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# MistControl

Controlling Mist from CNC Machining



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# Installation and Operation - OMF1000

Issue Date: 26 September 2014

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## NOTE

### Directions for Use

The OMF1000 is built to CE standards (1995) and conforms to HSG258 (controlling airborne contaminants at work). As such, it must be operated in strict accordance with this manual.

The OMF1000 is designed for indoor installation only and must be protected from excessive moisture. Always make sure that good access is provided for the maintenance of the OMF1000.

**WARNING! Risk of personal injury, fire or explosion.**

- The OMF1000 must not be used in an environment where there is a risk of explosion from dust or gases in explosive concentrations
- The OMF1000 must not be used for extracting toxic substances
- The OMF1000 must not be used without filters
- Always isolate the mains power before changing filters or removing any components from the OMF1000

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## PRIOR TO USE

### PREPARATION

Immediately upon receiving the OMF1000, examine the packaging for any damage that may have occurred during shipment. In the event of any damage please contact the supplier immediately.

### INSTALLATION

Please refer to the model information label on the OMF1000 to check its weight. The unit must be installed on a suitable level floor that is able to support its weight. Before installation, check that adequate space is available for replacement of filters.

### ELECTRICAL CONNECTIONS

The unit is pre-wired and fully tested for operator safety. Unscrew 2 retaining screws at the right hand side of the control panel and open. The electrical connections will be found on the electrical panel. The cable entry is located on the left hand side.

Take care not to pinch the flexible tubes, or electrical cables.

Switch on unit to check the electrical installation/ fan rotation. Incorrect fan rotation will result in poor performance.

### COMMISSIONING

The unit should undergo commissioning testing by the installer. A commissioning certificate is provided at the rear of this manual.

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# OPERATION

## PRINCIPLE OF OPERATION

The OMF1000 is supplied with:

- Pre Filter
- HEPA filter H10
- Centrifugal fan assembly

Air is drawn through the two filters in an upward direction, and the clean air expelled at the rear. The condensate will collect in the base where it is discharged through the drain provided.

## CONTROLS

All electrical equipment and controls are located in the electrical enclosure.

- |                   |   |
|-------------------|---|
| 1) MAINS ISOLATOR | Power on/off  |
| 2) FILTER GAUGES  | Indicates filter condition with 'filter full' indicator |
| 3) RED LIGHT      | Advises motor overload                                  |
| 4) WHITE LIGHT    | Power on  |

## FILTER REPLACEMENT

When filter 1 is full it can be cleaned. For the best results apply a degreaser to the dirty face and allow to absorb. Rinse, applying the process to the top of the filter to allow the dirt to be washed out downwards. Allow to drain until dry.

## FILTER ACCESS

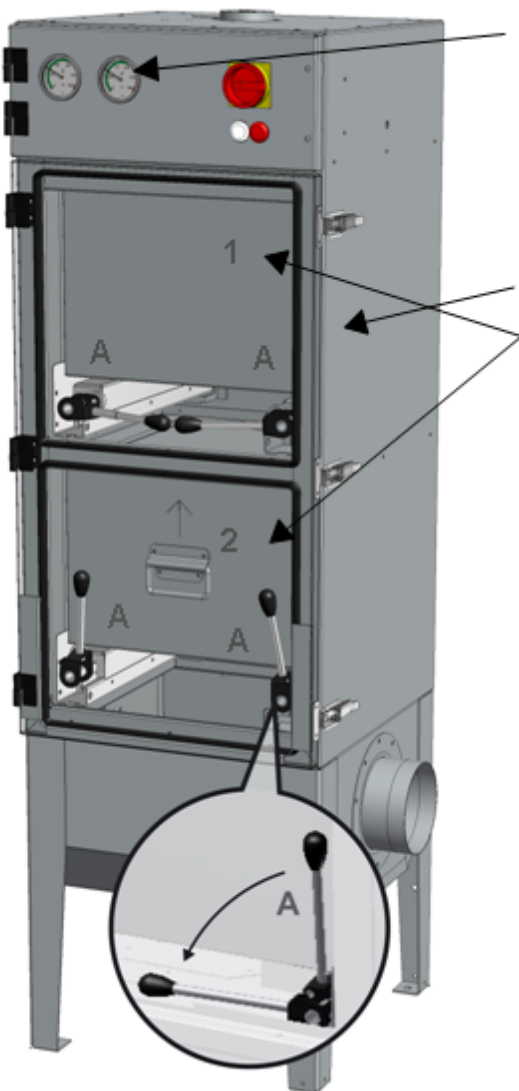
The pressure gauge will indicate the initial (clean) pressure of the system.

