OPERATING INSTRUCTIONS

Edition 1.1

☞ IMPORTANT!

Read this manual in full before using this machine.
To qualify for extended warranty, you must register within 30 days of purchase. See inside for details.

Congratulations & Thank You

Congratulations on your purchase! Founded in regional Australia in 1979, **Weldclass** has grown to become a leading welding equipment brand across Australasia and beyond. From all of us here at Weldclass, thank you for your support!

Register Your Warranty Now

Standard warranty without registration is 12 months.
To qualify for an extended conditional 7-year warranty on your purchase you must register within 30 days of purchase.

Please register your warranty now by going to:

http://www.weldclass.com.au/WarrantyRegistration

You will need;

a) A copy of your purchase invoice / receipt.
b) Your machine serial number which can be found on the back of the machine

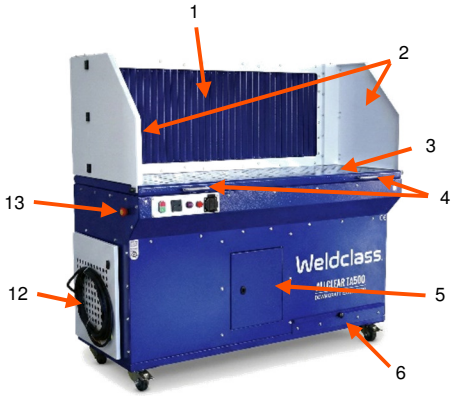
Contents

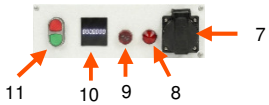
1. SPECIFICATIONS

Power Supply	~415V +/- 10% 50 Hz, three-phase	**Noise**	74dBA
Motor Power	2.2 kw	**Filter Cleaning**	Auto
Weight	~300 kg	**Fan material**	Aluminium
Dimensions	W1580 x D780 x H1450mm	**Air Usage**	700 L/min at 4-6 bar

2. KNOW YOUR MACHINE

	Description
1	Backdraft Suction Surface
2	Side Wing Hinge
3	Work Surface
4	Handles (for lifting worktop)
5	Electrical Compartment Access
6	Collection Tray
7	Accessory Power Outlet 230V 10A
8	Warning Light
9	Filter Warning Light
10	Operating Time Counter
11	On/Off Switch
12	Outlet Cover
13	Emergency Stop
14	Compressed Air Inlet
15	Jet Pulse Access Door
16	Filter Access Door
17	Spark Arrestor
18	Backdraft Control
19	Side Wing Locking Nut





3. FUNCTION AND APPLICATIONS

The ALLCLEAR TA500 filter unit is designed only for extracting welding and metal grinding fumes from directly below the weld area.

Improper use can lead to equipment damage, fire or explosion risk, and serious injury.

Do NOT use this unit for:

- Any fumes or dust containing oil mist, aluminium dust (including aluminium grinding dust), gases, or water vapour.
- Applications not related to welding or metal grinding, including (but not limited to) timber/wood, soldering, silica, asbestos or other non-metallic materials.

The polluted air is drawn through the table surface into the filter unit, where particles are trapped on the filter cartridge. The clean air then passes through the fan and is released back into the room through the exhaust grid.

*Aluminium dust, including grinding dust, can be explosive when airborne, and for this reason, fume extractors and downdraft tables should not be used for extraction of aluminium grinding dust (this does not apply to aluminium welding fumes, which can be safely extracted). Oil mist and gases can also cause explosion. Water vapour will damage the filter.

4. SAFETY INSTRUCTIONS

The following basic safety measures must be observed at all times. Failure to adhere may result in electric shocks, injury, fire, and other hazards:

- Read and follow the instructions listed below before using the filter systems.
- Store the operating and service instructions in a secure and readily accessible space.
- Do not use the unit for the extraction of combustible or explosive gases.
- Do not install or operate the unit in classified hazardous (explosive) zones, e.g. zone 0, zone 1, zone 2, zone 20, zone 21, or zone 22.
- Do not use the unit to extract large burning or glowing objects (such as burning rags, cigarettes, matches, or off-cuts). The built-in spark arrestor is intended only for normal welding and grinding sparks.

