



# Mobile Welding Fume Extractor

## KSJ-0.7S

# Operation and Maintenance Manual

Esseti New Zealand Limited

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## 1. Product Profile

The supplier of Esseti New Zealand Limited Ltd is a professional company which specializes in air purification machines' research & development, manufacturing, project design and installation. With advanced technology introduced from Germany, Sweden, and using many imported parts, our products are widely used in over 200 fields such as welding, foundry, metal cutting, grinding, wood processing, paper making, ceramics, tobacco, chemistry etc.

Incorporated world leading environmental technology, economical mobile fume extractor is a technically advanced industrial dust & fume extractor, it's developed with full consideration of the forming, characteristics and harm of fumes and based on actual conditions of cutting and welding workshop. This product adopted world leading imported material of wood fiber filtering, for dust (above 0.3 $\mu$ m) filtration efficiency reaches 99.9%, meanwhile maintain a high air flow. It is ideal for purifying dry, oil-free, non-corrosive fume mixture generated in cutting and welding, collecting rare metals and valuable materials. Compared with the same product in the world, it's quite worthwhile in terms of quality and price.

## 2. Technical data

No.	Item	Parameter
1	fan type	centrifugal fan
2	treatment of air flow	1000 $\pm$ 100 m <sup>3</sup> /h
3	motor power	0.75kW
4	power supply	240V ~/50Hz
5	filtration area	8 m <sup>2</sup>
6	number of filter cartridges	1 piece
7	filter medium	Polyester + PTFE
8	filtration efficiency	>99.9%

9	noise	≤74±5dB(A)
10	Ash hopper volume	2L
11	One suction arm	Ø160mm*2m
12	Weight (excluding suction arm)	98±5KG
13	Dimensions(excluding suction arm)	510×610×990mm

### 3. How it Works

Dust laden fume is sucked into the machine through suction hood and suction pipe, hitting on the deflector at the extractor's entrance, slowed and diverted, forming a downward moving air stream, big particles fall into dust collector, which avoid hitting and damaging the filter cartridge, dust filtered out on the filter cartridge's layer surface under the fan's suction force, filtered clean air is directly discharged through the vent into workshop. After each period's use, the filter cartridge should be taken out and use compressed air to blow it from the interior.

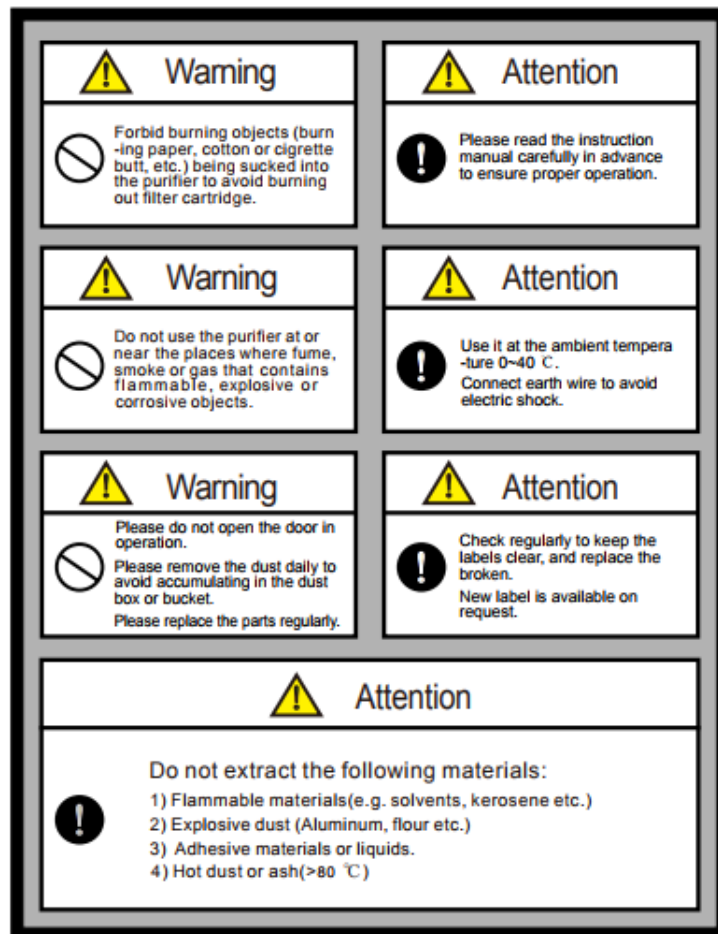
### 4. Operation Instructions

- 1) Please read the instruction manual carefully before using the extractor, check whether voltage of power supply matching the system power voltage indicated in the instruction manual (**1×240V/50Hz**, voltage fluctuation±10%), insert the power plug into a specialized power socket.
- 2) After making sure the power supply is correct, turn the on-load switch to "ON" to connect power supply. Press fan control button to start the fan, suction force is induced at the suction hood.
- 3) Suction arm can be rotated 360° horizontally, according to actual working condition, suction volume can be adjusted by adjusting volume valve in suction hood.
- 4) Soot cleaning: Cleaning use compressed air(0.5~0.6MPa) to reverse blowing, external compressed air PU hose Φ10mm. If need dust removing, just open the

valve of the top of equipment, lasting time at 3S~8S,more or less.