Note this initial reading when the filter is commissioned. (see 'commissioning' page 10)

To gain access to the filter, release the door latches and open the door.

Lower levers (A) into the horizontal position.

The filters (1) and (2) can now be withdrawn.



The pressure gauge will indicate the initial (clean) pressure of the system.

Note this initial reading when the filter is commissioned.  
(see 'commissioning' page 12)

To gain access to the filter, release the door latches and open the door.

Lower levers (A) into the horizontal position.

The filters (1) and (2) can now be withdrawn.

### **WARNING! Risk of personal injury.**

- **Always isolate the mains power before changing filters or removing any components from the OMF1000.**

- **Use necessary PPE**

**NOTE: Filter 1 weighs 15kg dry. However, when wet it will be considerably heavier.**

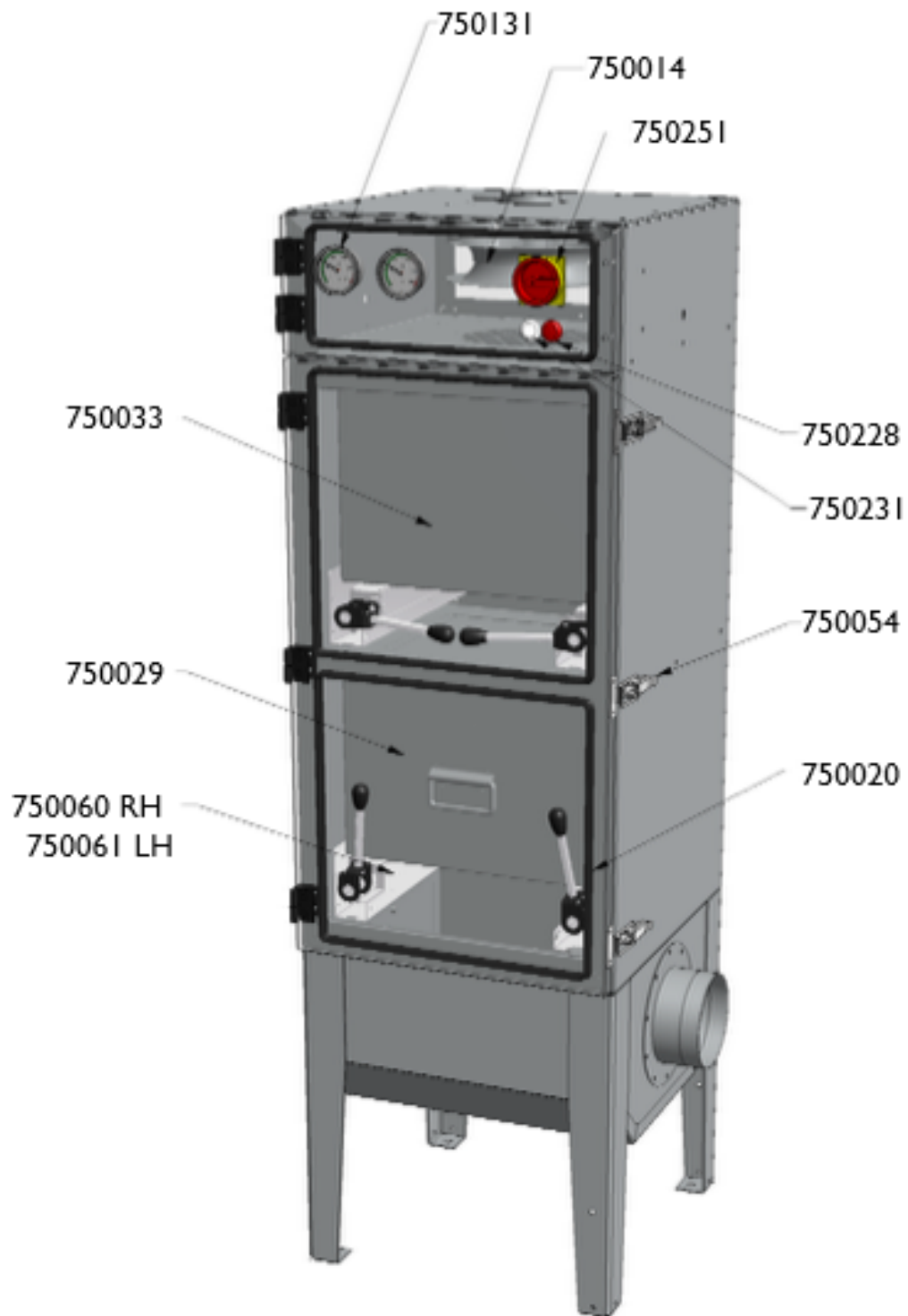
To refit the filters, place in the runners with seal uppermost and push fully home.

