

TABLE 3. THERMODYNAMIC PROPERTIES OF WATER AT SATURATION*

FAHR. TEMP. (°F)	Absolute Pressure $P \times 10^3$		Specific Volume, cu ft per lb		Enthalpy, Btu per lb			Entropy, Btu per (lb) (°F)					
	Lb/Sq In.		In. Hg	Sat. Solid v_f	Evap. $v_{fg} \times 10^{-3}$	Sat. Vapor $v_g \times 10^{-3}$	Sat. Solid h_f	Evap. h_{fg}	Sat. Vapor h_g	Sat. Solid s_f	Evap. s_{fg}	Sat. Vapor s_g	FAHR. TEMP. (°F)
-160	0.004049	0.01008	0.01008	0.01722	36070	36070	-222.05	1212.43	990.38	-0.4007	4.0456	3.6449	-160
-155	0.004040	0.01004	0.01004	0.01722	20680	20680	-218.52	1213.02	992.50	-0.4054	3.9188	3.5134	-155
-150	0.004030	0.01000	0.01000	0.01722	11390	11390	-215.32	1213.63	994.80	-0.4101	3.8188	3.4098	-150
-145	0.004020	0.00996	0.00996	0.01722	6577	6577	-212.17	1214.17	997.00	-0.4148	3.7353	3.3011	-145
-140	0.004010	0.00992	0.00992	0.01722	3884	3884	-210.49	1214.70	999.21	-0.4195	3.7098	3.2755	-140
-135	0.004000	0.00988	0.00988	0.01722	2308	2308	-210.30	1215.22	1001.42	-0.4242	3.7428	3.2498	-135
-130	0.003990	0.00984	0.00984	0.01722	1400	1400	-210.34	1215.71	1003.53	-0.4289	3.6874	3.2284	-130
-125	0.003980	0.00980	0.00980	0.01722	862.2	862.2	-210.34	1216.18	1005.94	-0.4336	3.6338	3.1800	-125
-120	0.003970	0.00976	0.00976	0.01722	538.6	538.6	-209.58	1216.63	1008.05	-0.4383	3.5815	3.1330	-120
-115	0.003960	0.00972	0.00972	0.01722	341.1	341.1	-209.58	1217.08	1010.26	-0.4430	3.5308	3.0875	-115
-110	0.003950	0.00968	0.00968	0.01722	218.9	218.9	-204.98	1217.52	1012.47	-0.4477	3.4815	3.0434	-110
-105	0.003940	0.00964	0.00964	0.01722	142.3	142.3	-203.14	1217.94	1014.68	-0.4524	3.4335	3.0006	-105
-100	0.003930	0.00960	0.00960	0.01722	93.52	93.52	-201.28	1218.37	1016.89	-0.4571	3.3868	2.9591	-100
-95	0.003920	0.00956	0.00956	0.01722	62.23	62.23	-199.40	1218.80	1019.10	-0.4618	3.3412	2.9187	-95
-90	0.003910	0.00952	0.00952	0.01722	41.86	41.86	-197.48	1219.22	1021.31	-0.4665	3.2966	2.8796	-90
-85	0.003900	0.00948	0.00948	0.01722	28.46	28.46	-195.56	1219.63	1023.52	-0.4712	3.2536	2.8415	-85
-80	0.003890	0.00944	0.00944	0.01722	19.55	19.55	-193.62	1220.04	1025.73	-0.4759	3.2114	2.8045	-80
-75	0.003880	0.00940	0.00940	0.01722	13.56	13.56	-191.69	1220.45	1027.94	-0.4806	3.1702	2.7685	-75
-70	0.003870	0.00936	0.00936	0.01722	9.501	9.501	-189.74	1220.86	1030.15	-0.4853	3.1301	2.7336	-70
-65	0.003860	0.00932	0.00932	0.01722	6.715	6.715	-187.85	1221.27	1032.36	-0.4900	3.0910	2.6986	-65
-60	0.003850	0.00928	0.00928	0.01722	4.788	4.788	-185.92	1221.68	1034.58	-0.4947	3.0526	2.6642	-60
-55	0.003840	0.00924	0.00924	0.01722	3.443	3.443	-183.94	1222.09	1036.79	-0.4994	3.0152	2.6302	-55
