STEAM TABLES

WITH MOLLIER DIAGRAM

IN S.I. UNITS

R.S. KHURMI

S. CHAND

TABLE 1

Staturated Water and Steam (Temperature) Tables

Temperature in °C	Absolute pressure in bar	Specific volume in m³/kg		Specific enthalpy in kJ/kg			Specific entropy in kJ/kg K			Temperature in °C
		Water	Steam	Water	Evaporation	Steam	Water	Evaporation	Steam	
(t)	(p)	(v_f)	(v_g)	(h_f)	(h_{fg})	(h_g)	(s_f)	(s_{fg})	(s_g)	(t)
0	0.006 11	0.001 000	206.31	0.0	2 501.6	2 501.6	0.000	9.158	9.158	0
1	0.006 57	0.001 000	192.61	4.2	2 499.2	2 503.4	0.015	9.116	9.131	1
2	0.007 06	0.001 000	179.92	8.4	2 496.8	2 505.2	0.031	9.074	9.105	2
3	0.007 58	0.001 000	168.17	12.6	2 494.5	2 507.1	0.046	9.033	9.079	3
4	0.008 13	0.001 000	157.27	16.8	2 492.1	2 508.9	0.061	8.992	9.053	4
5	0.008 72	0.001 000	147.16	21.0	2 489.7	2 510.7	0.076	8.951	9.027	5
6	0.009 35	0.001 000	137.78	25.2	2 487.4	2 512.6	0.091	8.911	9.002	6
7	0.010 01	0.001 000	129.06	29.4	2 485.0	2 514.4	0.106	8.870	8.976	7
8	0.010 72	0.001 000	120.97	33.6	2 482.6	2 516.2	0.121	8.830	8.951	8
9	0.011 47	0.001 000	113.44	37.8	2 480.3	2 518.1	0.136	8.791	8.927	9
10	0.012 27	0.001 000	106.43	42.0	2 477.9	2 519.9	0.151	8.751	8.902	10
11	0.013 12	0.001 000	99.909	46.2	2 475.5	2 521.7	0.166	8.712	8.878	11
12	0.014 01	0.001 000	93.835	50.4	2 473.2	2 523.6	0.181	8.673	8.854	12
13	0.014 97	0.001 001	88.176	54.6	2 470.8	2 525.4	0.195	8.635	8.830	13
14	0.015 97	0.001 001	82.900	58.7	2 468.5	2 527.2	0.210	8.597	8.806	14
15	0.017 04	0.001 001	77.978	62.9	2 466.1	2 529.1	0.224	8.559	8.783	15
16	0.018 17	0.001 001	73.384	67.1	2 463.8	2 530.9	0.239	8.520	8.759	16
17	0.019 36	0.001 001	69.095	71.3	2 461.4	2 532.7	0.253	8.483	8.736	17
18	0.020 62	0.001 001	65.087	75.5	2 459.0	2 534.5	0.268	8.446	8.714	18
19	0.021 96	0.001 002	61.341	79.7	2 456.7	2 536.4	0.282	8.409	8.691	19

(t)	(p)	(v_f)	(v_g)	(h_f)	(h_{fg})	(h_g)	(s_f)	(s_{fg})	(s_g)	(t)
20	0.023 37	0.001 002	57.838	83.9	2 454.3	2 538.2	0.296	8.372	8.668	20
21	0.024 85	0.001 002	54.561	88.0	2 452.0	2 540.0	0.310	8.336	8.646	21
22	0.026 42	0.001 002	51.492	92.2	2 449.6	2 541.8	0.325	8.299	8.624	22
23	0.028 08	0.001 002	48.619	96.4	2 447.2	2 543.6	0.339	8.263	8.602	23
24	0.029 82	0.001 002	45.926	100.6	2 444.9	2 545.5	0.353	8.228	8.581	24
25	0.031 66	0.001 003	43.402	104.8	2 442.5	2 547.3	0.367	8.192	8.559	25
26	0.033 60	0.001 003	41.034	108.9	2 440.2	2 549.1	0.381	8.157	8.538	26
27	0.035 64	0.001 003	38.813	113.1	2 437.8	2 550.9	0.395	8.122	8.517	27
28	0.037 78	0.001 004	36.728	117.3	2 435.4	2 552.7	0.409	8.087	8.496	28
29	0.040 04	0.001 004	34.769	121.5	2 433.1	2 554.5	0.423	8.052	8.475	29
30	0.042 42	0.001 004	32.929	125.7	2 430.7	2 556.4	0.437	8.018	8.455	30
31	0.044 91	0.001 005	31.199	129.8	2 428.3	2 558.2	0.450	7.984	8.434	31
32	0.047 53	0.001 005	29.572	134.0	2 425.9	2 560.0	0.464	7.950	8.414	32
33	0.050 29	0.001 005	28.042	138.2	2 423.6	2 561.8	0.478	7.916	8.394	33
34	0.053 18	0.001 006	26.601	142.4	2 421.2	2 563.6	0.491	7.883	8.374	34
35	0.056 22	0.001 006	25.245	146.6	2 418.8	2 565.4	0.505	7.849	8.354	35
36	0.059 40	0.001 006	23.967	150.7	2 416.4	2 567.2	0.518	7.817	8.335	36
37	0.062 74	0.001 007	22.763	154.9	2 414.1	2 569.0	0.532	7.783	8.315	37
38	0.066 24	0.001 007	21.627	159.1	2 411.7	2 570.8	0.545	7.751	8.296	38
39	0.069 91	0.001 007	20.557	163.3	2 409.3	2 572.6	0.559	7.718	8.277	39
40	0.073 75	0.001 008	19.546	167.5	2 406.9	2 574.4	0.572	7.686	8.258	40
41	0.077 77	0.001 008	18.592	171.6	2 404.5	2 576.2	0.585	7.654	8.239	41
42	0.081 99	0.001 009	17.692	175.8	2 402.1	2 577.9	0.599	7.622	8.221	42
43	0.086 39	0.001 009	16.841	180.0	2 399.7	2 579.7	0.612	7.591	8.203	43
44	0.091 00	0.001 009	16.036	184.2	2 397.3	2 581.5	0.625	7.559	8.184	44
45	0.095 82	0.001 010	15.276	188.4	2 394.9	2 583.3	0.638	7.528	8.166	45
46	0.100 80	0.001 010	14.557	192.5	2 392.5	2 585.1	0.651	7.497	8.148	46
47	0.106 12	0.001 011	13.877	196.7	2 390.1	2 586.9	0.664	7.466	8.130	47
48	0.111 62	0.001 011	13.233	200.9	2 387.7	2 588.6	0.678	7.435	8.113	48
49	0.117 36	0.001 012	12.623	205.1	2 385.3	2 590.4	0.691	7.404	8.095	49

(t)	(p)	(v_f)	(v_g)	(h_f)	(h_{fg})	(h_g)	(s_f)	(s_{fg})	(s_g)	(t)
50	0.123 35	0.001 012	12.046	209.3	2 382.9	2 592.2	0.704	7.374	8.078	50
51	0.129 61	0.001 013	11.499	213.4	2 380.5	2 593.9	0.716	7.344	8.060	51
52	0.136 11	0.001 013	10.980	217.6	2 378.1	2 595.7	0.729	7.314	8 043	52
53	0.142 93	0.001 014	10.488	221.8	2 375.7	2 597.5	0.742	7.284	8.026	53
54	0.150 02	0.001 014	10.022	226.0	2 373.2	2 599.2	0.755	7.254	8.009	54
55	0.157 41	0.001 015	9.578 9	230.2	2 370.8	2 601.0	0.768	7.225	7.993	55
56	0.165 11	0.001 015	9.158 7	234.3	2 368.4	2 602.7	0.780	7.196	7.976	56
57	0.173 13	0.001 016	8.759 8	238.5	2 366.0	2 604.5	0.793	7.166	7.959	57
58	0.181 47	0.001 016	8.380 8	242.7	2 363.5	2 606.2	0.806	7.137	7.943	58
59	0.190 16	0.001 017	8.020 8	246.9	2 361.1	2 608.0	0.818	7.109	7.927	59
60	0.199 20	0.001 017	7.678 5	251.1	2 358.6	2 609.7	0.831	7.080	7.911	60
61	0.208 61	0.001 018	7.353 2	255.3	2 356.1	2 611.4	0.844	7.051	7.895	61
62	0.218 38	0.001 018	7.043 7	259.5	2 353.7	2 613.2	0.856	7.023	7.879	62
63	0.228 55	0.001 019	6.749 3	263.6	2 351.3	2 614.9	0.868	6.995	7.863	63
64	0.239 12	0.001 019	6.469 0	267.8	2 348.8	2 616.6	0.881	6.967	7.848	64
65	0.250 09	0.001 020	6.202 3	272.0	2 346.4	2 618.4	0.893	6.939	7.832	65
66	0.261 50	0.001 020	5.948 2	276.2	2 343.9	2 620.1	0.906	6.911	7.817	66
67	0.273 34	0.001 021	5.706 2	280.4	2 341.4	2 621.8	0.918	6.884	7.802	67
68	0.285 63	0.001 022	5.475 6	284.6	2 338.9	2 623.5	0.930	6.856	7.786	68
69	0.298 38	0.001 022	5.255 8	288.8	2 336.4	2 625.2	0.943	6.828	7.771	69
70	0.311 62	0.001 023	5.046 3	293.0	2 333.9	2 626.9	0.955	6.802	7.757	70
71	0.325 35	0.001 024	4.846 4	297.2	2 331.4	2 628.6	0.967	6.775	7.742	71
72	0.339 58	0.001 024	4.655 7	301.3	2 329.0	2 630.3	0.979	6.748	7.727	72
73	0.354 34	0.001 025	4.473 7	305.5	2 326.5	2 632.0	0.991	6.721	7.712	73
74	0.369 64	0.001 025	4.300 0	309.7	2 324.0	2 633.7	1.003	6.695	7.698	74
75	0.385 49	0.001 026	4.134 1	313.9	2 321.5	2 635.4	1.015	6.668	7.683	75
76	0.401 91	0.001 027	3.975 7	318.1	2 318.9	2 637.0	1.027	6.642	7.669	76
77	0.418 91	0.001 027	3.824 3	322.3	2 316.4	2 638.7	1.039	6.616	7.655	77
78	0.436 52	0.001 028	3.679 6	326.5	2 313.9	2 640.4	1.051	6.590	7.641	78
79	0.454 74	0.001 029	3.541 3	330.7	2 311.4	2 642.1	1.063	6.564	7.627	79

