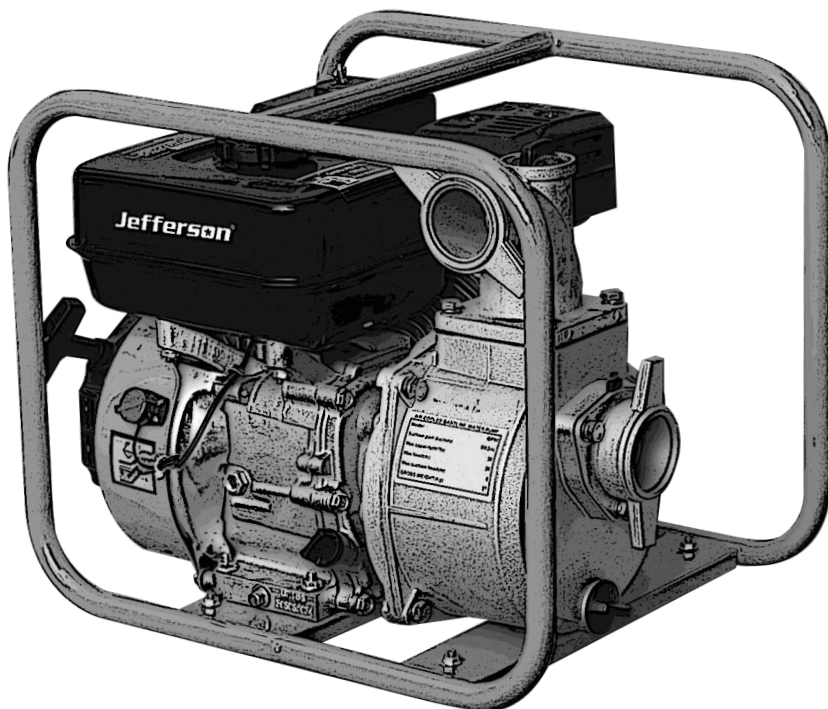


Jefferson[®]



JEFWATPMP02

JEFWATPMP03

PETROL DRIVEN WATER PUMP

User Manual

v.1.1



Contents:

1. Introduction	4
2. General Safety	5
3. Equipment Overview	6
4. Before Use	7
5. Setting Up	7
6. Operation Guide	8
7. Maintenance	9
8. Storage Handling and Disposal	9
9. Parts Lists	10
10. Troubleshooting	14
Limited Warranty Statement	15
EC Declaration of Conformity	18

1. Introduction

Thank you for purchasing this Jefferson product. Please read this user manual carefully before use and keep it in a safe location for future reference.

About This Equipment:

A mobile, lightweight & self priming petrol-powered water pump, ideal for the construction industry, local authorities, & agricultural uses.

Box Contents:

- 1 x water pump assembly
- 1 x hose adaptor
- 1 x hose adaptor clam
- 1 x spark plug socket
- 1 x sealing ring
- 1 x filter assembly
- 1 x fastening ring

Specifications:

Jefferson®

JEFWATPMP02

2" PETROL DRIVEN WATER PUMP

Suction Port Diameter	2" / 50mm
Discharge Port Diameter	2" / 50mm
Rated Capacity	36m³/h
Self-Priming Time	70 s/4m
Maximum Head	28m
Maximum Suction Head	8m
Engine	Macgen UP168-1
Engine Type	Four Stroke, Air Cooled, OHV Petrol
Displacement Capacity	163cc
Max Output (HP / rpm)	5.5HP / 3600rpm
Guaranteed Noise Level	102dBA
Fuel Tank Capacity	3.6L
Lubrication Oil	SAE 10W/30
Lubrication Oil Volume	0.6L
Dimensions (LxWxH)	466 x 376 x 398mm
Net weight	23kg

www.jeffersonstools.com



Jefferson®

JEFWATPMP03

3" PETROL DRIVEN WATER PUMP

Suction Port Diameter	3" / 76mm
Discharge Port Diameter	3" / 76mm
Rated Capacity	60m³/h
Self-Priming Time	70 s/4m
Maximum Head	26m
Maximum Suction Head	6m
Engine	Macgen UP168
Engine Type	Four Stroke, Air Cooled, OHV Petrol
Displacement Capacity	196
Max Output (HP / rpm)	6.5HP / 3600rpm
Guaranteed Noise Level	102dBA
Fuel Tank Capacity	3.6L
Lubrication Oil	SAE 10W/30
Lubrication Oil Volume	0.6L
Dimensions (LxWxH)	517 x 415 x 452mm
Net weight	25kg

www.jeffersonstools.com



2. General Safety

This equipment should only be operated by qualified and responsible individuals who have read and understood the information and guidelines described in this document.

