



**Corona Supplies Ltd**  
for all your corona needs

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# **O3E-400**

## **OZONE DESTRUCT**



## **PRODUCT MANUAL**

## WARNINGS

- Always isolate the system from the mains power supply before removing the machine cover.
- Carry out your own risk assessment to determine the level of Personal Protective Equipment (PPE) required when removing filters and disposing of the used filter.
- Filters are manufactured from non-toxic materials.
- Filters and prefilters are not re-usable and no attempt should be made to clean them.
- Used filters and prefilters should be disposed of in accordance with local laws and regulations. The company and its agents disclaim all liability and responsibility for any harm, damage, contamination or injury caused by inappropriate or unlawful disposal.
- The systems use high pressure pumps, which may cause inferior filters to burst, allowing hazardous fumes into the workplace. Do not use filters that have only been tested to BS3928, BS5295 or AS208C as these standards are flow checks only and are designed to test filters used in general dust extraction and air conditioning.
- Consult the local regulations concerning fume extraction systems, as these may be subject to requirements including; periodic checks by authorised agencies, re-issue of certificates of compliance or equivalents etc. Consult your supplier if in doubt.
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## ROUTINE MAINTENANCE

### Schedule

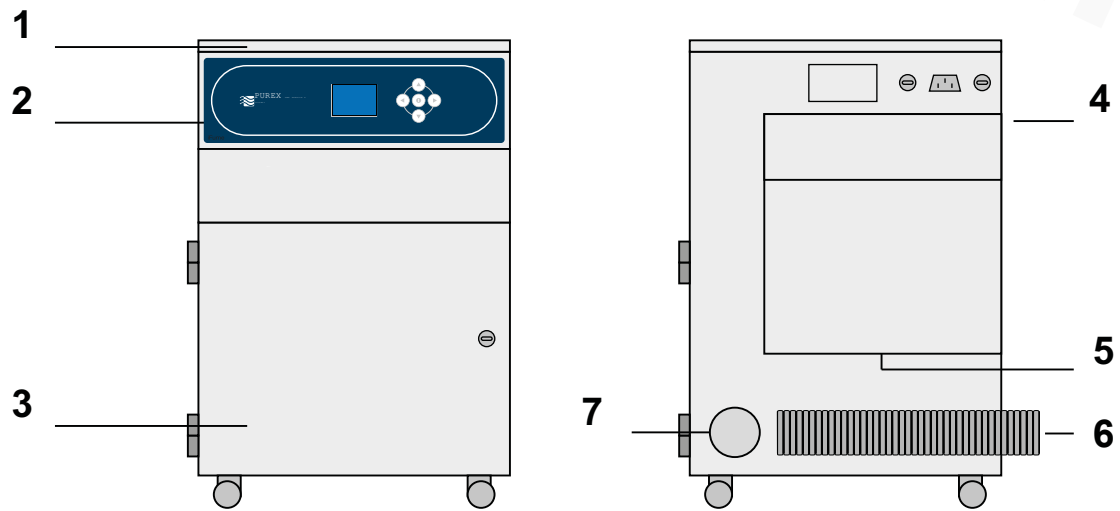
Primary maintenance is filter replacement, the machine control system will indicate when this is required. Filters should be replaced annually as a matter of course.

To ensure the smooth running of the extraction machine and associated equipment, please follow the LEV logbook on page 18.

### Circuit breaker tripped or fuse blown

May indicate a serious fault. Consult your supplier.

# O3E-400



**LEGEND:**

1. Access to internal components  
2. Control panel

3. Access to replace filters  
4. Electrical connections  
5. Exhaust air

6. Hose or duct  
7. Inlet  
8. Cooling air

## INSTALLING THE MACHINE

### Positioning the machine

The machine should be as near to the process as possible with space allowed for the following access:

- Internal maintenance
- Control panel, replacing filters
- Exhaust air + cooling air, electrical connections, hose connection

Once in position, lock the two front castors by depressing the foot levers. (If present)

### Hose connection

Incorrect connection or layout of hose can cause poor airflow, blockages and potentially dangerous build up of fume. Use the shortest length of hose possible and keep bends to a minimum. Your supplier can advise you of appropriate diameters and layouts of hose for your particular application.

- It is best practice to use the connection kit supplied.
- Do not reduce the diameter of the pipe / hose too much. The use of small diameter pipe / hose or nozzles can reduce the performance of fume extraction systems and so should be avoided

Ensure all connections are properly sealed and that there are no kinks in the hose. Once secured in position, connect the hose/s to the inlet/s on the machine either by pushing the hose onto the inlet or by using the connections supplied.

