



# Using the Diaphragm Pump

1. Wear your protective equipment if you are working on or near the pump.
2. Set the pump in position and connect the suction hose and strainer, ensuring the strainer is not blocked and is completely submerged. If there is an air leak in the suction hose, the pump will not work efficiently. Do not use this pump without the strainer properly attached.
3. Connect the discharge hose and lay it out carefully to your selected discharge area.
4. After starting the engine, the pump will start pumping the water immediately.
5. If the pump operates but fails to pump water effectively, it is probably because there is an air leak in the suction hose or connection, or the strainer is not fully immersed; or the strainer is blocked.
6. When pumping dirty waters with solids in suspension, the strainer may need regular cleaning.
7. Stop the engine before re-siting the unit; moving the hoses; or cleaning the strainer or any filters.
8. Keep a check on the discharge area to make sure that no hazard is being created. Do not pollute rivers or drains – if in doubt check with the hire company of local Environment Agency – you can find their number in the telephone directory.
9. Do not allow vehicles to run over the hoses at any time, unless you are using layflat discharge hose.
10. After pumping dirty or contaminated water flush the pump through with clean water if possible.
11. In cold weather prevent the pump from freezing up when not in use – contact the hire company if you plan a lot of work in freezing conditions.
12. To protect the engine and help starting it is advisable to keep the machine under cover when not in use.
13. If your equipment does not work properly do not attempt to repair it. Contact the hire company.

Please keep this leaflet safely as it may be required for future reference



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1. If the hire company have given you special instructions, follow them, if not follow the instructions below.
2. Check the fuel and oil levels.
3. Turn the fuel tap on.
4. Open the throttle control a little.
5. Make sure that you hold the drive unit firmly so it will not move when you pull the starter.
6. Pull the starter cord slowly until you can feel that the starter has engaged with the engine, then pull it quickly and strongly. Don't pull it too far, or it may break.
7. Guide the cord back into place so that it recoils correctly.
8. If the engine has started adjust the throttle so the engine is idling. As the engine warms up open the choke lever.
9. To stop the engine, close the throttle lever and turn the fuel tap off.

## STARTING AND STOPPING THE ENGINE

1. Check the pump, engine, hoses, and strainer. If anything is found to be damaged, do not use the pump – contact the hire company.
2. Before starting, ensure all hose connections are tight.
3. The hoses must be laid out, free of any kinks or sharp bends.
4. Do not operate this pump without the strainer fitted to the inlet hose.
5. The strainer must be fully immersed in the water to be pumped.
6. This pump is self-priming and will start pumping as soon as the engine is running.
7. Find out how the controls work – before the pump is started, it must be known how to stop it.

## DIAPHRAGM PUMP



## Before Starting Work...



1. Do not use this pump where there is a danger of explosion. It will ignite fumes from petrol, or gas cylinders.
2. Using this equipment indoors or in confined spaces could cause fatal carbon monoxide poisoning. Never use it in domestic premises and only use it in other indoor situations if its suitability and the ventilation required has been fully assessed. Mechanical extraction ventilation will almost always be required.
3. If there is a risk of falling in to the water be pumped, make sure that the area is clear and safe and that no-one is near to you or could distract you.
4. If you are intending to pump contaminated water or other liquids that may be hazardous to the environment, check first with the hire company or local Environment Agency – you can find their number in the telephone directory.
5. Ensure the pump is sited on a firm level base; secure it to prevent accidental movement.
6. Route the suction and discharge hoses not create a hazard to vehicles or people.
7. Check the area where the water will be discharged. Make sure that you will not be creating a hazard for persons or for the environment. Contaminated water and other liquids that are hazardous to be discharged into rivers or down drains.
8. There will be a limit on how high the equipment can pump water – this is sometimes called the "head". If you need a pump with more lift, contact the hire company.

## OPERATORS

1. The following items of personal protective equipment (ppe) are the minimum:
2. Dirty or stagnant water can contain harmful bacteria and other hazards. Cover any cuts or broken skin with waterproof dressings. Wash your hands before smoking, eating or drinking.
3. Check the area where the water will be discharged. Make sure that you will not be creating a hazard for persons or for the environment. Contaminated water and other liquids that are hazardous to be discharged into rivers or down drains.
4. Wearing waterproof gloves can help to protect your hands.
5. Anybody who is working near to you will also need to wear appropriate personal protective equipment.

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# Diaphragm Pump

The rules and procedures in force where people are at work may require the person responsible for this equipment to carry out a specific risk assessment.

It is important to read this entire leaflet BEFORE using the Diaphragm Pump



1. Petrol is highly flammable. Take care not to cause a fire or explosion.
2. This pump is designed for pumping clean and dirty water with solids in suspension, on building sites and other similar places.
3. Pumping water can cause damage and possibly injury if the operation is not planned and controlled.
4. If you have not used this type of water pump before, familiarise yourself with the equipment before you start work.
5. You must have at least the following items of personal protective equipment: ear muffs or plugs giving protection for levels up to 95 dB(A); gloves.
6. This equipment must not be used by minors, or by anyone under the influence of drugs or alcohol.
7. This pump is designed for operation by an able bodied adult. Anyone with either temporary or permanent disability must seek expert advice before using it