



Simplex Global Inc

THE ENVIROFLEX ESE 2M / ESE 2M HV PORTABLE SMOKE EXTRACTOR OWNER'S MANUAL

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Last updated – 2026

INTRODUCTION

MAJOR COMPONENTS

Cabinet

The cabinet is fabricated out of satin coat mild steel and is painted via powder coating. The Enviroflex name etc. are all silk screened over the powder coated paint.

The ESE 2M / ESE 2M HV Portable Smoke Extractor unit uses disposable cartridge type filters. Operating life expectancy of the filters depends on the type of smoke being removed, the severity of the smoke and the duty cycle. It is extremely difficult to pinpoint how many pounds of consumable wire or electrode can be deposited before the filters plug up. This is extremely difficult to estimate as there are too many variables.

To replace or clean filters: EF100/EF200/EF400/EF600/102.1006

- Turn off the Smoke Extractor and pull out the electrical plug from the wall receptacle.
- Unfasten the (2) latches located at the front of the machine. Remove the spark trap.
- Pull out both cartridge filters and inspect the small primary filter (EF100) which can be blown out using a low-pressure air nozzle. You take the prefilter and turn it upside down and blow it from the outside only. You utilize the gasket on the front of the filter to eliminate blowing the contaminant all over the shop. The larger HEPA filter (EF200) is not a filter which can be cleaned, so when this filter is loaded up it must be thrown away. Do not attempt to blow out this filter as the paper will likely rip. Normally you will replace the EF200 HEPA filter for every 3 or 4 prefilters that are replaced. This is only an approximate estimate.
- Place the new cartridge filters back into the cabinet making sure the outer gasket of the large filter meets the cabinet rim.
- Before placing the spark trap on the unit, you should shake the spark trap to remove any heavy particulate that has been caught inside behind the impinger plate.
- Reinstall the spark trap in the cover and place the spark trap over the front of the cabinet making sure that the cover is seated correctly on all edges of the cabinet. Tighten the (2) latch catches.

- Plug the machine back into the wall receptacle and turn the unit on. You are now ready to use the Smoke Extractor again.

To replace or clean Washable filter only: EF200A

Please note the suction deteriorates as the filter loads up with contaminants. This deterioration of Suction is the operator's indication when it is time to clean the filter.

- Turn off the Smoke Extractor and pull out the electrical plug from the wall receptacle.
- Unfasten the (2) latches located at the front of the machine. Remove the spark trap.
- Pull out the EF200A washable filter, which can be blown out using a low-pressure air nozzle. You should use at least 60 to 80 PSI air pressure. You take the washable filter and turn it upside down and blow it from the outside, only covering the entire media area. This should be repeated several times. You utilize the gasket on the front of the filter to eliminate blowing the contaminant all over the shop.
- Place the clean filter back into the cabinet making sure the outer gasket meets the cabinet rim.
- Before placing the spark trap on the unit, you should shake the spark trap to remove any heavy particulate that has been caught inside behind the impinger plate.
- Reinstall the spark trap in the cover and place the spark trap over the front of the cabinet making sure that the cover is seated correctly on all edges of the cabinet. Tighten the (2) latch catches.
- Plug the machine back into the receptacle and turn the unit on. You then take a cup of precoat and feed it gradually into the end of the 15 ft. hose such that the precoat enters the hose in a fine mist. Do not let the precoat go in all at once as it will enter the filter in a lump form whereas it should enter the filter in a fine mist thus precoating the entire surface of the filter. Please note the filter can also be cleaned with a pressure washer as the filter is moisture resistant. We do not recommend this process unless necessary (e.g. oil mist) as the filter must be left overnight to dry. If it was wet and then precoated the precoat would stick to the wet areas and have a lumping effect.

