

## Properties of Saturated Steam and Saturated Water\*

Absolute Pressure		Vacuum Inches of Hg	Temper- ature  t Degrees F.	Heat of the Liquid  Btu/lb.	Latent Heat of Evaporation  Btu/lb.	Total Heat of Steam  h <sub>g</sub> Btu/lb.	Specific Volume $\bar{V}$	
Lbs. per Sq. In.  P'	Inches of Hg						Water	Steam
							Cu. ft. per lb.	Cu. ft. per lb.
0.0087	0.02	29.90	32.018	0.0003	1075.5	1075.5	0.016022	3302.4
0.10	0.20	29.72	35.023	3.026	1073.8	1076.8	0.016020	2945.5
0.15	0.31	29.61	45.453	13.498	1067.9	1081.4	0.016020	2004.7
0.20	0.41	29.51	53.160	21.217	1053.5	1084.7	0.016025	1526.3
0.25	0.51	29.41	59.323	27.382	1060.1	1087.4	0.016032	1235.5
0.30	0.61	29.31	64.484	32.541	1057.1	1089.7	0.016040	1039.7
0.35	0.71	29.21	68.939	36.992	1054.6	1091.6	0.016048	898.6
0.40	0.81	29.11	72.869	40.917	1052.4	1093.3	0.016056	792.1
0.45	0.92	29.00	76.387	44.430	1050.5	1094.9	0.016063	708.8
0.50	1.02	28.90	79.586	47.623	1048.6	1096.3	0.016071	641.5
0.60	1.22	28.70	85.218	53.245	1045.5	1098.7	0.016085	540.1
0.70	1.43	28.49	90.09	58.10	1042.7	1100.8	0.016099	466.94
0.80	1.63	28.29	94.38	62.39	1040.3	1102.6	0.016112	411.69
0.90	1.83	28.09	98.24	66.24	1038.1	1104.3	0.016124	368.43
1.0	2.04	27.88	101.74	69.73	1036.1	1105.8	0.016136	333.60
1.2	2.44	27.48	107.91	75.90	1032.6	1108.5	0.016158	280.96
1.4	2.85	27.07	113.26	81.23	1029.5	1110.7	0.016178	243.02
1.6	3.26	26.66	117.98	85.95	1026.8	1112.7	0.016196	214.33
1.8	3.66	26.26	122.22	90.18	1024.3	1114.5	0.016213	191.85
2.0	4.07	25.85	126.07	94.03	1022.1	1116.2	0.016230	173.76
2.2	4.48	25.44	129.61	97.57	1020.1	1117.6	0.016245	158.87
2.4	4.89	25.03	132.88	100.84	1018.2	1119.0	0.016260	146.40
2.6	5.29	24.63	135.93	103.88	1016.4	1120.3	0.016274	135.80
2.8	5.70	24.22	138.78	106.73	1014.7	1121.5	0.016287	126.67
3.0	6.11	23.81	141.47	109.42	1013.2	1122.6	0.016300	118.73
3.5	7.13	22.79	147.56	115.51	1009.6	1125.1	0.016331	102.74
4.0	8.14	21.78	152.96	120.92	1006.4	1127.3	0.016358	90.64
4.5	9.16	20.76	157.82	125.77	1003.5	1129.3	0.016384	83.03
5.0	10.18	19.74	162.24	130.20	1000.9	1131.1	0.016407	73.532
5.5	11.20	18.72	166.29	134.26	998.5	1132.7	0.016430	67.249
6.0	12.22	17.70	170.05	138.03	996.2	1134.2	0.016451	61.984
6.5	13.23	16.69	173.56	141.54	994.1	1135.6	0.016472	57.506
7.0	14.25	15.67	176.84	144.83	992.1	1136.9	0.016491	53.650
7.5	15.27	14.65	179.93	147.93	990.2	1138.2	0.016510	50.294
8.0	16.29	13.63	182.86	150.87	988.5	1139.3	0.016527	47.345
8.5	17.31	12.61	185.63	153.65	986.8	1140.4	0.016545	44.733
9.0	18.32	11.60	188.27	156.30	985.1	1141.4	0.016561	42.402
9.5	19.34	10.58	190.80	158.84	983.6	1142.4	0.016577	40.310
10.0	20.36	9.56	193.21	161.26	982.1	1143.3	0.016592	38.420
11.0	22.40	7.52	197.75	165.82	979.3	1145.1	0.016622	35.142
12.0	24.43	5.49	201.96	170.05	976.6	1146.7	0.016650	32.394
13.0	26.47	3.45	205.88	174.00	974.2	1148.2	0.016676	30.057
14.0	28.50	1.42	209.56	177.71	971.9	1149.6	0.016702	28.043

Pressure Lbs. per Sq. In.		Temper- ature  t Degrees F.	Heat of the Liquid  Btu/lb.	Latent Heat of Evaporation  Btu/lb.	Total Heat of Steam  h <sub>g</sub> Btu/lb.	Specific Volume $\bar{V}$	
Absolute P'	Gage P					Water	Steam
						Cu. ft. per lb.	Cu. ft. per lb.
14.696	0.0	212.00	180.17	970.3	1150.5	0.016719	26.799
15.0	0.3	213.03	181.21	969.7	1150.9	0.016726	26.290
16.0	1.3	216.32	184.52	967.6	1152.1	0.016749	24.750
17.0	2.3	219.44	187.66	965.6	1153.2	0.016771	23.385
18.0	3.3	222.41	190.66	963.7	1154.3	0.016793	22.168
19.0	4.3	225.24	193.52	961.8	1155.3	0.016814	21.074
20.0	5.3	227.96	196.27	960.1	1156.3	0.016834	20.087
21.0	6.3	230.57	198.90	958.4	1157.3	0.016854	19.190
22.0	7.3	233.07	201.44	956.7	1158.1	0.016873	18.373
23.0	8.3	235.49	203.88	955.1	1159.0	0.016891	17.624
24.0	9.3	237.82	206.24	953.6	1159.8	0.016909	16.936
25.0	10.3	240.07	208.52	952.1	1160.6	0.016927	16.301
26.0	11.3	242.25	210.7	950.6	1161.4	0.016944	15.7138
27.0	12.3	244.36	212.9	949.2	1162.1	0.016961	15.1684
28.0	13.3	246.41	214.9	947.9	1162.8	0.016977	14.6607
29.0	14.3	248.40	217.0	946.5	1163.5	0.016993	14.1869
30.0	15.3	250.34	218.9	945.2	1164.1	0.017009	13.7436
31.0	16.3	252.22	220.8	943.9	1164.8	0.017024	13.3280
32.0	17.3	254.05	222.7	942.7	1165.4	0.017039	12.9376
33.0	18.3	255.84	224.5	941.5	1166.0	0.017054	12.5700
34.0	19.3	257.58	226.3	940.3	1166.6	0.017069	12.2234

\*Abstracted from ASME Steam Tables (1967), with permission of the publisher, The American Society of Mechanical Engineers, 345 East 47th Street, New York, New York 10017.