(t)	(p)	(v_f)	(v_g)	(h_f)	(h_{fg})	(h_g)	(s_f)	(s_{fg})	(s_g)	(t)
80	0.473 60	0.001 029	3.409 1	334.9	2 308.9	2 643.8	1.075	6.538	7.613	80
81	0.493 11	0.001 030	3.282 6	339.1	2 306.3	2 645.4	1.087	6.512	7.599	81
82	0.513 29	0.001 031	3.161 6	343.3	2 303.8	2 647.1	1.099	6.487	7.586	82
83	0.534 16	0.001 031	3.045 8	347.5	2 301.2	2 648.7	1.111	6.461	7.572	83
84	0.555 73	0.001 032	2.935 0	351.7	2 298.7	2 650.4	1.123	6.436	7.559	84
85	0.578 03	0.001 033	2.828 8	355.9	2 296.1	2 652.0	1.134	6.411	7.545	85
86	0.601 08	0.001 033	2.727 2	360.1	2 293.5	2 653.6	1.146	6.386	7.532	86
87	0.624 89	0.001 034	2.629 8	364.3	2 291.0	2 655.3	1.158	6.361	7.519	87
88	0.649 48	0.001 035	2.536 5	368.5	2 288.4	2 656.9	1.169	6.337	7.506	88
89	0.674 87	0.001 035	2.447 0	372.7	2 285.8	2 658.5	1.181	6.312	7.493	89
90	0.701 09	0.001 036	2.361 3	376.9	2 283.2	2 660.1	1.193	6.287	7.480	90
91	0.728 15	0.001 037	2.279 1	381.1	2 280.6	2 661.7	1.204	6.263	7.467	91
92	0.756 06	0.001 038	2.200 2	385.4	2 278.0	2 663.4	1.216	6.238	7.454	92
93	0.784 89	0.001 038	2.124 5	389.6	2 275.4	2 665.0	1.227	6.215	7.442	93
94	0.814 61	0.001 039	2.051 9	393.8	2 272.8	2 666.6	1.239	6.190	7.429	94
95	0.845 26	0.001 040	1.982 2	398.0	2 270.1	2 668.1	1.250	6.167	7.417	95
96	0.876 86	0.001 041	1.915 3	402.2	2 267.5	2 669.7	1.261	6.143	7.404	96
97	0.909 44	0.001 041	1.851 0	406.4	2 264.9	2 671.3	1.273	6.119	7.392	97
98	0.943 01	0.001 042	1.789 3	410.6	2 262.3	2 672.9	1.284	6.096	7.380	98
99	0.977 61	0.001 043	1.730 0	414.8	2 259.6	2 674.4	1.296	6.072	7.368	99
100	1.013 3	0.001 044	1.673 0	419.1	2 256.9	2 676.0	1.307	6.048	7.355	100
102	1.087 6	0.001 045	1.565 5	427.5	2 251.6	2 679.1	1.329	6.002	7.331	102
104	1.166 8	0.001 047	1.466 2	435.9	2 246.3	2 682.2	1.352	5.956	7.308	104
106	1.250 4	0.001 048	1.374 2	444.4	2 240.9	2 685.3	1.374	5.910	7.284	106
108	1.339 0	0.001 050	1.288 9	452.9	2 235.4	2 688.3	1.396	5.865	7.261	108
110	1.432 7	0.001 052	1.209 9	461.3	2 230.0	2 691.3	1.418	5.821	7.239	110
112	1.531 6	0.001 054	1.136 6	469.8	2 224.5	2 694.3	1.440	5.776	7.216	112
114	1.636 2	0.001 055	1.068 5	478.3	2 218.9	2 697.2	1.462	5.732	7.194	114
116	1.746 5	0.001 057	1.005 2	486.7	2 213.5	2 700.2	1.484	5.688	7.172	116
118	1.862 8	0.001 059	0.946 34	495.2	2 207.9	2 703.1	1.506	5.645	7.151	118

(t)	(p)	(v_f)	(v_g)	(h_f)	(h_{fg})	(h_g)	(s_f)	(s_{fg})	(s_g)	(t)
120	1.985 4	0.001 061	0.891 52	503.7	2 202.3	2 706.0	1.528	5.601	7.129	120
122	2.114 5	0.001 063	0.840 45	512.2	2 196.6	2 708.8	1.549	5.559	7.108	122
124	2.250 4	0.001 064	0.792 83	520.7	2 190.9	2 711.6	1.570	5.517	7.087	124
126	2.393 3	0.001 066	0.748 40	529.2	2 185.2	2 714.4	1.592	5.475	7.067	126
128	2.543 5	0.001 068	0.706 91	537.8	2 179.4	2 717.2	1.613	5.433	7.046	128
130	2.701 3	0.001 070	0.668 14	546.3	2 173.6	2 719.9	1.634	5.392	7.026	130
132	2.867 0	0.001 072	0.631 88	554.8	2 167.8	2 722.6	1.655	5.351	7.006	132
134	3.040 7	0.001 074	0.597 95	563.4	2 161.9	2 725.3	1.676	5.310	6.986	134
136	3.222 9	0.001 076	0.566 18	572.0	2 155.9	2 727.9	1.697	5.270	6.967	136
138	3.413 8	0.001 078	0.536 41	580.5	2 150.0	2 730.5	1.718	5.229	6.947	138
140	3.613 9	0.001 080	0.508 49	589.1	2 144.0	2 733.1	1.739	5.189	6.928	140
142	3.823 1	0.001 082	0.482 30	597.7	2 137.9	2 735.6	1.760	5.150	6.910	142
144	4.042 0	0.001 084	0.457 71	606.3	2 131.8	2 738.1	1.780	5.111	6.891	144
146	4.270 9	0.001 086	0.434 60	614.9	2 125.7	2 740.6	1.801	5.071	6.872	146
148	4.510 1	0.001 089	0.412 88	623.5	2 119.5	2 743.0	1.821	5.033	6.854	148
150	4.760 0	0.001 091	0.392 45	632.2	2 113.2	2 745.4	1.842	4.994	6.836	150
155	5.433 3	0.001 096	0.346 44	653.8	2 097.4	2 751.2	1.892	4.899	6.791	155
160	6.180 6	0.001 102	0.306 76	675.5	2 081.2	2 756.7	1.943	4.805	6.748	160
165	7.007 7	0.001 108	0.272 40	697.2	2 064.8	2 762.0	1.992	4.713	6.705	165
170	7.920 2	0.001 114	0.242 55	719.1	2 048.0	2 767.1	2.042	4.621	6.663	170
175	8.924 4	0.001 121	0.216 54	741.1	2 030.7	2 771.8	2.091	4.531	6.622	175
180	10.027	0.001 128	0.193 80	763.1	2 013.2	2 776.3	2.139	4.443	6.582	180
185	11.233	0.001 135	0.173 86	785.3	1 995.1	2 780.4	2.187	4.355	6.542	185
190	12.551	0.001 142	0.156 32	807.5	1 976.8	2 784.3	2.236	4.268	6.504	190
195	13.987	0.001 149	0.140 84	829.9	1 957.9	2 787.8	2.283	4.182	6.465	195
200	15.549	0.001 156	0.127 16	852.4	1 938.5	2 790.9	2.331	4.097	6.428	200
205	17.243	0.001 164	0.115 03	875.0	1 918.8	2 793.8	2.378	4.013	6.391	205
210	19.077	0.001 172	0.104 24	897.7	1 898.5	2 796.2	2.425	3.929	6.354	210
215	21.060	0.001 181	0.094 625	920.6	1 877.7	2 798.3	2.471	3.846	6.317	215
220	23.198	0.001 190	0.086 038	943.7	1 856.2	2 799.9	2.518	3.764	6.282	220

(t)	(p)	(v_f)	(v_g)	(h_f)	(h_{fg})	(h_g)	(s_f)	(s_{fg})	(s_g)	(t)
225	25.501	0.001 199	0.078 349	966.9	1 834.3	2 801.2	2.564	3.682	6.246	225
230	27.976	0.001 209	0.071 450	990.3	1 811.7	2 802.0	2.610	3.601	6.211	230
235	30.632	0.001 219	0.065 245	1 013.8	1 788.5	2 802.3	2.656	3.519	6.175	235
240	33.478	0.001 229	0.059 654	1 037.6	1 764.6	2 802.2	2.702	3.439	6.141	240
245	36.523	0.001 240	0.054 606	1 061.6	1 740.0	2 801.6	2.748	3.358	6.106	245
250	39.776	0.001 251	0.050 037	1 085.8	1 714.6	2 800.4	2.794	3.277	6.071	250
255	43.246	0.001 263	0.045 896	1 110.2	1 688.5	2 798.7	2.839	3.197	6.036	255
260	46.943	0.001 276	0.042 134	1 134.9	1 661.5	2 796.4	2.885	3.116	6.001	260
265	50.877	0.001 289	0.038 710	1 159.9	1 633.6	2 793.5	2.931	3.035	5.966	265
270	55.058	0.001 303	0.035 588	1 185.2	1 604.7	2 789.9	2.976	2.954	5.930	270
275	59.496	0.001 317	0.032 736	1 210.8	1 574.7	2 785.5	3.022	2.873	5.895	275
280	64.202	0.001 332	0.030 126	1 236.8	1 543.6	2 780.4	3.068	2.790	5.858	280
285	69.186	0.001 349	0.027 733	1 263.2	1 511.3	2 774.5	3.115	2.707	5.822	285
290	74.461	0.001 366	0.025 535	1 290.0	1 477.6	2 767.6	3.161	2.624	5.785	290
295	80.037	0.001 384	0.023 513	1 317.3	1 442.5	2 759.8	3.208	2.539	5.747	295
300	85.927	0.001 404	0.021 649	1 345.0	1 406.0	2 751.0	3.255	2.453	5.708	300
305	92.144	0.001 425	0.019 927	1 373.4	1 367.7	2 741.1	3.303	2.366	5.669	305
310	98.700	0.001 448	0.018 334	1 402.4	1 327.6	2 730.0	3.351	2.277	5.628	310
315	105.61	0.001 473	0.016 856	1 432.1	1 285.5	2 717.6	3.400	2.186	5.586	315
320	112.89	0.001 500	0.015 480	1 462.6	1 241.1	2 703.7	3.450	2.092	5.542	320
325	120.56	0.001 529	0.014 195	1 494.0	1 194.0	2 688.0	3.501	1.996	5.497	325
330	128.63	0.001 562	0.012 989	1 526.5	1 143.7	2 670.2	3.553	1.896	5.449	330
335	137.12	0.001 598	0.011 854	1 560.2	1 089.5	2 649.7	3.606	1.792	5.398	335
340	146.05	0.001 639	0.010 780	1 595.5	1 030.7	2 626.2	3.662	1.681	5.343	340
345	155.45	0.001 686	0.097 631	1 632.5	966.4	2 598.9	3.719	1.564	5.283	345
350	165.35	0.001 741	0.087 991	1 671.9	895.8	2 567.7	3.780	1.438	5.218	350
355	175.77	0.001 809	0.078 592	1 716.6	813.8	2 530.4	3.849	1.295	5.144	355
360	186.75	0.001 896	0.069 398	1 764.2	721.2	2 485.4	3.921	1.139	5.060	360
365	198.33	0.002 016	0.060 116	1 818.0	610.0	2 428.0	4.002	0.956	4.958	365
370	210.54	0.002 214	0.049 728	1 890.2	452.6	2 342.8	4.111	0.703	4.814	370
374.15	221.20	0.003 170	0.003 170	2 107.4	0.0	2 107.4	4.443	0.000	4.443	374.15

TABLE 2
Saturated Water and Steam (Pressure) Tables

Absolute pressure in bar	Temperature in °C	Specific volume in m^3/kg		Specific enthalpy in kJ/kg			Specific entropy in kJ/kg K			Absolute pressure in bar
		water	Steam	Water	Evaporation	Steam	Water	Evaporation	Steam	
(p)	(t)	(v_f)	(v_g)	(h_f)	(h_{fg})	(h_g)	(s_f)	(s_{fg})	(s_g)	(p)
0.006 1	0.000	0.001 000	206.31	0.0	2 501.6	2 501.6	0.000	9.158	9.158	**0.006 1**
0.010	6.983	0.001 000	129.21	29.3	2 485.1	2 514.4	0.106	8.871	8.977	**0.010**
0.015	13.04	0.001 001	87.982	54.7	2 470.8	2 525.5	0.196	8.634	8.830	**0.015**
0.020	17.51	0.001 001	67.006	73.5	2 460.1	2 533.6	0.261	8.464	8.725	**0.020**
0.025	21.10	0.001 002	54.256	88.4	2 451.8	2 540.2	0.312	8.333	8.645	**0.025**
0.030	24.10	0.001 003	45.667	101.0	2 444.6	2 545.6	0.354	8.224	8.578	**0.030**
0.035	26.69	0.001 003	39.479	111.8	2 438.6	2 550.4	0.391	8.132	8.523	**0.035**
0.040	28.98	0.001 004	34.802	121.4	2 433.1	2 554.5	0.423	8.053	8.476	**0.040**
0.045	31.03	0.001 005	31.141	130.0	2 428.2	2 558.2	0.451	7.983	8.434	**0.045**
0.050	32.90	0.001 005	28.194	137.8	2 423.8	2 561.6	0.476	7.920	8.396	**0.050**
0.060	36.18	0.001 006	23.741	151.5	2 416.0	2 567.5	0.521	7.810	8.331	**0.06**
0.070	39.03	0.001 007	20.531	163.4	2 409.2	2 572.6	0.559	7.718	8.277	**0.07**
0.080	41.53	0.001 008	18.105	173.9	2 403.2	2 577.1	0.593	7.637	8.230	**0.08**
0.090	43.79	0.001 009	16.204	183.3	2 397.8	2 581.1	0.622	7.566	8.188	**0.09**
0.100	45.83	0.001 010	14.675	191.8	2 392.9	2 584.7	0.649	7.502	8.151	**0.10**
0.11	47.71	0.001 011	13.416	199.7	2 388.4	2 588.1	0.674	7.444	8.118	**0.11**
0.12	49.45	0.001 012	12.362	206.9	2 384.3	2 591.2	0.696	7.391	8.087	**0.12**
0.13	51.06	0.001 013	11.466	213.7	2 380.3	2 594.0	0.717	7.342	8.059	**0.13**
0.14	52.57	0.001 013	10.694	220.0	2 376.7	2 596.7	0.737	7.296	8.033	**0.14**
0.15	54.00	0.001 014	10.023	226.0	2 373.2	2 599.2	0.755	7.254	8.009	**0.15**

