

Table W-1: Water Saturation Table – Temperature

T (°C)	P (MPa)	v_f (m ³ /kg)	v_g (m ³ /kg)	u_f (kJ/kg)	u_g (kJ/kg)	h_f (kJ/kg)	h_g (kJ/kg)	s_f (kJ/kg-K)	s_g (kJ/kg-K)	T (°C)
0.01	0.000611	0.0010002	206.136	0	2375.3	0.01	2501.4	0	9.1562	0.01
4	0.000813	0.0010001	157.232	16.77	2380.9	16.78	2508.7	0.061	9.0514	4
5	0.000872	0.0010001	147.12	20.97	2382.3	20.98	2510.6	0.0761	9.0257	5
6	0.000935	0.0010001	137.734	25.19	2383.6	25.2	2512.4	0.0912	9.0003	6
8	0.001072	0.0010002	120.917	33.59	2386.24	33.6	2516.1	0.1212	8.9501	8
10	0.001228	0.0010004	106.379	42	2389.2	42.01	2519.8	0.151	8.9008	10
11	0.001312	0.0010004	99.857	46.2	2390.5	46.2	2521.6	0.1658	8.8765	11
12	0.001402	0.0010005	93.784	50.41	2391.9	50.41	2523.4	0.1806	8.8524	12
13	0.001497	0.0010007	88.124	54.6	2393.3	54.6	2525.3	0.1953	8.8285	13
14	0.001598	0.0010008	82.848	58.79	2394.7	58.8	2527.1	0.2099	8.8048	14
15	0.001705	0.0010009	77.926	62.99	2396.1	62.99	2528.9	0.2245	8.7814	15
16	0.001818	0.0010011	73.333	67.18	2397.4	67.19	2530.8	0.239	8.7582	16
17	0.001938	0.0010012	69.044	71.38	2398.8	71.38	2532.6	0.2535	8.7351	17
18	0.002064	0.0010014	65.038	75.57	2400.2	75.58	2534.4	0.2679	8.7123	18
19	0.002198	0.0010016	61.293	79.36	2401.6	79.77	2536.2	0.2823	8.6897	19
20	0.002339	0.0010018	57.791	83.95	2402.9	83.96	2538	0.2966	8.6672	20
21	0.002487	0.001002	54.514	88.14	2404.3	88.14	2539.9	0.3109	8.645	21
22	0.002645	0.0010022	51.447	92.32	2405.7	92.33	2541.7	0.3251	8.6229	22
23	0.00281	0.0010024	48.574	96.51	2407	96.52	2543.5	0.3393	8.6011	23
24	0.002985	0.0010027	45.883	100.7	2408.4	100.7	2545.4	0.3534	8.5794	24
25	0.003169	0.0010029	43.36	104.88	2409.8	104.89	2547.2	0.3674	8.558	25
26	0.003363	0.0010032	40.994	109.06	2411.1	109.07	2549	0.3814	8.5367	26
27	0.003567	0.0010035	38.774	113.25	2412.5	113.25	2550.8	0.3954	8.5156	27
28	0.003782	0.0010037	36.69	117.42	2413.9	117.43	2552.6	0.4093	8.4946	28
29	0.004008	0.001004	34.733	121.6	2415.2	121.61	2554.5	0.4231	8.4739	29
30	0.004246	0.0010043	32.894	125.78	2416.6	125.79	2556.3	0.4369	8.4533	30
31	0.004496	0.0010046	31.165	129.96	2418	129.97	2558	0.4507	8.4329	31
32	0.004759	0.001005	29.54	134.14	2419.3	134.15	2559.9	0.4644	8.4127	32
33	0.005034	0.0010053	28.011	138.32	2420.7	138.33	2561.7	0.4781	8.3927	33
34	0.005324	0.0010056	26.571	142.5	2422	142.5	2563.5	0.4917	8.3728	34
35	0.005628	0.001006	25.216	146.67	2423.4	146.68	2565.3	0.5053	8.3531	35
36	0.005947	0.0010063	23.94	150.85	2424.7	150.86	2567.1	0.5188	8.3336	36
38	0.006632	0.0010071	21.602	159.2	2427.4	159.21	2570.7	0.5458	8.295	38
40	0.007384	0.0010078	19.523	167.56	2430.11	167.57	2574.3	0.5725	8.257	40