### Electrical connection

Various connection methods are available to order. Prior to connecting the power supply, ensure that the voltage, frequency and power requirements are correct as shown on the label attached to the cabinet rear ( Note - These are MAX values). It is important that the local supply is protected by a circuit breaker of the correct rating, and the cabling and plug type used are similarly rated. Ensure plug is accessible as a disconnect device or use a similar method of isolation.

We recommend the use of a dedicated supply to their single phase units.

- In the case of single phase equipment a 13A fused spur is recommended.
- All units should be protected by a 16A Type C circuit breaker in the customer's circuit.
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## INSTALLING THE MACHINE

### Interfacing (where fitted)

When not in use this socket is protected by a screw-on cap. To enable interfacing unscrew the interface socket cap and plug in the interface cable or remote ON/OFF switch (optional). Then connect the other end of the interface cable to your related machine or use the remote ON/OFF switch depending on which you have purchased. Please note there is only one interface socket so an interface cable and the remote ON/OFF switch cannot be used together.



The interfacing socket



An interfacing cable

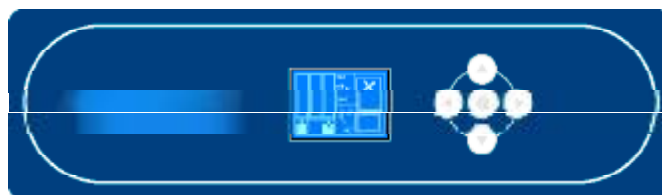


Remote ON/OFF switch (5m)

## CONTROL SYSTEM

### Switching the machine ON/OFF

To switch the machine ON press the central button on the keypad. The central button will illuminate (green) and the motor run indicator on the graphic display will rotate.



Pressing the central button again will switch the machine OFF, extinguish the green light and the motor run indicator on the graphic display will stop rotating.

### Adjusting the airflow rate

To adjust the airflow rate press the UP and DOWN buttons together. Both buttons will then begin to flash (red). To increase the airflow rate press the UP button, to decrease the airflow rate press the DOWN button.

The target airflow measurement is shown on the graphic display together with the actual airflow being achieved by the fume extractor. Once the target value has been set, do not touch any other buttons. After a few seconds the buttons will cease to flash and the set value will be stored.

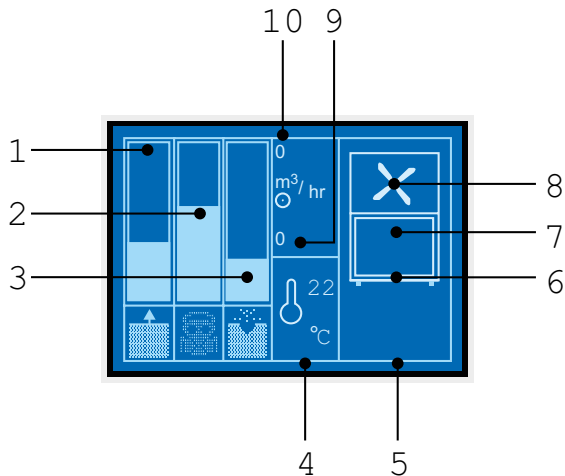
### What airflow rate to set?

For most applications a good starting point is a flow rate of 50% of the machines maximum capability. Check the fumes are being removed by site observation and appropriate measurement. Then increase or decrease the flow rate as appropriate. Please note that setting the flow level unnecessarily high may reduce filter life.

### Fully automatic operation

The airflow rate is the only parameter that needs to be set by the operator. The machine will automatically maintain the airflow level you have set without any further intervention required.

## CONTROL SYSTEM



### Graphic Display:

- 1: Column 1 - Filter blocked warning
- 2: Column 2 - Gas sensor
- 3: Column 3 - Particulate sensor
- 4: Exhaust temperature
- 5: Machine icon (varies)
- 6+7: Filter fault indicators (varies)
- 8: Motor run indicator
- 9: Target airflow
- 10: Actual airflow being achieved

### Graphic Display

The graphic display shows the operating status of the machine in one easy glance.

### Filter Fault Indicators Note

Some machines use a single combined particle / chemical filter while others employ separate chemical and particle filters.

### Filter Status (1,2,3)

The machines warn the operator if the chemical filter is saturated or the particle filter is blocked. Sensors are also used to warn the operator if particles or gas are passing through the machine into the workplace due to a missing, damaged or incorrectly fitted filter.

When gas or particles are sensed or the filter is nearly saturated/blocked, the machine will warn the operator with an audible chime and the keypad will flash (red).

At this point the appropriate filter icon will flash to show which filters may need attention. See Changing Filters Section.