(p)	(t)	(v_f)	(v_g)	(h_f)	(h_{fg})	(h_g)	(s_f)	(s_{fg})	(s_g)	(p)
0.16	55.34	0.001 015	9.433 1	231.6	2 370.0	2 601.6	0.772	7.215	7.987	**0.16**
0.17	56.62	0.001 015	8.911 1	236.9	2 366.9	2 603.8	0.788	7.178	7.966	**0.17**
0.18	57.83	0.001 016	8.445 2	242.0	2 363.9	2 605.9	0.804	7.142	7.946	**0.18**
0.19	58.98	0.001 017	8.027 2	246.8	2 361.1	2 607.9	0.818	7.109	7.927	**0.19**
0.20	60.09	0.001 017	7.649 8	251.5	2 358.4	2 609.9	0.832	7.077	7.909	**0.20**
0.21	61.15	0.001 018	7.307 3	255.9	2 355.8	2 611.7	0.845	7.047	7.892	**0.21**
0.22	62.16	0.001 018	6.995 1	260.1	2 353.4	2 613.5	0.858	7.018	7.876	**0.22**
0.23	63.14	0.001 019	6.709 3	264.2	2 351.0	2 615.2	0.870	6.991	7.861	**0.23**
0.24	64.08	0.001 019	6.446 7	268.2	2 348.6	2 616.8	0.882	6.964	7.846	**0.24**
0.25	64.99	0.001 020	6.204 5	272.0	2 346.3	2 618.3	0.893	6.939	7.832	**0.25**
0.26	65.87	0.001 020	5.980 3	275.7	2 344.2	2 619.9	0.904	6.915	7.819	**0.26**
0.27	66.72	0.001 021	5.772 4	279.2	2 342.1	2 621.3	0.915	6.891	7.806	**0.27**
0.28	67.55	0.001 021	5.577 8	282.7	2 340.0	2 622.7	0.925	6.868	7.793	**0.28**
0.29	68.35	0.001 022	5.398 2	286.0	2 338.1	2 624.1	0.935	6.847	7.781	**0.29**
0.30	69.12	0.001 022	5.229 3	289.3	2 336.1	2 625.4	0.944	6.825	7.769	**0.30**
0.32	70.62	0.001 023	4.922 0	295.6	2 332.4	2 628.0	0.962	6.785	7.747	**0.32**
0.34	72.03	0.001 024	4.650 4	301.5	2 328.9	2 630.4	0.980	6.747	7.727	**0.34**
0.36	73.37	0.001 025	4.407 6	307.1	2 325.5	2 632.6	0.996	6.711	7.707	**0.36**
0.38	74.66	0.001 026	4.190 0	312.5	2 322.3	2 634.8	1.011	6.677	7.688	**0.38**
0.40	75.89	0.001 027	3.993 4	317.7	2 319.2	2 636.9	1.026	6.645	7.671	**0.40**
0.42	77.06	0.001 027	3.814 8	322.6	2 316.3	2 638.9	1.040	6.614	7.654	**0.42**
0.44	78.19	0.001 028	3.652 2	327.3	2 313.4	2 640.7	1.054	6.584	7.638	**0.44**
0.46	79.28	0.001 029	3.503 2	331.9	2 310.7	2 642.6	1.067	6.556	7.623	**0.46**
0.48	80.33	0.001 029	3.366 3	336.3	2 308.0	2 644.3	1.079	6.530	7.609	**0.48**
0.50	81.35	0.001 030	3.240 1	340.6	2 305.4	2 646.0	1.091	6.504	7.595	**0.50**
0.52	82.33	0.001 031	3.123 3	344.7	2 302.9	2 647.6	1.103	6.478	7.581	**0.52**
0.54	83.28	0.001 031	3.014 8	348.7	2 300.5	2 649.2	1.114	6.455	7.569	**0.54**
0.56	84.19	0.001 032	2.913 9	352.5	2 298.2	2 650.7	1.125	6.431	7.556	**0.56**
0.58	85.09	0.001 033	2.819 7	356.3	2 295.8	2 652.1	1.135	6.409	7.544	**0.58**
0.60	85.95	0.001 033	2.731 7	359.9	2 293.7	2 653.6	1.145	6.388	7.533	**0.60**

(p)	(t)	(v_f)	(v_g)	(h_f)	(h_{fg})	(h_g)	(s_f)	(s_{fg})	(s_g)	(p)
0.62	86.80	0.001 034	2.649 1	363.5	2 291.4	2 654.9	1.155	6.367	7.522	**0.62**
0.64	87.62	0.001 034	2.571 5	366.9	2 289.4	2 656.3	1.165	6.346	7.511	**0.64**
0.66	88.42	0.001 035	2.498 5	370.3	2 287.3	2 657.6	1.174	6.326	7.500	**0.66**
0.68	89.20	0.001 036	2.429 7	373.6	2 285.2	2 658.8	1.183	6.307	7.490	**0.68**
0.70	89.96	0.001 036	2.364 7	376.8	2 283.3	2 660.1	1.192	6.288	7.480	**0.70**
0.72	90.70	0.001 037	2.303 1	379.9	2 281.4	2 661.3	1.201	6.270	7.471	**0.72**
0.74	91.43	0.001 037	2.244 8	382.9	2 279.5	2 662.4	1.209	6.253	7.462	**0.74**
0.76	92.14	0.001 038	2.189 5	385.9	2 277.7	2 663.6	1.217	6.235	7.452	**0.76**
0.78	92.83	0.001 038	2.136 9	388.9	2 275.8	2 664.7	1.225	6.219	7.444	**0.78**
0.80	93.51	0.001 039	2.086 9	391.7	2 274.1	2 665.8	1.233	6.202	7.435	**0.80**
0.85	95.15	0.001 040	1.972 1	398.6	2 269.8	2 668.4	1.252	6.163	7.415	**0.85**
0.90	96.71	0.001 041	1.869 1	405.2	2 265.7	2 670.9	1.270	6.125	7.395	**0.90**
0.95	98.20	0.001 042	1.777 1	411.5	2 261.7	2 673.2	1.287	6.091	7.378	**0.95**
1.00	99.63	0.001 043	1.693 8	417.5	2 257.9	2 675.4	1.303	6.057	7.360	**1.00**
1.013 25	100.00	0.001 044	1.673 0	419.1	2 256.9	2 676.0	1.307	6.048	7.355	**1.013 25**
1.05	101.0	0.001 045	1.618 1	423.3	2 254.3	2 677.6	1.318	6.025	7.343	**1.05**
1.10	102.3	0.001 046	1.549 2	428.8	2 250.8	2 679.6	1.333	5.995	7.328	**1.10**
1.15	103.6	0.001 047	1.486 1	434.2	2 247.4	2 681.6	1.347	5.966	7.313	**1.15**
1.20	104.8	0.001 048	1.428 1	439.3	2 244.1	2 683.4	1.361	5.937	7.298	**1.20**
1.25	106.0	0.001 049	1.374 6	444.4	2 240.8	2 685.2	1.374	5.911	7.285	**1.25**
1.30	107.1	0.001 050	1.325 0	449.2	2 237.8	2 687.0	1.387	5.885	7.272	**1.30**
1.35	108.2	0.001 050	1.279 1	453.4	2 234.8	2 688.7	1.399	5.860	7.259	**1.35**
1.40	109.3	0.001 051	1.236 3	458.4	2 231.9	2 690.3	1.411	5.836	7.247	**1.40**
1.45	110.4	0.001 052	1.196 3	462.8	2 229.0	2 691.8	1.423	5.812	7.235	**1.45**
1.50	111.4	0.001 053	1.159 0	467.1	2 226.3	2 693.4	1.433	5.790	7.223	**1.50**
1.60	113.3	0.001 055	1.091 1	475.4	2 220.8	2 696.2	1.455	5.747	7.202	**1.60**
1.70	115.2	0.001 056	1.030 9	483.2	2 215.8	2 699.0	1.475	5.706	7.181	**1.70**
1.80	116.9	0.001 058	0.977 18	490.7	2 210.8	2 701.5	1.494	5.668	7.162	**1.80**
1.90	118.6	0.001 059	0.928 95	497.9	2 206.1	2 704.0	1.513	5.631	7.144	**1.90**
2.00	120.2	0.001 061	0.885 40	504.7	2 201.6	2 706.3	1.530	5.597	7.127	**2.00**

(p)	(t)	(v_f)	(v_g)	(h_f)	(h_{fg})	(h_g)	(s_f)	(s_{fg})	(s_g)	(t)
2.1	121.8	0.001 062	0.845 86	511.3	2 197.2	2 708.5	1.547	5.564	7.111	**2.1**
2.2	123.3	0.001 064	0.809 80	517.6	2 193.0	2 710.6	1.563	5.532	7.095	**2.2**
2.3	124.7	0.001 065	0.776 77	523.7	2 188.9	2 712.6	1.578	5.502	7.080	**2.3**
2.4	126.1	0.001 066	0.746 41	529.6	2 184.9	2 714.5	1.593	5.473	7.066	**2.4**
2.5	127.4	0.001 068	0.718 40	535.3	2 181.1	2 716.4	1.607	5.445	7.052	**2.5**
2.6	128.7	0.001 069	0.692 47	540.9	2 177.3	2 718.2	1.621	5.418	7.039	**2.6**
2.7	130.0	0.001 070	0.668 40	546.2	2 173.7	2 719.9	1.634	5.392	7.026	**2.7**
2.8	131.2	0.001 071	0.646 00	551.4	2 170.1	2 721.5	1.647	5.367	7.014	**2.8**
2.9	132.4	0.001 072	0.625 09	556.5	2 166.6	2 723.1	1.660	5.342	7.002	**2.9**
3.0	133.5	0.001 074	0.605 53	561.5	2 163.2	2 724.7	1.672	5.319	6.991	**3.0**
3.1	134.7	0.001 075	0.587 18	566.2	2 159.9	2 726.1	1.683	5.297	6.980	**3.1**
3.2	135.8	0.001 076	0.569 95	570.9	2 156.7	2 727.6	1.695	5.274	6.969	**3.2**
3.3	136.8	0.001 077	0.553 73	575.5	2 153.5	2 729.0	1.706	5.253	6.959	**3.3**
3.4	137.9	0.001 078	0.538 43	579.9	2 150.4	2 730.3	1.717	5.232	6.949	**3.4**
3.5	138.9	0.001 079	0.523 97	584.3	2 147.3	2 731.6	1.727	5.212	6.939	**3.5**
3.6	139.9	0.001 080	0.510 29	588.5	2 144.4	2 732.9	1.738	5.192	6.930	**3.6**
3.7	140.8	0.001 081	0.497 33	592.7	2 141.4	2 734.1	1.748	5.173	6.921	**3.7**
3.8	141.8	0.001 082	0.485 02	596.7	2 138.6	2 735.3	1.758	5.154	6.912	**3.8**
3.9	142.7	0.001 083	0.473 33	600.8	2 135.7	2 736.5	1.767	5.136	6.903	**3.9**
4.0	143.6	0.001 084	0.462 20	604.7	2 132.9	2 737.6	1.776	5.118	6.894	**4.0**
4.1	144.5	0.001 085	0.451 59	608.5	2 130.2	2 738.7	1.786	5.100	6.886	**4.1**
4.2	145.4	0.001 086	0.441 47	612.3	2 127.5	2 739.8	1.795	5.083	6.878	**4.2**
4.3	146.3	0.001 087	0.431 81	616.0	2 124.9	2 740.9	1.803	5.067	6.870	**4.3**
4.4	147.1	0.001 088	0.422 57	619.6	2 122.3	2 741.9	1.812	5.050	6.862	**4.4**
4.5	147.9	0.001 089	0.413 73	623.2	2 119.7	2 742.9	1.820	5.035	6.855	**4.5**
4.6	148.7	0.001 090	0.405 26	626.7	2 117.2	2 743.9	1.829	5.018	6.847	**4.6**
4.7	149.5	0.001 090	0.397 14	630.1	2 114.7	2 744.8	1.837	5.003	6.840	**4.7**
4.8	150.3	0.001 091	0.389 34	633.5	2 112.2	2 745.7	1.845	4.988	6.833	**4.8**
4.9	151.1	0.001 092	0.381 86	636.8	2 109.8	2 746.6	1.853	4.973	6.826	**4.9**
5.0	151.8	0.001 093	0.374 66	640.1	2 107.4	2 747.5	1.860	4.959	6.819	**5.0**

