



Sussman[®]
ELECTRIC BOILERS

*2010
Price List*

*Series ES and MBA Electric
Steam Boiler Parts*



ES BOILER



MBA BOILER

TYPICAL ARRANGEMENT

ES PARTS LIST

PART #	DESCRIPTION
STEAM SAFETY VALVES	
99133	30 PSIG
99136	100 PSI 1/2" NPT (ES12 to ES72)
99137	100 PSI 1" NPT (ES100 to ES180)
99140	15 PSI 1" NPT
PRESSURE CONTROLS	
99113R	PRESSURE CONTROL 0-15 PSIG
99128R	PRESSURE CONTROL 0-90 PSIG
99130R	PRESSURE CONTROL 0-90 PSIG W/RESET
100442-6	6 STEP SEQUENCER
99373	PRESSURE CONTROL PROPORTIONAL 5-150 PSIG
99374	PRESSURE CONTROL PROPORTIONAL 0-15 PSIG
99969R	PRESSURE CONTROL 0-15 PSIG W/MANUAL RESET
FB023	PIGTAIL 1/4" NPT 180°
MOTORS & PUMPS	
103535	1/3 HP MOTOR/PUMP 120/1
103535C	1/3 HP MOTOR/PUMP 240/1
99157	PUMP & MOTOR 1/2 HP, 15V OR 230V 60 HZ (ES100 to ES180)
99160	PUMP & MOTOR 1/3 HP 115V OR 230V 60 HZ (ES12 to ES72)
PARTS FOR CONDENSATE RETURN	
39011-FB	FLOAT FOR 17 GALLON TANK (C.R.S.)
39010-F	FLOAT VALVE
38083V-TANK	CONDENSATE TANK ONLY - 17 GALLON
SOLENOIDS	
99031	WATER SOLENOID COMPLETE 1/2" 120V 50/60 HZ
99032	WATER SOLENOID COMPLETE 1/2" 240V 50/60 HZ
MISCELLANEOUS VALVES & PRESSURE GAUGES	
99123	1/2" STRAINER
99167	CHECK VALVE - SPRING 1/2" (MBA & ES 12 to ES 18)
99169	CHECK VALVE - SPRING 3/4" (ES 24 to ES 180)
99178	DRAIN VALVE 1/2" STEAM
99178B	GATE VALVE 1/2" STEAM
99806	BALL VALVE 1/4" STEAM
99182	GATE VALVE 3/4" STEAM
99184	GATE VALVE 1" STEAM
99197	PRESSURE GAUGE 1-1/2" - 160 PSIG
99290	PRESSURE GAUGE 2-1/2" 0-30 PSIG DUAL SCALE
99293	PRESSURE GAUGE 2-1/2" 0-600 PSIG

Prices are FOB, Long Island City NY. Prices are subject to change without notice.

ES PARTS LIST

PART #	DESCRIPTION
TERMINAL BLOCK & FUSES	
99207	TERMINAL BLOCK, 3 POLE 150 AMP (ES12 TO ES18)
99209A	FUSE - 10 AMP
99209B	CUT OUT 1 POLE
99314	POWER CIRCUIT FUSE 250V 60 A (ES72 TO ES180)
99315	FUSE BLOCK FOR 99314
99316	POWER CIRCUIT FUSE 600V 60 A (ES72 TO ES180)
99317	FUSE BLOCK FOR 99316
99539	POWER CIRCUIT FUSE 600V 60 A CLASS "J"
99555	FUSE BLOCK FOR 99539 60 AMP
99545	TERMINAL BLOCK FOR CONTROL CIRCUIT
99593	TERMINAL BLOCK (215A) FOR 5 CONTACTORS
99594	TERMINAL BLOCK (325A) FOR 6 CONTACTORS
99596	TERMINAL BLOCK (575A) FOR 10 CONTACTORS
MISCELLANEOUS	
92827	TOGGLE SWITCH - ES
92829	PILOT LIGHT
92830	BOILER MAIN SW W/PILOT LIGHT
BOILER GASKET, FLANGE & BOLTS	
99095	BLANK FLANGE 4-1/2 X 4-1/2 (ES SERIES)
99096	GASKET
99547B	ELEMENT BOLT (SET OF 6)
99088	SLIC TITE
99524-6T	18" #6 WIRE W/TERM. 3 WIRES/3 PHASES
99524	#6 WIRE (PER FT.)
97116	RING TERM
103540	BOILER GASKET KIT
AUTOMATIC BLOWDOWN SYSTEM	
99348	MANUAL BLOWDOWN SWITCH
103662	TIME CLOCK - 120V, 60 HZ
99353	DELAY TIMER RELAY 130 ARD
103661	MOTOR DRIVEN BALL VALVE - 120V 1" NPT
99363	RELAY DPDT - 120V

