

Troy Boiler Works

invites you to join us for our current 2022 schedule



Boiler Training Course



This is a two-day boiler training course for anyone interested in learning about steam fundamentals, boilers, burners, combustion, boiler controls, steam system auxiliaries, and more.

Here is our current 2022 class schedule!

For more details and information on how to register for our courses, please click on the links below, call us at 518-274-2650, or email us at training@troyboilerworks.com.

Dates	Location	Click For More Info
April 19 & 20	Troy	Troy Class Registration (April)
May 17 & 18	Rochester	Rochester Class Registration
June 7 & 8	Plattsburgh	Plattsburgh Class Registration
June 21 & 22	Auburn	Auburn Class Registration
July 12 & 13	Watertown	Watertown Class Registration
August 16 & 17	Troy	Troy Class Registration (August)

Additional classes are being planned for the New Paltz/Fishkill and Elmira/Ithaca/Binghamton areas.



Learning more about the principles of flash steam and boiler blowdown heat recovery at our first class in August of 2018.

Our advanced level controls course is also in the works!

We plan on rolling this out shortly to provide more advanced level training on burner management and combustion control system topics. If you are interested in more detail for this course, please contact us at training@troyboilerworks.com.

Dates	Location	Click For More Info
To Be Determined	Troy, NY	Additional Detail Pending



Learning about steam hammer at our Walkkill class in July 2020



Wrapping up the summer schedule in Plattsburgh, September 2020



Our 2020 Troy Class takes a break



Troy Boiler Works, Inc.
2800 7th Avenue
Troy, NY 12180
518-274-2650

About Our Course

We started this program in 2018 with the goal of providing high-quality training for boiler operators, supervisors, and maintenance personnel. The participants in our program have included staff from SUNY campuses, NYS DOCCS facilities, school districts, hospitals, paper mills, and manufacturing facilities throughout New York State. We are now entering our fourth year of this highly successful program and have expanded to add new classes at multiple locations throughout New York State.

Why should you take this course? We looked at the 2020 training class evaluations from over 80 attendees participating this year. Based on the feedback received, 100% of those respondents either agreed or strongly agreed that this training will be beneficial to them in the performance of their jobs.

Some quotes from our students –

- ❖ "I highly recommend other boiler operators to take this course."
- ❖ "The instructors were able to keep the course interesting and convey useful information."
- ❖ "Broad range of interesting topics covered. Easily understandable for all."
- ❖ "Loved this course."
- ❖ "Balanced, good depth on all aspects."
- ❖ "Excellent instructors, venue, and course content."
- ❖ "Very organized and good overview of all aspects of the boiler system as a whole."
- ❖ "Course was very thorough. Concepts and systems were explained well."
- ❖ "Great Course!"
- ❖ "I really enjoyed the training. Thank You Troy Boiler!!"

Download our Training Brochure

Course Content Description

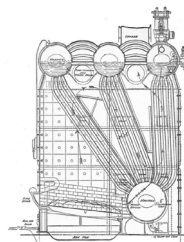
- Fundamentals of Steam
- Fundamentals of Combustion
- Boiler Types & Construction
- Burner Types & Construction
- High Temp Hot Water Generators
- Boiler Operating Procedures
- Boiler Safety Systems
- Deaerator & Feedwater Systems
- Water Treatment Principles
- Burner Systems & Controls
- ASME & NFPA Boiler Codes



Controls



Operations



Boiler Design & Construction



Boiler Safety & Codes

Table 1. Properties of Saturated Water and Steam (Temperature)