### Exhaust Temperature (4)

When the machine temperature rises above a preset limit the machine will warn the operator with an audible chime every 20 seconds and the keypad will flash (red) every 10 seconds. This feature allows the operator time to identify the problem. If the problem continues then the machine will chime and the keypad will flash (red) every 1 second. See problem solving section.

### Motor Run Indicator (8)

This icon will rotate when the motor is running.

### Target Airflow / Actual Airflow (9,10)

The operator can set the target airflow to the level they require, although in most cases this will be factory preset at the correct level. The machine will automatically raise or lower the motor speed as required until the actual airflow rate equals the target airflow rate.

## FILTRATION & CHANGING FILTERS

**ENSURE ALL FILTERS ARE FITTED CORRECTLY PRIOR TO USING THE MACHINE.  
DO NOT LIFT THE FILTERS USING THE HANDLES, THESE ARE ONLY TO BE USED FOR SLIDING  
THE FILTERS OUT OF THE MACHINE.**

### Important note:

Always check the extraction nozzle, flexible hose, any pipework and the air inlet for debris build up before changing any filter. This avoids false alerts related to airflow. Also, always change the pre-filter first (unless recently changed) and restart the machine. If the alert continues, change the main filter.

### Changing filters

The machine will warn you with audible and visible alerts if a filter is exhausted (see control system). The graphic display will flash the icons of the filters which may need attention. Take care when removing main filters as they are heavy. Carry out your own risk assessment to determine the level of Personal Protective Equipment (PPE) required when removing filters and disposing of the used filter. Protective eyewear should also be worn when changing filters.

### Opening the cabinet door

- Ensure your process is stopped
- Switch off your machine at the control panel (see control system)
- Turn the door lock/s on the front of the machine
- Open the door



### Changing the pre-filter

200/400/650/800/1500/2000 - Have a pad situated in a recess underneath the main filter. To remove the pad, first remove the main filter and turn it over (See Changing the main filter). Remove the pad and replace it with a new one. Make sure the harder, smoother side of the pad is facing the main filter.

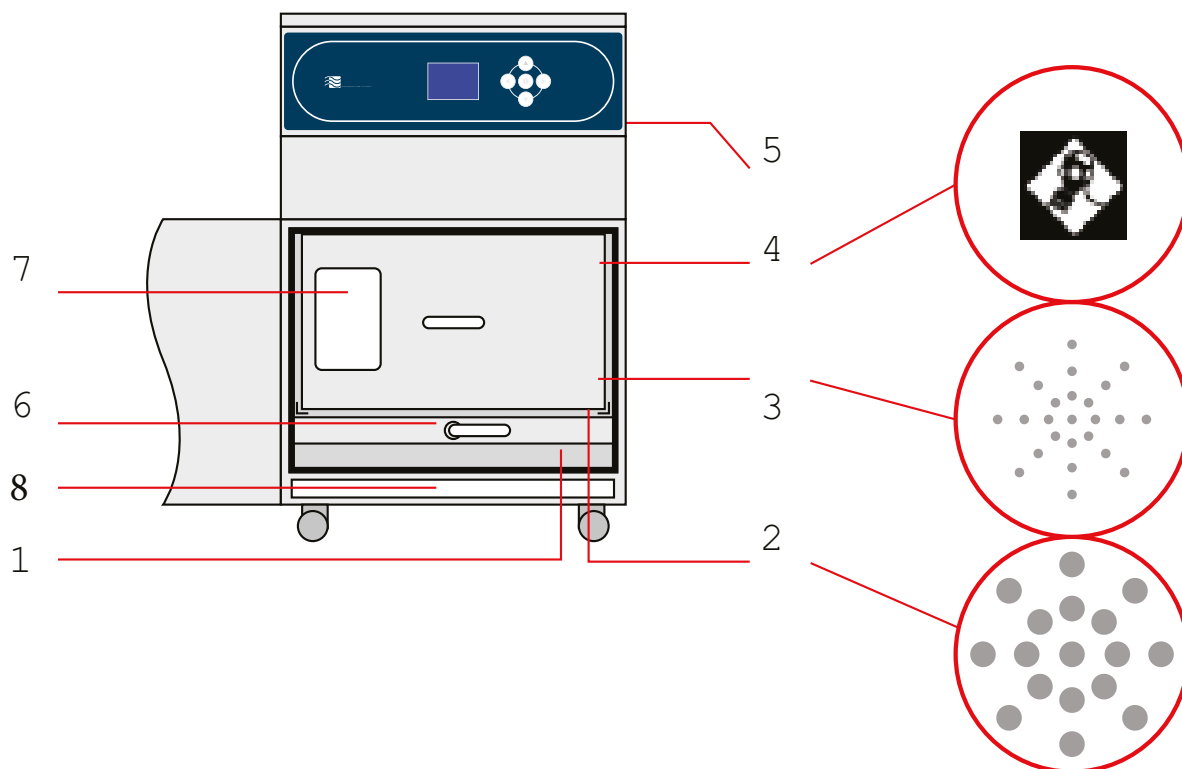
200i/400i/300i//800i/1500i/2000i - All have Labyrinth pre-filters which can be removed by pulling the filter off the air inlet inside the machine before replacing with a new one. PVC machines also have an adsorbent pad in the base of the machine underneath the Labyrinth filter. This should be replaced at the same time as the Labyrinth filter. It is also good practice to wipe the inside of the machine periodically with a cloth to avoid build up of liquid. Suitable protective clothing should always be worn.