-50	0.003830	0.00920	0.00920	0.01722	2.496	2.496	-181.94	1222.50	1039.00	-0.5041	2.9788	2.5965	-50
-45	0.003820	0.00916	0.00916	0.01722	1.941	1.941	-180.00	1222.91	1041.21	-0.5088	2.9433	2.5633	-45
-40	0.003810	0.00912	0.00912	0.01722	1.715	1.715	-178.04	1223.32	1043.42	-0.5135	2.9088	2.5308	-40
-35	0.003800	0.00908	0.00908	0.01722	1.516	1.516	-176.04	1223.73	1045.63	-0.5182	2.8753	2.4983	-35
-30	0.003790	0.00904	0.00904	0.01722	1.343	1.343	-174.04	1224.14	1047.84	-0.5229	2.8428	2.4658	-30
-25	0.003780	0.00900	0.00900	0.01722	1.191	1.191	-172.04	1224.55	1050.05	-0.5276	2.8103	2.4333	-25
-20	0.003770	0.00896	0.00896	0.01722	1.057	1.057	-170.04	1224.96	1052.26	-0.5323	2.7778	2.4008	-20
-15	0.003760	0.00892	0.00892	0.01722	0.9391	0.9391	-168.04	1225.37	1054.47	-0.5370	2.7453	2.3683	-15
-10	0.003750	0.00888	0.00888	0.01722	0.8355	0.8355	-166.04	1225.78	1056.68	-0.5417	2.7128	2.3358	-10
-5	0.003740	0.00884	0.00884	0.01722	0.7449	0.7449	-164.04	1226.19	1058.89	-0.5464	2.6803	2.3033	-5
0	0.003730	0.00880	0.00880	0.01722	0.6658	0.6658	-162.04	1226.60	1061.10	-0.5511	2.6458	2.2708	0
5	0.003720	0.00876	0.00876	0.01722	0.5968	0.5968	-160.04	1227.01	1063.31	-0.5558	2.6113	2.2383	5
10	0.003710	0.00872	0.00872	0.01722	0.5369	0.5369	-158.04	1227.42	1065.52	-0.5605	2.5768	2.2058	10
15	0.003700	0.00868	0.00868	0.01722	0.4859	0.4859	-156.04	1227.83	1067.73	-0.5652	2.5423	2.1733	15
20	0.003690	0.00864	0.00864	0.01722	0.4430	0.4430	-154.04	1228.24	1069.94	-0.5699	2.5078	2.1408	20
25	0.003680	0.00860	0.00860	0.01722	0.4071	0.4071	-152.04	1228.65	1072.15	-0.5746	2.4733	2.1083	25
30	0.003670	0.00856	0.00856	0.01722	0.3771	0.3771	-150.04	1229.06	1074.36	-0.5793	2.4388	2.0758	30
35	0.003660	0.00852	0.00852	0.01722	0.3521	0.3521	-148.04	1229.47	1076.57	-0.5840	2.4043	2.0433	35
40	0.003650	0.00848	0.00848	0.01722	0.3311	0.3311	-146.04	1229.88	1078.78	-0.5887	2.3698	2.0108	40
45	0.003640	0.00844	0.00844	0.01722	0.3121	0.3121	-144.04	1230.29	1080.99	-0.5934	2.3353	1.9783	45
50	0.003630	0.00840	0.00840	0.01722	0.2941	0.2941	-142.04	1230.70	1083.20	-0.5981	2.3008	1.9458	50
55	0.003620	0.00836	0.00836	0.01722	0.2771	0.2771	-140.04	1231.11	1085.41	-0.6028	2.2663	1.9133	55
60	0.003610	0.00832	0.00832	0.01722	0.2611	0.2611	-138.04	1231.52	1087.62	-0.6075	2.2318	1.8808	60
65	0.003600	0.00828	0.00828	0.01722	0.2461	0.2461	-136.04	1231.93	1089.83	-0.6122	2.1973	1.8483	65
70	0.003590	0.00824	0.00824	0.01722	0.2321	0.2321	-134.04	1232.34	1092.04	-0.6169	2.1628	1.8158	70
75	0.003580	0.00820	0.00820	0.01722	0.2191	0.2191	-132.04	1232.75	1094.25	-0.6216	2.1283	1.7833	75