45	0.009593	0.0010099	15.258	188.44	2436.8	188.45	2583.2	0.6387	8.1648	45
50	0.01235	0.0010121	12.032	209.32	2443.5	209.33	2592.1	0.7038	8.0763	50
55	0.01576	0.0010146	9.568	230.21	2450.1	230.23	2600.9	0.7679	7.9913	55
60	0.01994	0.0010172	7.671	251.11	2456.6	251.13	2609.6	0.8312	7.9096	60
65	0.02503	0.0010199	6.197	272.02	2463.1	272.06	2618.3	0.8935	7.831	65
70	0.03119	0.0010228	5.042	292.95	2469.6	292.98	2626.8	0.9549	7.7553	70
75	0.03858	0.0010259	4.131	313.9	2475.9	313.93	2635.3	1.0155	7.6824	75
80	0.04739	0.0010291	3.407	334.86	2482.2	334.91	2643.7	1.0753	7.6122	80
85	0.05783	0.0010325	2.828	355.84	2488.4	355.9	2651.9	1.1343	7.5445	85
90	0.07014	0.001036	2.361	376.85	2494.5	376.92	2660.1	1.1925	7.4791	90
95	0.08455	0.0010397	1.982	397.88	2500.6	397.96	2668.1	1.25	7.4159	95
100	0.1014	0.0010435	1.673	418.94	2506.5	419.04	2676.1	1.3069	7.3549	100
110	0.1433	0.0010516	1.21	461.14	2518.1	461.3	2691.5	1.4185	7.2387	110
120	0.1985	0.0010603	0.8919	503.5	2529.3	503.71	2706.3	1.5276	7.1296	120
130	0.2701	0.0010697	0.6685	546.023	2539.9	546.31	2720.5	1.6344	7.0269	130
140	0.3613	0.0010797	0.5089	588.74	2550	589.13	2733.9	1.7391	6.9299	140
150	0.4758	0.0010905	0.3928	631.68	2559.5	632.2	2746.5	1.8418	6.8379	150
160	0.6178	0.001102	0.3071	674.86	2568.4	675.55	2758.1	1.9427	6.7502	160
170	0.7917	0.0011143	0.2428	718.33	2576.5	719.21	2768.7	2.0419	6.6663	170
180	1.002	0.0011274	0.1941	762.09	2583.7	763.22	2778.2	2.1396	6.5857	180
190	1.254	0.0011414	0.1565	806.19	2590	807.62	2786.4	2.2359	6.5079	190
200	1.554	0.0011565	0.1274	850.65	2595.3	852.45	2793.2	2.3309	6.4323	200
210	1.906	0.0011726	0.1044	895.53	2599.5	897.76	2798.5	2.4248	6.3585	210
220	1.906	0.00119	0.08619	940.87	2602.4	943.62	2802.1	2.5178	6.2861	220
230	2.795	0.0012088	0.07158	946.81	2603.9	990.12	2804	2.6099	6.2146	230
240	3.344	0.0012291	0.05976	986.74	2604	1037.3	2803.8	2.7015	6.1437	240
250	3.973	0.0012512	0.05013	1033.2	2602.4	1085.4	2801.5	2.7927	6.073	250
260	4.688	0.0012755	0.04221	1080.4	2599	1134.4	2796.6	2.8838	6.0019	260
270	5.499	0.0013023	0.03564	1128.4	2593.7	1184.5	2789.7	2.9751	5.9301	270
280	6.412	0.0013321	0.03017	1227.5	2586.1	1236	2779.6	3.0668	5.8571	280
290	7.436	0.0013656	0.02557	1278.9	2576	1289.1	2766.2	3.1594	5.7821	290
300	8.581	0.0014036	0.02167	1332	2563	1344	2749	3.2534	5.7045	300
320	11.27	0.0014988	0.01549	1444.6	2525.5	1461.5	2700.1	3.448	5.5362	320
340	14.59	0.0016379	0.0108	1570.3	2464.6	1594.2	2622	3.6594	5.3357	340
360	18.65	0.0018925	0.006945	1725.2	2351.5	1760.5	2481	3.9147	5.0526	360
374.14	22.09	0.003155	0.003155	2025.6	2029.6	2099.3	2099.3	4.4298	4.4298	374.14