Charcoal Filters

If you have purchased the (2) optional charcoal filters it is a very easy installation. To install them you must remove the spark trap then remove the EF100 and EF200 filters or EF200A. Install the 2 charcoal modules by putting them up against the motor hole plates at back of the filter plate. Please note it is vital that the flat portion of the charcoal cassette is facing the filters. Otherwise, the air does not get a chance to expand before entering the motor and would only utilize a small portion of the charcoal the size of the motor inlet hole. Reinstall the EF100 and the EF200 filter or EF200A. Install the filter plate and the spark trap.

The charcoal will have to be replaced when odors can be detected coming out of the louvers on the 2 sides of the unit.

Electrical Service

The (2) electric motors are equipped with replaceable brushes. Once the brushes become worn the motor will automatically stop, thus eliminating any potential damage to the commutator. To replace the brushes be sure that the power has been turned off and the power cord has been removed from the wall outlet. Unscrew the four screws located at the rear of the cabinet to allow access to the motors. Remove the protective fan cap by lifting the metal clips, which are located on the sides of the cap. Remove the hold down screw, which secures the brush in place, and pull off the bayonet connector from the brush. Remove the old brush from the motor and install the new brush by reversing the above procedure. Replace the cap and screw the motor housing plate back onto the back of the cabinet. The ESE 2M / ESE 2M HV unit is now ready to operate.

If at any time you are unsure of any procedure, please do not hesitate to contact your nearest distributor.

Replacing Motor

If at any time you have to replace a motor, please follow the following procedure.

- Remove the (4) screws on the cooling air intake plate at the back of the machine. Remove the motor plate intake.
- Remove four Phillips screws from the motor plate.
- Unscrew the switch on the top of the machine and remove taking special precautions that the switch remains intact.
- Remove the motor plate with the (2) motors on it - Remove the defective motor and install the new motor making sure there is a motor gasket between the motor and motor plate. You can then screw the new motor in.

- Take the bottom motor wire of both motors and join them together. You then connect these wires to the white nylon terminal connector together.
- The single wire on the terminal board goes to number 1 (1) on the switch. The wire on the bottom motor goes to number 2 (#2) on the switch and the top motor wire goes to number 3 (#3) on the switch.

The white wire on the power cord goes to the wire on the terminal board that goes to #2 on the switch. The black wire on the power cord goes to the single wire on terminal that goes to number 1 (1) on the switch. You can now put the switch and plates back in place.

Preventative Maintenance

The brushes should be changed every 400 operating hours. This procedure should become part of a preventative maintenance program. This eliminates potential problems with the commutator.

Limited Warranty

Subject to the terms and conditions hereof, Enviroflex International Inc. warrants to its customer that all new and unused Equipment furnished by Enviroflex is free from defect in workmanship and material as of the time and place of delivery by Enviroflex. All products excluding the motors in the ESE Portable Smoke Extractor carry a (1) one year warranty on materials and workmanship. The ESE motors are limited to a (3) three-month warranty. The Company's responsibility and obligation under the guarantee is limited to the exchange of any defective parts, which have been returned prepaid, to the factory and which prove to be defective through normal use. **ONLY PREPAID RETURNS WILL BE ACCEPTED.** Goods replaced under warranty will be returned prepaid. If in the company's judgement the replaced parts are not covered by the warranty, parts will be billed with a small labour charge and returned collect. No goods will be accepted without written authorization from Enviroflex International Inc.

- The conditions of the Guarantee are:

The unit must have been operated within its listed capacity.

Your Smoke Extractor is guaranteed for one (1) full year from the date of original purchase, against electrical and mechanical defects in material and workmanship. The warranty does not include the washable filter or brushes.

The warranty does not cover damage caused by misuse, negligent handling, or use on voltages other than that stamped on the Smoke Extractor.