(p)	(t)	(v_f)	(v_g)	(h_f)	(h_{fg})	(h_g)	(s_f)	(s_{fg})	(s_g)	(p)
5.2	153.3	0.001 095	0.361 06	646.5	2 102.7	2 749.2	1.875	4.931	6.806	**5.2**
5.4	154.8	0.001 096	0.348 44	652.8	2 098.1	2 750.9	1.890	4.903	6.793	**5.4**
5.6	156.2	0.001 098	0.336 69	658.8	2 093.7	2 752.5	1.904	4.877	6.781	**5.6**
5.8	157.5	0.001 099	0.325 72	664.7	2 089.3	2 754.0	1.918	4.851	6.769	**5.8**
6.0	158.8	0.001 101	0.315 46	670.4	2 085.1	2 755.5	1.931	4.827	6.758	**6.0**
6.2	160.1	0.001 102	0.305 84	676.1	2 080.8	2 756.9	1.944	4.803	6.747	**6.2**
6.4	161.4	0.001 104	0.296 80	681.5	2 076.7	2 758.2	1.956	4.780	6.736	**6.4**
6.6	162.6	0.001 105	0.288 29	686.8	2 072.7	2 759.5	1.968	4.757	6.725	**6.6**
6.8	163.8	0.001 107	0.280 26	692.0	2 068.8	2 760.8	1.980	4.735	6.715	**6.8**
7.0	165.0	0.001 108	0.272 68	697.1	2 064.9	2 762.0	1 992	4.713	6.705	**7.0**
7.2	166.1	0.001 110	0.265 50	702.0	2 061.2	2 763.2	2 003	4.693	6.696	**7.2**
7.4	167.2	0.001 111	0.258 70	706.9	2 057.4	2 764.3	2 014	4.672	6.686	**7.4**
7.6	168.3	0.001 112	0.252 24	711.7	2 053.7	2 765.4	2 025	4.652	6.677	**7.6**
7.8	169.4	0.001 114	0.246 10	716.3	2 050.1	2 766.4	2 035	4.633	6.668	**7.8**
8.0	170.4	0.001 115	0.240 26	720.9	2 046.5	2 767.4	2.046	4.614	6.660	**8.0**
8.2	171.4	0.001 116	0.234 69	725.4	2 043.0	2 768.4	2.056	4.595	6.651	**8.2**
8.4	172.4	0.001 118	0.229 38	729.9	2 039.6	2 769.4	2.066	4.577	6.643	**8.4**
8.6	173.4	0.001 119	0.224 31	734.2	2 036.2	2 770.4	2.075	4.560	6.635	**8.6**
8.8	174.4	0.001 120	0.219 46	738.5	2 032.8	2 771.3	2.085	4.542	6.627	**8.8**
9.0	175.4	0.001 121	0.214 82	742.6	2 029.5	2 772.1	2.094	4.525	6.619	**9.0**
9.2	176.3	0.001 123	0.210 37	746.8	2 026.2	2 773.0	2.103	4.509	6.612	**9.2**
9.4	177.2	0.001 124	0.206 10	750.8	2 023.0	2 773.8	2.112	4.492	6.604	**9.4**
9.6	178.1	0.001 125	0.202 01	754.8	2 019.8	2 774.6	2.121	4.476	6.597	**9.6**
9.8	179.0	0.001 126	0.198 08	758.7	2 016.7	2 775.4	2.130	4.460	6.590	**9.8**
10.0	179.9	0.001 127	0.194 30	762.6	2 013.6	2 776.2	2.138	4.445	6.583	**10.0**
10.5	182.0	0.001 130	0.185 48	772.0	2 006.0	2 778.0	2.159	4.407	6.566	**10.5**
11.0	184.1	0.001 133	0.177 39	781.1	1 998.6	2 779.7	2.179	4.371	6.550	**11.0**
11.5	186.0	0.001 136	0.170 02	789.9	1 991.4	2 781.3	2.198	4.336	6.534	**11.5**
12.0	188.0	0.001 139	0.163 21	798.4	1 984.3	2 782.7	2.216	4.303	6.519	**12.0**
12.5	189.8	0.001 141	0.156 96	806.7	1 977.5	2 784.2	2.234	4.271	6.505	**12.5**

(p)	(t)	(v_f)	(v_g)	(h_f)	(h_{fg})	(h_g)	(s_f)	(s_{fg})	(s_g)	(p)
13.0	191.6	0.001 144	0.151 14	814.7	1 970.7	2 785.4	2.251	4.240	6.491	**13.0**
13.5	193.3	0.001 146	0.145 76	822.5	1 964.2	2 786.7	2.267	4.211	6.478	**13.5**
14.0	195.0	0.001 149	0.140 73	830.1	1 957.7	2 787.8	2.284	4.181	6.465	**14.0**
14.5	196.7	0.001 151	0.136 06	837.5	1 951.4	2 788.9	2.299	4.154	6.453	**14.5**
15.0	198.3	0.001 154	0.131 67	844.6	1 945.3	2 789.9	2.314	4.127	6.441	**15.0**
15.5	199.8	0.001 156	0.127 56	851.6	1 939.2	2 790.8	2.329	4.100	6.429	**15.5**
16.0	201.4	0.001 159	0.123 70	858.5	1 933.2	2 791.7	2.344	4.074	6.418	**16.0**
16.5	202.9	0.001 161	0.120 06	865.3	1 927.3	2 792.6	2.358	4.049	6.407	**16.5**
17.0	204.3	0.001 163	0.116 64	871.8	1 921.6	2 793.4	2.371	4.025	6.396	**17.0**
17.5	205.7	0.001 166	0.113 40	878.2	1 915.9	2 794.1	2.384	4.001	6.385	**17.5**
18.0	207.1	0.001 168	0.110 33	884.5	1 910.3	2 794.8	2.398	3.977	6.375	**18.0**
18.5	208.5	0.001 170	0.107 42	890.7	1 904.8	2 795.5	2.410	3.955	6.365	**18.5**
19.0	209.8	0.001 172	0.104 67	896.8	1 899.3	2 796.1	2.423	3.933	6.356	**19.0**
19.5	211.1	0.001 174	0.102 04	902.7	1 894.0	2 796.7	2.435	3.911	6.346	**19.5**
20.0	212.4	0.001 177	0.099 55	908.5	1 888.7	2 797.2	2.447	3.890	6.337	**20.0**
21.0	214.8	0.001 181	0.094 902	919.9	1 878.3	2 798.2	2.470	3.849	6.319	**21.0**
22.0	217.2	0.001 185	0.090 663	930.9	1 868.1	2 799.1	2.492	3.809	6.301	**22.0**
23.0	219.6	0.001 189	0.086 780	941.6	1 858.2	2 799.8	2.514	3.771	6.285	**23.0**
24.0	221.8	0.001 193	0.083 209	951.9	1 848.5	2 800.4	2.534	3.735	6.269	**24.0**
25.0	223.9	0.001 197	0.079 915	961.9	1 839.1	2 801.0	2.554	3.699	6.253	**25.0**
26.0	226.0	0.001 201	0.076 865	971.7	1 829.7	2 801.4	2.574	3.665	6.239	**26.0**
27.0	228.1	0.001 205	0.074 033	981.2	1 820.5	2 801.7	2.592	3.632	6.224	**27.0**
28.0	230.0	0.001 209	0.071 396	990.5	1 811.5	2 802.0	2.611	3.600	6.211	**28.0**
29.0	232.0	0.001 213	0.068 935	999.5	1 802.7	2 802.2	2.628	3.569	6.197	**29.0**
30.0	233.8	0.001 216	0.066 632	1 008.3	1 794.0	2 802.3	2.646	3.538	6.184	**30.0**
31.0	235.7	0.001 220	0.064 473	1 017.1	1 785.4	2 802.3	2.662	3.509	6.171	**31.0**
32.0	237.4	0.001 224	0.062 443	1 025.4	1 776.9	2 802.3	2.679	3.480	6.159	**32.0**
33.0	239.2	0.001 227	0.060 533	1 033.7	1 768.6	2 802.3	2.694	3.452	6.146	**33.0**
34.0	240.9	0.001 231	0.058 731	1 041.8	1 760.3	2 802.1	2 710	3.424	6.134	**34.0**
35.0	242.5	0.001 235	0.057 028	1 049.7	1 752.3	2 802.0	2.725	3.398	6.123	**35.0**