Table W-2: Water Saturation Table – Pressure

P (MPa)	T (°C)	v_f (m ³ /kg)	v_g (m ³ /kg)	u_f (kJ/kg)	u_g (kJ/kg)	h_f (kJ/kg)	h_g (kJ/kg)	s_f (kJ/kg-K)	s_g (kJ/kg-K)	P (MPa)
0.004	28.96	0.001004	34.8	121.45	2415.2	121.46	2554.4	0.4226	8.4746	0.004
0.006	36.16	0.0010064	23.739	151.53	2425	151.53	2567	0.521	8.3304	0.006
0.008	41.51	0.0010084	18.103	173.87	2432.2	173.88	2577	0.5926	8.2287	0.008
0.01	45.81	0.0010102	14.674	191.82	2437.9	191.83	2584.7	0.6493	8.1502	0.01
0.02	60.06	0.0010172	7.649	251.38	2456.7	251.4	2609.7	0.832	7.9085	0.02
0.03	69.1	0.0010223	5.229	289.2	2468.4	289.23	2625.3	0.9439	7.7686	0.03
0.04	75.87	0.0010265	3.993	317.53	2477	317.58	2636.8	1.0259	7.67	0.04
0.05	81.33	0.00103	3.24	340.44	2483.9	340.49	2645.9	1.091	7.5939	0.05
0.06	85.94	0.0010331	2.732	359.79	2489.6	359.86	2653.5	1.1453	7.532	0.06
0.07	89.95	0.001036	2.365	376.63	2494.5	376.7	2660	1.1919	7.4797	0.07
0.08	93.5	0.001038	2.087	391.58	2498.8	391.66	2665.8	1.2329	7.4346	0.08
0.09	96.71	0.001041	1.869	405.06	2502.6	405.15	2670.9	1.2695	7.3949	0.09
0.1	99.63	0.0010432	1.694	417.36	2506.1	417.46	2675.5	1.3026	7.3594	0.1
0.15	111.4	0.0010528	1.159	466.94	2519.7	467.11	2693.6	1.4336	7.2233	0.15
0.2	120.2	0.0010605	0.8857	504.49	2529.5	504.7	2706.7	1.5301	7.1271	0.2
0.25	127.4	0.0010672	0.7187	535.1	2537.2	535.37	2716.9	1.6072	7.0527	0.25
0.3	133.6	0.0010732	0.6058	561.15	2543.6	561.47	2725.3	1.6718	6.9919	0.3
0.35	138.9	0.0010786	0.5243	583.95	2546.9	584.33	2732.4	1.7275	6.9405	0.35
0.4	143.6	0.0010836	0.4625	604.31	2553.6	604.74	2738.6	1.7766	6.8959	0.4
0.45	147.9	0.0010882	0.414	622.25	2557.6	623.25	2743.9	1.8207	6.8565	0.45
0.5	151.9	0.0010926	0.3749	639.68	2561.2	640.23	2748.7	1.8607	6.8212	0.5
0.6	158.9	0.0011006	0.3157	669.9	2567.4	610.56	2756.8	1.9312	6.76	0.6
0.7	165	0.001108	0.2729	696.44	2572.5	697.22	2763.5	1.9922	6.708	0.7
0.8	170.4	0.0011148	0.2404	720.22	2576.8	721.11	2769.1	2.0462	6.6628	0.8
0.9	175.4	0.0011212	0.2150	741.83	2580.5	742.83	2773.9	2.0946	6.6226	0.9
1	179.9	0.0011273	0.1944	761.68	2583.6	762.81	2778.1	2.1387	6.5863	1
1.5	198.3	0.0011539	0.1318	843.16	2594.5	844.84	2792.2	2.315	6.4448	1.5
2	212.4	0.0011767	0.09963	906.44	2600.3	908.79	2799.5	2.4474	6.3409	2
2.5	224	0.0011973	0.07998	959.11	2603.1	962.11	2803.1	2.5547	6.2575	2.5
3	233.9	0.0012165	0.06668	1004.8	2604.1	1008.4	2804.2	2.6457	6.1869	3
3.5	242.6	0.0012347	0.05707	1045.4	2603.7	1049.8	2803.4	2.7253	6.1253	3.5
4	250.4	0.0012522	0.04978	1082.3	2602.3	1087.3	2801.4	2.7964	6.0701	4
4.5	257.5	0.0012692	0.04406	1116.2	2600.1	1121.9	2798.3	2.861	6.0199	4.5
5	264	0.0012859	0.03944	1147.8	2597.1	1154.2	2794.3	2.9202	5.9734	5
6	275.6	0.0013187	0.03244	1205.4	2589.7	1213.4	2784.3	3.0267	5.8892	6
7	285.9	0.0013513	0.02737	1257.6	2580.5	1267	2772.1	3.1211	5.8133	7
8	295.1	0.0013842	0.02352	1305.6	2569.8	1316.6	2758	3.2068	5.7432	8
9	303.4	0.0014178	0.02048	1350.5	2557.8	1363.3	2742.1	3.2858	5.6772	9
10	311.1	0.0014524	0.01803	1393	2544.4	1407.6	2724.7	3.3596	5.6141	10
11	318.2	0.0014886	0.01599	1433.7	2529.8	1450.1	2705.6	3.4295	5.5527	11
12	324.8	0.0015267	0.01426	1473	2513.7	1491.3	2684.9	3.4962	5.4924	12
13	330.9	0.0015671	0.01278	1511.1	2496.1	1531.5	2662.2	3.5606	5.4323	13
14	336.8	0.0016107	0.01149	1548.6	2476.8	1571.1	2637.6	3.6232	5.3717	14
15	342.2	0.0016581	0.01034	1585.6	2455.5	1610.5	2610.5	3.6848	5.3098	15
16	347.4	0.0017107	0.009306	1622.7	2431.7	1650.1	2580.6	3.7461	5.2455	16
17	352.4	0.0017702	0.008364	1660.2	2405	1690.3	2547.2	3.8079	5.1777	17
18	357.1	0.0018397	0.007489	1698.9	2374.3	1732	2509.1	3.8715	5.1044	18
19	361.5	0.0019243	0.006657	1739.9	2338.1	1776.5	2464.5	3.9388	5.0228	19
20	365.8	0.002036	0.005834	1785.6	2293	1826.3	2409.7	4.0139	4.9269	20
22.09	374.1	0.003155	0.003155	2029.6	2029.6	2099.3	2099.3	4.4298	4.4298	22.09