Then raise both levers (A) into the vertical position, and the filter(s) will be locked into place. Close the door.

Parts list schematic

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**PARTS LIST**





Description	Part Number	Qty
Filter 1 ( Pre Filter )	750029	1
Filter 2 (HEPA Filter)	750033	1
Fan RH28	301023	1
Motor Overload 1.6 - 2.4A 230V	750004	1
Hinge Lift-off	750050	5
Over Centre Door Latch	750054	3
Push on seal - Door	750020 -1700	2
Pressure Gauge 63mm 1000Pa	750131	2
Clamp Mechanism RH	750060	2
Clamp Mechanism LH	750061	2
T Switch	750251	1
Lamp Assembly-Red	750228	1
Lamp Assembly-White	750231	1
Transformer	750135	1

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## Fault finding

Fault	Remedy
Lack of Suction	Dirty filters (see page 4)
Motor does not operate	Motor tripped - reset trip in elec panel Faulty motor (motor needs replacement)
Fan discharge air is contaminated	The filtration system is being by-passed. Check for damage or incorrectly fitted filter(s), and replace as appropriate.

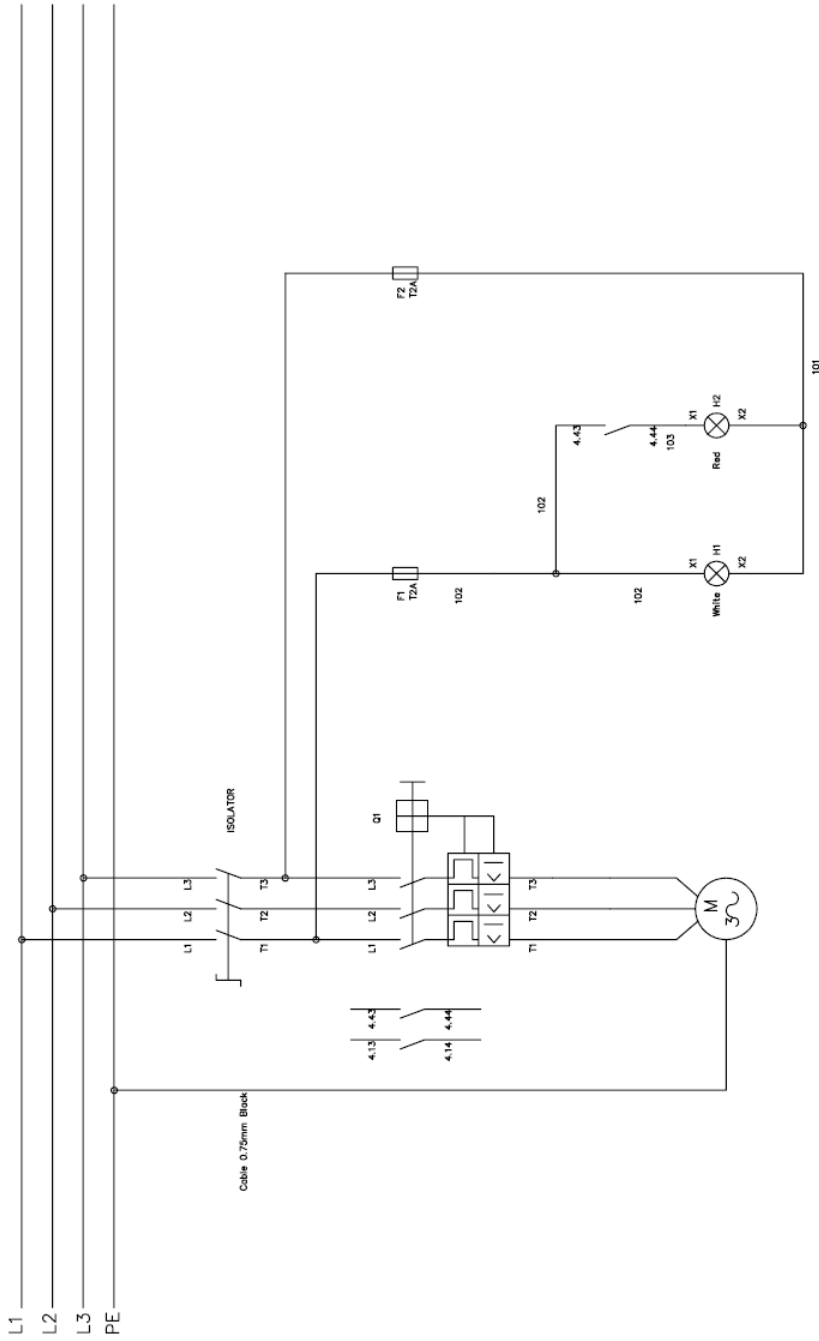
### **WARNING! Risk of personal injury.**