5000i - Can be fitted with a (Labyrinth filter) or (a pre-filter pad plus a pleated bag). The Labyrinth bag is removed by pulling the filter off the air inlet inside the machine. where fitted, the pre-filter pad is removed by sliding the filter frame (2a overleaf) out of the machine then lifting the pad out and replacing it with a new one. Make sure the harder, smoother side of the pad is facing the bottom of the tray. The bag filter can also be removed and replaced at this point if required.

### Changing the main filter

- Open the door
- Turn the filter locking handle (4) 180° anti-clockwise so that it is horizontal and in the filter unlocked position
- The filter (2) should drop slightly to allow release
- Remove the filter by sliding it towards you and remove it completely from the machine (Use correct manual lifting techniques- filters can be heavy!)
- Insert the new filter (completely) into the machine ensuring that the airflow arrow on the label (7. overleaf) is pointing up.
- Turn the filter locking handle 180° clockwise so that it is horizontal and in the filter locked position
- Close and lock the door and restart the machine

## FILTRATION & CHANGING FILTERS



### LEGEND:

- 1) Air inlet.
- 2) Pre-filter.
- 3) Main Filter (HEPA location). †
- 4) Main Filter (Carbon location). †
- 5) Clean air returned to workplace.
- 6) Filter locking handle.
- 7) Filter identification label.
- 8) Debris tray. (If fitted)

All machines are mounted on four castors for increased mobility.

† Standard Filters Only, Filter Contents and Positions Can Vary.



## CHANGING THE FUSE

If a fuse has to be replaced it is important that this procedure is followed to ensure safe and efficient operation of the unit.

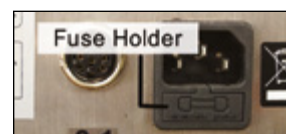
### Round Cap

- Ensure the machine is isolated from the mains power supply.
- Remove the blown fuse by unscrewing the fuse holder cap (using a suitable screwdriver) in an anti-clockwise direction and withdraw the spent fuse.
- Check the fuse holder, if there are any signs of damage contact Purex Technical support, if there is no obvious damage continue as follows.
- Fit a replacement fuse, ensuring the type and fuse rating is correct, if in any doubt contact Purex technical support.
- Re-fit the cap to the machine by applying gentle pressure and rotating it in an anti-clockwise direction until the cap is felt to click.
- Using a correctly sized screwdriver, turn the fuse holder cap  $1\frac{1}{4}$  full turns (450 degrees) in a clockwise direction.
- If the above procedure is not effective, contact Corona Supplies Technical support.

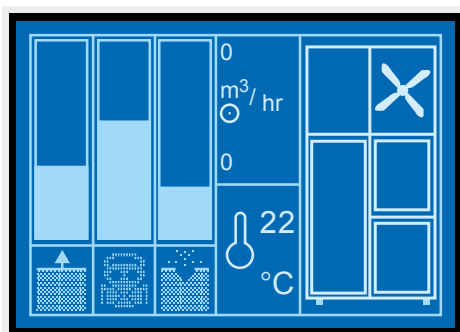


### Rectangular Cap

- Ensure the machine is isolated from the mains power supply.
- Remove the blown fuse by prising open the fuse cover which is part of the power socket.
- Check the fuse holder, if there are any signs of damage contact Corona Supplies Technical support, if there is no obvious damage continue as follows.
- Fit a replacement fuse, ensuring the type and fuse rating is correct, if in any doubt contact Corona Supplies Technical support.
- Close the fuse cover.
- If the fuse holder shows any physical damage or the above procedure is not effective, contact Corona Supplies Technical support.