Table W-3: Superheated Vapor

P = 0.006 MPa ($T_{\text{sat}} = 36.16\text{ }^{\circ}\text{C}$)				
T ($^{\circ}\text{C}$)	v (m^3/kg)	u (kJ/kg)	h (kJ/kg)	s ($\text{kJ}/\text{kg}\cdot\text{K}$)
Sat	23.739	2425	2567.4	8.3304
80	27.132	2487.3	2650.1	8.5804
120	30.219	2544.7	2726	8.784
160	33.302	2602.7	2802.5	8.9693
200	36.383	2661.4	2879.7	9.1398
240	39.462	2721	2957.8	9.2982
280	42.54	27815	3036.8	9.4464
320	45.618	2843	3116.7	9.5859
360	48.696	2905.5	3197.7	9.718
400	51.774	2969	3279.6	9.8435
440	54.851	3033.5	3362.6	9.9633
500	59.467	3132.3	3489.1	10.1336

P = 0.035 MPa ($T_{\text{sat}} = 72.69\text{ }^{\circ}\text{C}$)				
T ($^{\circ}\text{C}$)	v (m^3/kg)	u (kJ/kg)	h (kJ/kg)	s ($\text{kJ}/\text{kg}\cdot\text{K}$)
Sat	4.526	2493	2631.4	7.7158
80	4.625	2483.7	2645.6	7.7564
120	5.163	2542.4	2723.1	7.9644
160	5.696	2601.2	2800.6	8.1519
200	6.228	2660.4	2878.4	8.3237
240	6.758	2720.3	2956.8	8.4828
280	7.287	2780.9	3036	8.6314
320	7.815	2842.5	31161	8.7712
360	8.344	2905.1	3197.1	8.9034
400	8.872	2968.6	3279.2	9.0291
440	9.4	3033.2	3362.2	9.149
500	10.192	3132.1	3488.8	9.3194

P = 0.07 MPa ($T_{\text{sat}} = 89.95\text{ }^{\circ}\text{C}$)				
T ($^{\circ}\text{C}$)	v (m^3/kg)	u (kJ/kg)	h (kJ/kg)	s ($\text{kJ}/\text{kg}\cdot\text{K}$)
Sat	2.365	2494.5	2660	7.4797
100	2.434	2509.7	2680	7.5341
120	2.571	2539.7	2719.6	7.6375
160	2.841	2599.4	2798.2	7.8279
200	3.108	2659.1	2876.7	8.0012
240	3.374	2719.3	2955.5	8.1611
280	3.64	2780.2	3035	8.3162
320	3.905	2842	3115.3	8.4504
360	4.17	2904.6	3196.5	8.5828
400	4.434	2968.2	3278.6	8.7086
440	4.698	3032.9	3361.8	8.8286
500	5.095	3131.8	3488.5	8.9991

P = 0.1 MPa ($T_{\text{sat}} = 99.63\text{ }^{\circ}\text{C}$)				
T ($^{\circ}\text{C}$)	v (m^3/kg)	u (kJ/kg)	h (kJ/kg)	s ($\text{kJ}/\text{kg}\cdot\text{K}$)
Sat	1.694	2506.1	2675.5	7.3594
100	1.696	2506.7	2676.2	7.3614
120	1.793	2537.3	2716.6	7.4668
160	1.984	2597.8	2796.2	7.6597
200	2.172	2658.1	2875.3	7.8343
240	2.359	2718.5	2954.5	7.9949
280	2.546	2779.6	30342	8.1445
320	2.732	28415	3114.6	8.2849
360	2.919	2904.2	3195.9	8.4175
400	3.103	2967.9	3278.2	8.5435
440	3.288	3032.6	3361.4	8.6636
500	3.565	3131.6	3488.1	8.8342

P = 0.15 MPa ($T_{\text{sat}} = 111.37\text{ }^{\circ}\text{C}$)				
T ($^{\circ}\text{C}$)	v (m^3/kg)	u (kJ/kg)	h (kJ/kg)	s ($\text{kJ}/\text{kg}\cdot\text{K}$)
Sat	1.159	2519.7	2693.6	7.2233
120	1.188	2533.3	2711.4	7.2693
160	1.317	2595.2	2792.8	7.4665
200	1.444	2656.2	2872.9	7.6433
240	1.57	2717.2	2952.7	7.8052
280	1.695	2778.6	3032.8	7.9555
320	1.819	2840.6	3113.5	8.0964
360	1.943	2903.5	3195	8.2293
400	2.067	2967.3	3277.4	8.3555
440	2.191	3032.1	3360.7	8.4757
500	2.376	3131.2	3487.6	8.6466
600	2.685	3301.7	3704.3	8.9101

