



Mobile Welding Fume Extractor

IMU-2.2

Operation and  
Maintenance Manual



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## 1. Product profile

Western Air Ducts (UK) Ltd is a world leader in the design and provision of dust and fume extraction systems. For over 40 years Western Air Ducts (UK) Ltd has been providing solutions to air quality issues in numerous industries including; welding, metal cutting, foundries, grinding, food processing, wood processing, petrochemicals and pharmaceuticals.

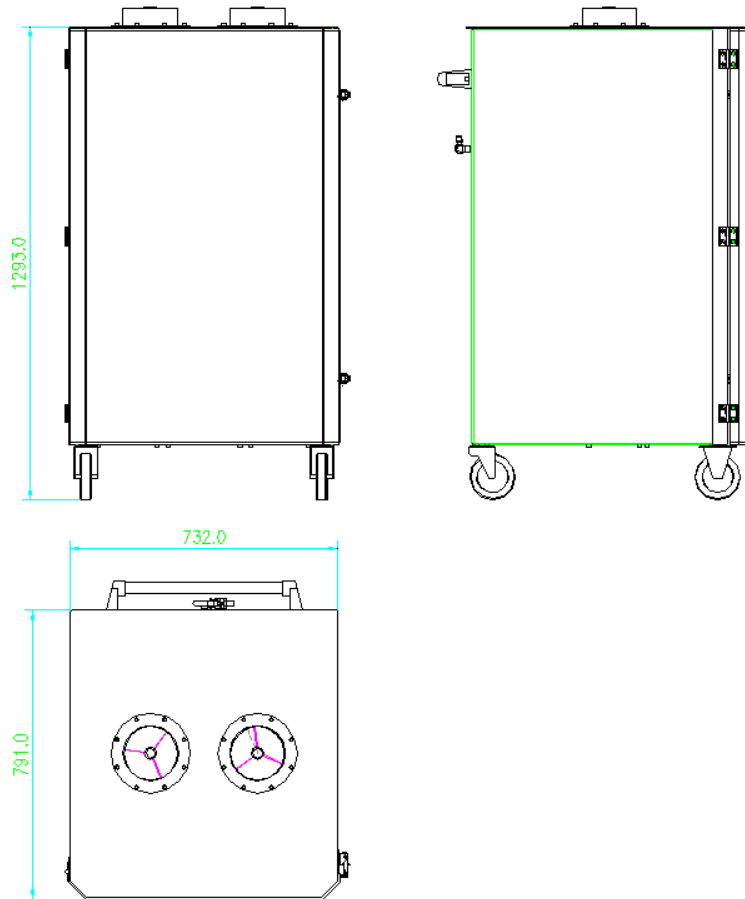
Incorporating world leading environmental technology the Intelaiir™ IMU mobile fume extractor is a technically advanced industrial dust & fume extractor, it's developed with full understanding of the characteristics and potential risks associated with fume and airborne dust in the working environment and designed with flexibility to serve the actual process of cutting and welding within a workshop. Fitted with a cellulose filter cartridge offering 99% efficiency for dust (above 0.5µm) while maintaining air flow it is ideal for controlling the fume generated in cutting and welding operations. The Intelaiir™ IMU mobile fume extractor delivers class beating airflow and filtration.

## 2. Technical Data

No.	Item	Parameter
1	fan type	centrifugal
2	treatment of air flow	2000m <sup>3</sup> /hr.
3	motor power	2.2kW
4	power supply	3-Phase, 415V, 16A ~/50Hz
5	filtration area	30 m <sup>2</sup>
6	number of filter cartridges	One
7	compressed air requirement	0.5-0.6MPa
8	fan pressure	1900 pa
9	filter media	Cellulose
10	filtration efficiency	>99.9%
11	noise	≤74±5dB(A)



12	Collection tray Volume	7-litres
13	2 * Extraction Arms	Ø160mm * 3m
14	Weight	135±5KG
15	Dimensions	640×760×1320mm





### 3. How It Works

Dust laden fume is drawn into the machine through the positionable extraction hood which then hits the deflector at the extractor's inlet, this slows the fume forming a downward moving air stream causing larger particles to fall into the dust collector tray with the fine dust particles then being removed by the filter cartridge, the clean air is directly discharged back into the workshop. As required the filter unit can be connected to a compressed air supply to remove dust build-up from the surface of the filter cartridge.

