Installation and Operation - OMF1000

Issue Date: 13 November 2019

CAUTIONS

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

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

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.

OPERATION

PRINCIPLE OF OPERATION

The OMF1000 is supplied with:

- Mesh Demister (optional)
- Pre Filter
- HEPA filter H10
- Centrifugal fan assembly

Air is drawn through the three 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 or 2 (mesh demister and pre filter) are full they 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. The HEPA Filter cannot be cleaned and must be replaced when full.

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 'within this manual).
To gain access to the filter, release the door latches and open the door.
Lower levers (A) into the horizontal position.
The filters can now be withdrawn.

Parts list schematic

The pressure gauge will indicate the initial (clean) pressure of the system.
Note this initial reading when the filter is commissioned. (see 'commissioning 'within this manual).
To gain access to the filter, release the door latches and open the door.
Lower levers (A) into the horizontal position.

The filters (1), (2) and (3) can now be withdrawn.

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.

WARNING! Risk of personal injury.

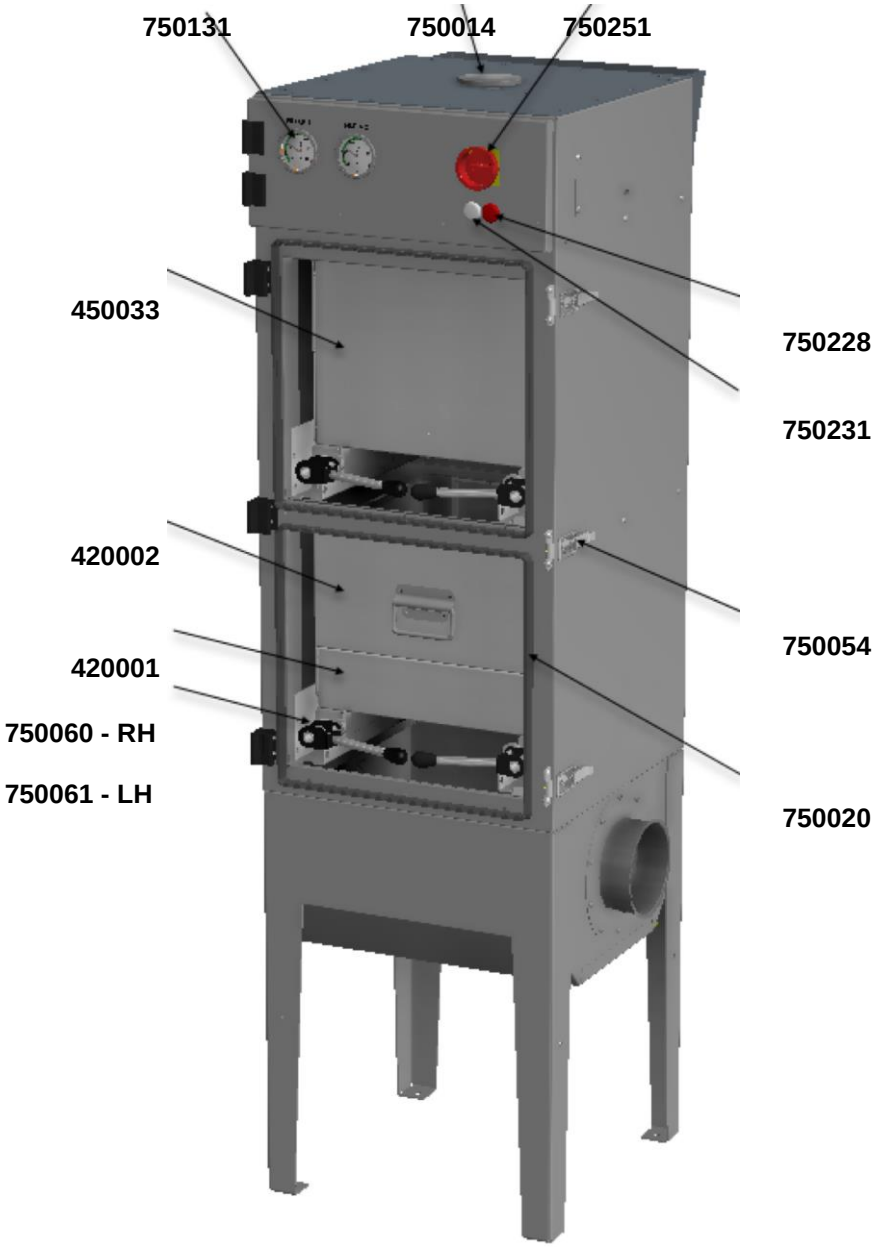
- **Always isolate the mains power before changing filters or removing any components from the OMF1000.**
- **Use necessary PPE**

NOTE: Filter 2 weighs 15kg dry. However, when wet it will be considerably heavier.