P = 0.3 MPa ($T_{\text{sat}} = 133.55\text{ }^{\circ}\text{C}$)				
T ($^{\circ}\text{C}$)	v (m^3/kg)	u (kJ/kg)	h (kJ/kg)	s ($\text{kJ}/\text{kg}\cdot\text{K}$)
Sat	0.606	2543.6	2725.3	6.9919
160	0.651	2587.1	2782.3	7.1276
200	0.716	2650.7	2865.5	7.3115
240	0.781	270131	2947.3	7.4774
280	0.844	2775.4	3028.6	7.6299
320	0.907	2838.1	3110.1	7.7722
360	0.969	2901.4	3192.2	7.9061
400	1.032	2965.6	3275	8.033
440	1.094	3030.6	3358.7	8.1538
500	1.187	3130	3486	8.3251
600	1.341	3300.8	3703.2	8.5892

P = 0.5 MPa ($T_{\text{sat}} = 151.86\text{ }^{\circ}\text{C}$)				
T ($^{\circ}\text{C}$)	v (m^3/kg)	u (kJ/kg)	h (kJ/kg)	s ($\text{kJ}/\text{kg}\cdot\text{K}$)
Sat	0.3749	2561.2	2748.7	6.8213
180	0.4045	2609.7	2812	6.9656
200	0.4249	2642.9	2855.4	7.0592
240	0.4646	2707.6	2939.9	7.2307
280	0.5034	2771.2	3022.9	7.3865
320	0.5416	2834.7	3105.6	7.5308
360	0.5796	2898.7	3188.4	7.666
400	0.6193	2963.2	3291.9	7.7938
440	0.6548	3028.6	3356	7.9152
500	0.7109	3128.4	3483.9	8.0873
600	0.8041	3299.6	3701.7	8.3522
700	0.8969	3477.5	3925.9	8.5952

P = 0.7 MPa ($T_{\text{sat}} = 164.97\text{ }^{\circ}\text{C}$)				
T ($^{\circ}\text{C}$)	v (m^3/kg)	u (kJ/kg)	h (kJ/kg)	s ($\text{kJ}/\text{kg}\cdot\text{K}$)
Sat	0.2729	2572.5	2763.5	6.708
180	0.2847	2599.8	2799.1	6.788
200	0.2999	2634.8	2844.8	6.8865
240	0.3292	2701.8	2932.2	7.0641
280	0.3574	2766.9	3017.1	7.2233
320	0.3852	2831.3	3100.9	7.3697
360	0.4126	2895.8	3184.7	7.5063
400	0.4397	2960.9	3268.7	7.635
440	0.4667	3026.6	3353.3	7.7571
500	0.507	3126.8	3481.7	7.9299
600	0.5738	3298.5	3700.2	8.1956
700	0.6403	3476.6	3924.8	8.4391

P = 1 MPa (T _{sat} = 179.91 °C)				
T (°C)	v (m ³ /kg)	u (kJ/kg)	h (kJ/kg)	s (kJ/kg-K)
Sat	0.1944	2583.6	2778.1	6.5865
200	0.206	2621.9	2827.9	6.694
240	0.2275	2692.9	2920.4	6.8817
280	0.248	2760.2	3008.2	7.0465
320	0.2678	2826.1	3093.9	7.1962
360	0.2873	2891.6	3178.9	7.3349
400	0.3066	2957.3	3263.9	7.4651
440	0.3257	3023.6	3349.3	7.5883
500	0.3541	3124.4	3478.5	7.7622
540	0.3729	3192.6	3565.6	7.872
600	0.4011	3296.8	3697.9	8.029
640	0.4198	3367.4	3787.2	8.129

P = 1.5 MPa (T _{sat} = 198.32 °C)				
T (°C)	v (m ³ /kg)	u (kJ/kg)	h (kJ/kg)	s (kJ/kg-K)
Sat	0.1318	2594.5	2792.2	6.4448
200	0.1325	2598.1	2796.8	6.4546
240	0.1483	2676.9	2899.3	6.6628
280	0.1627	2748.6	2992.7	6.8381
320	0.1765	2817.1	3081.9	6.9938
360	0.1899	2884.4	3169.2	7.1363
400	0.203	2951.3	3255.8	7.265
440	0.216	3018.5	3342.5	7.3940
500	0.2352	3120.3	3493.1	7.5698
540	0.2478	3189.1	3560.9	7.6805
600	0.2668	3293.9	3694	7.8385
640	0.2793	3364.8	3783.8	7.9391

P = 2 MPa (T _{sat} = 212.42 °C)				
T (°C)	v (m ³ /kg)	u (kJ/kg)	h (kJ/kg)	s (kJ/kg-K)
Sat	0.0996	2600.3	2799.5	6.3409
240	0.1085	2659.6	2876.5	6.4952
280	0.12	2736.4	2976.4	6.6828
320	0.1308	2807.9	3069.5	6.8452
360	0.1411	2877	3159.3	6.9917
400	0.1512	2945.2	3247.6	7.1271
440	0.1611	3013.14	3335.5	7.2546
500	0.1957	3116.2	34676	7.4317
540	0.1853	3185.6	3556.1	7.5434
600	0.1996	3290.9	3690.1	7.7024
640	0.2091	3362.2	3780.4	7.8035
700	0.2232	3470.9	3917.4	7.9487