(continued on  
the next page)

## Properties of Saturated Steam and Saturated Water—continued

Pressure Lbs. per Sq. In.		Temperature t Degrees F.	Heat of the Liquid Btu./lb.	Latent Heat of Evaporation Btu./lb.	Total Heat of Steam h <sub>g</sub> Btu./lb.	Specific Volume ∇	
Absolute P'	Gage P					Water Cu. ft. per lb.	Steam Cu. ft. per lb.
35.0	20.3	259.29	228.0	939.1	1167.1	0.017083	11.8959
36.0	21.3	260.95	229.7	938.0	1167.7	0.017097	11.5860
37.0	22.3	262.58	231.4	936.9	1168.2	0.017111	11.2923
38.0	23.3	264.17	233.0	935.8	1168.8	0.017124	11.0136
39.0	24.3	265.72	234.6	934.7	1169.3	0.017138	10.7487
40.0	25.3	267.25	236.1	933.6	1169.8	0.017151	10.4965
41.0	26.3	268.74	237.7	932.6	1170.2	0.017164	10.2563
42.0	27.3	270.21	239.2	931.5	1170.7	0.017177	10.0272
43.0	28.3	271.65	240.6	930.5	1171.2	0.017189	9.8083
44.0	29.3	273.06	242.1	929.5	1171.6	0.017202	9.5991
45.0	30.3	274.44	243.5	928.6	1172.0	0.017214	9.3988
46.0	31.3	275.80	244.9	927.6	1172.5	0.017226	9.2070
47.0	32.3	277.14	246.2	926.6	1172.9	0.017238	9.0231
48.0	33.3	278.45	247.6	925.7	1173.3	0.017250	8.8465
49.0	34.3	279.74	248.9	924.8	1173.7	0.017262	8.6770
50.0	35.3	281.02	250.2	923.9	1174.1	0.017274	8.5140
51.0	36.3	282.27	251.5	923.0	1174.5	0.017285	8.3571
52.0	37.3	283.50	252.8	922.1	1174.9	0.017296	8.2061
53.0	38.3	284.71	254.0	921.2	1175.2	0.017307	8.0606
54.0	39.3	285.90	255.2	920.4	1175.6	0.017319	7.9203
55.0	40.3	287.08	256.4	919.5	1175.9	0.017329	7.7850
56.0	41.3	288.24	257.6	918.7	1176.3	0.017340	7.6543
57.0	42.3	289.38	258.8	917.8	1176.6	0.017351	7.5280
58.0	43.3	290.50	259.9	917.0	1177.0	0.017362	7.4059
59.0	44.3	291.62	261.1	916.2	1177.3	0.017372	7.2879
60.0	45.3	292.71	262.2	915.4	1177.6	0.017383	7.1736
61.0	46.3	293.79	263.3	914.6	1177.9	0.017393	7.0630
62.0	47.3	294.86	264.4	913.8	1178.2	0.017403	6.9558
63.0	48.3	295.91	265.5	913.0	1178.6	0.017413	6.8519
64.0	49.3	296.95	266.6	912.3	1178.9	0.017423	6.7511
65.0	50.3	297.98	267.6	911.5	1179.1	0.017433	6.6533
66.0	51.3	298.99	268.7	910.8	1179.4	0.017443	6.5584
67.0	52.3	299.99	269.7	910.0	1179.7	0.017453	6.4662
68.0	53.3	300.99	270.7	909.3	1180.0	0.017463	6.3767
69.0	54.3	301.96	271.7	908.5	1180.3	0.017472	6.2896
70.0	55.3	302.93	272.7	907.8	1180.6	0.017482	6.2050
71.0	56.3	303.89	273.7	907.1	1180.8	0.017491	6.1226
72.0	57.3	304.83	274.7	906.4	1181.1	0.017501	6.0425
73.0	58.3	305.77	275.7	905.7	1181.4	0.017510	5.9645
74.0	59.3	306.69	276.6	905.0	1181.6	0.017519	5.8885
75.0	60.3	307.61	277.6	904.3	1181.9	0.017529	5.8144
76.0	61.3	308.51	278.5	903.6	1182.1	0.017538	5.7423
77.0	62.3	309.41	279.4	902.9	1182.4	0.017547	5.6720
78.0	63.3	310.29	280.3	902.3	1182.6	0.017556	5.6034
79.0	64.3	311.17	281.3	901.6	1182.8	0.017565	5.5364
80.0	65.3	312.04	282.1	900.9	1183.1	0.017573	5.4711
81.0	66.3	312.90	283.0	900.3	1183.3	0.017582	5.4074
82.0	67.3	313.75	283.9	899.6	1183.5	0.017591	5.3451
83.0	68.3	314.60	284.8	899.0	1183.8	0.017600	5.2843
84.0	69.3	315.43	285.7	898.3	1184.0	0.017608	5.2249
85.0	70.3	316.26	286.5	897.7	1184.2	0.017617	5.1669
86.0	71.3	317.08	287.4	897.0	1184.4	0.017625	5.1101
87.0	72.3	317.89	288.2	896.4	1184.6	0.017634	5.0546
88.0	73.3	318.69	289.0	895.8	1184.8	0.017642	5.0004
89.0	74.3	319.49	289.9	895.2	1185.0	0.017651	4.9473
90.0	75.3	320.28	290.7	894.6	1185.3	0.017659	4.8953
91.0	76.3	321.06	291.5	893.9	1185.5	0.017667	4.8445
92.0	77.3	321.84	292.3	893.3	1185.7	0.017675	4.7947
93.0	78.3	322.61	293.1	892.7	1185.9	0.017684	4.7459
94.0	79.3	323.37	293.9	892.1	1186.0	0.017692	4.6988
95.0	80.3	324.13	294.7	891.5	1186.2	0.017700	4.6514
96.0	81.3	324.88	295.5	891.0	1186.4	0.017708	4.6055
97.0	82.3	325.63	296.3	890.4	1186.6	0.017716	4.5606
98.0	83.3	326.36	297.0	889.8	1186.8	0.017724	4.5166
99.0	84.3	327.10	297.8	889.2	1187.0	0.017732	4.4734
100.0	85.3	327.82	298.5	888.6	1187.2	0.017740	4.4310
101.0	86.3	328.54	299.3	888.1	1187.3	0.01775	4.3895
102.0	87.3	329.26	300.0	887.5	1187.5	0.01776	4.3487
103.0	88.3	329.97	300.8	886.9	1187.7	0.01777	4.3087
104.0	89.3	330.67	301.5	886.4	1187.9	0.01777	4.2695
105.0	90.3	331.37	302.2	885.8	1188.0	0.01778	4.2309
106.0	91.3	332.06	303.0	885.2	1188.2	0.01779	4.1931
107.0	92.3	332.75	303.7	884.7	1188.4	0.01779	4.1560
108.0	93.3	333.44	304.4	884.1	1188.5	0.01780	4.1195
109.0	94.3	334.11	305.1	883.6	1188.7	0.01781	4.0837