In particular, the following safety instructions should be followed to reduce the risk of injury to the operator and members of the public.

1. Ensure that all the necessary safety precautions are observed for the handling of fuel.
 2. Familiarise yourself with this equipment and its operation before use.
 3. Ensure that the pump is securely positioned on a firm, level surface to prevent it from moving during operation.
- Keep the immediate area around the pump clear and ensure animals and children are kept at a safe distance.
4. Ensure that the equipment is turned off at the ON/OFF switch during maintenance to avoid any accidental starting.
 5. Ensure that the filter is connected to the suction hose to prevent stones and debris from being drawn up into the pump.
 6. Keep this equipment dry when in use and during storage.
 7. Ensure that all servicing and repair is carried out by a Jefferson approved engineer. Use only Jefferson approved replacement parts, as supplied by the manufacturer. The use of non-standard parts could be hazardous and will void the warranty for this equipment.
 8. Plumbing connections to the pump should be made using a flexible hose.
- Use of copper or rigid piping may put stress on the pump, and result in damage. In the event that you have no choice to use rigid piping ensure that the piping is supported so as to eliminate stress on the pump.
9. Never refuel the engine when it is running, and allow the engine to cool sufficiently before refuelling. Dry up any fuel spillage before restarting the equipment.
 10. **This equipment is designed to pump water only.** This equipment should never be used for pumping petrol, flammable liquids or corrosive chemicals.
 11. Do not operate this equipment in an explosive atmosphere, near combustible materials.
 12. Only operate in well ventilated areas.
 13. Always fill the pump with water before starting. Do not operate this equipment when the pump is dry.
 14. Only Jefferson approved engineers should carry out repairs and maintenance on this equipment.
 15. Ensure that discharge is never directed towards another individual or towards electrical wiring or equipment.

16. Do not over-tighten the drain or filler plugs. Excessive force may damage the threads or the pump body.

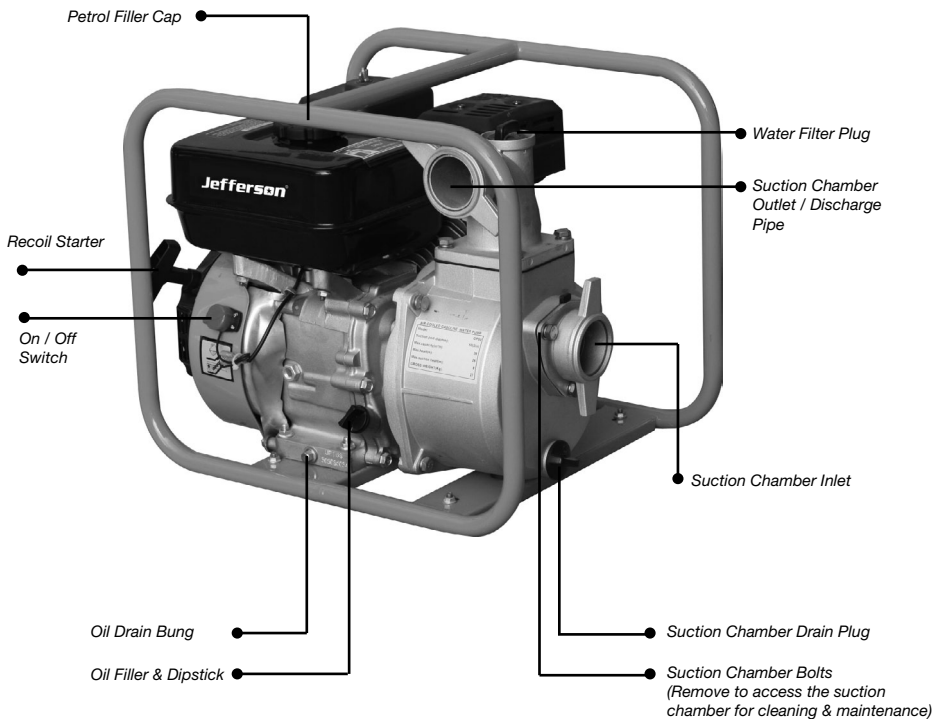
3. Equipment Overview

Suitability

- This equipment is designed for pumping water or water containing small solids in suspension.
- This equipment should never be used for pumping petrol, flammable liquids or corrosive chemicals.
- This equipment is not suitable for pumping slurry, sludge, sand or mud.

Parts Identification

The following diagram illustrates some of the important and commonly used parts you should be familiar with when using this equipment.



4. Before Use

Set up the pump on a firm and level surface away from any flammable or electrical materials and as near to the water source as possible.

