

Mobile Filter Unit

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**Operations
manual Model:
PFE-2010-S**



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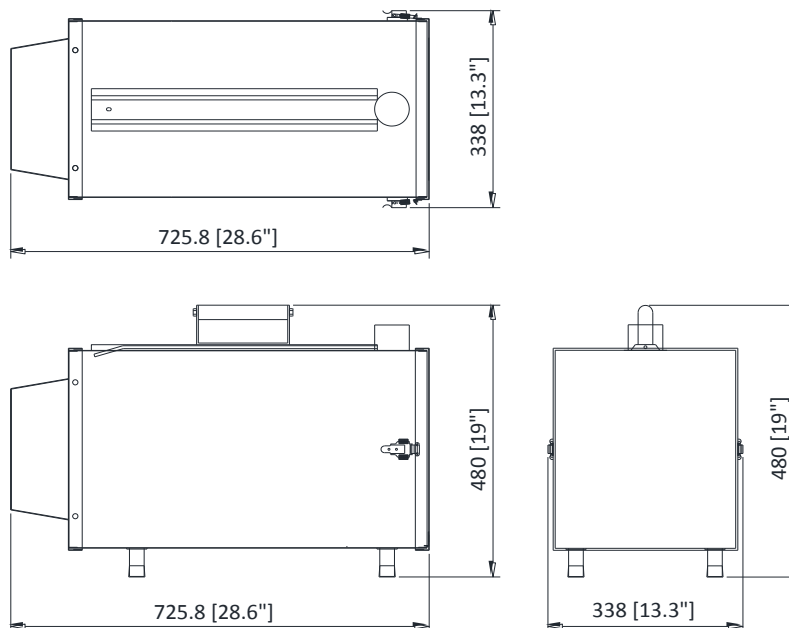
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Specifications

Airflow (Low Speed)	100 cfm.
Airflow (High Speed)	230 cfm.
Motor	800W *2
Power Supply	120V/1ph
Machine Dimension	28.6" x 13.3" x 19"
Inlet Size	Ø2-1/2"
N.W.	53lbs (24kgs)
G.W.	60lbs (27kgs)
1st Filtration	Aluminum Mesh
2nd Filtration	35% Prefilter
3rd Filtration	85% Prefilter
4th Filtration	Pleated Filter
5th Filtration	HEPA

Dimensions (in mm/inches)



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Safety Instructions of Mobile Filter Unit

▲ DANGER: Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

▲ WARNING: Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

▲ CAUTION: Indicates a potentially hazardous situation which, if not avoided, will result in minor or moderate injury.

NOTE: Alerts the user to useful information about proper operation of the machine to avoid machine damage.

▲ WARNING: To reduce your risk of serious injury, read this Manual carefully before operating the product and preserve the Operation Manual properly.

- Keep children, the elderly, handicapped people, and others who are not familiar with this piece of equipment away from it during operation.
- Safely store all tools when not in use. Store tools in a dry safe place to inhibit rust. Always lock up tools and keep them out of reach of children and others.
- Always use common sense and exercise caution. Do not operate under the influence of drugs or alcohol, when tired, or when distracted.
- Do not wear loose fitting clothing or jewelry as they can be caught in moving machine parts. Use proper welding clothing and eye protection when using this product for welding fume extraction.
- Keep work area clean and organized. Cluttered areas can be unsafe and dangerous during operation.

- Ensure that the working environment is suitable for this machine. Do not use this product in areas that are wet, cluttered, or have poor lighting.

▲ WARNING: To reduce the risk of accidental injury, never leave machine running while unattended.

- Check for damaged parts before using machinery. Repair or replace any damaged parts before operation.
- Do not clean, repair, or replace any parts unless power to the machine is off.
- Replace the damaged parts by the instructions of the manual. If the said instructions are not specified in the manual, then contact your dealer.
- If the machine breaks down, contact your dealer immediately. Do not attempt to repair to avoid damaging the machine.
- All wires used by the product shall be safely located to prevent personal contact with the wires.

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- Do not drag the electrical wires with force and do not use the wires if frayed or current leakage occurs to avoid harming the operator.