- Always isolate the mains power before changing filters or removing any components from the OMF1000.
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**NOTE: Filter 1 weighs 15kg dry. However, when wet it will be considerably heavier.**

Do Not Scale

Drawing Number 72164



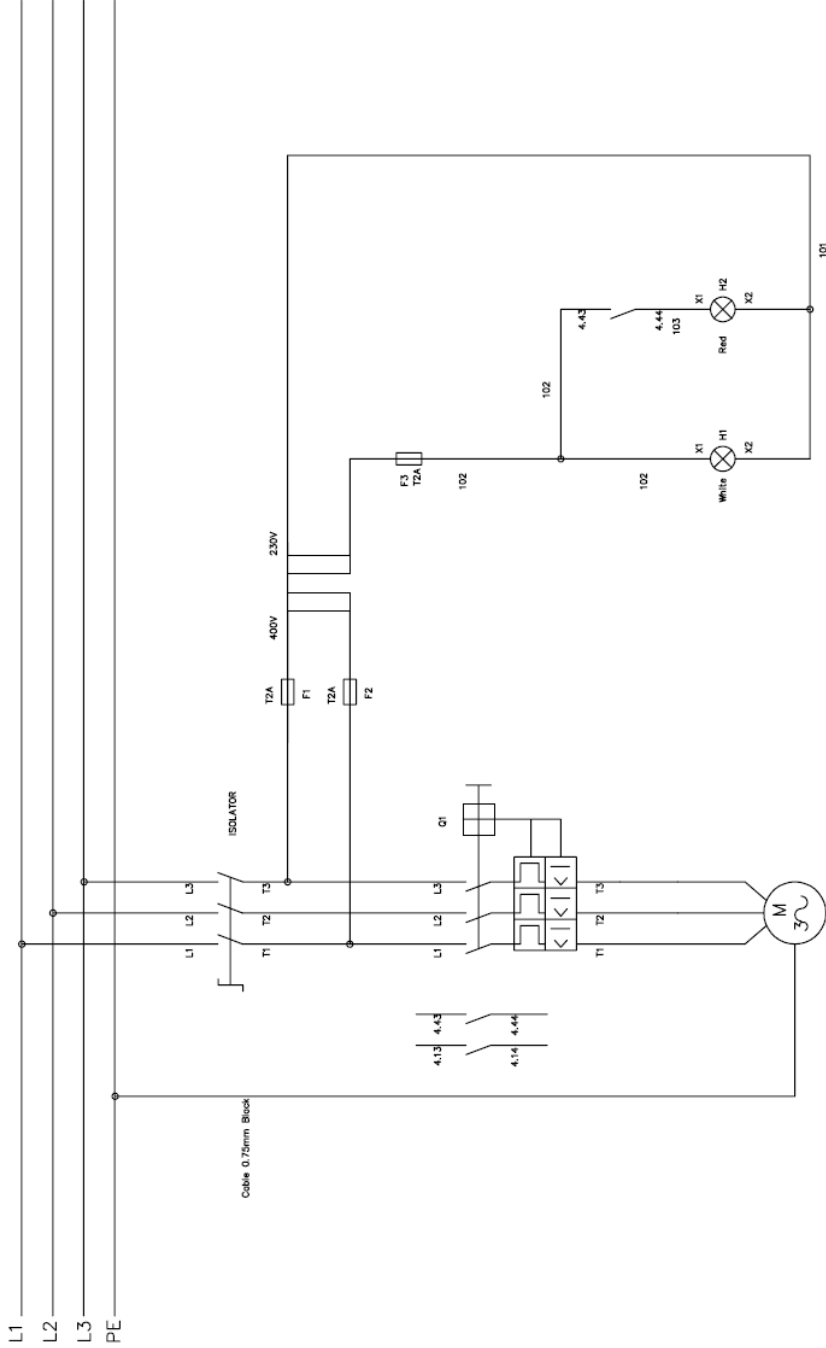
Used on :-

All Dimensions in Millimetres

Issue/Description	Change Date	Title: omf500 omf1000 230V 3 Phase	
		Drawn	Approved
		M.S.L.	
		Drawing Number	72164
		Date	25/02/13
		Material:	Finish:

Drawing Number 72165

Do Not Scale



Used on :-

All Dimensions in Millimetres

Issue/Description	Change Date	Title: omf500 omf1000 400V 3 Phase	
		Drawn	Approved
		M.S.L.	
		Date 25/02/13	
		Drawing Number 72165	
		Material: Finish:	

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## COMMISSIONING

Complete the following information following installation:

Serial Number: \_\_\_\_\_

Installation Date: \_\_\_\_\_

Installer Name: \_\_\_\_\_

Duct Velocity: \_\_\_\_\_

Filter 1 gauge reading: \_\_\_\_\_

Filter 2 gauge reading: \_\_\_\_\_

Signed (Engineer): \_\_\_\_\_

## SUPPORT

Contact your supplier, or the manufacturer:

