

CEW

Vertical Hot Water Boiler



- Hot Water Temp. to 240°F¹
- 12 - 315 kW (41 - 1,075 Mbh)
- 208 - 600 Volt, 1 & 3 Phase
- ASME Section IV Pressure Vessel Carbon Steel Code "H"
- 0.430 Dia. Copper Sheath Heating Elements
- Temperature/Pressure Controls
- High Temperature Limit Control¹
- Electronic Low Water Cutoff (Probe)
- Temperature/Pressure Gauge
- Air Relief Valve
- ASME Safety Relief Valve Code "V"
- Optional Control Circuit Transformers

Applications

Packaged electric hot water boilers are safe and versatile heat sources that produce hot water for commercial and industrial processes and for comfort heating applications. Hot water boilers can be used anywhere hot water is required and electric power is available. Applications encompass all types of commercial and industrial enterprises such as hospitals, breweries, bakeries, car washes, bottling plants, utilities, etc. Other applications include:

Supplemental Heating for heat pumps, heat recovery and solar heating systems.

Comfort Heating as a primary or secondary heat source for hot water coils in air handlers, unit heaters and baseboard.

Industrial Process Heating for jacketed vessels for food processing, heating of waxes, chemicals and petrochemicals.

Features

150 Lb Construction — Pressure vessel is manufactured to the requirements of ASME Section IV and code stamped "H". Full thermal insulation on vessel assures minimum heat loss.

Operating Temperature Control(s)² — Operates integral magnetic contactors providing accurate regulation of outlet water temperature. Element circuits and contactors have internal fusing.

High Temperature Limit Control¹ — Automatically shuts down boiler if maximum operating temperature is exceeded.

Electronic Low Water Cutoff³ — Low voltage circuit detects current flow between probe and boiler shell. Control shuts down boiler if water level falls below safe operating levels.

Water Level Sight Glass — Provides constant visual indication of the water level in the boiler.

Temperature/Pressure Gauge provided for visual indication of operating temperature and pressure.

Air Relief Valve — Manual valve permits purging of air from the boiler to prevent trapped air from creating an "air lock" in the system.

Drain Valve — Facilitates draining and cleaning the boiler during blow down sequence.

Electrical Features — Electrical construction and wiring conform to the National Electric Code. Manual on-off switch permits manual operation and local shut down of boiler. Pilot light visually indicates when boiler is energized and operating.

All CEW Boilers come complete, factory tested and are ready to operate.

Optional Equipment

Dual Stage Thermostats — Provides two stage control without the need for a sequencer.

Proportional Control with electronic solid state sequencer for modulated temperature control.

Control Circuit Transformer — Mounted on boiler. Eliminates the need for a separate control circuit power source.

Flow Switch — Provides positive indication and control of water flow in the system. Shuts down the boiler in case of a low or no flow condition.

Mechanical Float Type Low Water Cutoff — (McDonnell Miller #150) alternative or back up to electronic low water cut off.

Notes —

1. The high limit temperature control is factory preset at 180°F, but may be set to other temperatures. Do not exceed a maximum operating temperature of 240°F.
2. All CEW boilers have 120 volt control circuits which require a separate branch circuit. Optional transformers for mounting on the boiler are available for self contained operation.
3. CEW boilers are designed for city or tap water. Do not use distilled, de-ionized or demineralized feed water.

CEW

Vertical Hot Water Boiler (cont'd.)

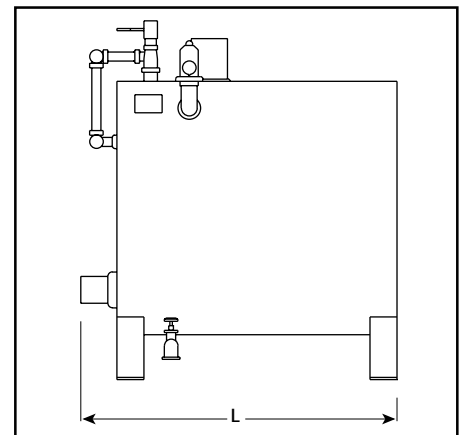
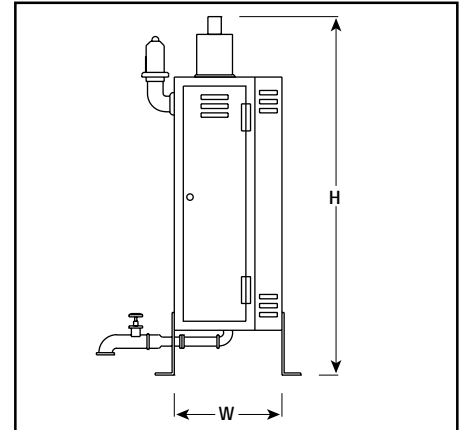
Specifications and Ordering Information