NOTE: The original manufacturer's parts and accessories shall be used to avoid injuries from occurring. If any problem happens, contact your dealer immediately.

- Keep machine away from oil, chemicals or flammables, as sparks may ignite these materials and cause explosion.
- This product is suitable for collecting smoke and welding oil gas. Do not use it in collecting iron chips and dust at the same time to avoid producing sparks.
- When the fan blades are operated at high-speed, do not reach hand near these blades to prevent finger from breaking or clothes/necktie from getting caught.
- When not in use, all air inlets of Mobile Filter Unit shall be covered.

Electrical Installation

- Check if the voltage, phase count and earth wire fit the machine.
- Inspect power and control cables periodically. Replace if damaged or bare wires are exposed.
- Be sure to follow local electrical codes and the electrical safety standards when connecting the machine.

⚠ CAUTION: For your safety, all electrical wire connections and installation shall be carried out by a professional technician.

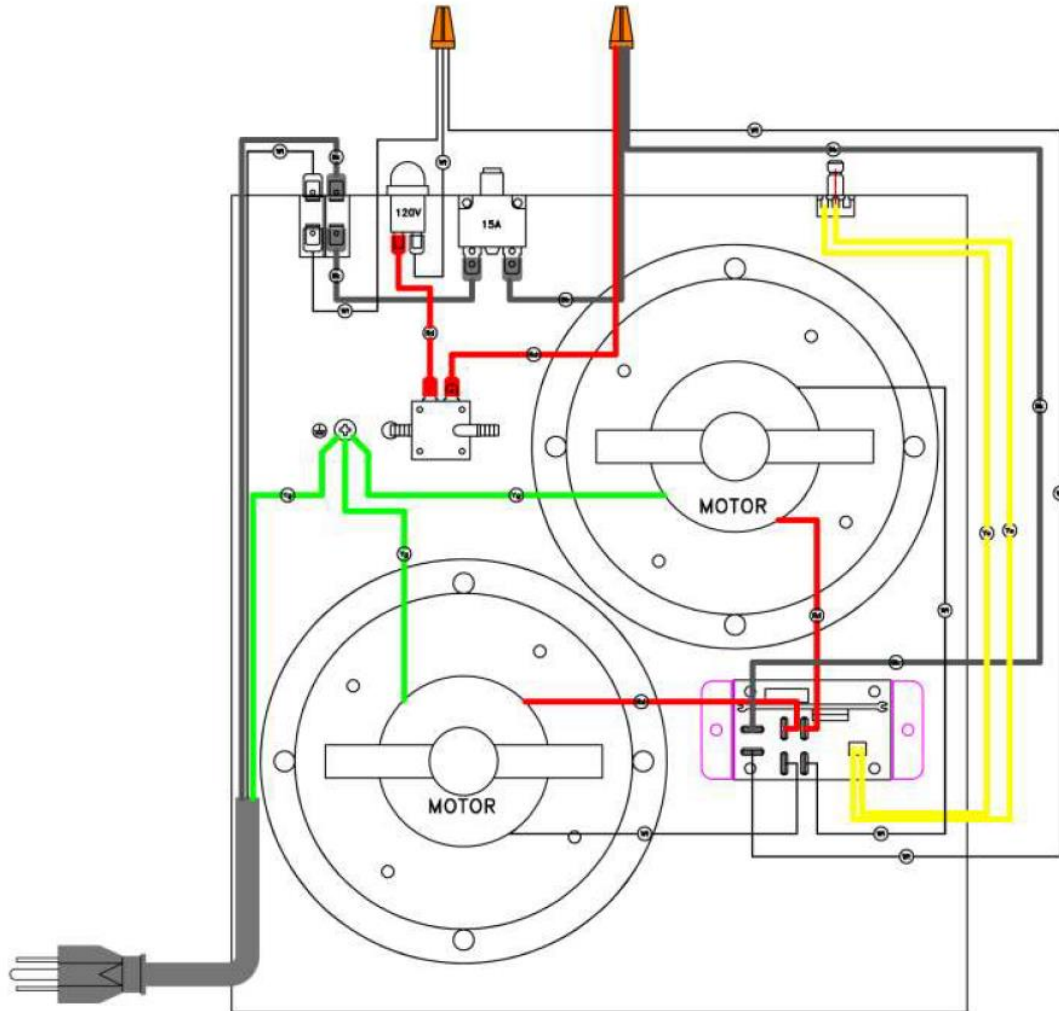
- In the event of certain malfunctions or breakdowns, grounding provides a path of least resistance for electric current to reduce the risk of electric shock.
- Before connecting the electric cord, make sure the switch is in the "OFF" position.
- This machine is equipped with an electric cord having an equipment-grounding wire and a grounding plug. Connect grounding wire (yellow/green) to the earth wire power jack. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.