### 4. Operating instruction

- 1) Please read the instruction manual carefully before using the extractor, check whether the voltage of the power supply matches the system power voltage indicated in the instruction manual (1×3-Phase 415V/16A/50Hz, voltage fluctuation  $\pm 10\%$ ), and insert the power plug into the power socket.
- 2) After making sure the power supply is correct, press the fan control button to start the fan.
- 3) The extraction arms can be rotated through 360°. The air volume can be controlled with the hood dampers.
- 4) To clean the unit connect to your compressed air system via the  $\Phi 10\text{mm}$  connector.

### 5. Safety

- (1) Please read the instruction manual carefully before starting the filter unit. Check that the power supply is properly connected.
- (2) Ensure you use a dedicated power supply.
- (3) Do not use if the power cable is damaged.
- (4) All maintenance should be carried out by a competent operator.
- (5) This extraction unit is for dry inert dusts and fumes only.
- (6) Ensure the extraction hood is positioned within 300mm-500mm of the operation.



## 6. Service and Maintenance

- 1) The unit will require a PAT test in accordance with normal electrical guidance.
- 2) The unit should be given a full service every 12-months by a competent engineer.
- 3) The unit should be COSHH LEV inspected every 14-months by a BOHS P601 qualified engineer.
- 4) According to actual working conditions connect the filter unit to a compressed air supply to clean the filter and empty the dust container.

## 7. Fault Finding

<b>Fault</b>	<b>Reason of the fault</b>	<b>Solving method</b>
The fan does not start	<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 trips when the electric current reaches current setting.</li> </ol>	<ol style="list-style-type: none"> <li>1) Check power supply.</li> <li>2) Please connect circuit –breaker.</li> </ol>
Noisy	<ol style="list-style-type: none"> <li>1) Check fan rotation.</li> <li>2) Check fan balance and mounting.</li> <li>3) Dust accumulated on the fan.</li> </ol>	<ol style="list-style-type: none"> <li>1) Check power supply</li> <li>2) Check the fan’s fixing.</li> <li>3) Clean the fan.</li> </ol>
Loss of performance	<ol style="list-style-type: none"> <li>1) There’s leakage in the extractor.</li> <li>2) Filter cartridge clogged.</li> <li>3) Check fan rotation</li> </ol>	<ol style="list-style-type: none"> <li>1) Check air tightness of the extractor/door.</li> <li>2) Clean or replace filter cartridge.</li> <li>3) Check power supply.</li> </ol>



Arm won't self-support	1) Friction joint has come loose.	1) Tighten the friction joint.
Dust carry over	1) Hole in the filter cartridge. 2) Filter not making seal.	1) Replace the filter cartridge. 2) Check the seal.

## 8. Parts List

No.	Name	Model	Quantity	Remarks
1	motor	MY801-2/2.2KW 3P B5/415V 50Hz	1 set	Western Air Ducts
2	fan	IMU-2.2	1 set	Western Air Ducts
3	on-load switch	ABTWF060C0AZM01	1 piece	Western Air Ducts
4	hose	IMU-2.2-160	2 piece	Western Air Ducts
5	filter cartridge	JS00-20-00	1 piece	Western Air Ducts
6	extraction hood	JS00-21-00	2 piece	Western Air Ducts
7	extraction arm joint	IMU-2.2 -GJ	2 piece	Western Air Ducts



## 9. Installation



- a) Take care when unpacking the spring section of the extraction arms.
- b) Attach the extraction hood and hose to each extraction arm prior to mounting onto the filter unit.

## 10. Contact information

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