P = 3 MPa (T _{sat} = 233.9 °C)				
T (°C)	v (m ³ /kg)	u (kJ/kg)	h (kJ/kg)	s (kJ/kg-K)
Sat	0.0667	2604.1	2804.2	6.1869
240	0.0682	2619.7	2824.3	6.2265
280	0.0771	2709.9	2941.3	6.4462
320	0.085	2788.4	3043.4	6.6245
360	0.0923	2861.7	3138.7	6.7801
400	0.0994	2932.8	3230.9	6.9212
440	0.1062	3002.9	33215	7.052
500	0.1162	3108	3456.5	7.2338
540	0.1227	3178.4	3546.6	7.3474
600	0.1324	3285	3682.3	7.5085
640	0.1388	3357	3773.5	7.6106
700	0.1484	3466.5	3911.7	7.7571

P = 4 MPa (T _{sat} = 250.4 °C)				
T (°C)	v (m ³ /kg)	u (kJ/kg)	h (kJ/kg)	s (kJ/kg-K)
Sat	0.04978	2602.3	2801.4	6.0701
280	0.05546	2680	2901.8	6.2568
320	0.06199	2767.4	3015.4	6.4553
360	0.06788	2845.7	3117.2	6.6215
400	0.07341	2919.9	3213.6	6.769
440	0.07872	2992.2	3307.1	6.9041
500	0.08643	3099.5	3445.3	7.0901
540	0.09145	3171.1	3536.9	7.2056
600	0.09885	3279.1	3674.4	7.3688
640	0.1037	3351.8	3766.6	7.472
700	0.111	3462.1	3905.9	7.6198
740	0.1157	3536.6	3999.6	7.7141

P = 6 MPa (T _{sat} = 275.64 °C)				
T (°C)	v (m ³ /kg)	u (kJ/kg)	h (kJ/kg)	s (kJ/kg-K)
Sat	0.03244	2589.7	2784.3	5.8892
280	0.03317	2605.2	2804.2	5.9252
320	0.03876	2720	2952.6	6.1846
360	0.04331	2811.2	3071.1	6.3782
400	0.04739	2892.9	3177.2	6.5408
440	0.05122	2970	3277.3	6.6853
500	0.05665	3082.2	3422.2	6.8803
540	0.06015	3156.1	3517	6.9999
600	0.06525	3266.9	3658.4	7.1677
640	0.06859	3341	3752.6	7.2731
700	0.07352	3453.1	3894.1	7.4234
740	0.07677	3528.3	3989.2	7.519

P = 8 MPa (T _{sat} = 295.06 °C)				
T (°C)	v (m ³ /kg)	u (kJ/kg)	h (kJ/kg)	s (kJ/kg-K)
Sat	0.02352	2569.8	2758	5.7432
320	0.02682	2662.7	2877.2	5.9489
360	0.03089	2772.7	3019.8	6.1819
400	0.03432	2863.8	3138.3	6.3634
440	0.03742	2946.7	3246.1	6.519
480	0.04034	3025.7	3348.4	6.6586
520	0.04313	3102.7	3447.7	6.7871
560	0.04582	3178.7	3545.3	6.9072
600	0.04845	3254.4	3642	7.0206
640	0.05102	3330.1	3738.3	7.1283
700	0.05481	3443.9	3882.4	7.2812
740	0.05729	3520.4	3978.7	7.3782

P = 10 MPa (T _{sat} = 311.06 °C)				
T (°C)	v (m ³ /kg)	u (kJ/kg)	h (kJ/kg)	s (kJ/kg-K)
Sat	0.01803	2544.4	2724.7	5.6141
320	0.01925	2588.8	2781.3	5.7103
360	0.02331	2729.1	2962.1	6.006
400	0.02641	2832.4	3096.5	6.212
440	0.02911	2922.1	3213.2	6.3805
480	0.0316	3005.4	3321.4	6.5282
520	0.03394	3085.6	3425.1	6.6622
560	0.03619	3164.1	3526	6.7864
600	0.03837	3241.7	3625.3	6.9029
640	0.04048	3318.9	3723.7	7.0131
700	0.04358	3434.7	3870.5	7.1687
740	0.0456	3512.1	3968.1	7.267

P = 12 MPa (T _{sat} = 324.75 °C)				
T (°C)	v (m ³ /kg)	u (kJ/kg)	h (kJ/kg)	s (kJ/kg-K)
Sat	0.01426	2513.7	2684.9	5.4924
360	0.01811	2678.4	2895.7	5.8361
400	0.02108	2798.3	3051.3	6.0747
440	0.02355	2896.1	3178.7	6.2586
480	0.02576	2984.4	3293.5	6.4154
520	0.02781	3068	3401.8	6.5555
560	0.02977	3149	3506.2	6.684
600	0.03164	3228.7	3608.3	6.8037
640	0.03345	3307.5	3709	6.9164
700	0.0361	3425.2	3858.4	7.0749
740	0.03781	3503.7	3957.4	7.1746