(p)	(t)	(v_f)	(v_g)	(h_f)	(h_{fg})	(h_g)	(s_f)	(s_{fg})	(s_g)	(p)
36.0	244.2	0.001 238	0.055 417	1 057.5	1 744.2	2 801.7	2.740	3.371	6.111	**36.0**
37.0	245.8	0.001 242	0.053 889	1 065.2	1 736.2	2 801.4	2.755	3.345	6.100	**37.0**
38.0	247.3	0.001 245	0.052 439	1 072.7	1 728.4	2 801.1	2.769	3.321	6.090	**38.0**
39.0	248.8	0.001 249	0.051 061	1 080.1	1 720.7	2 800.8	2.783	3.296	6.079	**39.0**
40.0	250.3	0.001 252	0.049 749	1 087.4	1 712.9	2 800.3	2.797	3.272	6.069	**40.0**
42.0	253.2	0.001 259	0.047 306	1 101.6	1 697.8	2 799.4	2.823	3.225	6.048	**42.0**
44.0	256.1	0.001 266	0.045 078	1 115.4	1 682.9	2 798.3	2.849	3.180	6.029	**44.0**
46.0	258.8	0.001 273	0.043 036	1 128.8	1 668.2	2 797.0	2.874	3.136	6.010	**46.0**
48.0	261.4	0.001 279	0.041 158	1 141.8	1 653.9	2 795.7	2.897	3.094	5.991	**48.0**
50.0	263.9	0.001 286	0.039 425	1 154.5	1 639.7	2 794.2	2.921	3.053	5.974	**50.0**
52.0	266.4	0.001 293	0.037 820	1 166.9	1 625.7	2 792.6	2.943	3.013	5.956	**52.0**
54.0	268.8	0.001 299	0.036 330	1 179.0	1 611.8	2 790.8	2.965	2.974	5.939	**54.0**
56.0	271.1	0.001 306	0.034 942	1 190.8	1 598.2	2 789.0	2.986	2.937	5.923	**56.0**
58.0	273.4	0.001 312	0.033 646	1 202.4	1 584.6	2 787.0	3.007	2.899	5.906	**58.0**
60.0	275.6	0.001 319	0.032 433	1 213.7	1 571.3	2 785.0	3.027	2.863	5.890	**60.0**
62.0	277.7	0.001 325	0.031 295	1 224.9	1 558.0	2 782.9	3.047	2.828	5.875	**62.0**
64.0	279.8	0.001 332	0.030 225	1 235.8	1 544.8	2 780.6	3.066	2.794	5.860	**64.0**
66.0	281.9	0.001 338	0.029 218	1 246.5	1 531.8	2 778.3	3.085	2.760	5.845	**66.0**
68.0	283.9	0.001 345	0.028 267	1 257.1	1 518.8	2 775.9	3.104	2.727	5.831	**68.0**
70.0	285.8	0.001 351	0.027 368	1 267.4	1 506.0	2 773.4	3.122	2.694	5.816	**70.0**
72.0	287.7	0.001 358	0.026 517	1 277.7	1 493.2	2 770.9	3.140	2.662	5.802	**72.0**
74.0	289.6	0.001 365	0.025 711	1 287.8	1 480.4	2 768.2	3.157	2.631	5.788	**74.0**
76.0	291.4	0.001 371	0.024 944	1 297.7	1 467.8	2 765.5	3.174	2.600	5.774	**76.0**
78.0	293.2	0.001 378	0.024 215	1 307.5	1 455.4	2 762.7	3.191	2.569	5.760	**78.0**
80.0	295.0	0.001 384	0.023 521	1 317.2	1 442.7	2 759.9	3.208	2.539	5.747	**80.0**
82.0	296.7	0.001 391	0.022 860	1 326.7	1 430.3	2 757.0	3.224	2.510	5.734	**82.0**
84.0	298.4	0.001 398	0.022 228	1 336.2	1 417.8	2 754.0	3.240	2.481	5.721	**84.0**
86.0	300.1	0.001 404	0.021 624	1 345.4	1 405.5	2 750.9	3.256	2.452	5.708	**86.0**
88.0	301.7	0.001 411	0.021 046	1 354.7	1 393.1	2 747.8	3.271	2.424	5.695	**88.0**
90.0	303.3	0.001 418	0.020 493	1 363.8	1 380.8	2 744.6	3.287	2.395	5.682	**90.0**

(p)	(t)	(v_f)	(v_g)	(h_f)	(h_{fg})	(h_g)	(s_f)	(s_{fg})	(s_g)	(p)
92	304.9	0.001 425	0.019 962	1 372.8	1 368.5	2 741.3	3.302	2.367	5.669	**92**
94	306.5	0.001 432	0.019 453	1 381.7	1 356.3	2 738.0	3.317	2.340	5.657	**94**
96	308.0	0.001 439	0.018 964	1 390.6	1 344.1	2 734.7	3.332	2.313	5.644	**96**
98	309.5	0.001 446	0.018 493	1 399.4	1 331.9	2 731.2	3.346	2.286	5.632	**98**
100	311.0	0.001 453	0.018 041	1 408.0	1 319.7	2 727.7	3.361	2.259	5.620	**100**
105	314.6	0.001 470	0.016 981	1 429.5	1 289.2	2 718.7	3.396	2.194	5.590	**105**
110	318.0	0.001 489	0.016 007	1 450.5	1 258.8	2 709.3	3.430	2.129	5.560	**110**
115	321.4	0.001 508	0.015 114	1 471.3	1 228.2	2 699.5	3.464	2.066	5.530	**115**
120	324.6	0.001 527	0.014 285	1 491.7	1 197.5	2 698.2	3.497	2.003	5.500	**120**
125	327.8	0.001 547	0.013 518	1 511.9	1 166.5	2 678.4	3.530	1.941	5.471	**125**
130	330.8	0.001 567	0.012 800	1 531.9	1 135.1	2 667.0	3.561	1.880	5.441	**130**
135	333.8	0.001 588	0.012 130	1 551.8	1 103.3	2 655.1	3.593	1.818	5.411	**135**
140	336.6	0.001 611	0.011 498	1 571.5	1 070.9	2 642.4	3.624	1.756	5.380	**140**
145	339.4	0.001 634	0.010 905	1 591.3	1 037.9	2 629.2	3.655	1.694	5.349	**145**
150	342.1	0.001 658	0.010 343	1 610.9	1 004.2	2 615.1	3.686	1.632	5.318	**150**
155	344.8	0.001 683	0.009 813	1 630.7	969.7	2 600.4	3.716	1.570	5.286	**155**
160	347.3	0.001 710	0.009 310	1 650.4	934.5	2 584.9	3.747	1.506	5.253	**160**
165	349.7	0.001 739	0.008 833	1 670.4	898.5	2 568.9	3.778	1.442	5.220	**165**
170	352.3	0.001 770	0.008 372	1 691.6	860.0	2 551.6	3.811	1.375	5.186	**170**
175	354.6	0.001 803	0.007 927	1 713.3	820.0	2 533.3	3.844	1.306	5.150	**175**
180	357.0	0.001 840	0.007 497	1 734.8	779.1	2 513.9	3.877	1.236	5.113	**180**
185	359.2	0.001 881	0.007 082	1 756.5	736.5	2 493.0	3.910	1.164	5.074	**185**
190	361.4	0.001 926	0.006 676	1 778.7	691.8	2 470.5	3.943	1.090	5.033	**190**
195	363.6	0.001 978	0.006 276	1 801.9	643.9	2 445.8	3.978	1.011	4.989	**195**
200	365.7	0.002 037	0.005 875	1 826.6	591.6	2 418.2	4.015	0.926	4.941	**200**
205	367.8	0.002 110	0.005 462	1 854.2	532.0	2 386.2	4.056	0.830	4.886	**205**
210	369.8	0.002 202	0.005 023	1 886.3	461.2	2 347.5	4.105	0.717	4.822	**210**
215	371.8	0.002 342	0.004 509	1 929.4	365.2	2 294.6	4.170	0.566	4.736	**215**
220	373.7	0.002 668	0.003 735	2 010.3	186.3	2 196.6	4.293	0.288	4.581	**220**
221.2	374.15	0.003 170	0.003 170	2 107.4	000.0	2 107.4	4.443	0.000	4.443	**221.2**

TABLE 3
Specific Volume of Superheated Steam

Absolute Pressure in bar (p)	Saturation Temperature in °C (t_s)	Specific volume (v) in m^3/kg at various temperatures in °C										
		100	150	200	250	300	350	400	500	600	700	800
0.02	17.5	86.08	97.63	109.2	120.7	132.2	143.8	155.3	178.4	201.5	224.6	247.6
0.04	29.0	43.03	48.81	54.58	60.35	66.12	71.89	77.66	89.20	100.7	112.3	123.8
0.06	36.2	28.68	32.53	36.38	40.23	44.08	47.93	51.77	59.47	67.16	74.85	82.54
0.08	41.5	21.50	24.40	27.28	30.17	33.06	35.94	38.83	44.60	50.37	56.14	61.91
0.10	45.8	17.20	19.50	21.83	24.14	26.45	28.75	31.06	35.68	40.30	44.91	49.53
0.15	54.0	11.51	13.06	14.61	16.16	17.71	19.25	20.80	23.89	26.98	30.07	33.16
0.20	60.1	8.585	9.748	10.91	12.07	13.22	14.37	15.53	17.84	20.15	22.45	24.76
0.25	65.0	6.874	7.808	8.737	9.665	10.59	11.52	12.44	14.29	16.14	17.99	19.84
0.30	69.1	5.714	6.493	7.268	8.040	8.811	9.581	10.35	11.89	13.43	14.70	16.51
0.35	72.7	4.898	5.568	6.233	6.896	7.557	8.218	8.879	10.20	11.52	12.84	14.16
0.40	75.9	4.279	4.866	5.448	6.028	6.607	7.185	7.763	8.918	10.07	11.23	12.38
0.45	78.7	3.803	4.325	4.844	5.360	5.875	6.389	6.903	7.930	8.957	9.984	10.99
0.50	81.3	3.418	3.889	4.356	4.821	5.284	5.747	6.209	7.134	8.057	8.981	9.904
0.60	86.0	2.844	3.238	3.628	4.016	4.402	4.788	5.174	5.944	6.714	7.484	8.254
0.70	90.0	2.434	2.773	3.108	3.441	3.772	4.103	4.434	5.095	5.755	6.415	7.074
0.80	93.5	2.126	2.425	2.718	3.010	3.300	3.590	3.879	4.457	5.035	5.613	6.190
0.90	96.7	1.887	2.153	2.415	2.674	2.933	3.190	3.448	3.962	4.475	4.989	5.502
1.00	99.6	1.696	1.936	2.172	2.406	2.639	2.871	3.103	3.565	4.028	4.490	4.952
1.50	111.4	..	1.285	1.444	1.601	1.757	1.912	2.067	2.376	2.685	2.993	3.301
2.00	120.2	..	0.959 5	1.080	1.199	1.316	1.433	1.549	1.781	2.013	2.244	2.475

(p)	(t_s)	100	150	200	250	300	350	400	500	600	700	800
2.5	127.4	..	0.764 1	0.862 0	0.957 4	1.052	1.145	1.239	1.424	1.610	1.795	1.980
3.0	133.5	..	0.633 7	0.716 4	0.796 4	0.875 3	0.953 5	1.031	1.187	1.341	1.496	1.650
3.5	138.9	..	0.540 6	0.612 3	0.681 4	0.749 3	0.816 6	0.883 5	1.017	1.149	1.282	1.414
4.0	143.6	..	0.470 7	0.534 3	0.595 2	0.654 9	0.713 9	0.772 5	0.889 2	1.005	1.121	1.237
4.5	147.9	..	0.416 5	0.473 8	0.528 4	0.581 7	0.634 3	0.686 5	0.790 5	0.893 9	0.997 1	1.100
5.0	151.8	..	..	0.425 0	0.474 4	0.522 6	0.570 1	0.617 2	0.710 8	0.804 0	0.896 9	0.989 6
6.0	158.8	..	..	0.352 0	0.393 9	0.434 4	0.474 2	0.513 6	0.591 8	0.669 6	0.747 1	0.824 5
7.0	165.0	..	..	0.299 9	0.336 4	0.371 4	0.405 7	0.439 6	0.506 9	0.573 7	0.640 2	0.706 6
8.0	170.4	..	..	0.260 8	0.293 2	0.324 1	0.354 3	0.384 2	0.443 2	0.501 7	0.560 0	0.618 1
9.0	175.4	..	..	0.230 3	0.259 6	0.287 4	0.314 4	0.341 0	0.393 6	0.445 8	0.497 6	0.549 3
10.0	179.9	..	..	0.205 9	0.232 8	0.258 0	0.282 4	0.306 5	0.354 0	0.401 0	0.447 7	0.494 3
11.0	184.1	..	..	0.185 9	0.210 8	0.233 9	0.256 3	0.278 2	0.321 5	0.364 4	0.406 9	0.449 2
12.0	188.0	..	..	0.169 2	0.192 4	0.213 9	0.234 5	0.254 7	0.294 5	0.333 8	0.372 9	0.411 8
13.0	191.6	..	..	0.155 1	0.176 9	0.196 9	0.216 1	0.234 8	0.271 6	0.308 0	0.344 1	0.380 0
14.0	195.0	..	..	0.142 9	0.163 6	0.182 3	0.200 2	0.217 7	0.252 0	0.285 9	0.319 4	0.352 8
15.0	198.3	..	..	0.132 4	0.152 0	0.169 7	0.186 5	0.202 9	0.235 0	0.266 7	0.298 0	0.329 2
16.0	201.4	..	..	..	0.141 9	0.158 7	0.174 5	0.190 0	0.220 2	0.249 9	0.279 3	0.308 6
17.0	204.3	..	..	..	0.132 9	0.148 9	0.164 0	0.178 6	0.207 0	0.235 1	0.262 8	0.290 4
18.0	207.1	..	..	..	0.125 0	0.140 2	0.154 6	0.168 4	0.195 4	0.221 9	0.248 1	0.274 2
19.0	209.8	..	..	..	0.117 9	0.132 5	0.146 0	0.159 3	0.184 9	0.210 1	0.235 0	0.259 7
20.0	212.4	..	..	..	0.111 5	0.125 5	0.138 6	0.151 1	0.175 6	0.199 5	0.223 2	0.246 7
22.0	217.2	..	..	..	0.100 4	0.113 4	0.125 5	0.137 0	0.159 3	0.181 2	0.202 8	0.224 2
24.0	221.8	..	..	..	0.091 08	0.103 4	0.114 6	0.125 2	0.145 8	0.165 9	0.185 8	0.205 4
26.0	226.0	..	..	..	0.083 21	0.094 83	0.105 3	0.115 3	0.134 4	0.153 0	0.171 4	0.189 5
28.0	230.0	..	..		0.076 44	0.087 51	0.097 40	0.106 7	0.124 6	0.141 9	0.159 0	0.175 9
30.0	233.8	..	..	..	0.070 55	0.081 16	0.090 53	0.099 31	0.116 1	0.132 3	0.148 3	0.164 1
32.0	237.4	..	..	..	0.065 38	0.075 59	0.084 51	0.092 83	0.108 7	0.123 9	0.139 0	0.153 8
34.0	240.9	..	..	..	0.060 80	0.070 68	0.079 20	0.087 11	0.102 1	0.116 5	0.130 7	0.144 7
36.0	244.2	..	..	..	0.056 70	0.066 30	0.074 48	0.082 02	0.096 26	0.110 0	0.123 4	0.136 6
38.0	247.3	..	..		0.053 02	0.062 37	0.070 25	0.077 47	0.091 04	0.104 1	0.116 8	0.129 4

