

Specification Data Sheet - Industrial Electro-Boiler™

STANDARD EQUIPMENT

- Pressure vessel built in accordance with the requirements of the ASME Boiler and Pressure Vessel Code (National Board and CRN registered)
- Meets the requirements of ASME CSD-1
- Circuit breakers, each stage
- Manual reset hi-limit -220° F
- Auto reset limit control -210° F
- Low water cut-off with manual reset
- Integrated ½" air vent
- ASME pressure relief valve, 30 psi (125 psi optional, must specify when ordering)
- Pressure/temperature gauge
- 3" NPT inlet and outlet, with inspection opening
- Staging indicator lights, at contactor
- Safety door interlock and lockable door latch
- 0-10VDC for external boiler control
- Digital temperature control
- Supply and return water temperature sensing
- Outdoor reset (auto detect)
- Multi-boiler lead/lag control



OPTIONS

- Bender fault monitor
- T775R controller
- 125 psi vessel
- BACnet or LonWorks interface



*Specifications subject to change without notice,
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**ELECTRO
INDUSTRIES**

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ELECTRIC SUPPLY

Model	Volts	kW	Total Amps	Watts	Element Quantity	Steps	Btu/h Output	Flow Rate @20° ΔT
								Required GPM
EB-NB-60-600	600	60	58	60,000	5	5 @ 12	204,729	20
EB-NB-72-600	600	72	70	72,000	6	6 @ 12	245,674	25
EB-NB-84-600	600	84	81	84,000	7	7 @ 12	286,620	29
EB-NB-96-600	600	96	93	96,000	8	8 @ 12	327,566	33
EB-NB-108-600	600	108	104	108,000	9	9 @ 12	368,511	37
EB-NB-120-600	600	120	116	120,000	10	10 @ 12	409,457	41
EB-NB-132-600	600	132	128	132,000	11	11 @ 12	450,403	45
EB-NB-144-600	600	144	139	144,000	12	12 @ 12	491,348	49
EB-NB-160-600	600	160	154	160,000	8	8 @ 20	545,943	55
EB-NB-180-600	600	180	174	180,000	9	9 @ 20	614,186	61
EB-NB-200-600	600	200	193	200,000	10	10 @ 20	682,428	68
EB-NB-220-600	600	220	212	220,000	11	11 @ 20	750,671	75
EB-NB-240-600	600	240	231	240,000	12	12 @ 20	818,914	82
EB-NB-260-600	600	260	251	260,000	13	13 @ 20	887,157	89
EB-NB-280-600	600	280	270	280,000	14	14 @ 20	955,400	96
EB-NB-300-600	600	300	289	300,000	15	15 @ 20	1,023,643	102
EB-NB-300-600H	600	300	289	300,000	13	13 @ 23	1,023,643	102
EB-NB-60-480	480	60	73	60,000	5	5 @ 12	204,729	20
EB-NB-72-480	480	72	87	72,000	6	6 @ 12	245,674	25
EB-NB-84-480	480	84	102	84,000	7	7 @ 12	286,620	29
EB-NB-96-480	480	96	116	96,000	8	8 @ 12	327,566	33
EB-NB-108-480	480	108	130	108,000	9	9 @ 12	368,511	37
EB-NB-120-480	480	120	145	120,000	10	10 @ 12	409,457	41
EB-NB-132-480	480	132	159	132,000	11	11 @ 12	450,403	45
EB-NB-144-480	480	144	174	144,000	12	12 @ 12	491,348	49
EB-NB-160-480	480	160	193	160,000	8	8 @ 20	545,943	55
EB-NB-180-480	480	180	217	180,000	9	9 @ 20	614,186	61
EB-NB-200-480	480	200	241	200,000	10	10 @ 20	682,428	68
EB-NB-220-480	480	220	265	220,000	11	11 @ 20	750,671	75
EB-NB-240-480	480	240	289	240,000	12	12 @ 20	818,914	82
EB-NB-260-480	480	260	313	260,000	13	13 @ 20	887,157	89
EB-NB-280-480	480	280	337	280,000	14	14 @ 20	955,400	96
EB-NB-300-480	480	300	361	300,000	15	15 @ 20	1,023,643	102
EB-NB-300-480H	480	300	361	300,000	13	13 @ 23	1,023,643	102

ELECTRIC SUPPLY (continued)