## 5. Safety

- (1) Please carefully read the instruction manual before starting the extractor. Check whether power supply and grounding wire are properly connected.
- (2) This extractor use **1x240V/50Hz** power supply, if the voltage fluctuation exceed  $\pm 10\%$ , the extractor possibly can't be started, and you should stop starting it.
- (3) Use independent power socket and ensure a reliable grounding, don't remove the grounding pin. Please unplug the power plug when you won't use the extractor for a long time.
- (4) Don't damage the extractor's power line. Don't unplug the power plug by pulling the power line.
- (5) Avoid burning objects (such as: burning paper, burning cotton or burning cigarette butted) to be sucked into the extractor in order to avoid burning out filter cartridge.
- (6) The extractor's repair should be done by professionals.



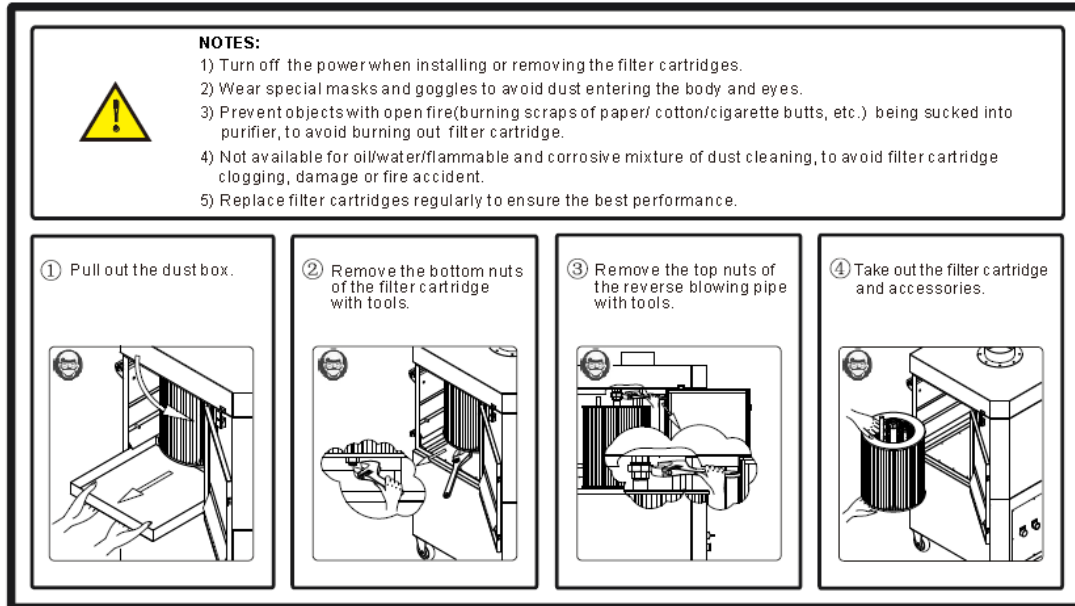
- (7) Fume hose should avoid being punctured by sharp objects.
- (8) The extractor can't be used for purifying fume contains oil, water, flammable or corrosive matter, in order to avoid filter cartridge's clogging, damage, or fire accident.
- (9) Suction hood's distance to welding spot should be 0.3m-0.5m, exceeding this distance suction effect will be affected.

## 6. Service and repair

- 1) Regularly (every 6 months) check electronic components and power line, ensuring the extractor to be in proper working condition.
- 2) Regularly (one year) check fan, ensuring its firmness and equilibrium.
- 3) Regularly (one year) clean motor's bearing, replace lubricant.
- 4) Regularly (one year) tighten the nut which connect fixing flange and the

extractor's upper housing, stainless steel clamp which connect fixing flange and positioning flange, to prevent leakage from affecting suction.

- 5) According to actual working condition regularly take out filter cartridge to blow-clean it from its interior with compressed air, and empty the dust collector.