(p)	(t_s)	100	150	200	250	300	350	400	500	600	700	800
40.0	250.3	..	..	..	..	0.058 83	0.066 45	0.073 38	0.086 34	0.098 76	0.110 9	0.122 9
42.0	253.2	..	..	..	..	0.055 63	0.063 00	0.069 67	0.082 09	0.093 97	0.105 6	0.117 0
44.0	256.0	..	..	..	..	0.052 70	0.059 86	0.066 30	0.078 23	0.089 61	0.100 7	0.111 6
46.0	258.8	..	..	..	..	0.050 03	0.056 99	0.063 22	0.074 70	0.085 62	0.096 26	0.106 7
48.0	261.4	..	..	..	..	0.047 57	0.054 36	0.060 39	0.071 47	0.081 97	0.092 19	0.102 2
50.0	263.9	..	..	..	..	0.045 30	0.051 94	0.057 79	0.068 49	0.078 62	0.088 45	0.098 09
55.0	269.9	..	..	..	..	0.043 43	0.046 66	0.052 13	0.062 02	0.071 31	0.080 30	0.089 12
60.0	275.6	..	..	..	..	0.036 15	0.042 22	0.047 38	0.056 59	0.065 18	0.073 48	0.081 59
65.0	280.8	..	..	..	..	0.032 58	0.038 48	0.043 38	0.052 03	0.060 03	0.067 74	0.075 26
70.0	285.8	..	..	..	..	0.029 46	0.035 23	0.039 92	0.048 09	0.055 59	0.062 79	0.069 80
75.0	290.5	..	..	..	..	0.026 72	0.032 43	0.036 94	0.044 69	0.051 76	0.058 52	0.065 09
80.0	295.0	..	..	..	..	0.024 26	0.029 95	0.034 31	0.041 70	0.048 39	0.054 77	0.060 96
85.0	299.2	..	..	..	..	0.021 91	0.027 76	0.032 00	0.039 08	0.045 44	0.051 48	0.057 32
90.0	303.3	..	..	..	..	..	0.025 79	0.029 93	0.036 74	0.042 80	0.048 53	0.054 08
95.0	307.2	..	..	..	..	..	0.024 03	0.028 08	0.034 65	0.040 45	0.045 91	0.051 19
100.0	311.0	..	..	..	..	..	0.022 42	0.026 41	0.032 76	0.038 32	0.043 55	0.048 58
110.0	318.0	..	..	..	..	..	0.019 61	0.023 51	0.029 50	0.034 66	0.039 47	0.044 08
120.0	324.6	..	..	..	..	..	0.017 21	0.021 08	0.026 79	0.031 60	0.036 07	0.040 33
130.0	330.8	..	..	..	..	..	0.015 10	0.019 02	0.024 49	0.029 02	0.033 19	0.037 16
140.0	336.6	..	..	..	..	..	0.013 21	0.017 23	0.022 51	0.026 80	0.030 72	0.034 44
150.0	342.1	..	..	..	..	..	0.011 46	0.015 66	0.020 80	0.024 88	0.028 59	0.032 09
160.0	347.3	..	..	..	..	..	0.009 76	0.014 28	0.019 29	0.023 20	0.026 72	0.030 03
170.0	352.3	..	..	..	..	..	..	0.013 03	0.017 97	0.021 72	0.025 07	0.028 21
180.0	357.0	..	..	..	..	..	..	0.011 91	0.016 79	0.020 40	0.023 00	0.026 59
190.0	361.4	..	..		..	..	..	0.010 89	0.015 73	0.019 22	0.022 29	0.025 15
200.0	365.7	..	..	..	..	..	..	0.009 95	0.014 77	0.018 16	0.021 11	0.023 85
210.0	369.8	..	..	..	..	..	..	0.009 07	0.013 91	0.017 20	0.020 04	0.022 67
220.0	373.7	..	..	..	..	..	..	0.008 25	0.013 12	0.016 33	0.019 07	0.021 60
221.2	374.15	..	..	..	..	..	..	0.008 16	0.013 03	0.016 22	0.018 95	0.021 35

TABLE 4

Specific Enthalpy of Superheated Steam

Absolute Pressure in bar (p)	Saturation Temperature in °C (t_s)	Specific enthalpy (h) in kJ/kg at various temperatures in °C										
		100	150	200	250	300	350	400	500	600	700	800
0.02	17.5	2 688.5	2 783.7	2 880.0	2 977.7	3 076.8	3 177.5	3 279.7	3 489.2	3 705.6	3 928.8	4 158.7
0.04	29.0	2 688.3	2 783.5	2 879.9	2 977.6	3 076.8	3 177.4	3 279.7	3 489.2	3 705.6	3 928.8	4 158.7
0.06	36.2	2 688.0	2 783.4	2 879.8	2 977.6	3 076.7	3 177.4	3 279.6	3 489.2	3 705.6	3 928.8	4 158.7
0.08	41.5	2 687.8	2 783.2	2 879.7	2 977.5	3 076.7	3 177.3	3 279.6	3 489.1	3 705.5	3 928.8	4 158.7
0.10	45.8	2 687.5	2 783.1	2 879.6	2 977.4	3 076.6	3 177.3	3 279.6	3 489.1	3 705.5	3 928.8	4 158.7
0.15	54.0	2 686.9	2 782.4	2 879.5	2 977.3	3 076.5	3 177.7	3 279.5	3 489.1	3 705.5	3 928.7	4 158.7
0.20	60.1	2 686.3	2 782.3	2 879.2	2 977.1	3 076.4	3 177.1	3 279.4	3 489.0	3 705.4	3 928.7	4 158.7
0.25	65.0	2 685.7	2 782.0	2 879.0	2 977.0	3 076.3	3 177.0	3 279.3	3 489.0	3 705.4	3 928.7	4 158.6
0.30	69.1	2 685.1	2 781.6	2 878.7	2 976.8	3 076.1	3 176.9	3 279.3	3 488.9	3 705.4	3 928.7	4 158.6
0.35	72.7	2 684.5	2 781.2	2 878.5	2 976.7	3 076.0	3 176.8	3 279.2	3 488.9	3 705.3	3 928.7	4 158.6
0.40	75.9	2 683.8	2 780.9	2 878.2	2 976.5	3 075.9	3 176.8	3 279.1	3 488.8	3 705.3	3 928.6	4 158.6
0.45	78.7	2 683.2	2 780.5	2 878.0	2 976.3	3 075.8	3 176.7	3 279.1	3 488.8	3 705.2	3 928.6	4 158.5
0.50	81.3	2 682.6	2 780.1	2 877.7	2 976.1	3 075.7	3 176.6	3 279.0	3 488.7	3 705.2	3 928.6	4 158.5
0.60	86.0	2 681.3	2 779.4	2 877.3	2 975.8	3 075.4	3 176.4	3 278.8	3 488.6	3 705.1	3 928.5	4 158.5
0.70	90.0	2 680.0	2 778.6	2 876.8	2 975.5	3 075.2	3 176.2	3 278.7	3 488.5	3 705.0	3 928.4	4 158.4
0.80	93.5	2 678.8	2 777.8	2 876.3	2 975.2	3 075.0	3 176.0	3 278.5	3 488.4	3 705.0	3 928.4	4 158.4
0.90	96.7	2 677.5	2 777.1	2 875.8	2 974.8	3 074.7	3 175.8	3 278.4	3 488.3	3 704.9	3 928.3	4 158.3
1.00	99.6	2 676.2	2 776.3	2 875.4	2 974.5	3 074.5	3 175.6	3 278.2	3 488.1	3 704.8	3 928.2	4 158.3
1.50	111.4	..	2 772.5	2 872.9	2 972.9	3 073.3	3 174.7	3 277.5	3 487.6	3 704.4	3 927.9	4 158.0
2.00	120.2	..	2 768.5	2 870.5	2 971.2	3 072.1	3 173.8	3 276.7	3 487.0	3 704.0	3 927.6	4 157.8