- Do not use the unit for extracting burning and/or flammable materials, e.g. oils and/or oil mist, fats, parting agent (e.g. silicone spray) or cleaning agents, etc.
- Do not use the unit for the extraction of liquids of any kind.
- Do not use the unit for extraction of any organic materials without the written permission of the manufacturer.
- Protect the connecting lead from heat, liquids, oils and sharp edges.
- Confirm the correct voltage. (Refer to the unit data plate)
- Use only original Weldclass ALLCLEAR spare parts.
- Do not operate the unit without a filter cartridge installed.
- Remove the mains plug before opening the unit.
- The exhaust grid must not be obstructed or blocked in any way.
- Always take care that the unit stands secured and that the castor brakes are set.
- Remove the mains plug when cleaning or servicing the unit, when exchanging any parts or when changing machine settings for a different function.
- Filter cartridges must be disposed of according to relevant legislation and directives.
- Inspect the supply lead regularly for signs of damage.
  If any damage is found, **do not use the unit**. Fit a danger tag, isolate the supply and lock out the unit in accordance with workplace procedures.
- The unit must not be used when there is any damage to the supply lead, a danger tag must be fitted and locked out.
- Use only clean, dry and oil-free compressed air at 4–6 bar. Moisture or oil in the air supply can damage the filter and create a risk of fire or explosion.
- Unit must be always powered on during use, to provide fume extraction
- Do not use the filter unit when any one or more components of the system are defective, missing or damaged.
- Take care when lifting the worktop, to prevent crush injury. Always insert additional prop under worktop.
- Failure to adhere to the regular daily, weekly, and annual maintenance schedule outlined in this manual may result in malfunction, safety hazard including fire hazard, and/or reduced performance.

5. COMMISSIONING

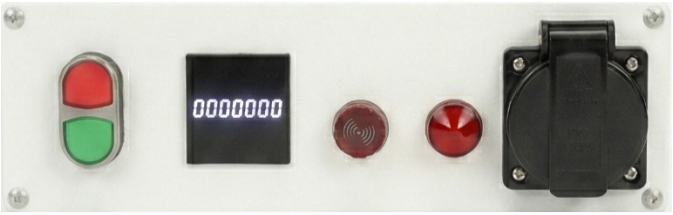
The filter unit is delivered in a state ready for a qualified electrician to install the main supply plug. NOTE: This machine does not have automatic phase rotation. Test operation before commissioning.

5.1 Connection of the unit

- Connect the required mains supply plug to the machine.
- Connect the unit to mains power supply.
- For the first start-up, make sure the fan rotation is in the correct direction. Refer to label in fan compartment that indicates correct rotation direction. If a fan rotation is incorrect, this may result in low suction, and/or warning light will activate on control panel, and/or fan will not turn.
- If fan rotation is not correct, phase rotation (wiring of the plug) will need to be changed and tested by a qualified electrician. Phase rotation of mains power can change from one building/circuit to another, and therefore require different phase rotation wiring of the plug.

6. CONTROLS

6.1 Control Panel



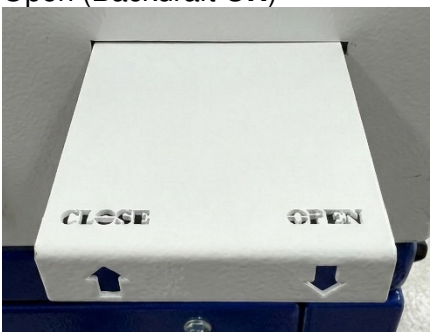
1 2 3 4 5

1	On/Off Switch
2	Operating Time Counter
3	Filter Warning Light
4	Warning Light
5	Accessory Power Outlet 230V

6.2 Backdraft control

To operate the backdraft control: pull the lever outwards to open (allowing airflow), and push it inwards to close (restricting airflow). Ensure the desired setting is selected before commencing operation.