P = 14 MPa (T _{sat} = 336.75 °C)				
T (°C)	v (m ³ /kg)	u (kJ/kg)	h (kJ/kg)	s (kJ/kg-K)
Sat	0.01149	2476.8	2637.6	5.3717
360	0.01422	2617.4	2816.5	5.6602
400	0.01722	2760.9	3001.9	5.9448
440	0.01954	2868.6	3142.2	6.1474
480	0.02157	2962.5	3264.5	6.3143
520	0.02343	3049.8	3377.8	6.461
560	0.02517	3133.6	3486	6.5941
600	0.02683	3215.4	3591.1	6.7172
640	0.02843	3296	3694.1	6.8326
700	0.03075	3415.7	3846.2	6.9939
740	0.03225	3495.2	3946.7	7.0952

P = 16 MPa (T _{sat} = 347.44 °C)				
T (°C)	v (m ³ /kg)	u (kJ/kg)	h (kJ/kg)	s (kJ/kg-K)
Sat	0.00931	2413.7	2580.6	5.2455
360	0.01105	2539	2715.8	5.4614
400	0.01426	2719.4	2947.6	5.8175
440	0.01652	2839.4	3103.7	6.0429
480	0.01842	2939.7	3234.4	6.2215
520	0.02013	3031.1	3353.3	6.3752
560	0.02172	3117.8	3465.4	6.5132
600	0.02323	3201.8	3573.5	6.6399
640	0.02467	3284.2	3678.9	6.758
700	0.02674	3406	3833.9	6.9224
740	0.02808	3486.7	3935.9	7.0251

P = 18 MPa (T _{sat} = 357.06 °C)				
T (°C)	v (m ³ /kg)	u (kJ/kg)	h (kJ/kg)	s (kJ/kg-K)
Sat	0.00749	2374.3	2509.1	5.1044
360	0.00809	2418.9	2564.5	5.1922
400	0.0119	2672.8	2887	5.6887
440	0.01414	2808.2	3062.8	5.9428
480	0.01596	2915.9	3203.2	6.1345
520	0.01757	3011.8	3378	6.296
560	0.01904	3101.7	3444.4	6.4392
600	0.02042	3188	3555.6	6.5696
640	0.02174	3272.3	3663.6	6.6905
700	0.02362	3396.3	3821.5	6.858
740	0.02483	3478	3925	6.9623

P = 20 MPa (T _{sat} = 365.81 °C)				
T (°C)	v (m ³ /kg)	u (kJ/kg)	h (kJ/kg)	s (kJ/kg-K)
Sat	0.00583	2293	2409.7	4.9269
400	0.00994	2619.3	2818.1	5.554
440	0.01222	2774.9	3019.4	5.845
480	0.01399	2891.2	3170.8	6.0518
520	0.01551	2992	3302.2	6.2218
560	0.01689	3085.2	3423	6.3705
600	0.01818	3174	3537.6	6.5048
640	0.0194	3260.2	3648.1	6.6286
700	0.02113	3386.4	3809	6.7993
740	0.02224	3469.3	3914.1	6.9052
800	0.02385	3592.7	4069.7	7.0544

P = 24 MPa				
T (°C)	v (m ³ /kg)	u (kJ/kg)	h (kJ/kg)	s (kJ/kg-K)
400	0.00673	2477.8	2639.4	5.2393
440	0.00929	2700.6	2923.4	5.6506
480	0.011	2838.3	3102.3	5.895
520	0.01241	2950.5	3248.5	6.0842
560	0.01366	3051.1	3379	6.2448
600	0.01481	3145.2	3500.7	6.3875
640	0.01588	3235.5	3616.7	6.5174
700	0.01739	3366.4	3783.8	6.6947
740	0.01835	3451.7	3892.1	6.8038
800	0.01974	3578	4051.6	6.9567

P = 28 MPa				
T (°C)	v (m ³ /kg)	u (kJ/kg)	h (kJ/kg)	s (kJ/kg-K)
400	0.00383	2223.5	2330.7	4.7494
440	0.00712	2613.2	2812.6	5.4494
480	0.00885	2780.8	3028.5	5.7446
520	0.0102	2906.8	3192.3	5.9566
560	0.01136	3015.7	3333.7	6.1307
600	0.01241	3115.6	3463	6.2823
640	0.01338	3210.3	3584.8	6.4187
700	0.01473	3346.1	3758.4	6.6029
740	0.01558	3433.9	3870	6.7153
800	0.0168	3563.1	4033.4	6.872
900	0.01873	3774.3	4298.8	7.1084

P = 32 MPa				
T (°C)	v (m ³ /kg)	u (kJ/kg)	h (kJ/kg)	s (kJ/kg-K)
400	0.00236	1980.4	2055.9	4.3239
440	0.00544	2509	2683	5.2327
480	0.00722	2718.1	2949.2	5.5968
520	0.00853	2860.7	3133.7	5.8357
560	0.00963	2979	3287.2	6.0246
600	0.01061	3085.3	3424.6	6.1858
640	0.0115	3184.5	3552.5	6.329
700	0.01273	3325.4	3732.8	6.5203
740	0.0135	3415.9	3847.8	6.6361
800	0.0146	3548	4015.1	6.7966
900	0.01633	3762.7	4285.1	7.0372

