SUSSMAN ELECTRIC BOILERS
A Brand of Diversified Heat Transfer, Inc.

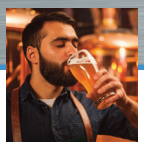
ES Series

INDUSTRIAL PROCESS

- Operating pressure up to 130 PSIG
- Central plant or point of use
- Small footprint
- Fast "start to steam"

HEALTHCARE/ LABORATORY

- Ideal for sterilization and lab use
- Point of use installation ease
- Small footprint
- Reliability



MICROBREWING/ DISTILLING

- Low pressure (15 PSIG) option
- Low installed cost
- Efficient
- Easy to maintain

CBD EXTRACTION

- Point of use installation ease
- Small Footprint
- Highly reliable and efficient
- Zero Emissions

ES Packaged Electric Steam Boilers

Lbs/Hr Sat. Steam: 36 to 542

KW Rating: 12 to 180

ASME Rating: 100 and 150 PSIG

Operating PSIG Range: 3-130 PSIG Max

ES Series Features:

- Safe easy-to-use heat source. No on-site products of combustion.
- Easy, quick to install, requires a water-feed connection and an electrical connection.
- Applications include: Steam for tanks, reactors, distillations, autoclaves, dyestuffs, cosmetics, paraffins, glues, steam jacketed kettles, sterilizers, pipe tracing and humidification.
- Built to Section 1 of ASME Boiler and Pressure Vessel Codes. UL listed.

ES Series Standard Features:

- WATER FEED SYSTEM
  Strainer, solenoid valve and check valve factory wired and plumbed.
- LOW WATER CUT-OFF/LEVEL CONTROL
  McDonnell Miller No.150 control automatically maintains proper water level, shutting off the boiler when water supply in the boiler drops below a safe operating level.
- WATER LEVEL SIGHT GLASS
  Allows constant observation of water level while boiler is in operation.
- MAIN ON/OFF SWITCH
  Allows manual operation of the boiler operating control circuit.
- PILOT LIGHT
  Indicates control circuit's on/off condition.
- INTEGRAL POWER CONTACTORS
  Magnetic contactors for energizing the boiler elements. Integrally mounted in the control unit
- BLOWDOWN/DRAIN VALVES
  Facilitates emptying the boiler pressure vessel and MM150 water column piping during blowdown sequence.
- LONG LIFE HEATING ELEMENTS
  Industrial grade, heavy duty 0.430 inch diameter INCOLOY alloy 800 heating elements, equipped with one piece resistance welded terminations for added strength and safety.
- OPERATING PRESSURE CONTROL
  Resets automatically to maintain preset pressure within boiler.
- ENERGY SAVINGS AND MINIMUM MAINTENANCE
  Pressure vessel insulation minimizes heat loss and maximizes energy savings, insured by fibrous glass material.
- EASY CONTROL MAINTENANCE
  All control panels and components are easily accessible. Fully-louvered openings avoid component heat build-up.
- NEMA 1 LOUVERED ENCLOSURE STANDARD
- STEAM OUTLET BALL VALVE
- 5-YEAR LIMITED WARRANTY ON PRESSURE VESSEL
- TRIM PRESSURE
  Factory standard 150 PSIG, 100 PSIG, 50 PSIG or 15 PSIG.

Meeting Code Requirements:

- PRESSURE VESSEL RATED AT 100 PSIG TO ASME SECTION 1, M STAMP OR 150 PSIG TO ASME SECTION 1, S STAMP
- UL AND cUL LISTED TO UL834
- ELECTRICAL CONSTRUCTION CONFORMS TO NEC STANDARDS

Safety Features:

- STEAM SAFETY VALVE
  Automatically opens to reduce pressure should excessive steam cause pressure build-up.
- STEAM PRESSURE GAUGE
  Allows visual observation of steam pressure over full range.
- MANUAL RESET PRESSURE CONTROL
  Provides high limit pressure cut-out with manual reset.
- AUXILIARY LWCO
  Standard electronic back-up to primary MM150 control.

