MET

INDUSTRIAL PARTS WASHER

MET CLEAN washPRO

OPERATING AND SAFETY INSTRUCTIONS

PLEASE READ THIS MANUAL FULLY BEFORE OPERATING YOUR MACHINE. KEEP IT WITH THE MACHINE SO EVERY OPERATOR CAN REFER TO IT.

150 BAR PUMP PRESSURE	**90°C** MAX TANK TEMPERATURE	**150L** TANK CAPACITY	**200kg** LOADING CAPACITY
5kW WATER HEATER	**32A** 230V 1PH SUPPLY	**5 BAR** AIR SUPPLY	**304** STAINLESS STEEL

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Danger
Electrical hazard

SAFETY INSTRUCTIONS

PLEASE READ THIS MANUAL CAREFULLY BEFORE OPERATING YOUR METCLEAN WASHPRO.

ELECTRICAL HAZARDS

Electrical hazards can cause serious injury or death. Always follow safety procedures and guidelines when working with or around electricity. The washPRO combines a 32A electrical supply, a 5kW heater and hot water, so extra care is essential.

WARNING SIGNS

Shock hazard: Be aware of the potential for electric shock when working with exposed wires or electrical components.

Fire hazard: Faulty wiring or overloaded circuits can cause electrical fires.

ELECTRICAL CONTROL BOX

NEVER OPEN OR WORK INSIDE THE ELECTRICAL CONTROL BOX WHILE THE MACHINE IS SWITCHED ON.

Turn the main switch OFF and unplug the 32A supply before the box is opened. Only a qualified electrician should work inside the control box.

SAFETY PRECAUTIONS

De-energise: Always de-energise circuits before working on them. Use a voltage tester to ensure the power is off.

Lockout/Tagout: Use lockout/tagout procedures to prevent circuits from being accidentally re-energised while work is being performed.

Insulation: Use insulated tools and wear gloves and safety glasses.

Grounding: Ensure all electrical equipment is properly earthed. The machine must be supplied from a 32A commando socket protected by a 40A Type C breaker.

Inspection: Check cables, plugs and switches regularly. Replace damaged parts immediately.

EMERGENCY PROCEDURES

If someone is being shocked: Do not touch them. Turn off the power source immediately. If you cannot turn off the power, use a non-conductive object (such as a wooden broom handle) to separate the person from the electrical source. Call emergency services immediately.

If there is an electrical fire: Do not use water to extinguish the fire. Use a fire extinguisher rated for electrical fires. Call emergency services immediately.

HIGH PRESSURE AND HOT WATER

The washPRO sprays at up to **150 bar** with water heated up to **90°C**. High pressure spray and hot water can cause serious burns and injection injuries.

ALWAYS MAKE SURE THE DOOR IS CLOSED BEFORE USING THE FOOT PEDAL

Never open the door while the pump is running. Wait for the spray to stop and the steam to clear before opening. Parts, the tank and the wash water stay hot after use: wear gloves when unloading.

CHEMICAL HANDLING

Read the chemical Safety Data Sheet (SDS) before use. Wear chemical resistant gloves and eye protection when handling concentrate. Always add chemical to water, never water to chemical. Never mix different chemicals in the tank. Keep containers sealed and clearly labelled.

TRAP AND CRUSH HAZARDS

Door: Keep fingers clear of the door edge and hinges when opening and closing.

Heavy components: The cabinet takes loads up to 200kg. Use suitable lifting equipment and never lift heavy parts in or out by hand alone.

Moving parts: The window wiper and oil skimmer move when switched on. Keep hands clear and switch them off before cleaning or adjusting.

SAFETY PRECAUTIONS

Training: Only trained operators should use the machine. Read this manual fully before first use.

PPE: Wear gloves, safety glasses, protective footwear and overalls at all times when using the machine.

Lockout/Tagout: Turn the main switch OFF and unplug the machine before any maintenance or inspection.

Inspection: Check hoses, seals and the door seal regularly. Report any fault immediately and do not use the machine until it is repaired.

EMERGENCY PROCEDURES

Immediately stop the machine and turn the main switch OFF. Provide first aid to the injured person. For chemical contact with eyes or skin, rinse with plenty of clean water and follow the advice on the SDS. Call emergency services if needed.