**Properties of Saturated Steam and Saturated Water—continued**

Pressure Lbs. per Sq. In.		Temperature t Degrees F.	Heat of the Liquid Btu/lb.	Latent Heat of Evaporation Btu/lb.	Total Heat of Steam h <sub>g</sub> Btu/lb.	Specific Volume V̄	
Absolute P'	Gage P					Water Cu. ft. per lb.	Steam Cu. ft. per lb.
110.0	95.3	334.79	305.8	883.1	1188.9	0.01782	4.0484
111.0	96.3	335.46	306.5	882.5	1189.0	0.01782	4.0138
112.0	97.3	336.12	307.2	882.0	1189.2	0.01783	3.9798
113.0	98.3	336.78	307.9	881.4	1189.3	0.01784	3.9464
114.0	99.3	337.43	308.6	880.9	1189.5	0.01785	3.9136
115.0	100.3	338.08	309.3	880.4	1189.6	0.01785	3.8813
116.0	101.3	338.73	309.9	879.9	1189.8	0.01786	3.8495
117.0	102.3	339.37	310.6	879.3	1189.9	0.01787	3.8183
118.0	103.3	340.01	311.3	878.8	1190.1	0.01787	3.7875
119.0	104.3	340.64	311.9	878.3	1190.2	0.01788	3.7573
120.0	105.3	341.27	312.6	877.8	1190.4	0.01789	3.7275
121.0	106.3	341.89	313.2	877.3	1190.5	0.01790	3.6983
122.0	107.3	342.51	313.9	876.8	1190.7	0.01790	3.6695
123.0	108.3	343.13	314.5	876.3	1190.8	0.01791	3.6411
124.0	109.3	343.74	315.2	875.8	1190.9	0.01792	3.6132
125.0	110.3	344.35	315.8	875.3	1191.1	0.01792	3.5857
126.0	111.3	344.95	316.4	874.8	1191.2	0.01793	3.5586
127.0	112.3	345.55	317.1	874.3	1191.3	0.01794	3.5320
128.0	113.3	346.15	317.7	873.8	1191.5	0.01794	3.5057
129.0	114.3	346.74	318.3	873.3	1191.6	0.01795	3.4799
130.0	115.3	347.33	319.0	872.8	1191.7	0.01796	3.4544
131.0	116.3	347.92	319.6	872.3	1191.9	0.01797	3.4293
132.0	117.3	348.50	320.2	871.8	1192.0	0.01797	3.4046
133.0	118.3	349.08	320.8	871.3	1192.1	0.01798	3.3802
134.0	119.3	349.65	321.4	870.8	1192.2	0.01799	3.3562
135.0	120.3	350.23	322.0	870.4	1192.4	0.01799	3.3325
136.0	121.3	350.79	322.6	869.9	1192.5	0.01800	3.3091
137.0	122.3	351.36	323.2	869.4	1192.6	0.01801	3.2861
138.0	123.3	351.92	323.8	868.9	1192.7	0.01801	3.2634
139.0	124.3	352.48	324.4	868.5	1192.8	0.01802	3.2411
140.0	125.3	353.04	325.0	868.0	1193.0	0.01803	3.2190
141.0	126.3	353.59	325.5	867.5	1193.1	0.01803	3.1972
142.0	127.3	354.14	326.1	867.1	1193.2	0.01804	3.1757
143.0	128.3	354.69	326.7	866.6	1193.3	0.01805	3.1546
144.0	129.3	355.23	327.3	866.2	1193.4	0.01805	3.1337
145.0	130.3	355.77	327.8	865.7	1193.5	0.01806	3.1130
146.0	131.3	356.31	328.4	865.2	1193.6	0.01806	3.0927
147.0	132.3	356.84	329.0	864.8	1193.8	0.01807	3.0726
148.0	133.3	357.38	329.5	864.3	1193.9	0.01808	3.0528
149.0	134.3	357.91	330.1	863.9	1194.0	0.01808	3.0332
150.0	135.3	358.43	330.6	863.4	1194.1	0.01809	3.0139
152.0	137.3	359.48	331.8	862.5	1194.3	0.01810	2.9760
154.0	139.3	360.51	332.8	861.6	1194.5	0.01812	2.9391
156.0	141.3	361.53	333.9	860.8	1194.7	0.01813	2.9031
158.0	143.3	362.55	335.0	859.9	1194.9	0.01814	2.8679
160.0	145.3	363.55	336.1	859.0	1195.1	0.01815	2.8336
162.0	147.3	364.54	337.1	858.2	1195.3	0.01817	2.8001
164.0	149.3	365.53	338.2	857.3	1195.5	0.01818	2.7674
166.0	151.3	366.50	339.2	856.5	1195.7	0.01819	2.7355
168.0	153.3	367.47	340.2	855.6	1195.8	0.01820	2.7043
170.0	155.3	368.42	341.2	854.8	1196.0	0.01821	2.6738
172.0	157.3	369.37	342.2	853.9	1196.2	0.01823	2.6440
174.0	159.3	370.31	343.2	853.1	1196.4	0.01824	2.6149
176.0	161.3	371.24	344.2	852.3	1196.5	0.01825	2.5864
178.0	163.3	372.16	345.2	851.5	1196.7	0.01826	2.5585
180.0	165.3	373.08	346.2	850.7	1196.9	0.01827	2.5312
182.0	167.3	373.98	347.2	849.9	1197.0	0.01828	2.5045
184.0	169.3	374.88	348.1	849.1	1197.2	0.01830	2.4783
186.0	171.3	375.77	349.1	848.3	1197.3	0.01831	2.4527
188.0	173.3	376.65	350.0	847.5	1197.5	0.01832	2.4276
190.0	175.3	377.53	350.9	846.7	1197.6	0.01833	2.4030
192.0	177.3	378.40	351.9	845.9	1197.8	0.01834	2.3790
194.0	179.3	379.26	352.8	845.1	1197.9	0.01835	2.3554
196.0	181.3	380.12	353.7	844.4	1198.1	0.01836	2.3322
198.0	183.3	380.96	354.6	843.6	1198.2	0.01838	2.3095
200.0	185.3	381.80	355.5	842.8	1198.3	0.01839	2.28728
205.0	190.3	383.88	357.7	840.9	1198.7	0.01841	2.23349
210.0	195.3	385.91	359.9	839.1	1199.0	0.01844	2.18217
215.0	200.3	387.91	362.1	837.2	1199.3	0.01847	2.13315
220.0	205.3	389.88	364.2	835.4	1199.6	0.01850	2.08629
225.0	210.3	391.80	366.2	833.6	1199.9	0.01852	2.04143
230.0	215.3	393.70	368.3	831.8	1200.1	0.01855	1.99846
235.0	220.3	395.56	370.3	830.1	1200.4	0.01857	1.95725
240.0	225.3	397.39	372.3	828.4	1200.6	0.01860	1.91769
245.0	230.3	399.19	374.2	826.6	1200.9	0.01863	1.87970