Model	Volts	kW	Total Amps	Watts	Element Quantity	Steps	Btu/h Output	Flow Rate @20° ΔT
								Required GPM
EB-NB-60-208	208	60	167	60,000	4	4 @ 15	204,729	21
EB-NB-75-208	208	75	209	75,000	5	5 @ 15	255,911	26
EB-NB-90-208	208	90	250	90,000	6	6 @ 15	307,093	31
EB-NB-105-208	208	105	292	105,000	7	7 @ 15	358,275	36
EB-NB-120-208	208	120	334	120,000	8	8 @ 15	409,457	41
EB-NB-135-208	208	135	375	135,000	9	9 @ 15	460,639	46
EB-NB-150-208	208	150	417	150,000	10	10 @ 15	511,821	50
EB-NB-165-208	208	165	458	165,000	11	11 @ 15	563,003	56
EB-NB-180-208	208	180	500	180,000	12	12 @ 15	614,186	61
EB-NB-60-240	240	60	145	60,000	4	4 @ 15	204,729	20
EB-NB-75-240	240	75	181	75,000	5	5 @ 15	255,911	26
EB-NB-90-240	240	90	217	90,000	6	6 @ 15	307,093	31
EB-NB-105-240	240	105	253	105,000	7	7 @ 15	358,275	36
EB-NB-120-240	240	120	289	120,000	8	8 @ 15	409,457	41
EB-NB-135-240	240	135	325	135,000	9	9 @ 15	460,639	46
EB-NB-150-240	240	150	361	150,000	10	10 @ 15	511,821	51
EB-NB-165-240	240	165	397	165,000	11	11 @ 15	563,003	56
EB-NB-180-240	240	180	434	180,000	12	12 @ 15	614,186	61

ENGINEERING SPECIFICATION STATEMENT

The electric hot water boiler shall be an Electro Industries, Inc. model number EB-NB-_____. The Boiler output shall be _____ Btu/h or _____ kW at _____ volts three phase. Wiring within the main cabinet shall be rated at 75°C or higher. Aluminum or copper conductors may be used for field installed power wiring. The boiler shall include provisions to connect directly to utility load control. The boiler shall include a dedicated 15A 120V single phase control circuit (general service).

As a preferred option the boiler (dependant upon kW) shall be wired using (2) three phase delta feeds without neutral (unbonded neutral) within the dedicated utility transformer XO terminal. All Delta 3-phase require optional Bender fault monitor.

The vessel shall be wrapped with 3" insulation. The vessel shall be enclosed in a 14 gauge fully enclosed cabinet. The cabinet and vessel shall be attached to a 10 gauge structural steel base. The base includes integral fork pockets for easy maneuvering during installation. Both base and cabinet shall be painted with powder coated enamel. The cabinet shall include a full length hinged door with an included lockable T-handle. The inside dead front panel shall include an integral door safety interlock switch.

