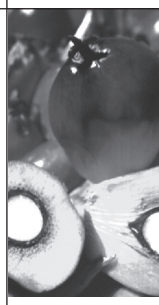

READY RECKONER FOR ENGINEERS

Saturation Temperatures of Steam without using Tables

A Pressure bar(a)	B 1st SQRT of A	C 2nd SQRT of A	D 100 x C	Actual value steam tab (°C)	F deviation	G Error as % of actual	Approx. correction factor +/-
1	1.00	1.00	100.0	99.6	-0.4	-0.40	0.083333
2	1.41	1.19	118.9	120.2	1.3	1.06	0.083333
3	1.73	1.32	131.6	133.5	1.9	1.42	0.083333
4	2.00	1.41	141.4	143.6	2.2	1.52	0.083333
5	2.24	1.50	149.5	151.8	2.3	1.49	0.083333
6	2.45	1.57	156.5	158.8	2.3	1.44	0.083333
7	2.65	1.63	162.7	165.0	2.3	1.42	0.083333
8	2.83	1.68	168.2	170.4	2.2	1.30	0.083333
9	3.00	1.73	173.2	174.4	1.2	0.69	0.083333
10	3.16	1.78	177.8	179.9	2.1	1.15	0.083333
11	3.32	1.82	182.1	184.1	2.0	1.08	0.083333
12	3.46	1.86	186.1	188.0	1.9	1.00	0.083333
13	3.61	1.90	189.9	191.6	1.7	0.90	0.083333
14	3.74	1.93	193.4	195.0	1.6	0.80	0.083333
15	3.87	1.97	196.8	198.3	1.5	0.76	0.083333
16	4.00	2.00	200.0	201.4	1.4	0.70	0.083333
17	4.12	2.03	203.1	204.3	1.2	0.61	0.083333
18	4.24	2.06	206.0	207.1	1.1	0.54	0.083333
19	4.36	2.09	208.8	209.8	1.0	0.49	0.083333
20	4.47	2.11	211.5	212.4	0.9	0.44	0.083333
21	4.58	2.14	214.1	214.8	0.7	0.34	0.083333
22	4.69	2.17	216.6	217.2	0.6	0.29	0.083333
23	4.80	2.19	219.0	219.5	0.5	0.23	0.083333
24	4.90	2.21	221.3	221.8	0.5	0.21	0.083333
25	5.00	2.24	223.6	223.9	0.3	0.13	0.083333
26	5.10	2.26	225.8	226.0	0.2	0.08	0.083333
27	5.20	2.28	228.0	228.0	0.0	0.02	0.083333
28	5.29	2.30	230.0	230.0	0.0	-0.01	0.083333
29	5.39	2.32	232.1	231.9	-0.2	-0.07	0.083333
30	5.48	2.34	234.0	233.8	-0.2	-0.10	0.083333
31	5.57	2.36	236.0	235.6	-0.4	-0.15	0.083333
32	5.66	2.38	237.8	237.4	-0.4	-0.19	0.083333
33	5.74	2.40	239.7	239.2	-0.5	-0.22	0.083333
34	5.83	2.41	241.5	240.9	-0.6	-0.24	0.083333
35	5.92	2.43	243.2	242.6	-0.7	-0.28	0.083333
36	6.00	2.45	244.9	244.2	-0.7	18.44	0.083333
				Total	30.80		3.00
			Deviation range: -0.7 to 2.3= 3		3.0/36= 0.08333		

Note: SQRT - square root.
Saturation temperature of steam is roughly equivalent to the 2nd square root of the absolute.
Steam pressure multilplied by 100 (close enough as a rough guide).

Source: Ir G Achuthan Nair, PT Tolan Tiga, Medan, Indonesia.