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ES & MBA HEATING ELEMENTS

PART #	KW	VOLTAGE/PHASE
29031A	3	120/1
29031C	3	240/1
29063B	6	208/3
29063C	6	240/3
29063F	6	480/3
29093B	9	208/3
29093C	9	240/3
29093F	9	480/3
39121B	12	208/1
39121C	12	240/1
39123B	12	208/3
39123C	12	240/3
39123D	12	380/3
39123E	12	415/3
39123F	12	480/3
39123G	12	600/3
39181B	18	208/1
39181C	18	240/1
39183B	18	208/3
39183C	18	240/3
39183D	18	380/3
39183E	18	415/3
39183F	18	480/3
39183G	18	600/3
39201B	20	208/1
39201C	20	240/1
39203B	20	208/3
39203C	20	240/3
39203D	20	380/3
39203E	20	415/3
39203F	20	480/3
39203G	20	600/3
39223F	22.5	480/3
39223G	22.5	600/3
39243B	24	208/3
39243C	24	240/3
39243F	24	480/3

Elements shipped with gasket, bolts and sealing compound.

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ES PARTS LIST

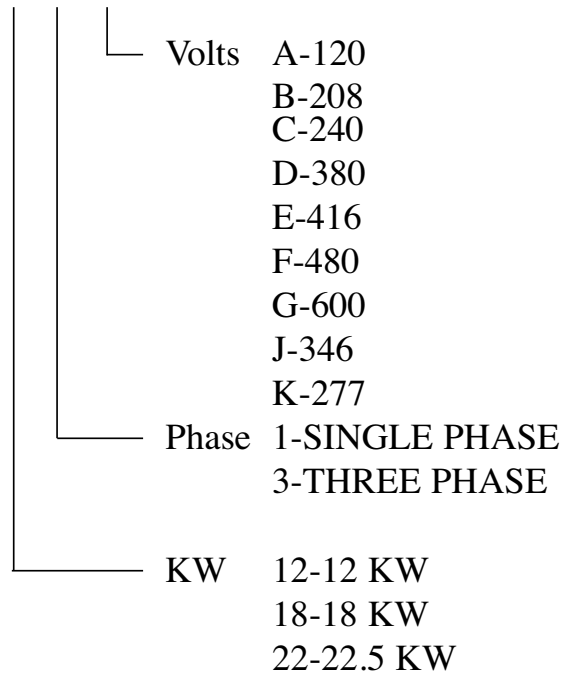
PART #	DESCRIPTION
PARTS FOR MM150 AUTOMATIC FEED CONTROL & LOW WATER CUTOFF	
103914	MICRO SWITCH ASSEMBLY
SA 150-11	FLOAT & ROD
SA 150-14	HEAD GASKET
SA 150-106R	BELLOW ASSEMBLY WITH GASKET
99114	LOW WATER CUTOFF & AUTOMATIC WATER FEEDER MM150 RANGE 0-100 PSI (ES SERIES)
SOLID STATE PROBE TYPE LOW WATER CUTOFF & WATER FEED CONTROLS	
90229	SPARK PLUG
99807B	STAINLESS STEEL PROBE - 9"
99807C	STAINLESS STEEL PROBE - 6"
100412A	LIQUID LEVEL CONTROL BOARD - 120V MBA, 20A, 24A
100378	PROBE ISOLATOR
102188	RELAY FOR 100412A & 100412C
100412C	LIQUID LEVEL CONTROL BOARD - 240V
103127	DUAL PROBE PC BOARD
90225E	3-PROBE PC BOARD
90243	RELAY FOR 90242A
90241 MR	AUXILIARY LWCO BOARD - MR
103156-1	AUXILIARY LWCO BOARD SSB
99807-11	PROBE FOR AUXILIARY LWCO