Properties of Saturated Steam and Saturated Water—concluded

Pressure Lbs. per Sq. In.		Temper- ature <i>t</i> Degrees F.	Heat of the Liquid Btu/lb.	Latent Heat of Evaporation Btu/lb.	Total Heat of Steam <i>h<sub>g</sub></i> Btu/lb.	Specific Volume $\bar{V}$	
Absolute <i>P'</i>	Gage <i>P</i>					Water Cu. ft. per lb.	Steam Cu. ft. per lb.
250.0	235.3	400.97	376.1	825.0	1201.1	0.01865	1.84317
255.0	240.3	402.72	378.0	823.3	1201.3	0.01868	1.80802
260.0	245.3	404.44	379.9	821.6	1201.5	0.01870	1.77418
265.0	250.3	406.13	381.7	820.0	1201.7	0.01873	1.74157
270.0	255.3	407.80	383.6	818.3	1201.9	0.01875	1.71013
275.0	260.3	409.45	385.4	816.7	1202.1	0.01878	1.67978
280.0	265.3	411.07	387.1	815.1	1202.3	0.01880	1.65049
285.0	270.3	412.67	388.9	813.6	1202.4	0.01882	1.62218
290.0	275.3	414.25	390.6	812.0	1202.6	0.01885	1.59482
295.0	280.3	415.81	392.3	810.4	1202.7	0.01887	1.56835
300.0	285.3	417.35	394.0	808.9	1202.9	0.01889	1.54274
320.0	305.3	423.31	400.5	802.9	1203.4	0.01899	1.44801
340.0	325.3	428.99	406.8	797.0	1203.8	0.01908	1.36405
360.0	345.3	434.41	412.8	791.3	1204.1	0.01917	1.28910
380.0	365.3	439.61	418.6	785.8	1204.4	0.01925	1.22177
400.0	385.3	444.60	424.2	780.4	1204.6	0.01934	1.16095
420.0	405.3	449.40	429.6	775.2	1204.7	0.01942	1.10573
440.0	425.3	454.03	434.8	770.0	1204.8	0.01950	1.05535
460.0	445.3	458.50	439.8	765.0	1204.8	0.01959	1.00921
480.0	465.3	462.82	444.7	760.0	1204.8	0.01967	0.96677
500.0	485.3	467.01	449.5	755.1	1204.7	0.01975	0.92762
520.0	505.3	471.07	454.2	750.4	1204.5	0.01982	0.89137
540.0	525.3	475.01	458.7	745.7	1204.4	0.01990	0.85771
560.0	545.3	478.84	463.1	741.0	1204.2	0.01998	0.82637
580.0	565.3	482.57	467.5	736.5	1203.9	0.02006	0.79712
600.0	585.3	486.20	471.7	732.0	1203.7	0.02013	0.76975
620.0	605.3	489.74	475.8	727.5	1203.4	0.02021	0.74408
640.0	625.3	493.19	479.9	723.1	1203.0	0.02028	0.71995
660.0	645.3	496.57	483.9	718.8	1202.7	0.02036	0.69724
680.0	665.3	499.86	487.8	714.5	1202.3	0.02043	0.67581
700.0	685.3	503.08	491.6	710.2	1201.8	0.02050	0.65556
720.0	705.3	506.23	495.4	706.0	1201.4	0.02058	0.63639
740.0	725.3	509.32	499.1	701.9	1200.9	0.02065	0.61822
760.0	745.3	512.34	502.7	697.7	1200.4	0.02072	0.60097
780.0	765.3	515.30	506.3	693.6	1199.9	0.02080	0.58457
800.0	785.3	518.21	509.8	689.6	1199.4	0.02087	0.56896
820.0	805.3	521.06	513.3	685.5	1198.8	0.02094	0.55408
840.0	825.3	523.86	516.7	681.5	1198.2	0.02101	0.53988
860.0	845.3	526.60	520.1	677.6	1197.7	0.02109	0.52631
880.0	865.3	529.30	523.4	673.6	1197.0	0.02116	0.51333
900.0	885.3	531.95	526.7	669.7	1196.4	0.02123	0.50091
920.0	905.3	534.56	530.0	665.8	1195.7	0.02130	0.48901
940.0	925.3	537.13	533.2	661.9	1195.1	0.02137	0.47759
960.0	945.3	539.65	536.3	658.0	1194.4	0.02145	0.46662
980.0	965.3	542.14	539.5	654.2	1193.7	0.02152	0.45609
1000.0	985.3	544.58	542.6	650.4	1192.9	0.02159	0.44596
1050.0	1035.3	550.53	550.1	640.9	1191.0	0.02177	0.42224
1100.0	1085.3	556.28	557.5	631.5	1189.1	0.02195	0.40058
1150.0	1135.3	561.82	564.8	622.2	1187.0	0.02214	0.38073
1200.0	1185.3	567.19	571.9	613.0	1184.8	0.02232	0.36245
1250.0	1235.3	572.38	578.8	603.8	1182.6	0.02250	0.34556
1300.0	1285.3	577.42	585.6	594.6	1180.2	0.02269	0.32991
1350.0	1335.3	582.32	592.2	585.6	1177.8	0.02288	0.31536
1400.0	1385.3	587.07	598.8	576.5	1175.3	0.02307	0.30178
1450.0	1435.3	591.70	605.3	567.6	1172.9	0.02327	0.28909
1500.0	1485.3	596.20	611.7	558.4	1170.1	0.02346	0.27719
1600.0	1585.3	604.87	624.2	540.3	1164.5	0.02387	0.25545
1700.0	1685.3	613.13	636.5	522.2	1158.6	0.02428	0.23607
1800.0	1785.3	621.02	648.5	503.8	1152.3	0.02472	0.21861
1900.0	1885.3	628.56	660.4	485.2	1145.6	0.02517	0.20278
2000.0	1985.3	635.80	672.1	466.2	1138.3	0.02565	0.18831
2100.0	2085.3	642.76	683.8	446.7	1130.5	0.02615	0.17501
2200.0	2185.3	649.45	695.5	426.7	1122.2	0.02669	0.16272
2300.0	2285.3	655.89	707.2	406.0	1113.2	0.02727	0.15133
2400.0	2385.3	662.11	719.0	384.8	1103.7	0.02790	0.14076
2500.0	2485.3	668.11	731.7	361.6	1093.3	0.02859	0.13068
2600.0	2585.3	673.91	744.5	337.6	1082.0	0.02938	0.12110
2700.0	2685.3	679.53	757.3	312.3	1069.7	0.03029	0.11194
2800.0	2785.3	684.96	770.7	285.1	1055.8	0.03134	0.10305
2900.0	2885.3	690.22	785.1	254.7	1039.8	0.03262	0.09420
3000.0	2985.3	695.33	801.8	218.4	1020.3	0.03428	0.08500
3100.0	3085.3	700.28	824.0	169.3	993.3	0.03681	0.07452
3200.0	3185.3	705.08	875.5	56.1	931.6	0.04472	0.05663
3208.2	3193.5	705.47	906.0	0.0	906.0	0.05078	0.05078

Properties of Superheated Steam\*

$\bar{V}$  = specific volume, cubic feet per pound  
 $h_g$  = total heat of steam, Btu per pound