PARTS LIST

Description	Part Number	Qty
Filter 1 (Mesh demister)	420001	1
Filter 2 (Pre Filter)	420002	1
Filter 1 (Pre Filter - No Demister fitted)	450029	1
Filter 3 (HEPA Filter)	450033	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

SCHEMATIC


750131
750014
750251
450033
750228
750231
420002
750054
420001
750060 - RH
750061 - LH
750020

Fault finding

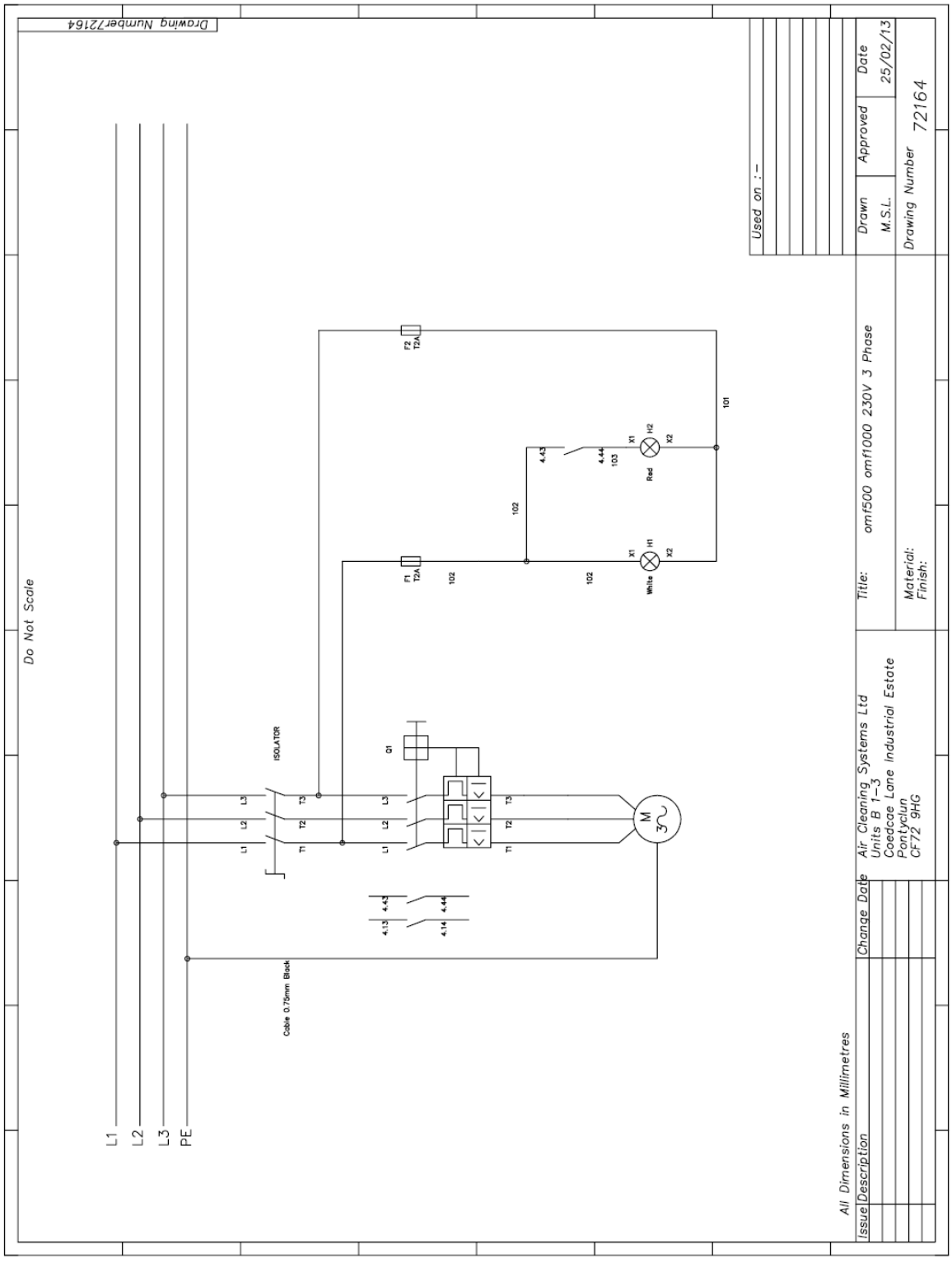
Fault	Remedy
Lack of Suction	Dirty filters (see page 4)
Motor does not operate	Motor tripped - reset trip in elec panel Faulty motor (motor needs replacement)
Fan discharge air is contaminated	The filtration system is being by-passed. Check for damage or incorrectly fitted filter(s), and replace as appropriate.

WARNING! Risk of personal injury.