Open (Backdraft **ON**)



Closed (Backdraft **OFF**)

7. MAINTENANCE

The accumulation of extracted particles on the filter cartridge will lead to a gradual reduction of the suction / extraction performance.

Operator should monitor airflow at work surface, it is recommended that if performance drops off that the operator should remove the filter cake as instructed below.

The accumulated dust particles are blown off the filter by applying compressed air from the clean side. The released filter cake will drop into the dust collecting tray. (Refer to chapter 7.4: “Emptying the dust collection tray”)

The useful service life of the filter cartridge greatly depends on the operational environment. If the original extraction performance of the filter unit could not be achieved after cleaning the filter cartridge, the cartridge should be replaced. (Refer to chapter 7.5: “Cartridge filter replacement”)

Caution:
When cleaning or changing filter, unit must be disconnected from power, must be conducted only in well-ventilated environments and when using appropriate respiratory protection conforming to AS/NZS 1716 class P2 or P3, and by trained personnel only. When disposing of dust and/or filters, follow local regulations for disposal of contaminated materials.

7.1 Automatic Filter Cleaning

The TA500 utilises a pulse cleaning system which accumulates then releases a burst of compressed air inside the filter, to push / expel particles out of the filter.
This will activate every time the unit is turned off using the red button on the front of the table (power supply must remain connected and switched on), or when the unit detects a reduction in airflow, based on pressure differential.

7.2 Manual Filter Cleaning

If suction / airflow at the table worktop is visibly reduced / reducing, this indicates that the filter needs to be cleaned manually, as per the following procedure:

- Disconnect the unit from mains supply.
- Filter access door must be closed (16).
- Open the Jet pulse access door (14).
- Using a suitable compressed air gun, direct the air evenly from the inside of the cartridge filter towards the outside (Refer to chapter 7.3. “Compressed air supply”). Take care not to push the air gun directly into/against the filter which may damage it.
- Apply the air for 5 – 10 minutes, covering the whole filter surface as evenly / thoroughly as possible.
- Close the Jet pulse access door
- Connect the filter unit to the mains supply.

7.3 Compressed Air Supply

Suitable compressed air supply is required for both the automatic cleaning and manual cleaning of the filter to ensure the correct function of the unit.

- The compressed air must be filtered to ensure it is dry and oil-free. Air containing moisture or oil can damage the filter, and may cause explosion or fire hazard. Use a high-quality filter such as the **Weldclass PLATINUM Z-20**.
- External air supply via an approved pressure hose, with operating pressure set at 4 bar minimum, to 6 bar maximum.
- Air supply must be always connected to the machine for the auto-cleaning function to operate

7.4 Emptying The Dust Collection Tray

The dust collection tray should be emptied at regular intervals, at least once per week or more frequently depending on volume of dust collected. The dust tray should be emptied before exceeding 75% capacity.

- Only authorised / trained personnel should empty the dust collection tray.
- Use protective equipment (including respirator, face, and hand protection) and ensure that other personnel stand well away from and do not contact with the unit, filter, and extracted matter. Ensure the environment is well shielded from airflow, so that dust is not disturbed.
- Disconnect the unit from the mains power supply
- Remove the dust collection tray (6)
- Remove contents of the tray according to local regulations. Use a heavy-duty disposable bag or similar to contain and dispose of dust.
- Refit the dust collection tray to the machine.
- Connect the filter unit to the mains power supply.

7.5 Cartridge Filter Replacement

Replace the filter if filter is damaged and/or if/when filter becomes clogged, and cleaning is no longer effective (this is also indicated by shorter or continuous warning alarm intervals even after automatic and manual cleaning).

- Ensure the old filter is thoroughly cleaned before installing the new cartridge filter, as per manual cleaning process above
- Only authorised / trained personnel should replace the filter
- Use protective equipment (including respirator, face, and hand protection) and ensure that other personnel stand well away from and do not contact with the unit, filter, and extracted matter. Ensure the environment is well shielded from airflow, so that dust is not disturbed.
- Disconnect the unit from mains power supply.
- Before replacing the cartridge filter, prepare the appropriate container (such as heavy-duty PE-bag or plastic bag) for disposal.

