



OPERATING INSTRUCTIONS

PRESSURE WASHER FBX-3000



Operating Instructions

Congratulations on the purchase of your new Flextool product. Before attempting to operate your machines, please read all of the instructions to ensure safe operation and trouble free service from your pressure cleaner.

Component Checklist

The following standard accessories accompanied your machine out of the box:

1. Hose assembly
2. Gun and lance assembly
3. Manufacturers motor and pump assembly specifications
4. Detergent line with filter

Contact your point of purchase immediately if any of the above components are missing.

Pre-Operation Instructions

1. Ensure that the engine is turned off.
2. Fill fuel tank with unleaded petrol only. Do not attempt to fill the tank while the engine is running.
3. Connect the high-pressure hose to the pump outlet.
4. Connect the other end of the high-pressure hose to the hand gun inlet.
5. Connect water supply to the inlet water fitting on the pump. Ensure that the water supply is sufficient for the operation of the pump (minimum feed is 12lpm), if you are uncertain of the suitability of the water supply then refer to the recommended flow rate, which is displayed on the data plate on the pump body.
6. Ensure that the water supply hose does not have any kinks or holes, is clean and free of any debris from being stowed or dragged along the ground.
7. Ensure that the water inlet supply filter is not blocked by foreign particles in the water supply. Clean the water inlet supply filter regularly to ensure smooth continuous operation and pressure delivery.
8. Turn water delivery tap to the 'ON' position.
9. Check that the oil levels in the pump sight glass (halfway) and engine dipstick to ensure they are at the optimal correct level.
10. Starting engine
 - (i) Turn the petrol tap onto the 'ON' position;
 - (ii) (If needed e.g. cold start up) Turn the choke lever to the 'ON' position;
 - (iii) Turn ON/OFF switch on the engine to the 'ON' position;

- (iv) Pull rope coil to start;
 - (v) (if applicable) Turn choke lever to the 'OFF' position once engine is running;
 - (vi) Warm engine for 30-60 seconds before operating at full operational load.
 - (vii) Push the throttle lever, located on the underside of the fuel tank to maximum throttle position;
11. Gun Operation
- (i) Read the safety Warning and Caution decals detailing safety precautions, PPE and safe practice before proceeding to use the machine;
 - (ii) Insert desired snap-on nozzle to the end of the lance pipe for cleaning application;
 - (iii) Point the lance towards the surface to be cleaned and depress the trigger on the gun;
12. Chemical Injection Operation (if desired)
- (i) Insert the filter end of the clear detergent hose into the container holding the cleaning chemical/detergent to be used and affix the opposite end to the chemical injector barb;
 - (ii) Insert chemical black coloured snap nozzle; this will induce chemical injection under a venturi effect;
13. *To end operation*
- (i) Idle the engine down to the tortoise position;
 - (ii) Switch the engine to the 'OFF' position;
 - (iii) Turn the inlet water off at the tap;
 - (iv) Pull the trigger on the gun to release any backpressure;
 - (v) Disconnect both the water inlet supply hose and the water outlet high-pressure hose at machine and gun end(s).

Important Safety Precautions

1. Do not operate without water.
2. Do not direct water jet at any part of this machine or any other electrical equipment.
3. Do not spray any person or animal or place any part of your body over the nozzle.
4. Never pull on the high pressure hose if it forms kinks, do not pull hose over sharp objects.
5. Do not attempt to disconnect either the hose or any coupling whilst there is a pressure in the hose.
6. Do not allow machine to run unattended.
7. Switch off when not in use to avoid possible damage to high pressure pump.
8. Never supply any liquid other than water to inlet.

9. Do not attempt any mechanical repairs, if you have a problem with your machine, contact your local service agent.
10. Ensure the appropriate PPE is worn at all times e.g. head, eye, body, hand, foot, hearing and respiratory protection.
11. Check working area for risk of non-authorised personnel.
12. Ensure machine is secured during operation.
13. Keep clear of high temperature parts to avoid risk of burns.
14. Check machine weight before lifting. Do not attempt to lift a machine weighing more than 23 kilos without assistance.
15. Avoid leaving high pressure hose on the ground.
16. After use, pull the trigger gun to release and back pressure.