Options & Accessories:

- MULTIPLE CONTROL AND ALARM OPTIONS
- CONTROL CIRCUIT TRANSFORMER
- STAGING STEP SEQUENCER
- AUTOMATIC BLOWDOWN SYSTEM
- HIGH PRESSURE FEED WATER SYSTEM
- CONDENSATE RETURN SYSTEM
- BLOWDOWN SEPARATOR AND COOLER
- BACnet COMMUNICATION

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439 Main Road, Towaco, New Jersey 07082
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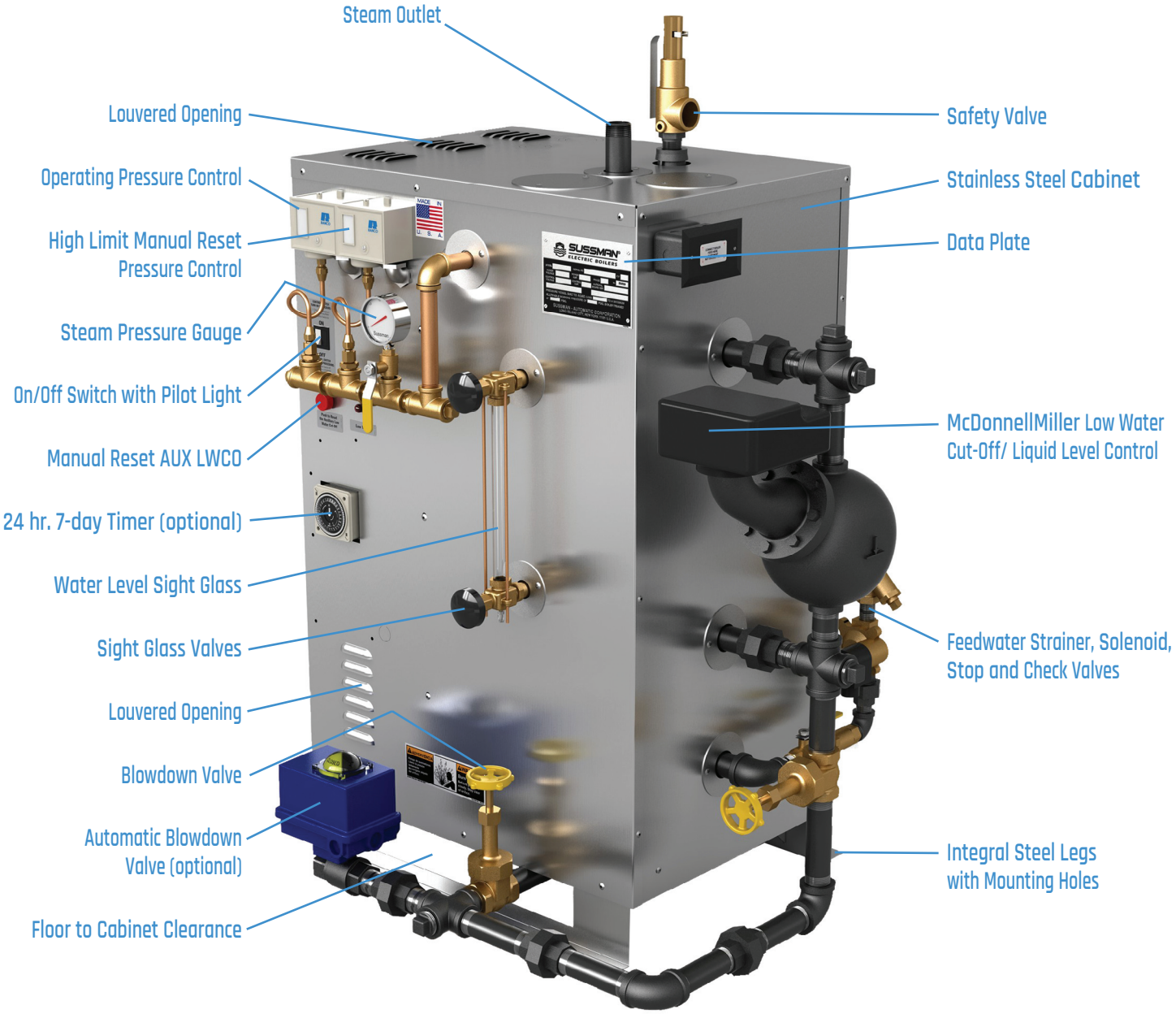
ES Packaged Electric Steam Boiler