Mbh	Tank Vol. (Gal.)	kW	Volts ^{2,3}	3 Ph ² Amps	Service ⁴ Wire Size	No. Contactors	No. Stages ⁵	Model	Stock	Wt. (Lbs.)
58	6	17	208	48	6	1	1	CEW-018 ¹	NS	240
58	6	17	240	41	6	1	1	CEW-018 ¹	NS	240
58	6	17	480	21	12	1	1	CEW-018 ¹	NS	240
81.9	6	24	208	67	4	2	2	CEW-024 ¹	NS	250
81.9	6	24	240	58	4	2	2	CEW-024 ¹	NS	250
81.9	6	24	480	29	10	1	1	CEW-024 ¹	NS	250
116	6	34	208	95	2	2	2	CEW-036	NS	250
116	6	34	240	82	3	2	2	CEW-036	NS	250
116	6	34	480	41	6	1	1	CEW-036	NS	250
156.9	6	46	208	128	2/0	3	2	CEW-048	NS	250
156.9	6	46	240	111	1	3	2	CEW-048	NS	250
156.9	6	46	480	56	6	2	2	CEW-048	NS	250
197.9	14.3	58	208	162	3/0	4	4	CEW-060	NS	280
197.9	14.3	58	240	140	2/0	4	4	CEW-060	NS	280
197.9	14.3	58	480	70	4	2	2	CEW-060	NS	280
232	14.3	68	208	189	250 MCM	4	4	CEW-072	NS	295
232	14.3	68	240	164	3/0	4	4	CEW-072	NS	295
232	14.3	68	480	82	3	2	2	CEW-072	NS	295
290	14.3	85	208	237	300 MCM	5	4	CEW-090	NS	305
290	14.3	85	240	205	250 MCM	5	4	CEW-090	NS	305
290	14.3	85	480	103	1	3	3	CEW-090	NS	305
348	14.3	102	208	284	400 MCM	6	4	CEW-108	NS	320
348	14.3	102	240	246	350 MCM	6	4	CEW-108	NS	320
348	14.3	102	480	123	1/0	3	3	CEW-108	NS	320
389	14.3	114	208	317	500 MCM	7	4	CEW-120	NS	330
389	14.3	114	240	275	400 MCM	7	4	CEW-120	NS	330
389	14.3	114	480	138	2/0	4	4	CEW-120	NS	330
447	14.3	131	208	365	700 MCM	8	4	CEW-138	NS	340
447	14.3	131	240	316	500 MCM	8	4	CEW-138	NS	340
447	14.3	131	480	158	3/0	4	4	CEW-138	NS	340
464	14.3	136	208	378	700 MCM	8	4	CEW-144	NS	340
464	14.3	136	240	328	600 MCM	8	4	CEW-144	NS	340
464	14.3	136	480	164	3/0	4	4	CEW-144	NS	340
505	14.3	148	208	412	2-250 MCM	9	4	CEW-156	NS	355
505	14.3	148	240	357	600 MCM	9	4	CEW-156	NS	355
505	14.3	148	480	179	4/0	5	4	CEW-156	NS	355
552	14.3	153	208	426	2-250 MCM	9	4	CEW-162	NS	370
552	14.3	153	240	369	700 MCM	9	4	CEW-162	NS	370
552	14.3	153	480	185	4/0	5	4	CEW-162	NS	370
580	14.3	170	208	473	2-300 MCM	10	4	CEW-180	NS	370
580	14.3	170	240	410	2-250 MCM	10	4	CEW-180	NS	370
580	14.3	170	480	205	250 MCM	5	4	CEW-180	NS	370
690.9	36.4	202	480	244	350 MCM	5	4	CEW-205	NS	385
767.7	36.4	225	480	271	400 MCM	5	4	CEW-225	NS	385
844.5	36.4	248	480	298	500 MCM	6	4	CEW-250	NS	390
921.2	36.4	270	480	325	600 MCM	6	4	CEW-270	NS	390
988	36.4	293	480	352	600 MCM	7	4	CEW-295	NS	400
1,074.8	36.4	315	480	379	700 MCM	7	4	CEW-315	NS	400

Stock Status: S = stock AS = assembly stock NS = non-stock
To Order—Specify model, volts, phase and kW.

- Catalog boilers are wired for 3-phase. Single phase wiring is available.
- Other line voltages available. Contact your Local Chromalox Sales office.
- All boilers have 120V/1/60Hz control circuits. 220V/1/50Hz control circuits are available for export boilers.
- Copper 90°C AWG unless indicated otherwise.
- Where 2, 3 or 4 stages are specified, one or two dual stage independently adjustable (110 - 240°F) thermostats are provided as standard.

Dimensions (Inches)



Dimensions (Inches)

Boiler	Dimensions (In.)		
	W	L	H
CEW 12-54	12	35	40
CEW 60-180	25	27-3/4	56
CEW 205-315	25	34	64

Plumbing Connections

Boiler	NPT (In.)	
	Water Inlet	Water Outlet
CEW 12-54	2	2
CEW 60-180	2-1/2	2-1/2
CEW 205-315	3	3