Ensure that there is adequate drainage for the discharged water, and that there is no danger of damage to property as a result of the pumping operation.

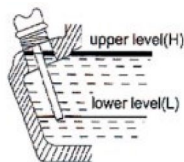
1. Adding Oil

This equipment is not shipped with engine oil or fuel, other than any residue remaining from testing, so it is important to check the levels and fill before use.

Use any engine oil of SAE 10-30 rating unless operating at very high or low ambient temperatures.

Fill the engine crankcase with oil as follows;

- Remove the filler plug/dipstick.
- Fill the unit with oil as indicated.
- Check the level by inserting the dipstick back into the filler tube and checking the level is within the indicated range.



2. Adding Fuel

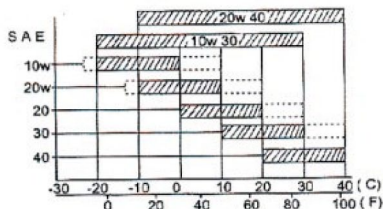
Check the fuel level by opening the fuel cap and the fuel tank with unleaded petrol.

Check the fuel filter periodically and remove any debris or contaminants which may have built up over time.

Do not fill above the fuel filter shoulder.

After refuelling, tighten the fuel filler cap securely.

Ensure that you use unleaded petrol with a pump octane rating of 86 or higher.



working temperature

- ▨ recommend value
- usable limit

A.P.I. Maintenance classification for the diesel engine.

Our recommend A.P.I., CC or CD.

5. Setting Up

- Connect the discharge & suction and hoses to the pump housing using the hose clamps and gaskets provided ensuring an airtight seal. Check that there are no holes or splits or any other damage to the hoses and ensure that they are well supported and protected from other activities in the working environment.

NOTE: Hoses or pipes should be supported independently and not carried by the pump. Always use a flexible hose at the pump body connection, of at least 1ft (300mm). Keep all pipes/hoses as short and straight as possible, and avoid sharp bends. If the hose must be laid across a trackway ensure that it is covered and protected by planking.

IMPORTANT: Any air leaks or holes in the suction line will prevent priming, and reduce the capacity of the pump.

- Ensure there is adequate drainage for the discharged water.
- Attach the suction filter to the end of suction hose and secure using a hose clamp to prevent debris from being drawn up into the suction chamber where it can damage the impeller. Keep the filter clean.
- Remove the filler plug on top of the pump case and prime the pump with water, ensuring that no air gap is left. Remember that the pump is self-priming only when the pump is filled with water. It will prime and re-prime itself without refilling. Refilling is necessary only if the pump has been drained or if the water has been lost. **Never allow the pump to run dry.**
- If the discharge line runs vertically for more than 30ft it is advisable to install a check valve in the discharge line near the pump to stop destructive water hammer when the pump is shut down.

If a check valve is installed, it may also be necessary to vent the top of the pump so that air can be expelled during automatic re-priming. This air bleed may be accomplished by providing a 1/4" line from the top of the pump back to the liquid source.

6. Operation

Priming & Control

1. With the fuel cock open, pull the recoil starter slowly two or three times, to allow fuel to reach the carburettor.
2. If the engine is cold set the choke lever to the **closed** position. If the engine is warm, the choke should be in the **open** position.
3. Set the throttle about one third open and turn the engine switch to the **ON** position.
4. Pull the starter recoil rope firmly until the engine starts. Do not snatch at the starter rope and allow it to retract slowly after each pull.
5. Once the engine starts, gradually return the choke to the open position as the engine warms up and use the engine throttle to gradually increase engine speed.

Start Up

When the engine is started, move the throttle to the **open** position for priming the pump and checking the pump output. Pump output is controlled by adjusting the engine speed as required.

With a suction lift of 5 to 10ft, the pump should begin discharging liquid in less than 60 seconds. A suction lift of 25ft (at sea level) should require not more than 2 minutes for initial priming. To further reduce priming time the engine speed may be increased, after the engine is properly run in. If pumping does not start within this time, shut off the engine and follow the troubleshooting guide to identify the problem.

Filling the suction pipe with water will speed up the priming process, and it is recommended that a non-return valve be fitted to the end of the suction pipe. On higher vertical lifts, a higher engine speed is necessary but on shallow lifts or when there is little water to pump, preserve fuel and engine wear by reducing the engine speed. In the event of blockages, where debris has entered the suction chamber, the suction chamber can be opened and cleaned out by removing the bolts as shown in the layout on page 4.

Shutting down

1. Gradually reduce engine speed to minimum using the throttle lever.
2. Stop the engine by moving the ignition switch to the **OFF** position.
3. Close the fuel cock.