## TROUBLESHOOTING



**Notes:**

**Warning status** - is an audible chime every 20 seconds and the keypad flashing (red) every 10 seconds. This stage allows the operator time to identify the problem and take appropriate action e.g. acquire and place filter.

**Alarm status** - is an audible chime and the keypad flashing (red) every 1 second. At this point the problem should be identified and remedial action taken immediately.

**Filters** - Some machines use a single combined HEPA / Chemical filter while others employ separate HEPA and chemical filters. Therefore the machine icons may vary depending on the type of machine you have.

	A nozzle or connecting hose/pipe may have a leak / blockage or the vacuum sensor tubes (if fitted) in the air inlet may be blocked.	Check all nozzles, hose/pipe connections and the vacuum sensor tube (if fitted) for leaks / blockages.
	The pre-filter may be blocked. or... The HEPA/Chemical filter (or separate HEPA filter if appropriate) may be blocked.	Change the pre-filter. or... If the pre-filter has been changed quite recently then change the main HEPA/Chemical filter (or separate HEPA filter if appropriate).
	The HEPA/Chemical filter (or separate chemical filter if appropriate) is missing, not fitted correctly or is damaged.	Check the HEPA/Chemical filter (or separate chemical filter if appropriate) is fitted correctly in the machine, is locked into position correctly and is undamaged.
	The HEPA/Chemical filter (or separate chemical filter if appropriate) may be exhausted.	Replace the HEPA/Chemical filter (or separate chemical filter if appropriate)
	The exhaust monitor unit inside the machine may have developed a fault.	This is a sealed unit. Contact your supplier for a replacement exhaust monitor unit.
	The HEPA/Chemical filter (or separate HEPA filter if appropriate) is missing, not fitted correctly or is damaged.	Check the HEPA/Chemical filter (or separate HEPA filter if appropriate) is fitted correctly in the machine, is locked into position correctly and is undamaged.
	The combined HEPA/Chemical filter (or separate HEPA filter if appropriate) may be exhausted.	Replace the HEPA/Chemical filter (or separate HEPA filter if appropriate)
	The exhaust monitor unit inside the machine may have developed a fault.	This is a sealed unit. Contact your supplier for a replacement exhaust monitor unit.
	The alarm has triggered and the blower stops.	The thermal cutout on the blower may have engaged. Check the cooling vents both inside and out. Switch off mains power and allow the blower to cool. If this does not remedy the fault please contact your supplier.
	Blower does not function	Power supply to blower absent or incorrect. Check all cables and connections and ensure the power supply matches the requirements of the machine. Check all fuses and circuit breakers.
	Control signal to/from interfaced equipment is incorrect or absent.	Check all cables and connections are correct.
	The control PCB inside the machine may have developed a fault.	Check all cables and connections first. Then contact your supplier.

## TROUBLESHOOTING

Odour or particles in exhaust air but there is no alert from the machine.	The exhaust monitor unit inside the machine may have developed a fault.	Check all cables and connections first. Then contact your supplier.
Airflow insufficient to remove fume when the filter is not blocked.	Airflow set to low or possible airflow leak or a blockage.	Increase airflow. If problem persists then check all nozzles, hose/pipe connections and the vacuum sensor tube (if fitted) for leaks / blockages.
Control signal to/from interfaced equipment is incorrect. Equipment is not switched on alarm condition.	Electrical problem.	Check all cables and connections and interfaced equipment.
	The exhaust monitor unit inside the machine may have developed a fault.	Check all cables and connections first. Then contact your supplier.
	The control PCB inside the machine may have developed a fault.	Check all cables and connections first. Then contact your supplier.
Buttons and/or graphic display is not illuminated.	Power supply absent or incorrect.	Check all cables and connections and ensure the power supply matches the requirements of the machine.
	Circuit breaker tripped.	Reset breaker on the rear of the machine.
	Control signal to/from interfaced equipment is incorrect or absent.	Check all cables and connections are correct.
	The control PCB inside the machine may have developed a fault.	Check all cables and connections first. Then contact your supplier.
A filter has a shorter than expected life.	A problem with the pre-filter can cause main filter life to be reduced.	Check the pre-filter which may be damaged or missing.
	The process may have changed or increased in duration. Are different materials being used?	Check if any factors have changed. If the problem persists then contact your supplier.

**Note:**

Some of these machines incorporate an inverter which connects the control PCB and the power supply to the blower. This inverter and its connections should also be inspected if electrical faults occur.

**THIS EQUIPMENT WAS SUPPLIED TO YOU BY:**



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**FOR FURTHER ASSISTANCE, PARTS OR SERVICE  
PLEASE CONTACT US IMMEDIATELY**

**THANK YOU**