⚠ WARNING: If machine is not properly grounded and connected to power supply, can result in risk of electric shock.

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Electric Circuit Diagram



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Filter



Aluminum Mesh

1. Efficiency: Capturing welding sparks and steel chips
2. Specification: 305 x 305 x 22mm [12" x 12" x 0.87"]
3. Quantity: 1 pcs

35% Prefilter

1. Efficiency: Capturing 35% of the 2-10 micron fine particles
2. Specification: 305 x 305 x 45mm [12" x 12" x 1.77"]
3. Quantity: 1 pcs
4. Filtering area: $15\text{m}^2 \times 2 = 30\text{m}^2$ (322.8 ft²)

85% Prefilter

1. Efficiency: Capturing 85% of the 1-2 micron fine particles
2. Specification: 305 x 305 x 95mm [12" x 12" x 3.74"]
3. Quantity: 1 pcs

Pleated Filter

1. Efficiency: Capturing 45% of the 1 micron fine particles
2. Specification: 305 x 305 x 45mm [12" x 12" x 1.77"]
3. Quantity: 1 pcs

HEPA

1. Efficiency: 99.99% of 0.3-micron particle
2. Specification: 305 x 305 x 73mm [12" x 12" x 2.87"]
3. Quantity: 1 pcs

Assembly

⚠WARNING: Read and understand all of the precautions stated in the Manual, and for your safety, do not connect the Mobile Filter Unit before the assembly is finished.

The machine must be fully assembled before it can be operated.

Before beginning the assembly process, check if the machine and components are consistent with those indicated in the Parts List.

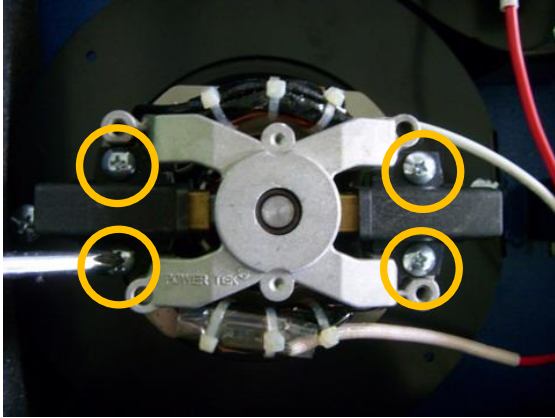
If any doubt arises or when the components are incomplete, please contact your dealer.

NOTE: For correct assembly, refer to the Illustrations and Parts List on pages 7-10.

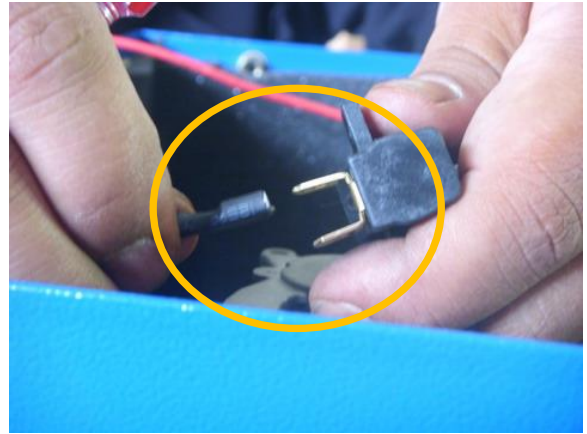
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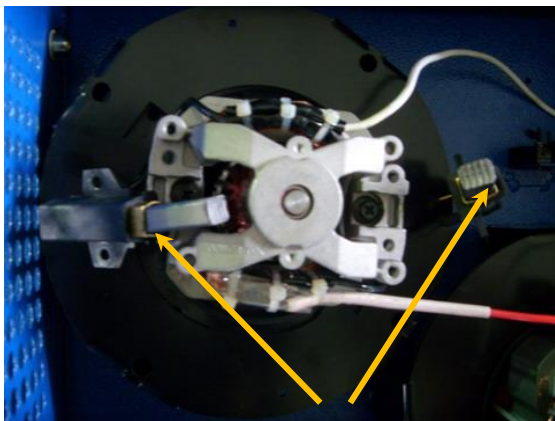
Carbon brush