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ES ELEMENT SELECTION CHART

MODEL NO.	TOTAL KW	ELEMENTS			
		QTY	KW	QTY	KW
ES-12	12	1	12		
ES-18	18			1	18
ES-24	24	2	12		
ES-30	30	1	12	1	18
ES-36	36			2	18
ES-48	48	1	12	2	18
ES-60	60	2	12	2	18
ES-72	72			4	18
ES-85	85			5	18
ES-100	102			6	18
ES-135	136			8	18
ES-160	158			7	22
ES-180	180			8	22

ELEMENT PART NO.: 39 X X X



EXAMPLE: 39183B – 18KW, 3 PHASE, 208 VOLTS

ES CONTACTOR SELECTION CHARTS

QUANTITY AND AMPS

VOLTS/PH	208/1	240/1	208/3	240/3	346/3	380/3	415/3	480/3	600/3
ES-12	1-75	1-60	1-50	1-50	1-50	1-50	1-50	1-50	1-50
ES-18	*	*	1-60	1-50	1-50	1-50	1-50	1-50	1-50
ES-24	2-75	2-60	2-50	2-50	1-50	1-50	1-50	1-50	1-50
ES-30	—	—	2-60	2-50	1-60	1-50	1-50	1-50	1-50
ES-36	—	—	2-60	2-50	1-75	1-60	1-60	1-50	1-50
ES-48	—	—	3-60	3-50	2-60	2-50	2-50	2-50	2-50
ES-60	—	—	4-60	4-50	2-60	2-50	2-50	2-50	2-50
ES-72	—	—	4-60	4-50	2-75	2-60	2-60	2-50	2-50
ES-100	—	—	6-60	6-50	3-75	3-60	3-60	3-50	3-50
ES-135	—	—	8-60	8-50	4-75	4-60	4-60	4-50	4-50
ES-160	—	—	7-75	7-60	7-50	4-75	4-75	4-60	4-50
ES-180	—	—	8-75	8-60	8-50	4-75	4-75	4-60	4-50

* For ES-18, single phase, 208-240V use P/N 99006B, 50 A-4 Pole Contactor

NOTE: 20 KW P/N 99075

VOLTS	208 / 240 / 480 / 600	346 / 380 / 415
AMPS	CONTROL CIRCUIT 120V COIL	240V COIL
50	99003	99001
60	99075	99007
75	102206-1	102206

Example: For ES-72 240V 3 Phase there are 4 contactors, 50 amps each (Part # is 99003, 120V Coil)

CONTACTOR PART NO.	DESCRIPTION
103834	PUMP CONTACTOR 120V 1 POLE
103834C	PUMP CONTACTOR 240V 1 POLE
99001	CONTACTOR 50 AMP RATING 230V 50/60 HZ
99003	CONTACTOR 50 AMP RATING 120V 50/60 HZ (208 and 480)
99006B	CONTACTOR 50 AMP RATING 4 POLE 120V 50/60 HZ
99007	CONTACTOR 60 AMP RATING 240V 50/60 HZ
102206-1	CONTACTOR 75 AMP RATING 120V 50/60 HZ
102206	CONTACTOR 75 AMP RATING 240V 50/60 HZ
99075	CONTACTOR 60 AMP RATING 120V 50/60 HZ

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ES GAUGE GLASS USAGE CHART

MODEL NO.	VALVE ASSEMBLY	GLASS TUBE	LENGTH
ES12-ES18	99173C	99074-1	7-7/8
ES24-ES72	99173C	99080-1	9-7/8
ES100-ES180	99173C	99081-1	11-7/8
CRS	99173C	99074-1	7-7/8
BDT	99173C	99082-1	10-1/4

- NOTE:** 1. Gauge glass tube and valve assembly is sold separately.
 2. Glass tube includes 2 (washer) gaskets P/N 99174CV
 3. Glass tube is 5/8" diameter Pyrex.