Pressure Lbs. per Sq. In.		Sat. Temp.  t		Total Temperature—Degrees Fahrenheit (t)										
Abs. P'	Gage P			350°	400°	500°	600°	700°	800°	900°	1000°	1100°	1300°	1500°
15.0	0.3	213.03	$\bar{V}$	31.939	33.963	37.985	41.986	45.978	49.964	53.946	57.926	61.905	69.858	77.807
			$h_g$	1216.2	1239.9	1287.3	1335.2	1383.8	1433.2	1483.4	1534.5	1586.5	1693.2	1803.4
20.0	5.3	227.96	$\bar{V}$	23.900	25.428	28.457	31.466	34.465	37.458	40.447	43.435	46.420	52.388	58.352
			$h_g$	1215.4	1239.2	1286.9	1334.9	1383.5	1432.9	1483.2	1534.3	1586.3	1693.1	1803.3
30.0	15.3	250.34	$\bar{V}$	15.859	16.892	18.929	20.945	22.951	24.952	26.949	28.943	30.936	34.918	38.896
			$h_g$	1213.6	1237.8	1286.0	1334.2	1383.0	1432.5	1482.8	1534.0	1586.1	1692.9	1803.2
40.0	25.3	267.25	$\bar{V}$	11.838	12.624	14.165	15.685	17.195	18.699	20.199	21.697	23.194	26.183	29.168
			$h_g$	1211.7	1236.4	1285.0	1333.6	1382.5	1432.1	1482.5	1533.7	1585.8	1692.7	1803.0
50.0	35.3	281.02	$\bar{V}$	9.424	10.062	11.306	12.529	13.741	14.947	16.150	17.350	18.549	20.942	23.332
			$h_g$	1209.9	1234.9	1284.1	1332.9	1382.0	1431.7	1482.2	1533.4	1585.6	1692.5	1802.9
60.0	45.3	292.71	$\bar{V}$	7.815	8.354	9.400	10.425	11.438	12.446	13.450	14.452	15.452	17.448	19.441
			$h_g$	1208.0	1233.5	1283.2	1332.3	1381.5	1431.3	1481.8	1533.2	1585.3	1692.4	1802.8
70.0	55.3	302.93	$\bar{V}$	6.664	7.133	8.039	8.922	9.793	10.659	11.522	12.382	13.240	14.952	16.661
			$h_g$	1206.0	1232.0	1282.2	1331.6	1381.0	1430.9	1481.5	1532.9	1585.1	1692.2	1802.6
80.0	65.3	312.04	$\bar{V}$	5.801	6.218	7.018	7.794	8.560	9.319	10.075	10.829	11.581	13.081	14.577
			$h_g$	1204.0	1230.5	1281.3	1330.9	1380.5	1430.5	1481.1	1532.6	1584.9	1692.0	1802.5
90.0	75.3	320.28	$\bar{V}$	5.128	5.505	6.223	6.917	7.600	8.277	8.950	9.621	10.290	11.625	12.956
			$h_g$	1202.0	1228.9	1280.3	1330.2	1380.0	1430.1	1480.8	1532.3	1584.6	1691.8	1802.4
100.0	85.3	327.82	$\bar{V}$	4.590	4.935	5.588	6.216	6.833	7.443	8.050	8.655	9.258	10.460	11.659
			$h_g$	1199.9	1227.4	1279.3	1329.6	1379.5	1429.7	1480.4	1532.0	1584.4	1691.6	1802.2
120.0	105.3	341.27	$\bar{V}$	3.7815	4.0786	4.6341	5.1637	5.6813	6.1928	6.7006	7.2060	7.7096	8.7130	9.7130
			$h_g$	1195.6	1224.1	1277.4	1328.2	1378.4	1428.8	1479.8	1531.4	1583.9	1691.3	1802.0
140.0	125.3	353.04	$\bar{V}$	...	3.4661	3.9526	4.4119	4.8588	5.2995	5.7364	6.1709	6.6036	7.4652	8.3233
			$h_g$	...	1220.8	1275.3	1326.8	1377.4	1428.0	1479.1	1530.8	1583.4	1690.9	1801.7
160.0	145.3	363.55	$\bar{V}$	...	3.0060	3.4413	3.8480	4.2420	4.6295	5.0132	5.3945	5.7741	6.5293	7.2811
			$h_g$	...	1217.4	1273.3	1325.4	1376.4	1427.2	1478.4	1530.3	1582.9	1690.5	1801.4
180.0	165.3	373.08	$\bar{V}$	...	2.6474	3.0433	3.4093	3.7621	4.1084	4.4508	4.7907	5.1289	5.8014	6.4704
			$h_g$	...	1213.8	1271.2	1324.0	1375.3	1426.3	1477.7	1529.7	1582.4	1690.2	1801.2
200.0	185.3	381.80	$\bar{V}$	...	2.3598	2.7247	3.0583	3.3783	3.6915	4.0008	4.3077	4.6128	5.2191	5.8219
			$h_g$	...	1210.1	1269.0	1322.6	1374.3	1425.5	1477.0	1529.1	1581.9	1689.8	1800.9
220.0	205.3	389.88	$\bar{V}$	...	2.1240	2.4638	2.7710	3.0642	3.3504	3.6327	3.9125	4.1905	4.7426	5.2913
			$h_g$	...	1206.3	1266.9	1321.2	1373.2	1424.7	1476.3	1528.5	1581.4	1689.4	1800.6
240.0	225.3	397.39	$\bar{V}$	...	1.9268	2.2462	2.5316	2.8024	3.0661	3.3259	3.5831	3.8385	4.3456	4.8492
			$h_g$	...	1202.4	1264.6	1319.7	1372.1	1423.8	1475.6	1527.9	1580.9	1689.1	1800.4
260.0	245.3	404.44	$\bar{V}$	...	...	2.0619	2.3289	2.5808	2.8256	3.0663	3.3044	3.5408	4.0097	4.4750
			$h_g$	...	...	1262.4	1318.2	1371.1	1423.0	1474.9	1527.3	1580.4	1688.7	1800.1
280.0	265.3	411.07	$\bar{V}$	...	...	1.9037	2.1551	2.3909	2.6194	2.8437	3.0655	3.2855	3.7217	4.1543
			$h_g$	...	...	1260.0	1316.8	1370.0	1422.1	1474.2	1526.8	1579.9	1688.4	1799.8
300.0	285.3	417.35	$\bar{V}$	...	...	1.7665	2.0044	2.2263	2.4407	2.6509	2.8585	3.0643	3.4721	3.8764
			$h_g$	...	...	1257.7	1315.2	1368.9	1421.3	1473.6	1526.2	1579.4	1688.0	1799.6
320.0	305.3	423.31	$\bar{V}$	...	...	1.6462	1.8725	2.0823	2.2843	2.4821	2.6774	2.8708	3.2538	3.6332
			$h_g$	...	...	1255.2	1313.7	1367.8	1420.5	1472.9	1525.6	1578.9	1687.6	1799.3
340.0	325.3	428.99	$\bar{V}$	...	...	1.5399	1.7561	1.9552	2.1463	2.3333	2.5175	2.7000	3.0611	3.4186
			$h_g$	...	...	1252.8	1312.2	1366.7	1419.6	1472.2	1525.0	1578.4	1687.3	1799.0
360.0	345.3	434.41	$\bar{V}$	...	...	1.4454	1.6525	1.8421	2.0237	2.2009	2.3755	2.5482	2.8898	3.2279
			$h_g$	...	...	1250.3	1310.6	1365.6	1418.7	1471.5	1524.4	1577.9	1686.9	1798.8

\*Abstracted from ASME Steam Tables (1967) with permission of the publisher, the American Society of Mechanical Engineers, 345 East 47th Street, New York, N.Y. 10017.

(continued on the next page)