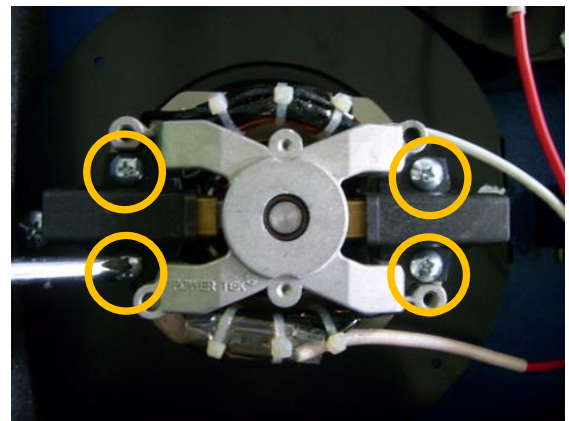
1. Loosen four pieces of round phillips head screw with screwdriver.



3. Pull out the T plug at the bottom back of the carbon brush. Then, replace the carbon brush.



2. Take out the carbon brush along with the base.



4. Connect the line cord back to the original place and tighten the four pieces of round phillips head screw.

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Maintenance

Aluminum Mesh

- The Aluminum Mesh is washable and reusable.
- It will need to be replaced when worn, damaged, or when it becomes so clogged that washing is no longer effective.

35% Prefilter

- It is not recommended to wash the Pre Filter.
- Need to replace new filter in about 3-6 months.

85% Prefilter

- It is not recommended to wash the Pre Filter.
- Need to replace new filter in about 3-6 months.

Pleated Filter

- It is not recommended to wash the Pleated Filter.
- Need to replace new filter in about 3-6 months.

HEPA

- It is not recommended to wash the HEPA Filter.
- If airflow remains weak after cleaning Aluminum Mesh and Pre Filter, it will be necessary to replace the HEPA Filter.

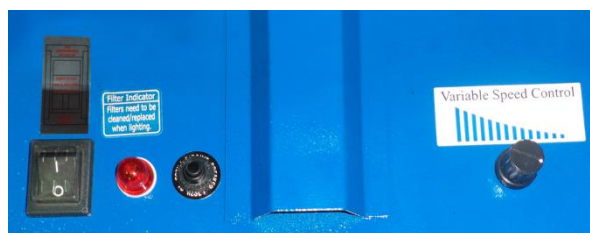
Operation

The Mobile Filter Unit is designed for the filtration of smoke generated during ordinary welding process work.

When installed and operated correctly, can effectively collect and screen the smoke resulting from the welding work in maintaining the air quality of the working environment.

⚠ WARNING: Before operation be sure to read this entire manual carefully, make sure all Warning/Danger sections are understood and proper safety equipment is utilized.

- Check if relevant safety protection measures have been taken according to the Manual.
- Please confirm the power, air volume and the matching table of the Mobile Filter Unit.
- Connect power to system after complete assembly of Mobile Filter Unit has been performed.
- Disconnect power when machine is not in use.



On/Off Switch

- Turn on and off the machine

Filter Indicator

- Auto detected the status of the filter, once the light is on, please replace or clean the filter.