- **This warranty does not cover any personal injury, property damage, or any incidental or consequential damage of any kind, resulting from defects, malfunctions, misuse, or alteration of the product.**
- **This guarantee is in lieu of any other warranty, either expressed or implied.**
- **If a warranty service is required, send the part(s) prepaid to your dealer or nearest authorized service center, with proof of purchase. Ensure that sufficient packaging material is used. If parts arrive damaged due to improper packaging, the warranty will be void. Please enclose a note explaining the nature of your difficulty.**

ESE 2M (DUAL MOTOR) PORTABLE WELDING SMOKE EXTRACTOR PARTS LIST
FOR WHITE UNITS

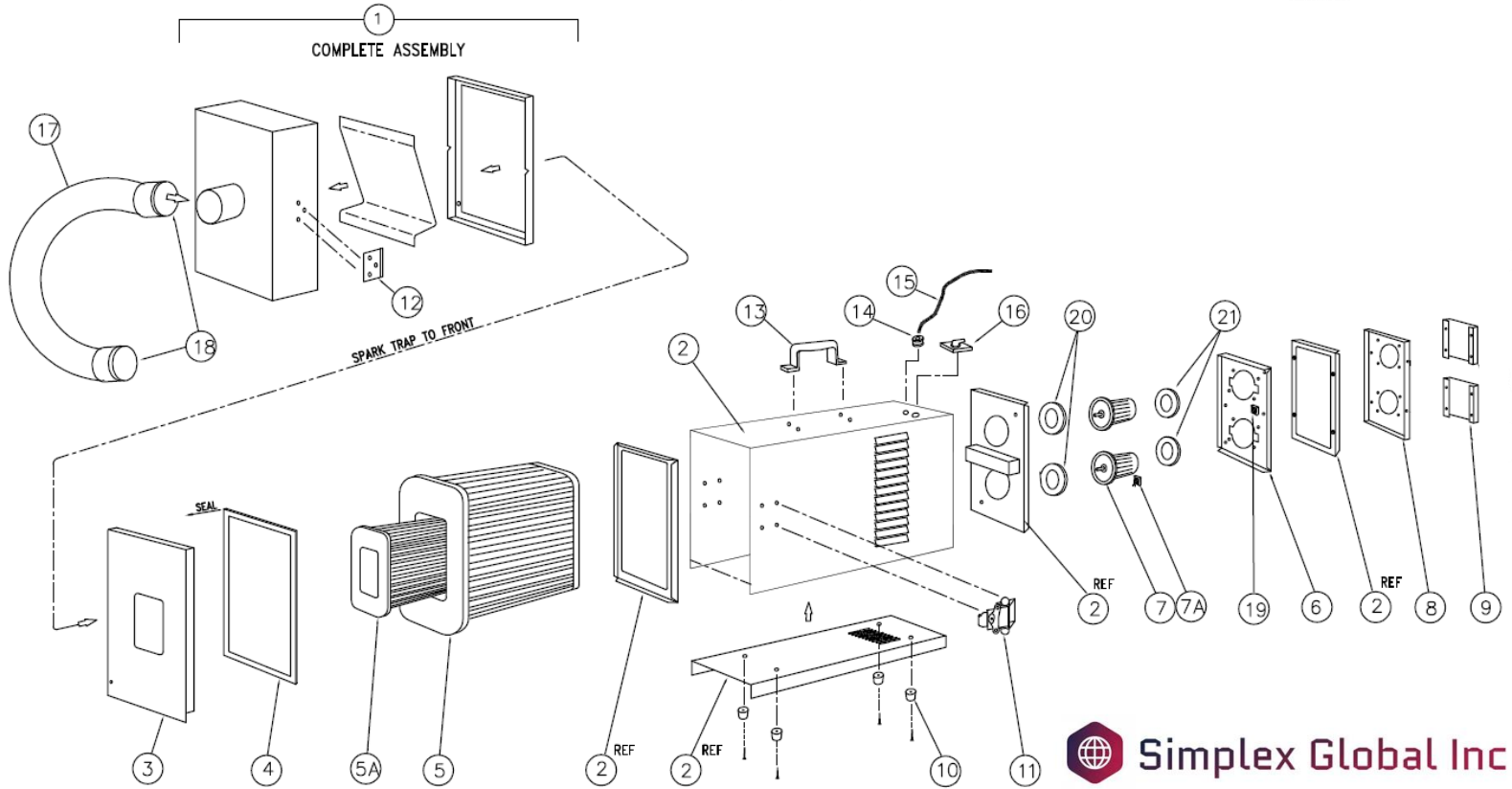
ITEM	PART NO.	DESCRIPTION
1	6588	SPARK TRAP (COMPLETE)
2	6403	CABINET COMPLETE (PAINTED)
3	6404	IMPINGER PLATE
4	6566	RUBBER SEAL
5	FILTERS: EF200, EF200A, EF400, EF600 /102.1006	EF200 MAIN HEPA Filter EF200A Washable Filter EF400 Throwaway Filter EF600 /102.1006 Combi HEPA Filter
5A	FILTER: EF100	EF100 Prefilter HEPA
6	6400	Motor Mounting Plate
7	102.1004 102.1009	Standard ESE Motor, 120V, 60 Hz High Vacuum ESE Motor, 120V, 50/60 Hz
7A	102.1004.001 102.1009.001	Brush for 102.1004 motor, Carbon Brush Brush For EM100A-1 Hi-Vac ESE Motor
8	6401	END COVERS FOR MOTOR
9	6402	AIR INTAKE COVERS FOR MOTORS
10	6521 6522	ESE SMALL METAL CASTORS (instead of rubber feet) RUBBER FEET
11	6515-HD-L	LOCKING LATCHES
12	6515-HD-C	LOCKING CATCH
13	6523 6523-SS	UNIT CARRYING HANDLE (PLASTIC) UNIT CARRYING HANDLE (NYLON WITH METAL CLIPS)
14	6516	HEYCO CONNECTOR FOR WIRE INSERT
15	6529	ESE SPECIAL CUSTOMISED POWER CORD
16	6515	ESE 2WAY ON/OFF SWITCH
17	EH-175-15 EH-175-25 EH-175-50	HOSE 15FT – STANDARD LENGTH HOSE 25FT – OPTIONAL HOSE 50FT – OPTIONAL
18	EHC-175	HOSE FITTING/ SMALL COUPLING FOR HOSE
19	6540	TERMINAL BOARD CONNECTOR (WHITE)
20	6525A	GASKET (1/2”) THIN FOR MOTOR
21	6517	GASKET (1/8”) THICK FOR ESE BODY