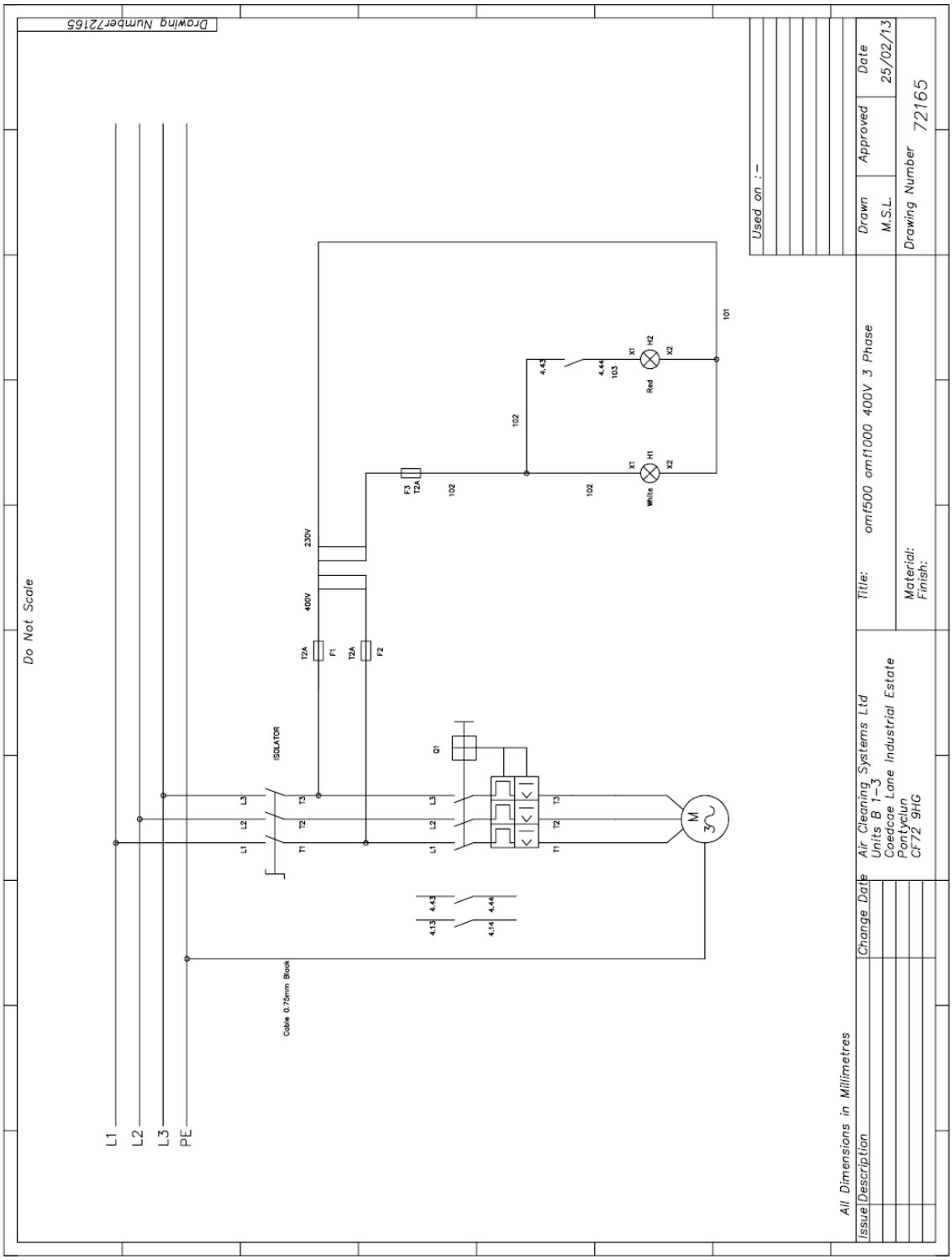
- **Always isolate the mains power before changing filters or removing any components from the OMF1000.**
- **Use necessary PPE**

NOTE: Filter 2 weighs 15kg dry. However, when wet it will be considerably heavier.

Wiring Diagram - 230v



Wiring Diagram - 400v



COMMISSIONING

Complete the following information following installation:

Serial Number: _____

Installlation Date: _____

Installer Name: _____

Duct Velocity: _____

Filter 1 gauge reading: _____

Filter 2 gauge reading: _____

Signed (Engineer): _____

SUPPORT

Contact your supplier, or the manufacturer:

AIRBENCH LTD

6b COMMERCE WAY, COLCHESTER, ESSEX, CO2 8HR, UK

Tel: 01206 791191 Fax: 01206 791091 Web: www.airbench.com Email: sales@airbench.com

MAINTENANCE RECORD / LOG BOOK

Test Date	Duct Vel	Gauge 1 Reading (Pa)	Gauge 2 Reading (Pa)	Initial

Business Name:	AirBench Ltd 6b Commerce Way, Colchester, Essex. CO2 8HR
Responsible Person:	Simon Cook
Description:	Mist Filter Unit known as “OMF”

DECLARATION OF CONFORMITY

BY

AIRBENCH LIMITED

Relevant Directives

EMC Directive 2014/30/EU (when connected to standard mains sinusoidal supply).

Machinery Directive 2006/42/EC

Low voltage Directive 2014/35/EU

- EN-60204–1:2018 (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 OMF” when supplied as self contained equipment complies with the directives detailed above and therefore comply with requirements of the Low Voltage Directive.

Simon Cook / Managing Director / 5th March 2021

Data shown is for standard models. Check the Commissioning Certificate for details specific to your unit.