.001080	622.32	568.33	1.6758
160	0.001102	686.76	664.71	1.9131	160	0.001102	692.98	659.91	1.8996	160	0.001102	705.89	650.77	1.8741
180	0.001128	772.73	750.18	2.1068	180	0.001128	778.29	744.47	2.0922	180	0.001128	790.07	733.70	2.0648
200	0.001156	859.98	836.85	2.2945	200	0.001156	864.70	830.02	2.2785	200	0.001156	875.11	817.30	2.2489
220	0.001189	948.86	925.07	2.4773	220	0.001189	952.53	916.85	2.4596	220	0.001189	961.29	901.82	2.4274
240	0.001228	1039.86	1015.29	2.6559	240	0.001228	1042.22	1005.36	2.6360	240	0.001228	1049.03	987.61	2.6009
260	0.001275	1133.69	1108.18	2.8309	260	0.001275	1134.43	1096.17	2.8082	260	0.001275	1139.00	1075.22	2.7696
280	0.001333	1231.51	1204.85	3.0024	280	0.001333	1230.26	1190.27	2.9760	280	0.001333	1232.26	1165.61	2.9336
300	0.001405	1335.18	1307.08	3.1702	300	0.001405	1331.52	1289.37	3.1382	300	0.001405	1330.65	1260.40	3.0927
320	0.001496	1447.69	1417.77	3.3295	320	0.001496	1441.15	1396.28	3.2890	320	0.001496	1437.09	1362.31	3.2447
340	0.001611	1573.68	1541.46	3.4524	340	0.001611	1563.73	1515.41	3.3962	340	0.001611	1556.18	1475.65	3.3793
360	0.001756	1720.14	1685.01	3.2727	360	0.001756	1706.18	1653.49	3.1761	360	0.001756	1694.86	1607.04	3.4224
366.68	0.001813	1803.76	1767.49	3.9986	400	0.002174	2095.44	2030.24	5.1882	400	0.002174	2075.84	1967.16	4.7255