Properties of Superheated Steam — continued

$\bar{V}$  = specific volume, cubic feet per pound

$h_g$  = total heat of steam, Btu per pound

Pressure Lbs. per Sq. In.		Sat. Temp. <i>t</i>		Total Temperature—Degrees Fahrenheit ( <i>t</i> )										
Abs. <i>P'</i>	Gage <i>P</i>			500°	600°	700°	800°	900°	1000°	1100°	1200°	1300°	1400°	1500°
380.0	365.3	439.61	$\bar{V}$ $h_g$	1.3606 1247.7	1.5598 1309.0	1.7410 1364.5	1.9139 1417.9	2.0825 1470.8	2.2484 1523.8	2.4124 1577.4	2.5750 1631.6	2.7366 1686.5	2.8973 1742.2	3.0572 1798.5
400.0	385.3	444.60	$\bar{V}$ $h_g$	1.2841 1245.1	1.4763 1307.4	1.6499 1363.4	1.8151 1417.0	1.9759 1470.1	2.1339 1523.3	2.2901 1576.9	2.4450 1631.2	2.5987 1686.2	2.7515 1741.9	2.9037 1798.2
420.0	405.3	449.40	$\bar{V}$ $h_g$	1.2148 1242.4	1.4007 1305.8	1.5676 1362.3	1.7258 1416.2	1.8795 1469.4	2.0304 1522.7	2.1795 1576.4	2.3273 1630.8	2.4739 1685.8	2.6196 1741.6	2.7647 1798.0
440.0	425.3	454.03	$\bar{V}$ $h_g$	1.1517 1239.7	1.3319 1304.2	1.4926 1361.1	1.6445 1415.3	1.7918 1468.7	1.9363 1522.1	2.0790 1575.9	2.2203 1630.4	2.3605 1685.5	2.4998 1741.2	2.6384 1797.7
460.0	445.3	458.50	$\bar{V}$ $h_g$	1.0939 1236.9	1.2691 1302.5	1.4242 1360.0	1.5703 1414.4	1.7117 1468.0	1.8504 1521.5	1.9872 1575.4	2.1226 1629.9	2.2569 1685.1	2.3903 1740.9	2.5230 1797.4
480.0	465.3	462.82	$\bar{V}$ $h_g$	1.0409 1234.1	1.2115 1300.8	1.3615 1358.8	1.5023 1413.6	1.6384 1467.3	1.7716 1520.9	1.9030 1574.9	2.0330 1629.5	2.1619 1684.7	2.2900 1740.6	2.4173 1797.2
500.0	485.3	467.01	$\bar{V}$ $h_g$	0.9919 1231.2	1.1584 1299.1	1.3037 1357.7	1.4397 1412.7	1.5708 1466.6	1.6992 1520.3	1.8256 1574.4	1.9507 1629.1	2.0746 1684.4	2.1977 1740.3	2.3200 1796.9
520.0	505.3	471.07	$\bar{V}$ $h_g$	0.9466 1228.3	1.1094 1297.4	1.2504 1356.5	1.3819 1411.8	1.5085 1465.9	1.6323 1519.7	1.7542 1573.9	1.8746 1628.7	1.9940 1684.0	2.1125 1740.0	2.2302 1796.7
540.0	525.3	475.01	$\bar{V}$ $h_g$	0.9045 1225.3	1.0640 1295.7	1.2010 1355.3	1.3284 1410.9	1.4508 1465.1	1.5704 1519.1	1.6880 1573.4	1.8042 1628.2	1.9193 1683.6	2.0336 1739.7	2.1471 1796.4
560.0	545.3	478.84	$\bar{V}$ $h_g$	0.8653 1222.2	1.0217 1293.9	1.1552 1354.2	1.2787 1410.0	1.3972 1464.4	1.5129 1518.6	1.6266 1572.9	1.7388 1627.8	1.8500 1683.3	1.9603 1739.4	2.0699 1796.1
580.0	565.3	482.57	$\bar{V}$ $h_g$	0.8287 1219.1	0.9824 1292.1	1.1125 1353.0	1.2324 1409.2	1.3473 1463.7	1.4593 1518.0	1.5693 1572.4	1.6780 1627.4	1.7855 1682.9	1.8921 1739.1	1.9980 1795.9
600.0	585.3	486.20	$\bar{V}$ $h_g$	0.7944 1215.9	0.9456 1290.3	1.0726 1351.8	1.1892 1408.3	1.3008 1463.0	1.4093 1517.4	1.5160 1571.9	1.6211 1627.0	1.7252 1682.6	1.8284 1738.8	1.9309 1795.6
650.0	635.3	494.89	$\bar{V}$ $h_g$	0.7173 1207.6	0.8634 1285.7	0.9835 1348.7	1.0929 1406.0	1.1969 1461.2	1.2979 1515.9	1.3969 1570.7	1.4944 1625.9	1.5909 1681.6	1.6864 1738.0	1.7813 1794.9
700.0	685.3	503.08	$\bar{V}$ $h_g$	...	0.7928 1281.0	0.9072 1345.6	1.0102 1403.7	1.1078 1459.4	1.2023 1514.4	1.2948 1569.4	1.3858 1624.8	1.4757 1680.7	1.5647 1737.2	1.6530 1794.3
750.0	735.3	510.84	$\bar{V}$ $h_g$	...	0.7313 1276.1	0.8409 1342.5	0.9386 1401.5	1.0306 1457.6	1.1195 1512.9	1.2063 1568.2	1.2916 1623.8	1.3759 1679.8	1.4592 1736.4	1.5419 1793.6
800.0	785.3	518.21	$\bar{V}$ $h_g$	...	0.6774 1271.1	0.7828 1339.3	0.8759 1399.1	0.9631 1455.8	1.0470 1511.4	1.1289 1566.9	1.2093 1622.7	1.2885 1678.9	1.3669 1735.7	1.4446 1792.9
850.0	835.3	525.24	$\bar{V}$ $h_g$	...	0.6296 1265.9	0.7315 1336.0	0.8205 1396.8	0.9034 1454.0	0.9830 1510.0	1.0606 1565.7	1.1366 1621.6	1.2115 1678.0	1.2855 1734.9	1.3588 1792.3
900.0	885.3	531.95	$\bar{V}$ $h_g$	...	0.5869 1260.6	0.6858 1332.7	0.7713 1394.4	0.8504 1452.2	0.9262 1508.5	0.9998 1564.4	1.0720 1620.6	1.1430 1677.1	1.2131 1734.1	1.2825 1791.6
950.0	935.3	538.39	$\bar{V}$ $h_g$	...	0.5485 1255.1	0.6449 1329.3	0.7272 1392.0	0.8030 1450.3	0.8753 1507.0	0.9455 1563.2	1.0142 1619.5	1.0817 1676.2	1.1484 1733.3	1.2143 1791.0
1000.0	985.3	544.58	$\bar{V}$ $h_g$	...	0.5137 1249.3	0.6080 1325.9	0.6875 1389.6	0.7603 1448.5	0.8295 1505.4	0.8966 1561.9	0.9622 1618.4	1.0266 1675.3	1.0901 1732.5	1.1529 1790.3
1050.0	1035.3	550.53	$\bar{V}$ $h_g$	...	0.4821 1243.4	0.5745 1322.4	0.6515 1387.2	0.7216 1446.6	0.7881 1503.9	0.8524 1560.7	0.9151 1617.4	0.9767 1674.4	1.0373 1731.8	1.0973 1789.6
1100.0	1085.3	556.28	$\bar{V}$ $h_g$	...	0.4531 1237.3	0.5440 1318.8	0.6188 1384.7	0.6865 1444.7	0.7505 1502.4	0.8121 1559.4	0.8723 1616.3	0.9313 1673.5	0.9894 1731.0	1.0468 1789.0
1150.0	1135.3	561.82	$\bar{V}$ $h_g$	...	0.4263 1230.9	0.5162 1315.2	0.5889 1382.2	0.6544 1442.8	0.7161 1500.9	0.7754 1558.1	0.8332 1615.2	0.8899 1672.6	0.9456 1730.2	1.0007 1788.3