MISTCONTROL (A Trading Name of AIRBENCH LIMITED),

14 GRANGE FARM ROAD, COLCHESTER, ESSEX, CO2 8JW, UK

Tel: 01206 791191 Fax: 01206 791091 Web: [www.mistcontroluk.com](http://www.mistcontroluk.com) Email: [sales@mistcontroluk.com](mailto:sales@mistcontroluk.com)

Business Name:	AirBench Ltd t/a MistControl 14 Grange Farm Road, Colchester, Essex. CO2 8JW
Responsible Person:	Simon Cook
Description:	Mist Filter Unit known as "OMF1000"

DECLARATION OF CONFORMITY

BY

MISTCONTROL (A Trading Name of AIRBENCH LIMITED)

Relevant Directives

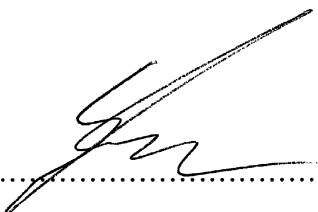
EMC Directive 2004/108/EC (when connected to standard mains sinusoidal supply).

Low voltage Directive 2006/95/EC

- EN-60204–1:2006 (Safety of machinery, electrical equipment of machines, general requirements).
- EN-60335-2-80 (Safety requirements for electric fans and regulators).

We; AIRBENCH Limited, declare that "OMF1000" when supplied as self contained equipment complies with the directives detailed above and therefore comply with requirements of the Low Voltage Directive.

Signature



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Simon Cook