Typical boiler arrangement

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Features Not Shown:

- Electronic Aux LWCO
- Section I Carbon Steel ASME Pressure Vessel
- Incoloy Heating Elements

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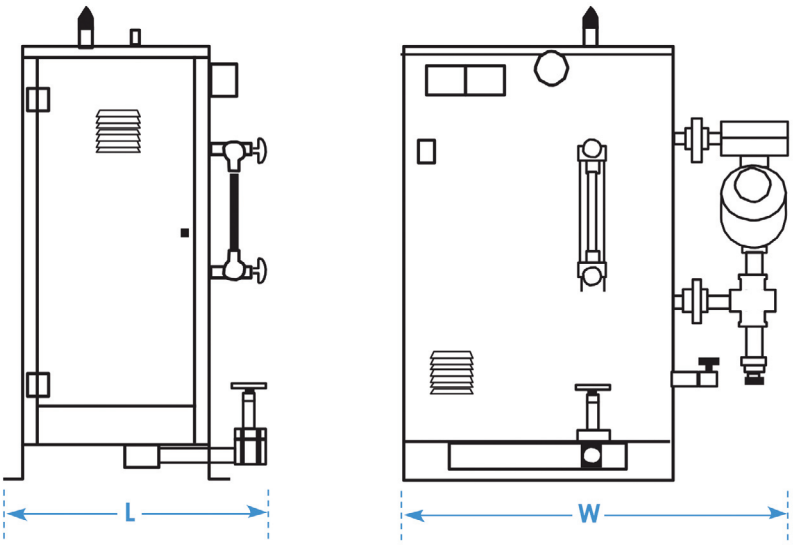
ES Packaged Electric Steam Boilers Specifications

Boiler Model	kW	BHP Rating	Steam Output	ASME Steam Output	Amperage at Three Phase Voltage						Dimensions (in) 15, 50 & 100 PSIG trim			Shipping Wt. lbs.	Dimensions (in) 150 PSIG trim			Shipping Wt. lbs.
			Lbs./Hr at 0 PSIG with 50F Feed Water	Lbs./Hr at 0 PSIG with 212F Feed Water	208/3	240/3	380/3	415/3	480/3	600/3	L	W	H		L	W	H	
ES-12	12	1.22	36.2	42	33	29	18	17	14	12	21	31	36	225	25	33	47	400
ES-18	18	1.84	54.2	63	50	43	27	25	22	17	21	31	36	225	25	33	47	400
ES-24	24	2.45	72.3	84	67	58	37	33	29	23	24	33	47	360	25	33	47	410
ES-30	30	3.06	90.4	105	83	72	46	42	36	29	24	33	47	360	25	33	47	410
ES-36	36	3.67	108	126	100	87	55	50	43	35	24	33	47	360	25	33	47	410
ES-48	48	4.90	145	168	133	116	73	67	58	46	24	33	47	400	25	33	47	430
ES-60	60	6.12	181	210	167	145	91	84	72	58	24	33	47	400	25	33	47	430
ES-72	72	7.35	217	252	200	173	110	100	87	69	24	33	47	400	25	33	47	430
ES-85	84	8.5	256	294	233	202	128	117	101	81	29	35	64	650	31	37	64	730
ES-100	108	11.0	325	378	300	260	164	150	130	104	29	35	64	650	31	37	64	730
ES-135	144	14.6	433	504	400	347	219	201	173	139	31	37	64	710	31	37	64	750
ES-160	158	16.1	475	551	438	379	240	219	190	152	31	37	64	710	31	37	64	750
ES-180	180	18.4	542	630	500	434	274	251	217	173	31	37	64	710	31	37	64	750

1. ES12 – 48 available in 208 and 240 single phase.
2. 380/3 and 415/3 boilers built to UL834, not UL listed.
3. Dimensions are for 480/3 models. Lower voltage models may be physically larger – see dimensional drawings for all voltages.
4. See dimensional drawings for boiler connections and clearances.



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