PART NO	DESCRIPTION
GAUGE GLASS	
99074-1	7-7/8" GLASS WITH (2) O-RINGS GASKETS (ES12 to ES18)
99080-1	9-7/8" GLASS WITH (2) O-RINGS (ES-24 to ES-72, MBA)
99081-1	11-3/4" GLASS WITH (2) O-RINGS (ES-100 to ES-180)
99082-1	10-1/2" PYREX GLASS WITH (2) O-RINGS (BDT)
99173C	GAUGE GLASS ASSEMBLY 1/2" X 1-3/4" (MBA, ES, HU SERIES)
99174CV	GAUGE GLASS O-RING W/VITON GASKET

MBA PARTS LIST

PART#	DESCRIPTION
90229	SPARK PLUG
92830	ON-OFF SWITCH WITH PILOT LIGHT
99042	WATER SOLENOID 1/4" 120V
99042C	WATER SOLENOID 1/4" 240V
99080-1	9-7/8" GAUGE GLASS WITH (2) O-RINGS
99173C	GAUGE VALVE SET
99136	SAFETY VALVE 100 PSI, 1/2" NPT
99197	PRESSURE GAUGE 160 PSI, 2-1/2" NPT
99130R	PRESSURE CONTROL HI-LIMIT W/RESET BUTTON 0-90 PSI
99128R	PRESSURE CONTROL OPERATING 0-90 PSI
100706	8 AMP FUSE
99807F	1/4" PROBE ROD 5-INCH
99075	CONTACTOR 60 AMP 3 POLE, 120V
99007	CONTACTOR 60 AMP 3 POLE, 240V
100412A	LIQUID LEVEL CONTROL BOARD, 120V
100412C	LIQUID LEVEL CONTROL BOARD, 240V
100378	PROBE ISOLATOR
103540	BOILER GASKET KIT 99096, 99547B, 99088 GASKET, BOLTS & COMPOUND

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SERIES MBA STEAM GENERATOR PARTS LIST

MODEL	KW	STEAM LBS./HR	SHIP WT LBS.	208, 240, 480 1 PHASE & 3 PHASE
MBA 3	3	9	125	
MBA 6	6	18	135	
MBA 9	9	27	145	
MBA12	12	36	145	
MBA 18	17	51	150	
MBA 20	20	60	150	

Note: MBA3 available in 120V/1PH

MBA3-240/1 as shown above (no other voltage/phase available on MBA3)

Additional Sussman water feed 120V/60Hz motor/pump system, P/N MBA38002A
(Use when line water pressure is not **LESS THAN 10PSIG HIGHER** than generator operating pressure.

Additional Sussman AUX LWCO with manual reset type, P/N MBA81017MR required.

Each generator is U.L. listed, is CSA certified and is built to ASME Section I Code M and Code E Boiler and Pressure Vessel requirements. National Board registered. Shipped factory tested, ready to operate, complete with electronic low water cutoff, ASME safety valve, steam pressure gauge, operating and high limit pressure controllers, water gauge, control switch and Stainless Steel heating elements. All models are equipped with an electronic water level controller complete with strainer, solenoid and check valve. Water supply must be 10 PSIG higher than boiler operating pressure, otherwise order model MBA38002A High Pressure Water Feed (motor/pump). Suitable for 50/60 HZ.

Trim is standard at 100 PSIG for maximum 80 PSIG steam pressure operation.

Other voltages and phases are available. Consult factory for price.

For applications requiring more steam output, ask for SUSSMAN Series ES specifications and price list (PUR101886).

All MBA boilers are 17"H x 20-1/2" W x 15-3/4" D. Reference Sussman Catalog Sheet 100198 for product details.

Sussman MBA38002A motor/pump is 9-1/2" H x 14-1/2" W x 7-1/2" D.

ES SERIES ELECTRIC BOILER

NOTE: ALL ES BOILERS ARE NOW EQUIPPED WITH LINE PRESSURE WATER FEED (SOLENOID, STRAINER & CHECK VALVE) & AUXILIARY LOW WATER CUT-OFF AS STANDARD FEATURES

Sussman ES Series Electric Boilers are UL Listed; CSA Certified, built to ASME Power Boiler Codes, and are National Board registered. Shipments to Canada bear CRN.