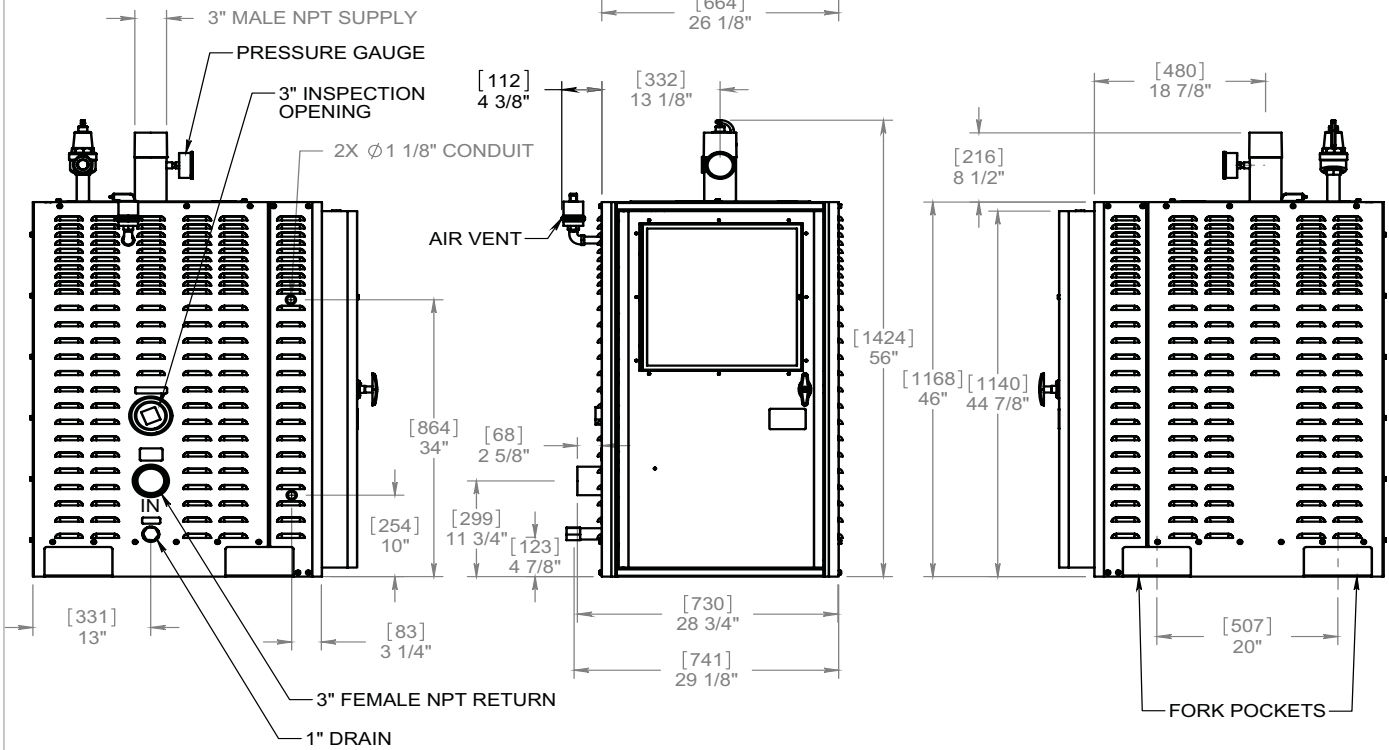
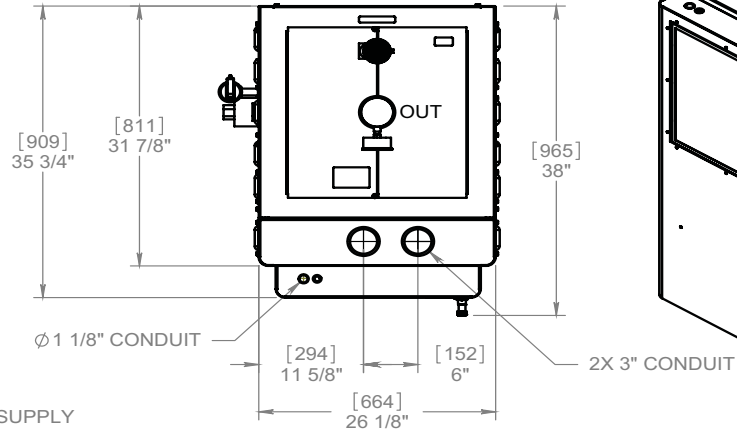
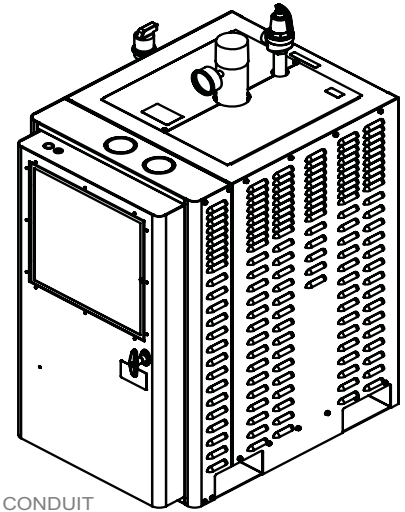
The vessel shall have a capacity of 40 gallons. The vessel shall be "H" stamped and National Board registered with a maximum working pressure of 30 or 125 PSI. The Vessel shall have 3" NPT threaded inlet and outlet nozzles. The outlet nozzle shall be located on the top of the vessel. The inlet nozzle shall be located on the left side of the vessel.

The immersion heating elements shall be installed in the top of the vessel and threaded into vessel for easy servicing (water draw-down not required). The heating elements shall be constructed using incoloy sheathing for long service life. The low-watt density heating elements shall be 30" in length. The cabinet shall have a split cover top for easy access to the heating elements. Contactors used to operate the heating elements shall be rated for 500,000 cycles.

The boiler shall include mounted control enclosure. The control enclosure shall contain all boiler controls and adjustments. Operator is not required to enter main cabinet for resets or other functions. A window shall be included on the door of the control enclosure to permit viewing of monitor and alarm LED's. The control assembly shall include a six function alarm LED. The sequencer shall include provisions for stage rotation. An optional emergency stop switch can be field installed at the terminals provided in the boiler. The boiler shall include a 5-year limited warranty on the vessel and a 1-year limited warranty on the parts. The boiler shall be fully tested using standard UL834 and shall bear the CSA mark.

INDUSTRIAL BOILER, EB-N*_*_*_*_*_*_*_*

Hydronic Boilers
Submittal Data



CLEARANCES

	MINIMUM CLEARANCE FROM COMBUSTIBLE SURFACES		SUGGESTED MINIMUM SERVICE CLEARANCE	
	INCH	MM	INCH	MM
BACK	0	0	0	0
LEFT	12	305	24	610
RIGHT	8	203	12	305
FRONT	24	457	36	914
TOP	26	660	26	660

DIMENSIONS ARE:
[mm]
IN