Table W-4: Subcooled Liquid

P = 2.5 MPa (T _{sat} = 223.99 °C)				
T (°C)	v (m ³ /kg)	u (kJ/kg)	h (kJ/kg)	s (kJ/kg-K)
20	0.0010006	83.8	86.3	0.2961
40	0.0010067	167.25	169.77	0.5715
80	0.001028	334.29	336.86	1.0737
100	0.0010423	418.24	420.85	1.305
140	0.001084	587.82	590.52	1.7369
180	0.001261	761.16	763.97	2.1375
200	0.0011555	849.9	852.8	2.3294
220	0.001898	940.7	943.7	2.5174
Sat	0.0011973	959.1	962.1	2.5546

P = 5 MPa (T _{sat} = 263.99 °C)				
T (°C)	v (m ³ /kg)	u (kJ/kg)	h (kJ/kg)	s (kJ/kg-K)
20	0.0009995	83.65	88.65	0.2956
40	0.0010056	166.95	171.97	0.5705
80	0.0010268	333.72	338.85	1.072
100	0.001041	417.52	422.72	1.303
140	0.0010768	586.76	592.15	1.7343
180	0.00124	759.63	765.25	2.1341
200	0.001153	848.1	853.9	2.3255
220	0.0011866	938.4	944.4	2.5128
Sat	0.0012859	1147.8	1154.2	2.9202

P = 7.5 MPa (T _{sat} = 290.59 °C)				
T (°C)	v (m ³ /kg)	u (kJ/kg)	h (kJ/kg)	s (kJ/kg-K)
20	0.0009984	83.5	90.99	0.295
40	0.0010045	166.64	174.18	0.5696
80	0.0010256	333.15	340.84	1.0704
100	0.0010397	416.81	424.62	1.3011
140	0.0010752	585.72	593.78	1.7317
180	0.0011219	758.13	766.55	2.1308
220	0.0011835	936.2	945.1	2.5083
260	0.0012696	1124.4	1134	2.8763
Sat	0.0013677	1282	1292.2	3.1649

P = 10 MPa (T _{sat} = 311.06 °C)				
T (°C)	v (m ³ /kg)	u (kJ/kg)	h (kJ/kg)	s (kJ/kg-K)
20	0.0009972	83.36	93.33	0.2945
40	0.0010034	166.35	176.38	0.5686
80	0.0010245	332.59	342.83	1.0688
100	0.0010385	416.12	426.5	1.2992
140	0.0010737	584.68	595.42	1.7292
180	0.0011199	756.65	767.84	2.1275
220	0.0011805	934.1	945.9	2.5039
260	0.0012645	1121.1	1133.7	2.8699
Sat	0.0014524	1393	1407.6	3.3596

P = 15 MPa (T _{sat} = 342.24 °C)				
T (°C)	v (m ³ /kg)	u (kJ/kg)	h (kJ/kg)	s (kJ/kg-K)
20	0.000995	83.06	97.99	0.2934
40	0.0010013	165.76	180.78	0.5666
80	0.0010222	331.48	346.81	1.0656
100	0.0010361	414.74	430.28	1.2955
140	0.0010707	582.66	598.72	1.7242
180	0.0011159	753.76	770.5	2.121
220	0.0011748	929.9	947.5	2.4953
260	0.001255	1114.6	1133.4	2.8576
300	0.001377	1316.6	1337.3	3.226
Sat	0.0016581	1585.6	1610.5	3.6848

P = 20 MPa (T _{sat} = 365.81 °C)				
T (°C)	v (m ³ /kg)	u (kJ/kg)	h (kJ/kg)	s (kJ/kg-K)
20	0.0009928	82.77	102.62	0.2923
40	0.0009992	165.17	185.16	0.5646
80	0.0010199	330.4	350.8	1.0624
100	0.0010337	413.39	434.06	1.2917
140	0.0010678	580.69	602.04	1.7193
180	0.001112	750.95	773.2	2.1147
220	0.0011693	925.9	949.3	2.487
260	0.0012462	1108.6	1133.5	2.8459
300	0.0013596	1306.11	1333.3	3.2071
Sat	0.002036	1785.6	1826.3	4.0139

P = 25 MPa				
T (°C)	v (m ³ /kg)	u (kJ/kg)	h (kJ/kg)	s (kJ/kg-K)
20	0.0009907	82.47	107.24	0.2911
40	0.0009971	164.6	189.52	0.5626
100	0.0010313	412.08	437.85	1.2881
200	0.0011344	834.5	862.8	2.2961
300	0.0013442	1296.6	1330.2	3.19

P = 30 MPa				
T (°C)	v (m ³ /kg)	u (kJ/kg)	h (kJ/kg)	s (kJ/kg-K)
20	0.0009886	82.17	111.84	0.2899
40	0.0009951	164.04	193.89	0.5607
100	0.001029	410.78	441.66	1.2844
200	0.001302	831.4	865.3	2.2893
300	0.0013304	1287.9	1327.8	3.1741