(p)	(t_s)	100	150	200	250	300	350	400	500	600	700	800
2.5	127.4	..	2 764.5	2 868.0	2 969.6	3 070.9	3 172.8	3 275.9	3 486.5	3 703.6	3 927.3	4 157.6
3.0	133.5	..	2 760.4	2 865.5	2 967.9	3 069.7	3 171.9	3 275.2	3 486.0	3 703.2	3 927.0	4 157.3
3.5	138.9	..	2 756.3	2 863.0	2 966.2	3 068.4	3 170.9	3 274.4	3 485.4	3 702.7	3 926.7	4 157.1
4.0	143.6	..	2 752.0	2 860.4	2 964.5	3 067.2	3 170.0	3 273.6	3 484.9	3 702.3	3 926.4	4 156.9
4.5	147.9	..	2 746.7	2 857.8	2 962.8	3 066.0	3 169.1	3 272.9	3 484.3	3 701.9	3 926.1	4 156.7
5.0	151.8	..	..	2 855.1	2 961.1	3 064.8	3 168.1	3 272.1	3 483.8	3 701.5	3 925.8	4 156.4
6.0	158.8	..	..	2 849.7	2 957.6	3 062.3	3 166.2	3 270.6	3 482.7	3 700.7	3 925.1	4 155.9
7.0	165.0	..	..	2 844.2	2 954.0	3 059.8	3 164.3	3 269.0	3 481.6	3 699.9	3 924.5	4 155.5
8.0	170.4	..	..	2 838.6	2 950.4	3 057.3	3 162.4	3 267.5	3 480.5	3 699.1	3 923.9	4 155.0
9.0	175.4	..	..	2 832.7	2 946.8	3 054.7	3 160.5	3 266.0	3 479.4	3 698.2	3 923 3	4 154.5
10.0	179.9	..	..	2 826.8	2 943.0	3 052.1	3 158.5	3 264.4	3 478.3	3 697.4	3 922.7	4 154.1
11.0	184.1	..	..	2 820.7	2 939.3	3 049.6	3 156.6	3 262.9	3 477.2	3 696.6	3 922.0	4 153.6
12.0	188.0	..	..	2 814.4	2 935.4	3.046.9	3 154.6	3 261.3	3 476.1	3 695.8	3 921.4	4 153.1
13.0	191.6	..	..	2 808.0	2 931.5	3.044.3	3 152.7	3 259.7	3 475.0	3 695.0	3 920.8	4 152.7
14.0	195.0	..	..	2 801.4	2 927.6	3 041.6	3 150.7	3 258.2	3 473.9	3 694.1	3 920.2	4 152.2
15.0	198.3	..	..	2 794.7	2 923.5	3 038.9	3 148.7	3 256.6	3 472.8	3 693.3	3 919.6	4 151.7
16.0	201.4	..	..	..	2 919.4	3 036.2	3 146.7	3 255.0	3 471.7	3 692.5	3 918.9	4 151.3
17.0	204.3	..	..	..	2 915.3	3 033.5	3 144.7	3 253.5	3 470.6	3 691.7	3 918.3	4 150.8
18.0	207.1	..	..	..	2 911.0	3 030.7	3 142.7	3 251.9	3 469.5	3 690.9	3 917.7	4 150.3
19.0	209.8	..	..	..	2 906.7	3 027.9	3 140.7	3 250.3	3 468.4	3 690.0	3 917.1	4 149.8
20.0	212.4	..	..	..	2 902.4	3 025.0	3 138.6	3 248.7	3 467.3	3 689.2	3 916.5	4 149.4
22.0	217.2	..	..	..	2 893.4	3 019.3	3 134.5	3 245.5	3 465.1	3 687.6	3 915.2	4 148.4
24.0	221.8	..	..	..	2 884.2	3 013.4	3 130.4	3 242.3	3 462.9	3 685.9	3 914.0	4 147.5
26.0	226.0	..	..	..	2 874.7	3 007.4	3 126.1	3 239.0	3 460.6	3 684.3	3 912.7	4 146.6
28.0	230.0	..	..		2 864.9	3 001.3	3 121.9	3 235.8	3 458.4	3 682.6	3 911.5	4 145.6
30.0	233.8	..	..	..	2 854.8	2 995.1	3 117.5	3 232.5	3 456.2	3 681.0	3 910.3	4 144.7
32.0	237.4	..	..	..	2 844.4	2 988.7	3 113.2	3 229.2	3 454.0	3 679.3	3 909.0	4 143.8
34.0	240.9	..	..	..	2 833.6	2 982.2	3 108.7	3 225.9	3 451.7	3 677.7	3 907.8	4 142.8
36.0	244.2	..	..	..	2 822.5	2 975.6	3 104.2	3 222.5	3 449.5	3 676.1	3 906.5	4 141.9
38.0	247.3				2 811.0	2 968.9	3 099.7	3 219.1	3 447.2	3 674.4	3 905.3	4 141.0

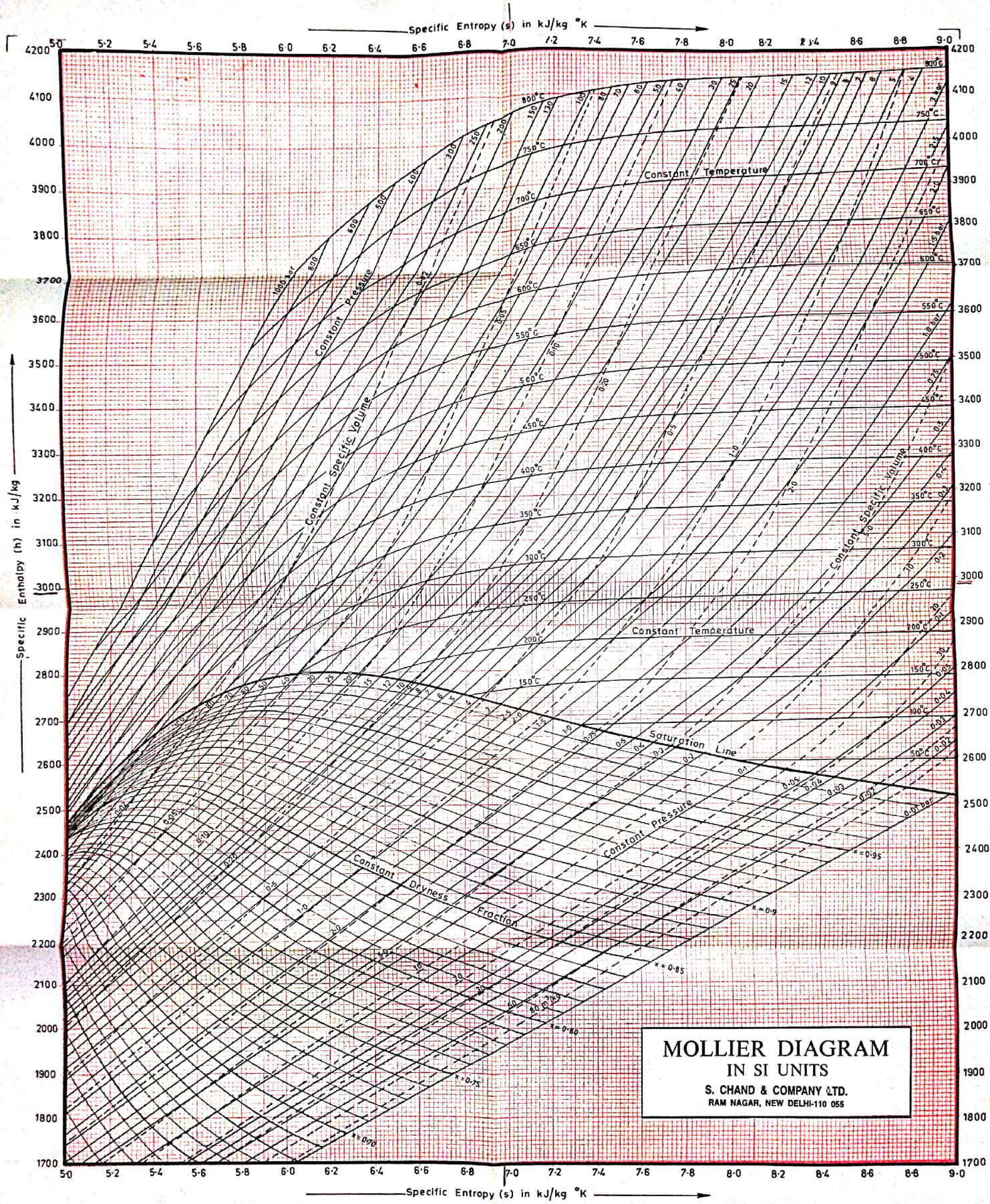
(p)	(t_s)	100	150	200	250	300	350	400	500	600	700	800
40.0	250.3	..	..	..	..	2 962.0	3 095.1	3 215.7	3 445.0	3 672.8	3 904.1	4 140.0
42.0	253.2	..	..	..	..	2 955.0	3 090.4	3 212.3	3 442.7	3 671.1	3 902.8	4 139.1
44.0	256.0	..	..	..	..	2 947.8	3 085.7	3 208.8	3 440.5	3 669.5	3 901.6	4 138.2
46.0	258.8	..	..	..	..	2 940.5	3 080.9	3 205.3	3 438.2	3 667.8	3 900.3	4 137.2
48.0	261.4	..	..	..	..	2 933.1	3 076.1	3 201.8	3 435.9	3 666.2	3 899.1	4 136.3
50.0	263.9	..	..	..	..	2 925.5	3 071.2	3 198.3	3 433.7	3 664.5	3 897.9	4 135.3
55.0	269.9	..	..	..	..	2 905.8	3 058.7	3 189.3	3 427.9	3 660.4	3 894.8	4 133.0
60.0	275.6	..	..	..	..	2 885.0	3 045.8	3 180.1	3 422.2	3 656.2	3 891.7	4 130.7
65.0	280.8	..	..	..	..	2 863.0	3 032.4	3 170.8	3 416 4	3 652.1	3 888.6	4 128.8
70.0	285.8	..	..	..	..	2 839.0	3 018.7	3 161.2	3 410.6	3 647.9	3 885.4	4 126.0
75.0	290.5	..	..	..	..	2 814.1	3 004.5	3 151.6	3 404.7	3 643.7	3 882.4	4 123.7
80.0	295.0	..	..	..	..	2 786.6	2 989.9	3 141.6	3 398.8	3 639.5	3 879.2	4 121.3
85.0	299.2	..	..	..	..	2 757.1	2 974.7	3 131.5	3 392.8	3 635.4	3 876.1	4 119.0
90.0	303.3	..	..	..	..	..	2 959.0	3 121.2	3 386.8	3 631.1	3 873.0	4 116.7
95.0	307.2	..	..	..	..	..	2 942.7	3 110.7	3 380.7	3 627.0	3 869.9	4 114.4
100.0	311.0	..	..	..	..	..	2 925.8	3 099.9	3 374.6	3 622.7	3 866.8	4 112.0
110.0	318.0	..	..	..	..	..	2 889.6	3 077.8	3 362.2	3 614.2	3 860.5	4 107.3
120.0	324.6	..	..	..	..	..	2 849.7	3 054.8	3 349.6	3 605.7	3 854.3	4 102.7
130.0	330.8	..	..	..	..	..	2 805.0	3 030.7	3 336.8	3 597.1	3 848.0	4 098.0
140.0	336.6	..	..		..	..	2 754.2	3 005.6	3 323.8	3 588.5	3 841.7	4 093.3
150.0	342.1	..	..	..	..	..	2 694.8	2 979.1	3 310.6	3 579.8	3 835.4	4 088.6
160.0	347.3	..	..	..	..	..	2 620.8	2 951.3	3 297.1	3 571.0	3 829.1	4 084.0
170.0	352.3	..	..	..	..	..	..	2 921.7	3 283.5	3 562.2	3 822.8	4 079.3
180.0	357.0	..	..	..	..	..	..	2 890.3	2 269.6	3 553.4	3 816.5	4 074.6
190.0	361.4	..	..		..	..	..	2 856.7	3 255.4	3 544.5	3 810.2	4 070.0
200.0	365.7	..	..	..	..	..	..	2 820.5	3 241.1	3 535.5	3 803.8	4 065.3
210.0	369.8	..	..	..	..	..	..	2 781.3	3 226.5	3 526.5	3 797.5	4 060.6
220.0	373.7	..	..	..	..	..	..	2 738.8	3 211.7	3 517.4	3 791.1	4 055.9
221.2	374.15	..	..	..	..	..	..	2 734.5	3 210.7	3 516.4	3 789.1	4 054.7