ESE 2M HV (DUAL MOTOR) PORTABLE WELDING SMOKE EXTRACTOR PARTS LIST
FOR STAINLESS STEEL UNITS

ITEM	PART NO.	DESCRIPTION
1	6588-SS	SPARK TRAP (COMPLETE)
2	6403-SS	CABINET COMPLETE
3	6404-SS	IMPINGER PLATE
4	6566	RUBBER SEAL
5	FILTERS: EF200, EF200A, EF400, EF600 /102.1006	EF200 MAIN HEPA Filter EF200A Washable Filter EF400 Throwaway Filter EF600 /102.1006 Combi HEPA Filter
5A	FILTER: EF100	EF100 Prefilter HEPA
6	6400-SS	Motor Mounting Plate
7	102.1004 102.1009	Standard ESE Motor, 120V, 60 Hz High Vacuum ESE Motor, 120V, 50/60 Hz
7A	102.1004.001 102.1009.001	Brush for 102.1004 motor, Carbon Brush Brush For EM100A-1 Hi-Vac ESE Motor
8	6401-SS	END COVERS FOR MOTOR
9	6402-SS	AIR INTAKE COVERS FOR MOTORS
10	6521 6522	ESE SMALL METAL CASTORS (instead of rubber feet) RUBBER FEET
11	6515-HD-L	LOCKING LATCHES
12	6515-HD-C	LOCKING CATCH
13	6523 6523-SS	UNIT CARRYING HANDLE (PLASTIC) UNIT CARRYING HANDLE (NYLON WITH METAL CLIPS)
14	6516	HEYCO CONNECTOR FOR WIRE INSERT
15	6529	ESE SPECIAL CUSTOMISED POWER CORD
16	6515	ESE 2WAY ON/OFF SWITCH
17	EH-175-15 EH-175-25 EH-175-50	HOSE 15FT – STANDARD LENGTH HOSE 25FT – OPTIONAL HOSE 50FT – OPTIONAL
18	EHC-175	HOSE FITTING/ SMALL COUPLING FOR HOSE
19	6540	TERMINAL BOARD CONNECTOR (WHITE)
20	6525A	GASKET (1/2”) THIN FOR MOTOR
21	6517	GASKET (1/8”) THICK FOR ESE BODY