- Open the filter access door (16)
- Unscrew the retaining bolt of the cartridge holder and remove the cartridge holder
- Pass the disposal bag over the cartridge filter before removing the cartridge from inside the compartment. Seal the mouth of the bag with a cable tie or similar.
- Reinsert the new cartridge filter. Ensure that the cartridge filter, and gasket are properly seated.
- Insert the cartridge holder and secure the cartridge with the fixing bolt.
- Close and lock the filter access door (16).
- Connect the filter unit to the mains power supply.

7.6 Maintenance Schedule

Recommended maintenance schedule for this unit:

DAILY	
Visual Inspection	Check all external components (including raising and inspecting under worktop) for any visible damage or wear. Ensure all components and surfaces are free from obstruction & debris.
Function Test	Turn unit on and check for normal operation and airflow at work surface and exhaust outlet. Test auto clean function is operating by switching unit off (see 7.1) Test emergency stop.
Filter Inspection	Inspect filter. To safely access the filter, follow process as per 7.2. Replace if damaged. If visibly clogged, follow manual cleaning process 7.2 and/or replace filter as per 7.5.
Air Supply	Ensure compressed air supply is connected, and supply pressure is between 4 & 6 bar. Ensure air hose, air filter, and air compressor are operating correctly and in good condition.
Check Dust Collection Tray Level	Following process as per 7.4, open dust collection tray, empty if tray is filled to >75% of capacity

WEEKLY	
Air Supply	Check for wear or leaks in hoses and connections. Follow air compressor and air filter manufacturer's recommendations for regular checks and maintenance. Replace air filter cartridge if required.
Power Supply	Check power supply cable and connections for signs of wear or damage. Ensure plugs and connections are secure & tight.
Clean Exterior	Thoroughly clean all external components and surfaces (including under worktop) with suitable brush and/or cloth/rag.
Empty Dust Collection Tray	Empty tray, following process as per 7.4
Clean Spark Arrestor	Remove spark arrestor tray (see 2.17). Clean tray and spark filter with air gun, following same process as 7.4.
ANNUAL	
Replace Filter	Replace filter as per 7.5, if this has not occurred within the last 12 months.
Air Supply	Replace air hose if any signs of wear, cracking, or perishing. Follow air compressor and air filter manufacturer's recommendations for annual servicing and replacement of parts.
Power Supply	Follow WorkSafe and employers guidelines for applicable test and tag of input cable and plug.
Maintenance Records	Ensure all maintenance tasks are / have been logged. Review records to ensure compliance with this schedule.

8. TROUBLESHOOTING

Fault	Reason	SOLUTION
Reduced or no suction.	Clogged suction holes	Rectify
	Damaged work surface	Rectify
	Damaged power cable	Rectify
	Air outlet obstructed	Rectify
	Cartridge filter is full	Change the filter as per instructions (Section 7.5)
	Spark arrestor clogged.	Clean with water and dry thoroughly.
	Drawers are not closed correctly.	Rectify
	Fan rotation direction is reverse.	Check the fan rotation direction and change the phase rotation
System doesn't power up	There is no supply power.	Make sure the mains connection is correct. Check the power connections and fuses.
	Supply power phase rotation incorrect	Change the phase rotation.
Loud noise from the fan	Imbalance in the fan	Switch off the unit immediately. Contact Weldclass
	Problem with fan holder	Contact Weldclass
No power to the accessory plug	Extractor not turned on	Switch the extractor On/Off switch to 'ON'. The accessory outlet is only live when the extractor is running.
	Wiring Faulty	Switch off the unit immediately. Contact Weldclass

9. DISMANTLING AND DISPOSAL

- The electronic system and the electrical connection of the unit may only be removed by authorised personnel.
- Always isolate the unit from the mains supply before dismantling, in accordance with workplace lock-out procedures
- Wear suitable PPE (including respiratory, eye, hand and protective clothing) and handle all contaminated parts in line with local regulations.
- Contaminated materials and filter elements must be disposed of properly according to local regulations.

10. CIRCUIT DIAGRAM