Each ES boiler is complete, ready to operate, with McDonnell-Miller low-water cutoff and pump control, ASME Code safety valve, push-to-reset high-limit pressure control, steam pressure gauge, operating pressure control, water gauge, control switch, pilot light, magnetic contactors and heavy-duty stainless steel heating elements. The boiler is fully insulated and is encased in an enamel steel jacket. Boilers suitable for 208V; 240V; 480V and 600V operate on a 120-volt control circuit. In Canada, 600V boilers must be equipped with an optional transformer (see back page). Prices are for 50/60 Hertz.

MODEL	BHP	KW	LBS./HR.	WEIGHT
ES-12	1.22	12KW	36.2	230
ES-18	1.73	18KW	51.2	240
ES-24	2.45	24KW	72.3	300
ES-30	2.97	30KW	87.4	310
ES-36	3.47	36KW	102.5	310
ES-48	4.69	48KW	138.7	315
ES-60	5.91	60KW	174.8	380
ES-72	6.93	72KW	205	390
ES-100	10.4	102KW	307	625
ES-135	13.9	136KW	410	785
ES-160	16.1	160KW	475	785
ES-180	18.4	180KW	543	790

ES Boiler built to 208V/3PH, 240V/3PH, 480V/3PH, 600V/3PH.
Consult factory for other V/PH requirements.

ES SERIES ELECTRIC BOILERS

WATER FEED SYSTEMS

ITEM NO.

Boiler feed is required for continuous operation on all ES series models. Where water pressure is at least 10 psig greater than desired operating pressure, you can use the Line Pressure Water Feed.

Specify proper ES high-pressure feed assembly when incoming water line pressure is insufficient. A condensate Return System and ES89369 Heavy-Duty Vacuum Breaker must be installed when condensed steam (water) is to be reused.

LINE PRESSURE WATER FEED (ES-12 to ES-180) Pressure range 0-100 psi (includes check valve, strainer and solenoid valve)	ES99117
HIGH-PRESSURE WATER FEED (ES-12 to ES-72) ES special high-pressure water feed-complete assembly, 0-100 psi includes 1/3 HP motor and pump mounted on rubber shocks and secured on a base mounting plate, and essential plumbing.	ES38002A (120V)
HIGH-PRESSURE WATER FEED (ES-100 to ES-180) Special high-pressure water feed-complete assembly, includes 1/2 HP motor and pump mounted on rubber shocks and secured on a base mounting plate; and essential plumbing.	ES38020A (120V)
CONDENSATE RETURN SYSTEM WITH MOTOR AND PUMP	
System complete with tank, motor, pump, water make-up valve, strainer, essential plumbing; gauge glass; vent and return fittings, and tank drain valve.	
17 gallon tank with 1/3 HP for ES-12 to ES-72 boilers.	ES38083V (120V)
33 gallon tank with 1/2 HP for ES-100 to ES-180 boilers with motor starter wired into boiler control system.	ES38084V (120V)
Heavy-Duty Vacuum Breaker, required for condensate return system.	ES89369

OPTIONAL EQUIPMENT:

1" NPT Sussman Automatic Blowdown System with 24-hour, 7-day time clock, includes factory mounting and wiring.	ES81600
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Solid State Progressive Sequencer with proportionate pressure control required for ES100 and larger boilers.	ES100442
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Blowdown Tanks for: ES-12 to ES-48, ASME code tank. ES-60 to ES-180, ASME code tank. Includes temperature gauge, pressure gauge, gauge glass & gauge glass assembly.	BDT-ASME36 BDT-ASME42
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**Transformers (factory mounted and wired) with primary and secondary fusing.	
1/4 KVA (for #99117 water feed ES-12 to ES-72)	ES99331
1/2 KVA (for #99117 water feed ES-100 to ES-180)	ES99325
1 KVA (for #38002, 38003 and 38083V water feeds)	ES99329
1.5 KVA (for #38020 and 38084V water feeds)	ES99335

NOTE: All Sussman boilers are equipped with a manual reset pressure control.
ALL SUSSMAN ES BOILERS ARE EQUIPPED WITH AUXILIARY LOW WATER CUTOFF

**Required for 600V boilers for Canada