80	0.003570	0.00816	0.00816	0.01722	0.2071	0.2071	-130.04	1233.16	1096.46	-0.6263	2.0938	1.7508	80
85	0.003560	0.00812	0.00812	0.01722	0.1961	0.1961	-128.04	1233.57	1098.67	-0.6310	2.0593	1.7183	85
90	0.003550	0.00808	0.00808	0.01722	0.1861	0.1861	-126.04	1233.98	1100.88	-0.6357	2.0248	1.6858	90
95	0.003540	0.00804	0.00804	0.01722	0.1771	0.1771	-124.04	1234.39	1103.09	-0.6404	1.9903	1.6533	95
100	0.003530	0.00800	0.00800	0.01722	0.1691	0.1691	-122.04	1234.80	1105.30	-0.6451	1.9558	1.6208	100
105	0.003520	0.00796	0.00796	0.01722	0.1621	0.1621	-120.04	1235.21	1107.51	-0.6498	1.9213	1.5883	105
110	0.003510	0.00792	0.00792	0.01722	0.1561	0.1561	-118.04	1235.62	1109.72	-0.6545	1.8868	1.5558	110
115	0.003500	0.00788	0.00788	0.01722	0.1511	0.1511	-116.04	1236.03	1111.93	-0.6592	1.8523	1.5233	115
120	0.003490	0.00784	0.00784	0.01722	0.1471	0.1471	-114.04	1236.44	1114.14	-0.6639	1.8178	1.4908	120
125	0.003480	0.00780	0.00780	0.01722	0.1441	0.1441	-112.04	1236.85	1116.35	-0.6686	1.7833	1.4583	125
130	0.003470	0.00776	0.00776	0.01722	0.1411	0.1411	-110.04	1237.26	1118.56	-0.6733	1.7488	1.4258	130
135	0.003460	0.00772	0.00772	0.01722	0.1391	0.1391	-108.04	1237.67	1120.77	-0.6780	1.7143	1.3933	135
140	0.003450	0.00768	0.00768	0.01722	0.1371	0.1371	-106.04	1238.08	1122.98	-0.6827	1.6798	1.3608	140
145	0.003440	0.00764	0.00764	0.01722	0.1351	0.1351	-104.04	1238.49	1125.19	-0.6874	1.6453	1.3283	145
150	0.003430	0.00760	0.00760	0.01722	0.1331	0.1331	-102.04	1238.90	1127.40	-0.6921	1.6108	1.2958	150
155	0.003420	0.00756	0.00756	0.01722	0.1311	0.1311	-100.04	1239.31	1129.61	-0.6968	1.5763	1.2633	155
160	0.003410	0.00752	0.00752	0.01722	0.1291	0.1291	-98.04	1239.72	1131.82	-0.7015	1.5418	1.2308	160
165	0.003400	0.00748	0.00748	0.01722	0.1271	0.1271	-96.04	1240.13	1134.03	-0.7062	1.5073	1.1983	165
170	0.003390	0.00744	0.00744	0.01722	0.1251	0.1251	-94.04	1240.54	1136.24	-0.7109	1.4728	1.1658	170
175	0.003380	0.00740	0.00740	0.01722	0.1231	0.1231	-92.04	1240.95	1138.45	-0.7156	1.4383	1.1333	175
180	0.003370	0.00736	0.00736	0.01722	0.1211	0.1211	-90.04	1241.36	1140.66	-0.7203	1.4038	1.1008	180
185	0.003360	0.00732	0.00732	0.01722	0.1191	0.1191	-88.04	1241.77	1142.87	-0.7250	1.3693	1.0683	185
190	0.003350	0.00728	0.00728	0.01722	0.1171	0.1171	-86.04	1242.18	1145.08	-0.7297	1.3348	1.0358	190
195	0.003340	0.00724	0.00724	0.01722	0.1151	0.1151	-84.04	1242.59	1147.29	-0.7344	1.3003	1.0033	195
200	0.003330	0.00720	0.00720	0.01722	0.1131	0.1131	-82.04	1243.00	1149.50	-0.7391	1.2658	0.9708	200

* Compiled by John A. Goff and S. G. Gatch.</