Tips and Hints

1. Regularly check the oil level in the pump. The oil level should be maintained at the level indicated on the pump (half way on the sight glass).
2. Top up the oil in the pump when required using SAE 20W 50 oil. Never mix different grades of oil.
3. Use a good quality 13mm (inside diameter) water supply hose and connect to the water inlet on the pump using a hose clamp or garden style snap-on connection. Ensure that this connection is tight and o rings and rubber tap washers are present to avoid leaks and cavitation in pressure as pump is sucking air.
4. Do not use any water supply hotter than 60° Celsius as this will damage the internal workings of the pump up to and including valves, seals etc.
5. Ensure that the tap on the water supply is fully opened before operating the machine.
6. After chemical/detergent use, flush the facility for a few minutes with clean water.

Trouble Shooting

The following table is provided as a general guide only. Please refer to your local Flextool agent for service, repairs, parts and/or specific advice.

Fault	Probable Cause	Possible Remedy
Pump runs normally but pressure does not achieve rated value.	Pump is sucking air.	Check that all hoses and fittings are airtight.
	Valves are worn or dirty.	Check, clean or replace.
	Unloader valve packing worn.	Check and replace.
	Nozzle incorrect or worn.	Check and replace.
	Worn piston packing.	Check and replace.
	Dirty inlet filter.	Check and clean.
Fluctuating pressure.	Valves dirty, worn or stuck.	Check, clean or replace.
	Pump sucking air.	Check that all hoses and fittings are airtight.
	Worn piston packing.	Check and replace.
	Dirty filter.	Check and clean.
Presence of water in oil.	High humidity in air.	Check and change oil twice as often.
	Piston packing or oil seal worn.	Check and replace.
	Water entering through breather.	Excessive water on machine.
Water dripping from pump.	Piston packing worn.	Check and replace.
	Piston guide o-rings worn.	Check and replace.
Dripping oil.	Worn oil seals.	Check and replace.
	Oil coming out of breather.	Pump oil level overfull.
Motor does not start when switched on.	Plug not well-connected or unreliable power supply.	Check plug, cable & switch.
	Earth leakage overload.	Check earth leakage.
When switched on the motor hums but does not run.	Mains voltage is insufficient.	Check adequacy of mains power supply.
Motor stops suddenly during operation.	Thermal overload tripped due to overheating.	Check mains voltage for fluctuations.

Standard Operating Procedures

Instructions

1. High pressure cleaning should be carried out in an area isolated from other hazards and/or workers, or steps taken to prevent exposure of persons to the high pressure cleaning process.
2. Persons should not operate high-pressure cleaners unless they have been instructed in the hazards and the means of safe use and operation of the equipment, including the reading and understanding of all motor and operation manuals.
3. All persons using high-pressure cleaners are to use personal protective equipment (PPE) appropriate for the task and the equipment used.

Task Sequence	Identified Hazards in Task	Key Processes to be Followed	Precautions / PPE Required
1. Preparation	Electric Shock	Care must be taken to ensure that key components such as the motor is not sprayed and are kept out of water/spray and splash back, and preferably above ground. Follow instructions when adding chemical cleaning agents to the high pressure cleaner.	Keep unit well clear of working area. Hand protection must be worn. No smoking or naked flames in the vicinity.
	Skin irritation Burns, risk of fire	Exercise caution when igniting gasoline.	
2. Operation	Foreign matter in eyes	Water splash will contain cleaning agent and foreign matter from article being cleaned, which may splash back towards operator.	Wear safety goggles and/or face shield. Keep hands and feet clear.
	Skin irritation	High Pressure water injection and over spray and splash back will result in operator's clothing becoming wet with contaminated water from cleaner.	Appropriate task clothing Inc. wet weather clothing and waterproof footwear required.
	Slips and falls	Operator may face tripping hazards.	Keep hoses organised. Slip-proof stable footwear and remove grease and other matter from floors in operator's vicinity.
	Noise	Combustion engines may generate excessive noise levels.	Wear hearing protection.
3. Risks to other persons	Splashing	The distance that water will be ejected over depends on the shape and velocity of the water jet. Exclusion of persons other than those actually involved in the cleaning task should be made to prevent injury from water and water-borne particles and cleaning agents.	Prevent unauthorised entry into are where cleaning is being carried out.

Precautions

1. The following precautions should be observed when carrying out this procedure.
2. Where applicable, suitable safety and warning signs should be displayed in areas where this procedure is carried out.

Preparation	Operation	Risk to other persons
Ensure that the PPE is on hand and that the surrounding area is a no smoking area.	Ensure the correct PPE is being worn by operators during operation.	Ensure everyone is a safe distance from the operating machinery.

Thank you for choosing