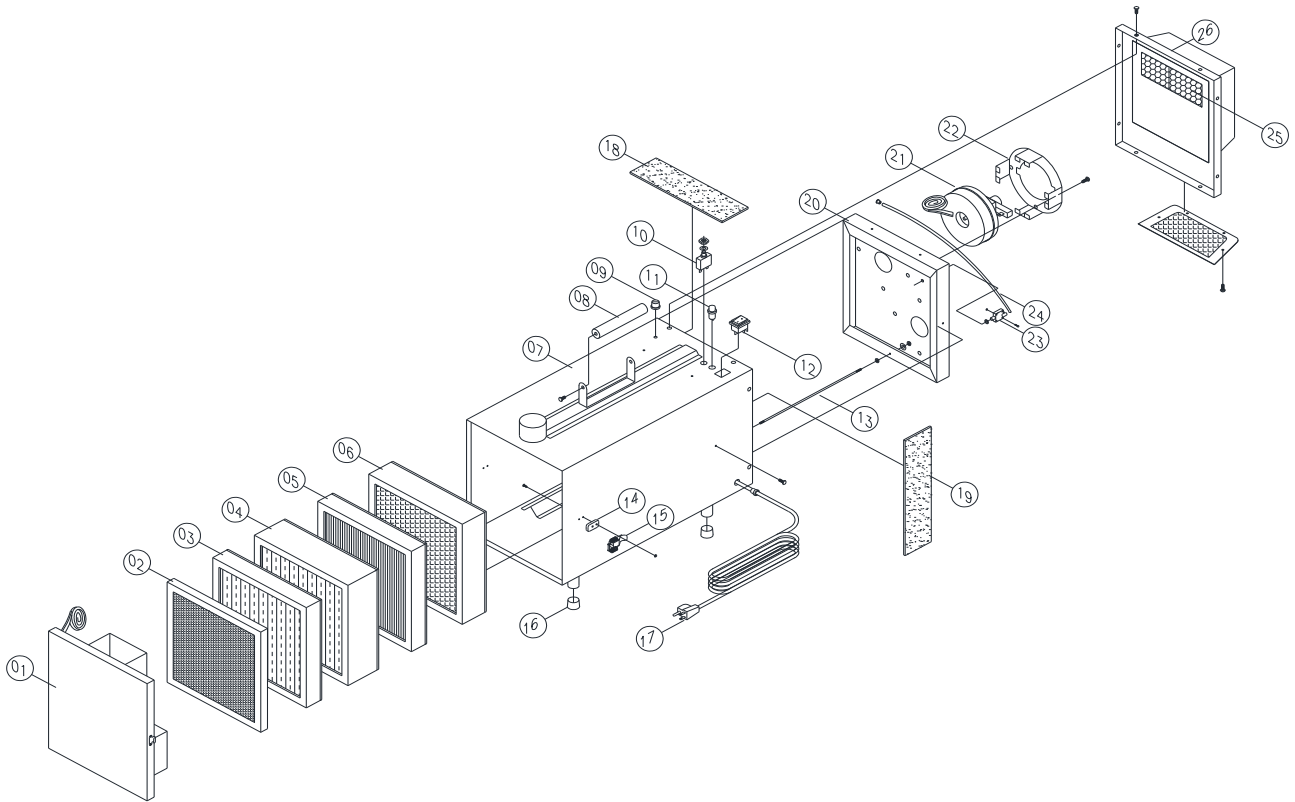
Variable speed control

- To adjust speed of air-flow.

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Parts Diagram



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Parts List

Item	Description	Qty.
1	Front Cover	1
2	Aluminum Mesh	1
3	35% Prefilter	1
4	85% Prefilter	1
5	Pleated Filter	1
6	HEPA	1
7	Main Body	1
8	Handle	1
9	Variable speed control	1
10	Overload Protector	1
11	Filter Indicator	1
12	Switch	1
13	Filter Bolster	1
14	Door Buckle Base	2
15	Dual Spring Buckle	2
16	Foot Pad	4
17	Cord	1
18	Sound-proof Cotton	1
19	Sound-proof Cotton	1
20	Motor Base	1
21	Motor	2
22	Motor Fixing Base	2
23	Pressure Gauge	1
24	Hose	1
25	Sound-proof Cotton	1
26	Back Cover	1

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Contact Information

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