Disclaimer: This information is for general guidance only and does not replace professional training or advice. METclean declines all responsibility for personal injury or material damage resulting from non-observance of the above rules. Non-observance of these rules results in the total and immediate cancellation of the guarantee.

"I confirm that I have read, understood, and agree to the terms of this disclaimer."

Name	Signature	Date

CHOOSING YOUR CHEMICAL

The washPRO is a hot, high pressure spray washer. Standard detergents and degreasers are not suitable: they foam heavily at 150 bar and hold oil in the water. Only use a dedicated spray wash detergent.

RECOMMENDED CHEMICAL — ARROW CODE C013

Arrow Solutions Aquaklenz CP

Best for: heavy carbon, diesel residue and grease.

- Widely used across UK commercial vehicle workshops, rail and plant engineering.
- Formulated specifically for automated and manual high pressure spray wash cabinets.
- Completely non-foaming when run at temperatures above 45°C.
- Built-in rust inhibitor protects steel and cast iron parts in storage after washing.

Where to get it: Supplied in 20 litre drums (part number C01320XAM) through Arrow Solutions and their UK industrial distributors. One drum gives around three full tank fills at the standard 4% mix.

USING AN ALTERNATIVE CHEMICAL

If you choose a different product, confirm it meets all four of these requirements before ordering:

Requirement	Why it matters on the washPRO
Thermal defoaming	At 150 bar, standard detergents create an instant blanket of foam. Spray wash detergents use surfactants that stop foaming once heated above 45°C to 50°C.
Quick break / demulsifying	The washPRO has a surface oil skimmer. Emulsifying cleaners lock oil into the water and ruin the bath quickly. Demulsifiers let grease float so the skimmer can remove it.
Aluminium safe (buffered pH)	Highly caustic cleaners (sodium hydroxide based) corrode, pit and blacken aluminium engine parts. Choose a silicate inhibited or multi-metal safe formula.
Flash rust inhibitor	Hot water leaves bare metal exposed. An in-built inhibitor stops steel and cast iron parts turning orange within seconds of drying.

NEVER use solvents, petrol, paraffin, thinners or flammable cleaners in the washPRO. Never mix two different chemicals in the tank.

FILLING THE TANK

The tank holds **150 litres**. Make sure the machine is on level ground before filling.

1. Turn the **MAIN SWITCH OFF** and check the tank discharge valve is **closed**.
2. Fill the tank with clean water to roughly **two thirds full** (about 100 litres).
3. Measure the correct amount of chemical from the dilution table below and pour it into the water. **Always add chemical to water, never water to chemical.**
4. Top up with clean water to the full level, making **150 litres** in total.
5. Close the door. The machine is now ready to switch on and heat (see page 06).

DILUTION RATES FOR A 150 LITRE TANK

Spray wash concentrates such as Aquaklenz CP are run at **3% to 5%**. Start at 4% and adjust to suit your work.

Mix	Chemical	Water	Use for
3% Light	**4.5 L**	**145.5 L**	Light oil and general dirt
4% Standard	**6.0 L**	**144.0 L**	General workshop use
5% Heavy	**7.5 L**	**142.5 L**	Heavy carbon, diesel residue and grease

PRE-HEAT BEFORE SPRAYING

Always let the heater bring the water up to operating temperature, typically **55°C to 65°C**, before using the foot pedal. Spray wash detergents rely on heat to activate their defoaming agents, so spraying when cold can cause temporary frothing.

TOPPING UP

Because the machine runs hot, water evaporates faster than the chemical. Top up with **fresh water only** to keep the level at full. Only add more concentrate when the cleaning power noticeably drops, or after a complete drain and refill.

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BEFORE SWITCHING ON

Make sure your washPRO is plugged into a **230V 32A commando socket** protected by a **40A Type C breaker**, a **5 bar air supply** is connected for the air gun, and the tank is filled as shown on page 05.

MAIN SWITCH

Turn the **MAIN SWITCH** to **ON**. The temperature controller lights up and shows the current water temperature in the tank.

SETTING THE TEMPERATURE

In normal running the display shows the **actual** water temperature.

1. Press the **SET** button. The display shows the set temperature.
2. Use the ▲ **UP** and ▼ **DOWN** buttons to change the value.
3. Press **SET** again to save and return to the actual temperature.