Temp (°F)	Temp (°C)	Pressure (psia)	Pressure (bar)	Specific Volume (ft ³ /lb)	Specific Volume (m ³ /kg)	Enthalpy (Btu/lb)	Enthalpy (kJ/kg)	Entropy (Btu/lb-R)	Entropy (kJ/kg-K)
212	100	14.7	1.013	26.8	1.673	1077.4	417.46	1.7748	7.3751
220	105	15.5	1.069	25.8	1.605	1080.8	418.54	1.7782	7.3851
230	110	16.5	1.136	24.9	1.547	1084.3	419.62	1.7816	7.3951
240	115	17.7	1.215	24.1	1.497	1087.9	420.70	1.7850	7.4051
250	120	19.0	1.307	23.4	1.454	1091.5	421.78	1.7884	7.4151
260	125	20.5	1.413	22.8	1.418	1095.2	422.86	1.7918	7.4251
270	130	22.1	1.534	22.3	1.387	1099.0	423.94	1.7952	7.4351
280	135	23.8	1.671	21.9	1.361	1102.9	425.02	1.7986	7.4451
290	140	25.6	1.825	21.6	1.339	1106.9	426.10	1.8020	7.4551
300	145	27.5	1.997	21.4	1.321	1111.0	427.18	1.8054	7.4651
310	150	29.5	2.188	21.2	1.306	1115.2	428.26	1.8088	7.4751
320	155	31.7	2.398	21.1	1.293	1119.5	429.34	1.8122	7.4851
330	160	34.0	2.638	21.0	1.282	1123.9	430.42	1.8156	7.4951
340	165	36.5	2.909	20.9	1.272	1128.4	431.50	1.8190	7.5051
350	170	39.2	3.212	20.8	1.263	1133.0	432.58	1.8224	7.5151
360	175	42.1	3.548	20.7	1.255	1137.7	433.66	1.8258	7.5251
370	180	45.2	3.918	20.6	1.248	1142.5	434.74	1.8292	7.5351
380	185	48.5	4.323	20.5	1.242	1147.4	435.82	1.8326	7.5451
390	190	52.0	4.764	20.4	1.237	1152.4	436.90	1.8360	7.5551
400	195	55.7	5.242	20.3	1.233	1157.5	437.98	1.8394	7.5651
410	200	59.7	5.758	20.2	1.230	1162.7	439.06	1.8428	7.5751
420	205	63.9	6.313	20.1	1.227	1168.0	440.14	1.8462	7.5851
430	210	68.3	6.908	20.0	1.225	1173.4	441.22	1.8496	7.5951
440	215	73.0	7.544	19.9	1.223	1178.9	442.30	1.8530	7.6051
450	220	77.9	8.222	19.8	1.221	1184.5	443.38	1.8564	7.6151
460	225	83.1	8.943	19.7	1.220	1190.2	444.46	1.8598	7.6251
470	230	88.6	9.708	19.6	1.219	1196.0	445.54	1.8632	7.6351
480	235	94.3	10.518	19.5	1.218	1201.9	446.62	1.8666	7.6451
490	240	100.3	11.374	19.4	1.217	1207.9	447.70	1.8700	7.6551
500	245	106.5	12.276	19.3	1.216	1214.0	448.78	1.8734	7.6651
510	250	113.0	13.225	19.2	1.215	1220.2	449.86	1.8768	7.6751
520	255	119.8	14.222	19.1	1.214	1226.5	450.94	1.8802	7.6851
530	260	126.9	15.268	19.0	1.213	1232.9	452.02	1.8836	7.6951
540	265	134.3	16.364	18.9	1.212	1239.4	453.10	1.8870	7.7051
550	270	142.0	17.511	18.8	1.211	1246.0	454.18	1.8904	7.7151
560	275	150.0	18.710	18.7	1.210	1252.7	455.26	1.8938	7.7251
570	280	158.3	20.062	18.6	1.209	1259.5	456.34	1.8972	7.7351
580	285	167.0	21.468	18.5	1.208	1266.4	457.42	1.9006	7.7451
590	290	176.0	22.929	18.4	1.207	1273.4	458.50	1.9040	7.7551
600	295	185.3	24.446	18.3	1.206	1280.5	459.58	1.9074	7.7651