— Properties of Superheated Steam — concluded

$\bar{V}$  = specific volume, cubic feet per pound

$h_g$  = total heat of steam, Btu per pound

Pressure Lbs. per Sq. In.		Sat. Temp. $t$		Total Temperature—Degrees Fahrenheit ( $t$ )										
Abs. $P'$	Gage $P$			650°	700°	750°	800°	900°	1000°	1100°	1200°	1300°	1400°	1500°
1200.0	1185.3	567.19	$\bar{V}$ $h_g$	0.4497 1271.8	0.4905 1311.5	0.5273 1346.9	0.5615 1379.7	0.6250 1440.9	0.6845 1499.4	0.7418 1556.9	0.7974 1614.2	0.8519 1671.6	0.9055 1729.4	0.9584 1787.6
1300.0	1285.3	577.42	$\bar{V}$ $h_g$	0.4052 1261.9	0.4451 1303.9	0.4804 1340.8	0.5129 1374.6	0.5729 1437.1	0.6287 1496.3	0.6822 1554.3	0.7341 1612.0	0.7847 1669.8	0.8345 1727.9	0.8836 1786.3
1400.0	1385.3	587.07	$\bar{V}$ $h_g$	0.3667 1251.4	0.4059 1296.1	0.4400 1334.5	0.4712 1369.3	0.5282 1433.2	0.5809 1493.2	0.6311 1551.8	0.6798 1609.9	0.7272 1668.0	0.7737 1726.3	0.8195 1785.0
1500.0	1485.3	596.20	$\bar{V}$ $h_g$	0.3328 1240.2	0.3717 1287.9	0.4049 1328.0	0.4350 1364.0	0.4894 1429.2	0.5394 1490.1	0.5869 1549.2	0.6327 1607.7	0.6773 1666.2	0.7210 1724.8	0.7639 1783.7
1600.0	1585.3	604.87	$\bar{V}$ $h_g$	0.3026 1228.3	0.3415 1279.4	0.3741 1321.4	0.4032 1358.5	0.4555 1425.2	0.5031 1486.9	0.5482 1546.6	0.5915 1605.6	0.6336 1664.3	0.6748 1723.2	0.7153 1782.3
1700.0	1685.3	613.13	$\bar{V}$ $h_g$	0.2754 1215.3	0.3147 1270.5	0.3468 1314.5	0.3751 1352.9	0.4255 1421.2	0.4711 1483.8	0.5140 1544.0	0.5552 1603.4	0.5951 1662.5	0.6341 1721.7	0.6724 1781.0
1800.0	1785.3	621.02	$\bar{V}$ $h_g$	0.2505 1201.2	0.2906 1261.1	0.3223 1307.4	0.3500 1347.2	0.3988 1417.1	0.4426 1480.6	0.4836 1541.4	0.5229 1601.2	0.5609 1660.7	0.5980 1720.1	0.6343 1779.7
1900.0	1885.3	628.56	$\bar{V}$ $h_g$	0.2274 1185.7	0.2687 1251.3	0.3004 1300.2	0.3275 1341.4	0.3749 1412.9	0.4171 1477.4	0.4565 1538.8	0.4940 1599.1	0.5303 1658.8	0.5656 1718.6	0.6002 1778.4
2000.0	1985.3	635.80	$\bar{V}$ $h_g$	0.2056 1168.3	0.2488 1240.9	0.2805 1292.6	0.3072 1335.4	0.3534 1408.7	0.3942 1474.1	0.4320 1536.2	0.4680 1596.9	0.5027 1657.0	0.5365 1717.0	0.5695 1777.1
2100.0	2085.3	642.76	$\bar{V}$ $h_g$	0.1847 1148.5	0.2304 1229.8	0.2624 1284.9	0.2888 1329.3	0.3339 1404.4	0.3734 1470.9	0.4099 1533.6	0.4445 1594.7	0.4778 1655.2	0.5101 1715.4	0.5418 1775.7
2200.0	2185.3	649.45	$\bar{V}$ $h_g$	0.1636 1123.9	0.2134 1218.0	0.2458 1276.8	0.2720 1323.1	0.3161 1400.0	0.3545 1467.6	0.3897 1530.9	0.4231 1592.5	0.4551 1653.3	0.4862 1713.9	0.5165 1774.4
2300.0	2285.3	655.89	$\bar{V}$ $h_g$	...	0.1975 1205.3	0.2305 1268.4	0.2566 1316.7	0.2999 1395.7	0.3372 1464.2	0.3714 1528.3	0.4035 1590.3	0.4344 1651.5	0.4643 1712.3	0.4935 1773.1
2400.0	2385.3	662.11	$\bar{V}$ $h_g$	...	0.1824 1191.6	0.2164 1259.7	0.2424 1310.1	0.2850 1391.2	0.3214 1460.9	0.3545 1525.6	0.3856 1588.1	0.4155 1649.6	0.4443 1710.8	0.4724 1771.8
2500.0	2485.3	668.11	$\bar{V}$ $h_g$	...	0.1681 1176.7	0.2032 1250.6	0.2293 1303.4	0.2712 1386.7	0.3068 1457.5	0.3390 1522.9	0.3692 1585.9	0.3980 1647.8	0.4259 1709.2	0.4529 1770.4
2600.0	2585.3	673.91	$\bar{V}$ $h_g$	...	0.1544 1160.2	0.1909 1241.1	0.2171 1296.5	0.2585 1382.1	0.2933 1454.1	0.3247 1520.2	0.3540 1583.7	0.3819 1646.0	0.4088 1707.7	0.4350 1769.1
2700.0	2685.3	679.53	$\bar{V}$ $h_g$	...	0.1411 1142.0	0.1794 1231.1	0.2058 1289.5	0.2468 1377.5	0.2809 1450.7	0.3114 1517.5	0.3399 1581.5	0.3670 1644.1	0.3931 1706.1	0.4184 1767.8
2800.0	2785.3	684.96	$\bar{V}$ $h_g$	...	0.1278 1121.2	0.1685 1220.6	0.1952 1282.2	0.2358 1372.8	0.2693 1447.2	0.2991 1514.8	0.3268 1579.3	0.3532 1642.2	0.3785 1704.5	0.4030 1766.5
2900.0	2885.3	690.22	$\bar{V}$ $h_g$	...	0.1138 1095.3	0.1581 1209.6	0.1853 1274.7	0.2256 1368.0	0.2585 1443.7	0.2877 1512.1	0.3147 1577.0	0.3403 1640.4	0.3649 1703.0	0.3887 1765.2
3000.0	2985.3	695.33	$\bar{V}$ $h_g$	...	0.0982 1060.5	0.1483 1197.9	0.1759 1267.0	0.2161 1363.2	0.2484 1440.2	0.2770 1509.4	0.3033 1574.8	0.3282 1638.5	0.3522 1701.4	0.3753 1763.8
3100.0	3085.3	700.28	$\bar{V}$ $h_g$	...	...	0.1389 1185.4	0.1671 1259.1	0.2071 1358.4	0.2390 1436.7	0.2670 1506.6	0.2927 1572.6	0.3170 1636.7	0.3403 1699.8	0.3628 1762.5
3200.0	3185.3	705.08	$\bar{V}$ $h_g$	...	...	0.1300 1172.3	0.1588 1250.9	0.1987 1353.4	0.2301 1433.1	0.2576 1503.8	0.2827 1570.3	0.3065 1634.8	0.3291 1698.3	0.3510 1761.2
3300.0	3285.3	...	$\bar{V}$ $h_g$	...	...	0.1213 1158.2	0.1510 1242.5	0.1908 1348.4	0.2218 1429.5	0.2488 1501.0	0.2734 1568.1	0.2966 1623.9	0.3187 1696.7	0.3400 1759.9
3400.0	3385.3	...	$\bar{V}$ $h_g$	...	...	0.1129 1143.2	0.1435 1233.7	0.1834 1343.4	0.2140 1425.9	0.2405 1498.3	0.2646 1565.8	0.2872 1631.1	0.3088 1695.1	0.3296 1758.5