Recommended setting with Aquaklenz CP: **55°C to 65°C**. Maximum 90°C.



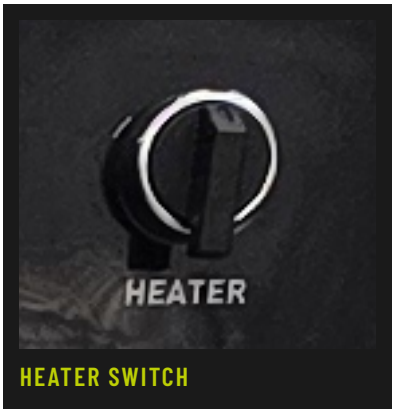
TEMPERATURE CONTROLLER

HEATER

Turn the **HEATER** switch **ON** to heat the tank to your set temperature.

Only switch the heater on with the tank full. A low water level sensor switches the heater off to protect the elements if the level drops.

From cold, a full tank takes roughly **1.5 to 2 hours** to reach 60°C, so switch the heater on at the start of the working day.



HEATER SWITCH

PUMP SWITCH

Turn the **PUMP** switch **ON**. The pump switch must be on to use the machine: the foot pedal will not run the wash without it.

PURGE THE FILTERS

Once the machine is filled and the pump switch is on, **close the door** and press the **FOOT PEDAL** to purge air out of the filters and prime the spray system. Keep going until the spray runs steadily.

CONTROL SWITCHES



PUMP, WIPER AND OIL SKIMMER SWITCHES

PUMP
Must be ON to use the machine. Enables the foot pedal wash.

WIPER
Runs the window wiper so you can see the parts while washing.

OIL SKIMMER
Runs the scraper that removes oil and scum from the water surface.

HEATER
Heats the tank to the set temperature (page 06).

WINDOW WIPER

Turn the **WIPER** switch ON as needed to clear spray and steam from the viewing window. Switch it off when not required.

OIL SKIMMER

BEFORE SWITCHING ON: place a suitable receptacle on the **outside of the machine** under the skimmer outlet to catch the oil. Without one, oil will run onto the floor.

Turn the **OIL SKIMMER** switch ON to scrape floating oil and scum from the water surface. Regular skimming greatly extends the life of your wash water. Empty the receptacle regularly and dispose of the contents as waste oil.

WASHING

1. Check the water is up to temperature and the **PUMP** switch is ON.
2. Load the parts into the cabinet so they are stable. Maximum load **200kg**.
3. **Close the door.** Always make sure the door is fully closed before washing.
4. Press the **FOOT PEDAL** to run the high pressure wash. Release it to stop.
5. Wait for the spray to stop and the steam to settle, then open the door and unload. Parts will be hot: wear gloves.
6. Blow off remaining water with the **air gun** (5 bar air supply) to dry the parts.

CLEANING THE FILTER

Clean the filter regularly, and whenever the spray pressure drops.

1. Turn the **PUMP** and **HEATER** switches OFF, then the **MAIN SWITCH** OFF.
2. Use the **filter tool** supplied to undo the filter housing and remove the filter.
3. Wash the filter out thoroughly with clean water until all sludge and debris is removed. Check it for damage and replace if worn.
4. Refit the filter and tighten the housing with the filter tool.
5. Switch back on, close the door and press the **FOOT PEDAL** to purge air from the filter.



FILTER HOUSING

CHANGING THE WASH WATER

Change the water when it stays dirty after skimming, or cleaning power drops even after adding concentrate.

1. Turn the heater OFF and allow the water to cool before draining.
2. Open the **discharge valve** and drain the tank into a suitable container.
3. Remove sludge from the bottom of the tank and clean the filter.
4. Close the discharge valve and refill as shown on page 05.

Dispose of used wash water as trade effluent and waste oil through a licensed carrier. Always check your local water authority guidelines.

DAILY CHECKS

- ☐ Water level at full, topped up with fresh water
- ☐ Filter clean and housing tight
- ☐ Cables, plug and hoses free from damage
- ☐ Oil receptacle in place and not full
- ☐ Door seal clean and undamaged
- ☐ Viewing window and wiper blade clean

SUPPORT AND WARRANTY

12 month warranty including an engineer to site where self-help is not available. Full backup and support from the UK. Service and extended warranty plans available.

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