SPEC SHEET / ESE 2M (DUAL MOTOR)

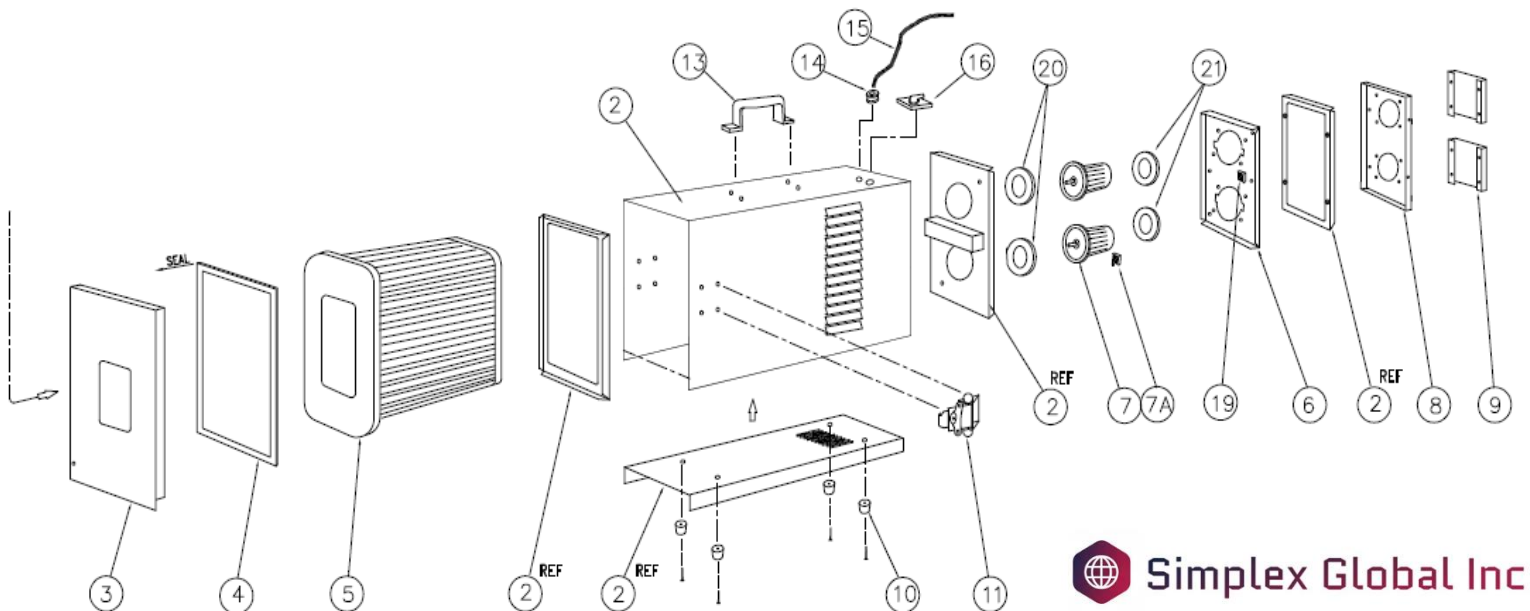
(Diagram for Filter: **EF100/EF200/EF400/EF600/102.1006**)



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SPEC SHEET / ESE 2M (DUAL MOTOR)

(Diagram for Filter: **EF200A**)



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