### Properties of Superheated Steam and Compressed Water\*

$\bar{V}$  = specific volume, cubic feet per pound

$h_g$  = total heat of steam, Btu per pound

Absolute Pressure Lbs. per Sq. In.		Total Temperature—Degrees Fahrenheit (t)												
		200°	400°	500°	600°	700°	800°	900°	1000°	1100°	1200°	1300°	1400°	1500°
3500	$\bar{V}$	0.0164	0.0183	0.0199	0.0225	0.0307	0.1364	0.1764	0.2066	0.2326	0.2563	0.2784	0.2995	0.3198
	$h_g$	176.0	379.1	487.6	608.4	779.4	1224.6	1338.2	1422.2	1495.5	1563.6	1629.2	1693.6	1757.2
3600	$\bar{V}$	0.0164	0.0183	0.0198	0.0225	0.0302	0.1296	0.1697	0.1996	0.2252	0.2485	0.2702	0.2908	0.3106
	$h_g$	176.3	379.3	487.6	608.1	775.1	1215.3	1333.0	1418.6	1492.6	1561.3	1627.3	1692.0	1755.9
3800	$\bar{V}$	0.0164	0.0183	0.0198	0.0224	0.0294	0.1169	0.1574	0.1868	0.2116	0.2340	0.2549	0.2746	0.2936
	$h_g$	176.7	379.5	487.7	607.5	768.4	1195.5	1322.4	1411.2	1487.0	1556.8	1623.6	1688.9	1753.2
4000	$\bar{V}$	0.0164	0.0182	0.0198	0.0223	0.0287	0.1052	0.1463	0.1752	0.1994	0.2210	0.2411	0.2601	0.2783
	$h_g$	177.2	379.8	487.7	606.9	763.0	1174.3	1311.6	1403.6	1481.3	1552.2	1619.8	1685.7	1750.6
4200	$\bar{V}$	0.0164	0.0182	0.0197	0.0222	0.0282	0.0945	0.1362	0.1647	0.1883	0.2093	0.2287	0.2470	0.2645
	$h_g$	177.6	380.1	487.8	606.4	758.6	1151.6	1300.4	1396.0	1475.5	1547.6	1616.1	1682.6	1748.0
4400	$\bar{V}$	0.0164	0.0182	0.0197	0.0222	0.0278	0.0846	0.1270	0.1552	0.1782	0.1986	0.2174	0.2351	0.2519
	$h_g$	178.1	380.4	487.9	605.9	754.8	1127.3	1289.0	1388.3	1469.7	1543.0	1612.3	1679.4	1745.3
4600	$\bar{V}$	0.0164	0.0182	0.0197	0.0221	0.0274	0.0751	0.1186	0.1465	0.1691	0.1889	0.2071	0.2242	0.2404
	$h_g$	178.5	380.7	487.9	605.5	751.5	1100.0	1277.2	1380.5	1463.9	1538.4	1608.5	1676.3	1742.7
4800	$\bar{V}$	0.0164	0.0182	0.0196	0.0220	0.0271	0.0665	0.1109	0.1385	0.1606	0.1800	0.1977	0.2142	0.2299
	$h_g$	179.0	380.9	488.0	605.0	748.6	1071.2	1265.2	1372.6	1458.0	1533.8	1604.7	1673.1	1740.0
5200	$\bar{V}$	0.0164	0.0181	0.0196	0.0219	0.0265	0.0531	0.0973	0.1244	0.1458	0.1642	0.1810	0.1966	0.2114
	$h_g$	179.9	381.5	488.2	604.3	743.7	1016.9	1240.4	1356.6	1446.2	1524.5	1597.2	1666.8	1734.7
5600	$\bar{V}$	0.0163	0.0181	0.0195	0.0217	0.0260	0.0447	0.0856	0.1124	0.1331	0.1508	0.1667	0.1815	0.1954
	$h_g$	180.8	382.1	488.4	603.6	739.6	975.0	1214.8	1340.2	1434.3	1515.2	1589.6	1660.5	1729.5
6000	$\bar{V}$	0.0163	0.0180	0.0195	0.0216	0.0256	0.0397	0.0757	0.1020	0.1221	0.1391	0.1544	0.1684	0.1817
	$h_g$	181.7	382.7	488.6	602.9	736.1	945.1	1188.8	1323.6	1422.3	1505.9	1582.0	1654.2	1724.2
6500	$\bar{V}$	0.0163	0.0180	0.0194	0.0215	0.0252	0.0358	0.0655	0.0909	0.1104	0.1266	0.1411	0.1544	0.1669
	$h_g$	182.9	383.4	488.9	602.3	732.4	919.5	1156.3	1302.7	1407.3	1494.2	1572.5	1646.4	1717.6
7000	$\bar{V}$	0.0163	0.0180	0.0193	0.0213	0.0248	0.0334	0.0573	0.0816	0.1004	0.1160	0.1298	0.1424	0.1542
	$h_g$	184.0	384.2	489.3	601.7	729.3	901.8	1124.9	1281.7	1392.2	1482.6	1563.1	1638.6	1711.1
7500	$\bar{V}$	0.0163	0.0179	0.0193	0.0212	0.0245	0.0318	0.0512	0.0737	0.0918	0.1068	0.1200	0.1321	0.1433
	$h_g$	185.2	384.9	489.6	601.3	726.6	889.0	1097.7	1261.0	1377.2	1471.0	1553.7	1630.8	1704.6
8000	$\bar{V}$	0.0162	0.0179	0.0192	0.0211	0.0242	0.0306	0.0465	0.0671	0.0845	0.0989	0.1115	0.1230	0.1338
	$h_g$	186.3	385.7	490.0	600.9	724.3	879.1	1074.3	1241.0	1362.2	1459.6	1544.5	1623.1	1698.1
9000	$\bar{V}$	0.0162	0.0178	0.0191	0.0209	0.0237	0.0288	0.0402	0.0568	0.0724	0.0858	0.0975	0.1081	0.1179
	$h_g$	188.6	387.3	490.9	600.3	720.4	864.7	1037.6	1204.1	1333.0	1437.1	1526.3	1607.9	1685.3
10000	$\bar{V}$	0.0161	0.0177	0.0189	0.0207	0.0233	0.0276	0.0362	0.0495	0.0633	0.0757	0.0865	0.0963	0.1054
	$h_g$	190.9	388.9	491.8	600.0	717.5	854.5	1011.3	1172.6	1305.3	1415.3	1508.6	1593.1	1672.8
11000	$\bar{V}$	0.0161	0.0176	0.0188	0.0205	0.0229	0.0267	0.0335	0.0443	0.0562	0.0676	0.0776	0.0868	0.0952
	$h_g$	193.2	390.5	492.8	599.9	715.1	846.9	992.1	1146.3	1280.2	1394.4	1491.5	1578.7	1660.6
12000	$\bar{V}$	0.0161	0.0176	0.0187	0.0203	0.0226	0.0260	0.0317	0.0405	0.0508	0.0610	0.0704	0.0790	0.0869
	$h_g$	195.5	392.1	493.9	599.9	713.3	841.0	977.8	1124.5	1258.0	1374.7	1475.1	1564.9	1648.8
13000	$\bar{V}$	0.0160	0.0175	0.0186	0.0201	0.0223	0.0253	0.0302	0.0376	0.0466	0.0558	0.0645	0.0725	0.0799
	$h_g$	197.8	393.8	495.0	600.1	711.9	836.3	966.8	1106.7	1238.5	1356.5	1459.4	1551.6	1637.4
14000	$\bar{V}$	0.0160	0.0174	0.0185	0.0200	0.0220	0.0248	0.0291	0.0354	0.0432	0.0515	0.0595	0.0670	0.0740
	$h_g$	200.1	395.5	496.2	600.5	710.8	832.6	958.0	1092.3	1221.4	1340.2	1444.4	1538.8	1626.5
15000	$\bar{V}$	0.0159	0.0174	0.0184	0.0198	0.0218	0.0244	0.0282	0.0337	0.0405	0.0479	0.0552	0.0624	0.0690
	$h_g$	202.4	397.2	497.4	600.9	710.0	829.5	950.9	1080.6	1206.8	1326.0	1430.3	1526.4	1615.9
15500	$\bar{V}$	0.0159	0.0173	0.0184	0.0198	0.0217	0.0242	0.0278	0.0329	0.0393	0.0464	0.0534	0.0603	0.0668
	$h_g$	203.6	398.1	498.1	601.2	709.7	828.2	947.8	1075.7	1200.3	1319.6	1423.6	1520.4	1610.8

\*Abstracted from ASME Steam Tables (1967) with permission of the publisher, The American Society of Mechanical Engineers, 345 East 47th Street, New York, N.Y. 10017