Saturated Steam Tables

IMPERIAL UNITS

Note: Absolute Pressure (psia) = Atmospheric Pressure (14.7) + Gauge Pressure
Gauge Pressure: = psig = lbs / sq inch Gauge Pressure

Boiler Gauge Pressure Pressure PSIG	Temperature °F	Sensible Heat Btu/lb	Latent Heat Btu/lb	Total Heat Btu/lb	Volume Dry Saturati cu ft/lb
Inches of vacuum 15	179·0	147·0	991·0	1,138·0	51·41
Inches of vacuum 10	192·0	160·0	983·0	1,143·0	39·40
Inches of vacuum 5	203·0	171·0	976·0	1,147·0	31·80
0	212·0	180·2	970·6	1,150·8	26·80
2	218·5	186·8	966·4	1,153·2	23·80
4	224·5	192·7	962·6	1,155·3	21.40
6	230·0	198·1	959·2	1,157·3	19·40
8	234·8	203·1	956·0	1,159·1	17·90
10	239·4	207·9	952·9	1,160·8	16·50
12	243·7	212·3	950·1	1,162·3	15·30
14	247·9	216·4	947·3	1,163·7	14·30
16	251·7	220·3	944·8	1,165·1	13·40
18	255·4	224·0	942·4	1,166·4	12·70
20	258·8	227·5	940·1	1,167·6	12·00
22	262·3	230·9	937·8	1,168·7	11·40
24	265·3	234·2	935·8	1,170·0	10·80
26	268·3	237·3	933·5	1,170·8	10·30
28	271·4	240·2	931·6	1,171·8	9·87
30	274·0	243·0	929·7	1,172·7	9·46
32	276·7	245.9	927·6	1,173·5	9·08
34	279·4	248·5	925·8	1,174·3	8·73
36	281·9	251·1	924·0	1,175·1	8·40
38	284·4	253·7	922·1	1,175·8	8·11
40	286·7	256·1	920·4	1,176·5	7·83
42	289·0	258·5	918·6	1,177·1	7·57
44	291·3	260·8	917·0	1,177·8	7·33
46	293·5	263·0	915·4	1,178·4	7·10
48	295·6	265·2	913·8	1,179·0	6·89
50	297·7	267·4	912·2	1,179·6	6·68
52	299·7	269·4	910·7	1,180·1	6·50
54	301·7	271·5	909·2	1,180·7	6·32
56	303·6	273·5	907·8	1,181·3	6·16
58	305·5	275·3	906·5	1,181·8	6·00
60	307·4	277·1	905·3	1,182·4	5·84
62	309·2	279·0	904.0	1,183·0	5·70
64	310·9	280·9	902·6	1,183·5	5·56
66	312·7	282·8	901·2	1,184·0	5·43
68	314·3	284·5	900·0	1,184·5	5·31
70	316·0	286·2	898·8	1,185·0	5·19
72	317·7	288·0	897·5	1,185·5	5·08
74	319·3	289·4	896·5	1,185·9	4·97
76	320·9	291·2	895·1	1,186·3	4·87
78	322·4	292·9	893·9	1,186·8	4·77
80	323·9	294·5	892·7	1,187·2	4·67

Note: Sensible Heat is the Energy required to drive Temperature to a point in which Steam will occur.

Note: Latent Heat is the Energy required to convert Water to Steam at same Temperature.

Note: Total Heat or (Enthalpy) is (Sensible Heat + Latent Heat) and is the Total Energy required to convert Water to Steam

Other Notes: When Calculating Energy in Boiler Blowdown use Sensible Heat Value at Boiler Gauge Pressure
When Calculating Energy in Boiler Feed Tank Water use Sensible Heat value at Temperature of Water

Saturated Steam Tables

IMPERIAL UNIT

Note: Absolute Pressure (psia) = Atmospheric Pressure (14.7) + Gauge Pressure
Gauge Pressure: = psig = lbs / sq inch Gauge Pressure

Boiler Gauge Pressure Pressure PSIG	Temperature °F	Sensible Heat Btu/lb	Latent Heat Btu/lb	Total Heat Btu/lb	Volume Dry Saturation cu ft/lb
82	325·5	296·1	891·5	1,187·6	4·58
84	326·9	297·6	890·3	1,187·9	4·49
86	328·4	299·1	889·2	1,188·3	4·41
88	329·9	300·6	888·1	1,188·7	4·33
90	331·2	302·1	887·0	1,189·1	4·25
92	332·6	303·5	885·8	1,189·3	4·17
94	333·9	304·9	884·8	1,189·7	4·10
96	335·3	306·3	883·7	1,190·0	4·03
98	336·6	307·7	882·6	1,190·3	3·96
100	337·9	309·0	881·6	1,190·6	3·90
105	341·1	312·3	879·0	1,191·4	3·74
110	344·2	315·5	876·5	1,192·0	3·60
115	347·1	318·7	874·0	1,192·7	3·46
120	350·1	321·8	871·5	1,193·3	3·34
125	352·8	324·7	869·3	1,194·0	3·23
130	355·6	327·6	866·9	1,194·5	3·12
135	358·3	330·6	864·5	1,195·1	3·02
140	360·9	333·2	862·5	1,195·7	2·93
145	363·5	335·9	860·3	1,196·2	2·84
150	365·9	338·6	858·0	1,196·6	2·76
160	370·7	343·6	853·9	1,197·5	2·61
170	375·2	348·5	849·8	1,198·3	2·48
180	379·6	353·2	845·9	1,199·1	2·35
190	383·7	357·6	842·2	1,199·8	2·24
200	387·7	362·0	838·4	1,200·4	2·14
210	391·7	366·2	834·8	1,201·0	2·04
220	395·5	370·3	831·2	1,201·5	1·96
230	399·1	374·2	827·8	1,202·0	1·88
240	402·7	378·0	824·5	1,202·5	1·81
250	406·1	381·7	821·2	1,202·9	1·74
260	409·3	385·3	817·9	1,203·2	1·68
270	412·5	388·8	814·8	1,203·6	1·62
280	415·8	392·3	811·6	1,203·9	1·57
290	418·8	395·7	808·5	1,204·2	1·52
300	421·7	398·9	805·5	1,204·4	1·47
310	424·7	402·1	802·6	1,204·7	1·43
320	427·5	405·2	799·7	1,204·9	1·39
330	430·3	408·3	796·7	1,205·0	1·35
340	433·0	411·3	793·8	1,205·1	1·31
350	435·7	414·3	791·0	1,205·3	1·27
360	438·3	417·2	788·2	1,205·4	1·24
370	440·8	420·0	785·4	1,205·4	1·21
380	443·3	422·8	782·7	1,205·5	1·18
390	445·7	425·6	779·9	1,205·5	1·15
400	448·1	428·2	777·4	1,205·6	1·12

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Note: Latent Heat is the Energy required to convert Water to Steam at same Temperature

Note: Total Heat or (Enthalpy) is (Sensible Heat + Latent Heat) and is the Total Energy required to convert Water to Steam

Other Notes: When Calculating Energy in Boiler Blowdown use Sensible Heat Value at Boiler Gauge Pressure
When Calculating Energy in Boiler Feed Tank Water use Sensible Heat value at Temperature of Water