## 7. Fault finding

Fault	Reason of the fault	Solving method
The fan can't be started	<ol style="list-style-type: none"> <li>1) Power supply lack of phase or power supply is not connected.</li> <li>2) The motor circuit-breaker trip when the electric current reaches current setting.</li> <li>3) Electronic components break down.</li> </ol>	<ol style="list-style-type: none"> <li>1) Check power supply.</li> <li>2) Please connect circuit -breaker.</li> <li>3) Please contact the manufacturer.</li> </ol>
Noise is loud	<ol style="list-style-type: none"> <li>1) Fan turn reversely.</li> <li>2) Connecting pin or nut come loose.</li> <li>3) Dust accumulated on the fan.</li> </ol>	<ol style="list-style-type: none"> <li>1) Please exchange any two phase sequence of the power supply.</li> <li>2) Check the fan's fixing.</li> <li>3) Clean the fan.</li> </ol>

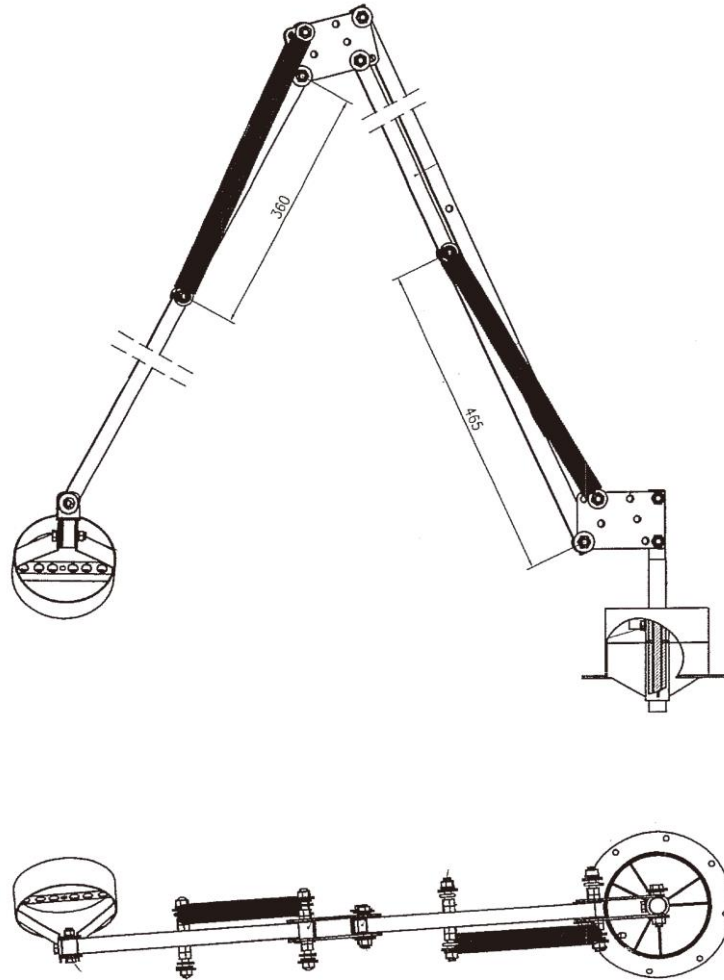
Fume suction lessening	<ul style="list-style-type: none"> <li>1) There's leakage in the extractor.</li> <li>2) Filter cartridge clogged.</li> <li>3) Fan turn reversely.</li> </ul>	<ul style="list-style-type: none"> <li>1) Check air tightness of the extractor.</li> <li>2) Clean or replace filter cartridge;</li> <li>3) Please exchange any two phase sequence of power supply.</li> </ul>
Suction arm can't be positioned at will	<ul style="list-style-type: none"> <li>1) Joint tightening nut come loose.</li> <li>2) Joint spring receive unbalanced force.</li> </ul>	<ul style="list-style-type: none"> <li>1) Tighten the nut.</li> <li>2) Please contact the manufacturer.</li> </ul>
Low filtration effect	<ul style="list-style-type: none"> <li>1) Filter cartridge broken or aged.</li> <li>2) Filter's sealing strip doesn't seal.</li> </ul>	<ul style="list-style-type: none"> <li>1) Replace the filter cartridge.</li> <li>2) Please check filter cartridge's air tightness.</li> </ul>

## 8. Parts list

No.	Name	Model	Quantity	Remarks
1	motor	MY801-2/0.75KW 1P B5/240V 50Hz	1 set	Shanghai Kaisen
2	fan	KS-0.7	1 set	Shanghai Kaisen
3	on-load switch	ABTWF060C0AZM01	1 piece	Switzerland
4	hose	KSJ-0.7S-150	1 piece	Shanghai Kaisen
5	filter cartridge	JS00-20-00	1 piece	Shanghai Kaisen
6	suction hood	JS00-21-00	1 piece	Shanghai Kaisen
7	suction arm joint	KSJ-0.7S -GJ	1 piece	Shanghai Kaisen
8	Pressure different gauge	2-5000-1.0KPA	1 piece	Dwyer of USA



## 9. Installation



- a) The joint has been reversely tied before leaving the factory, please be careful when you untie it, preventing joint rebounding causing reverse swing and hurt you.
- b) Suction hood, hose are packed in another wooden box. For the sake of security, please put suction hood and hose over the joint first, then fix together on the extractor.
- c) Rubber band, clamp is in the package box. If any problem arises in fixing and using, please contact the manufacturer, we will provide technique service free of charge.

## 10. Contact information

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