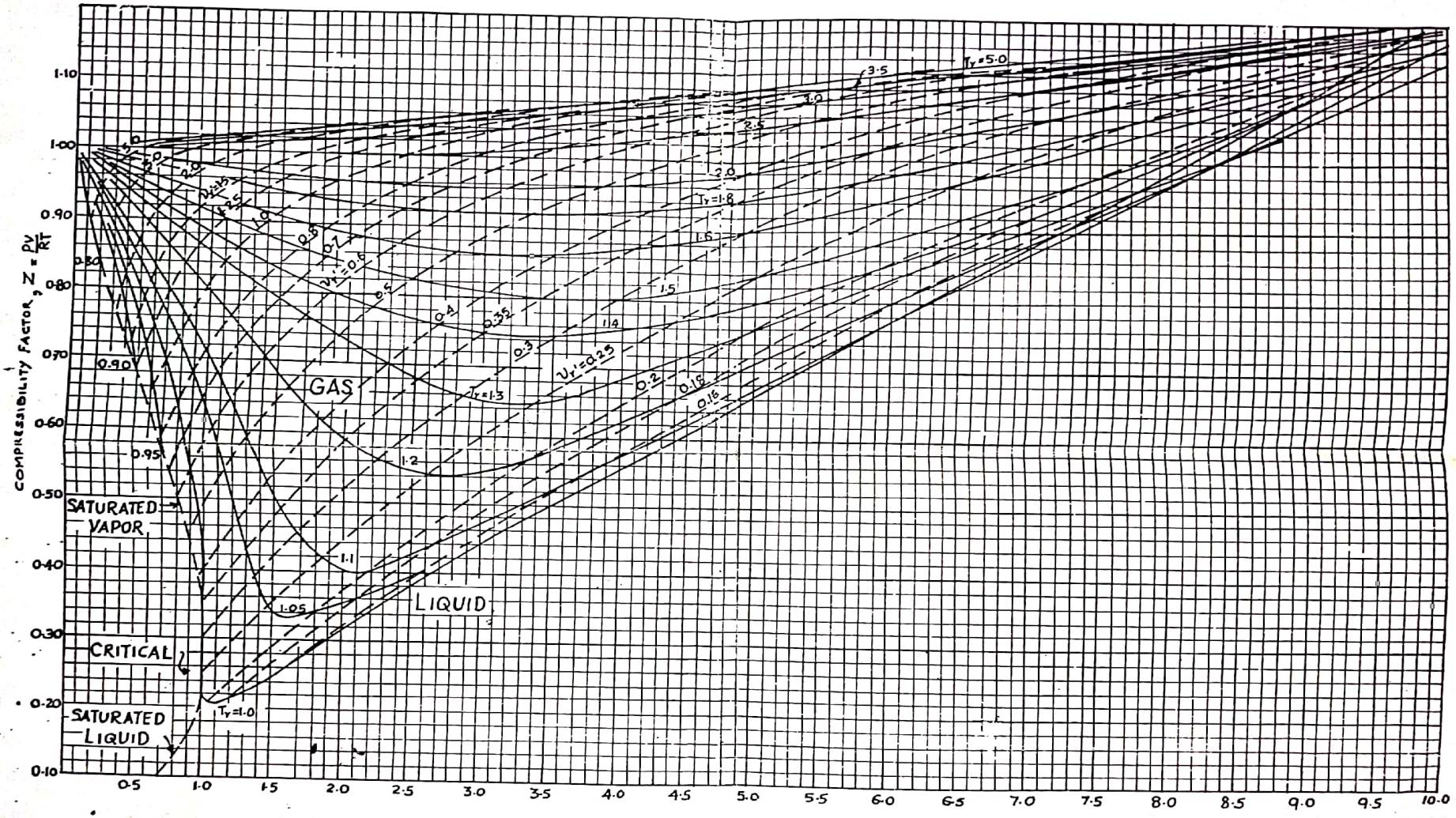
TABLE 5
Specific Entropy of Superheated Steam

Absolute Pressure in bar (p)	Saturation Temperature in °C (t_s)	Specific entropy (s) in kJ/kg K at various temperatures in °C										
		100	150	200	250	300	350	400	500	600	700	800
0.02	17.5	9.193	9.433	9.648	9.844	10.025	10.193	10.351	10.641	10.904	11.146	11.371
0.04	29.0	8.873	9.113	9.328	9.524	9.705	9.874	10.031	10.321	10.585	10.827	11.051
0.06	36.2	8.685	8.925	9.141	9.337	9.518	9.686	9.844	10.134	10.397	10.639	10.864
0.08	41.5	8.552	8.792	9.008	9.204	9.385	9.554	9.711	10.001	10.265	10.507	10.731
0.10	45.8	8.449	8.689	8.905	9.101	9.282	9.450	9.608	9.898	10.162	10.404	10.628
0.15	54.0	8.261	8.502	8.718	8.915	9.096	9.264	9.422	9.712	9.975	10.217	10.442
0.20	60.1	8.126	8.368	8.584	8.781	8.962	9.130	9.288	9.578	9.842	10.084	10.309
0.25	65.0	8.022	8.264	8.481	8.678	8.859	9.028	9.186	9.476	9.739	9.981	10.206
0.30	69.1	7.936	8.179	8.396	8.593	8.774	8.943	9.101	9.391	9.654	9.897	10.121
0.35	72.7	7.864	8.107	8.325	8.522	8.703	8.872	9.030	9.320	9.583	9.826	10.050
0.40	75.9	7.801	8.045	8.263	8.460	8.641	8.810	8.968	9.258	9.522	9.764	9.989
0.45	78.7	7.745	7.990	8.208	8.405	8.587	8.755	8.914	9.204	9.467	9.709	9.934
0.50	81.3	7.695	7.941	8.159	8.356	8.538	8.707	8.865	9.155	9.419	9.661	9.886
0.60	86.0	7.609	7.855	8.074	8.272	8.454	8.622	8.781	9.071	9.334	9.576	9.801
0.70	90.0	7.535	7.783	8.002	8.200	8.382	8.551	8.709	9.000	9.263	9.505	9.730
0.80	93.5	7.470	7.720	7.940	8.138	8.320	8.489	8.648	8.938	9.214	9.444	9.669
0.90	96.7	7.413	7.664	7.884	8.083	8.266	8.435	8.593	8.884	9.147	9.389	9.614
1.00	99.6	7.362	7.614	7.835	8.034	8.217	8.386	8.544	8.835	9.098	9.341	9.565
1.50	111.4	..	7.419	7.644	7.845	8.028	8.198	8.356	8.647	8.911	9.153	9.378
2.00	120.2	..	7.279	7.507	7.710	7.894	8.064	8.223	8.514	8.778	9.020	9.245

(p)	(t_s)	100	150	200	250	300	350	400	500	600	700	800
2.5	127.4	..	7.169	7.400	7.604	7.789	7.960	8.119	8.410	8.674	8.917	9.142
3.0	133.5	..	7.077	7.312	7.518	7.703	7.874	8.034	8.326	8.590	8.833	9.058
3.5	138.5	..	6.998	7.237	7.444	7.631	7.802	7.962	8.254	8.518	8.761	8.986
4.0	143.6	..	6.929	7.171	7.380	7.568	7.740	7.899	8.192	8.456	8.699	8.925
4.5	147.9	..	6.866	7.112	7.323	7.512	7.684	7.844	8.137	8.402	8.645	8.870
5.0	151.8	..	..	7.059	7.272	7.461	7.634	7.795	8.088	8.353	8.596	8.821
6.0	158.8	..	..	6.966	7.183	7.374	7.548	7.709	8.003	8.268	8.511	8.737
7.0	165.0	..	..	6.886	7.107	7.300	7.475	7.636	7.931	8.196	8.440	8.665
8.0	170.4	..	..	6.815	7.040	7.235	7.411	7.573	7.868	8.134	8.377	8.603
9.0	175.4	..	..	6.751	6.980	7.177	7.354	7.517	7.812	8.079	8.323	8.549
10.0	179.9	..	..	6.692	6.926	7.125	7.303	7.467	7.763	8.029	8.273	8.500
11.0	184.1	..	..	6.638	6.876	7.078	7.257	7.421	7.718	7.985	8.229	8.455
12.0	188.0	..	..	6.587	6.831	7.034	7.214	7.379	7.677	7.944	8.188	8.415
13.0	191.6	..	..	6.539	6.788	6.994	7.175	7.340	7.639	7.906	8.151	8.378
14.0	195.0	..	..	6.494	6.748	6.956	7.139	7.305	7.603	7.871	8.116	8.343
15.0	198.3	..	..	6.451	6.710	6.921	7.104	7.271	7.570	7.839	8.084	8.311
16.0	201.4	..	..	..	6.674	6.887	7.072	7.239	7.540	7.808	8.054	8.281
17.0	204.3	..	..	..	6.640	6.856	7.042	7.210	7.511	7.779	8.025	8.252
18.0	207.1	..	..	..	6.607	6.826	7.013	7.182	7.483	7.752	7.998	8.226
19.0	209.8	..	..	..	6.576	6.797	7.986	7.155	7.457	7.727	7.973	8.200
20.0	212.4	..	..	..	6.545	6.770	6.960	7.130	7.432	7.702	7.949	8.176
22.0	217.2	..	..	..	6.488	6.718	6.911	7.082	7.386	7.657	7.904	8.132
24.0	221.8	..	..	..	6.434	6.670	6.866	7.038	7.344	7.615	7.862	8.091
26.0	226.0	..	..	..	6.382	6.625	6.824	6.998	7.305	7.577	7.825	8.053
28.0	230.0	..	..		6.333	6.582	6.784	6.960	7.269	7.541	7.789	8.018
30.0	233.8	..	..	..	6.286	6.542	6.747	6.925	7.235	7.508	7.756	7.986
32.0	237.4	..	..	..	6.240	6.504	6.712	6.891	7.203	7.477	7.726	7.955
34.0	240.9	..	..	..	6.195	6.467	6.679	6.860	7.172	7.447	7.697	7.927
36.0	244.2	..	..	..	6.151	6.432	6.647	6.829	7.144	7.420	7.669	7.900
38.0	247.3	..	..	..	6.109	6.397	6.616	6.801	7.117	7.393	7.643	7.874

(p)	(t_s)	100	150	200	250	300	350	400	500	600	700	800
40.0	250.3	..	..	..	..	6.364	6.587	6.773	7.091	7.368	7.619	7.850
42.0	253.2	..	..	..	..	6.332	6.559	6.747	7.066	7.344	7.595	7.826
44.0	256.0	..	..	..	..	6.301	6.532	6.722	7.043	7.321	7.573	7.804
46.0	258.8	..	..	..	..	6.270	6.505	6.697	7.020	7.299	7.551	7.783
48.0	261.4	..	..	..	..	6.240	6.479	6.674	6.998	7.278	7.531	7.763
50.0	263.9	..	..	..	..	6.211	6.455	6.651	6.977	7.258	7.511	7.743
55.0	269.9	..	..	..	..	6.139	6.395	6.597	6.928	7.210	7.464	7.697
60.0	275.6	..	..	..	..	6.069	6.339	6.546	6.882	7.166	7.422	7.655
65.0	280.8	..	..	..	..	6.001	6.285	6.499	6.839	7.126	7.382	7.617
70.0	285.8	..	..	..	..	5.933	6.233	6.454	6.799	7.088	7.346	7.581
75.0	290.5	..	..	..	..	5.864	6.184	6.411	6.762	7.053	7.311	7.547
80.0	295.0	..	..	..	..	5.794	6.135	6.369	6.726	7.019	7.279	7.516
85.0	299.2	..	..	..	..	5.744	6.088	6.330	6.692	6.987	7.249	7.486
90.0	303.3	..	..	..	..	..	6.041	6.292	6.660	6.957	7.220	7.458
95.0	307.2	..	..	..	..	..	5.995	6.254	6.629	6.929	7.192	7.431
100.0	311.0	..	..	..	..	..	5.949	6.218	6.599	6.901	7.166	7.406
110.0	318.0	..	..	..	..	..	5.857	6.148	6.543	6.850	7.117	7.358
120.0	324.6	..	..	..	..	..	5.764	6.081	6.491	6.802	7.072	7.315
130.0	330.8	..	..	..	..	..	5.666	6.016	6.441	6.758	7.030	7.274
140.0	336.6	..	..	..	..	..	5.562	5.951	6.394	6.716	6.991	7.237
150.0	342.1	..	..	..	..	..	5.447	5.888	6.349	6.676	6.954	7.201
160.0	347.3	..	..	..	..	..	5.311	5.824	6.305	6.639	6.919	7.168
170.0	352.3	..	..	..	..	..	..	5.760	6.264	6.603	6.886	7.137
180.0	357.0	..	..	..	..	..	..	5.695	6.223	6.569	6.854	7.107
190.0	361.4	..	..	..	..	..	..	5.628	6.184	6.536	6.824	7.078
200.0	365.7	..	..	..	..	..	..	5.559	6.146	6.504	6.795	7.051
210.0	369.8	..	..	..	..	..	..	5.486	6.108	6.474	6.768	7.025
200.0	373.7	..	..	..	..	..	..	5.410	6.072	6.444	6.741	7.000
221.2	374.15	..	..	..	..	..	..	5.399	6.068	6.441	6.738	6.994





COMPRESSIBILITY CHART

19/11/16

Dept.,
DEPT. ... CAL ENG.
Bharath ... Engg. College,
AUNDIPATTY