610	300	195.0	26.020	18.2	1.205	1287.7	460.66	1.9108	7.7751
620	305	205.0	27.652	18.1	1.204	1295.0	461.74	1.9142	7.7851
630	310	215.3	29.343	18.0	1.203	1302.4	462.82	1.9176	7.7951
640	315	226.0	31.094	17.9	1.202	1310.0	463.90	1.9210	7.8051
650	320	237.0	32.906	17.8	1.201	1317.7	464.98	1.9244	7.8151
660	325	248.3	34.780	17.7	1.200	1325.5	466.06	1.9278	7.8251
670	330	260.0	36.717	17.6	1.199	1333.4	467.14	1.9312	7.8351
680	335	272.0	38.718	17.5	1.198	1341.4	468.22	1.9346	7.8451
690	340	284.3	40.784	17.4	1.197	1349.5	469.30	1.9380	7.8551
700	345	297.0	42.916	17.3	1.196	1357.7	470.38	1.9414	7.8651
710	350	310.0	45.114	17.2	1.195	1366.0	471.46	1.9448	7.8751
720	355	323.3	47.379	17.1	1.194	1374.4	472.54	1.9482	7.8851
730	360	337.0	49.712	17.0	1.193	1382.9	473.62	1.9516	7.8951
740	365	351.0	52.114	16.9	1.192	1391.5	474.70	1.9550	7.9051
750	370	365.3	54.586	16.8	1.191	1400.2	475.78	1.9584	7.9151
760	375	380.0	57.128	16.7	1.190	1409.0	476.86	1.9618	7.9251
770	380	395.0	59.741	16.6	1.189	1418.0	477.94	1.9652	7.9351
780	385	410.3	62.425	16.5	1.188	1427.1	479.02	1.9686	7.9451
790	390	426.0	65.180	16.4	1.187	1436.3	480.10	1.9720	7.9551
800	395	442.0	68.007	16.3	1.186	1445.7	481.18	1.9754	7.9651
810	400	458.3	70.907	16.2	1.185	1455.2	482.26	1.9788	7.9751
820	405	475.0	73.880	16.1	1.184	1464.9	483.34	1.9822	7.9851
830	410	492.0	76.917	16.0	1.183	1474.7	484.42	1.9856	7.9951
840	415	509.3	80.028	15.9	1.182	1484.7	485.50	1.9890	8.0051
850	420	527.0	83.213	15.8	1.181	1494.8	486.58	1.9924	8.0151
860	425	545.0	86.473	15.7	1.180	1505.1	487.66	1.9958	8.0251
870	430	563.3	89.808	15.6	1.179	1515.5	488.74	1.9992	8.0351
880	435	582.0	93.218	15.5	1.178	1526.1	489.82	2.0026	8.0451
890	440	601.0	96.703	15.4	1.177	1536.8	490.90	2.0060	8.0551
900	445	620.3	100.263	15.3	1.176	1547.6	491.98	2.0094	8.0651
910	450	640.0	103.898	15.2	1.175	1558.6	493.06	2.0128	8.0751
920	455	660.0	107.608	15.1	1.174	1569.7	494.14	2.0162	8.0851
930	460	680.3	111.393	15.0	1.173	1581.0	495.22	2.0196	8.0951
940	465	701.0	115.253	14.9	1.172	1592.5	496.30	2.0230	8.1051
950	470	722.0	119.188	14.8	1.171	1604.1	497.38	2.0264	8.1151
960	475	743.3	123.198	14.7	1.170	1615.9	498.46	2.0298	8.1251
970	480	765.0	127.283	14.6	1.169	1627.8	499.54	2.0332	8.1351
980	485	787.0	131.443	14.5	1.168	1639.9	500.62	2.0366	8.1451
990	490	809.3	135.678	14.4	1.167	1652.2	501.70	2.0400	8.1551
1000	495	832.0	140.088	14.3	1.166	1664.7	502.78	2.0434	8.1651

Fundamentals of Steam

To learn more about Troy Boiler Works and our capabilities, visit our website at www.troyboilerworks.com