7. Maintenance

1. Keep the pump clean and moving parts lubricated. Check regularly that all connections and fittings are secure.

2. Clean the air filter every 50 hours of use (or more often if the equipment is used in excessively dusty or dirty conditions). Clean the foam filter element with domestic detergents and clean the mesh element by knocking against a solid object or blow out any dust with an air blow gun.

Never operate the pump without the air cleaner installed as this would cause premature wear to the engine.

3. Replace the spark plug after the first month or every 50 hours of use. Check that the spark plug has the correct clearance by measuring with a feeler gauge and adjusting the side electrode as required. Required clearance is normally 0.70-0.80mm.

4. The oil in the engine should be changed after the first 20 hours use and then every 6 months or 100 running hours. Remove the dipstick and drain plug and then drain the oil. Re-fill and check the level as described on page 5.

8. Storage, Handling & Disposal

After use, drain all remaining water from the pump chamber to avoid the possibility of freezing when the pump is in storage. If the pump has been used with contaminated or salty water, it should be thoroughly flushed with clean water immediately after use. Always replace the drain plug after flushing.

Storage Procedure

1. Drain the fuel tank and carburettor completely by opening the drain plug in the carburettor float chamber and draining all remaining fuel into a suitable container ensuring the fuel shutoff valve is open.

2. Remove the spark plug, and pour 2-3 teaspoons of light oil into the cylinder through the spark plug hole.

3. Pull the starter recoil rope slowly 2 or 3 times so that the oil is deposited on the cylinder walls and replace the spark plug. For longer term storage, use the starter to turn the engine until the triangle mark on the starter wheel lines up with the starter screw hole. In this location both the inlet and exhaust valves are closed which may prevent the engine from suffering internal corrosion during storage.

Always transport the pump with the fuel cock turned to the **OFF** position and keep the unit level to prevent any fuel from spilling.

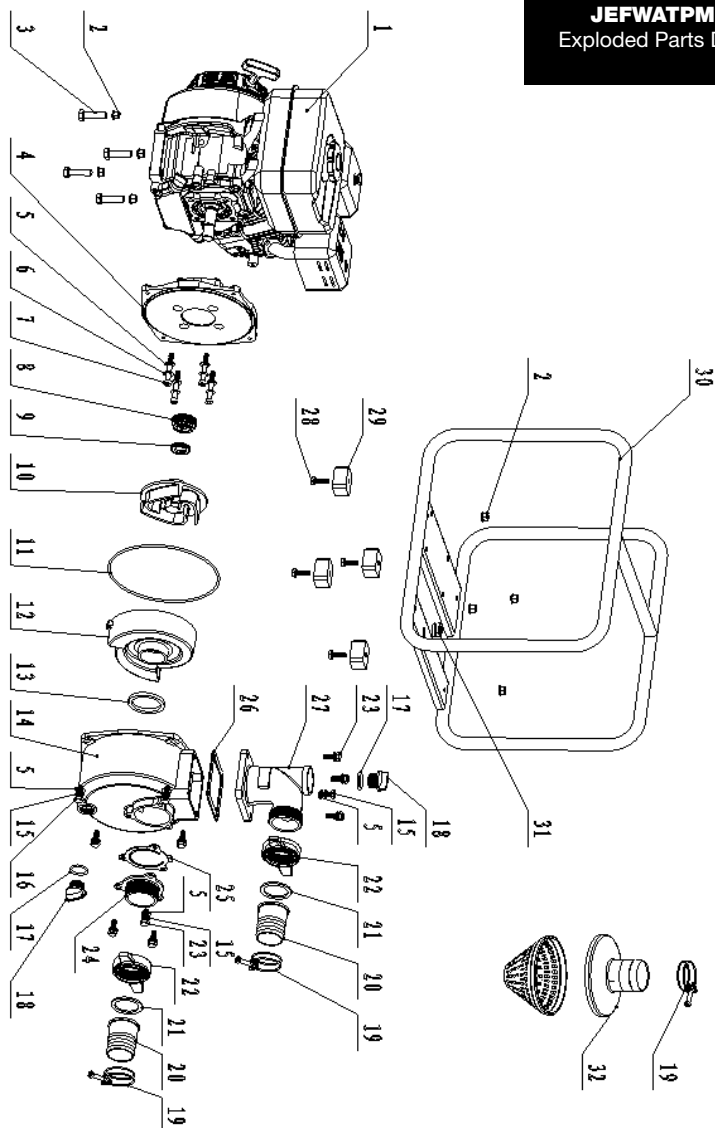
Store in a clean and dry environment.

Protect the Environment

Do not throw away used oil with domestic refuse or flush down a sink or drain into the waste water system. Collect old oil in a leak-proof container and take it to your local waste disposal site for recycling.

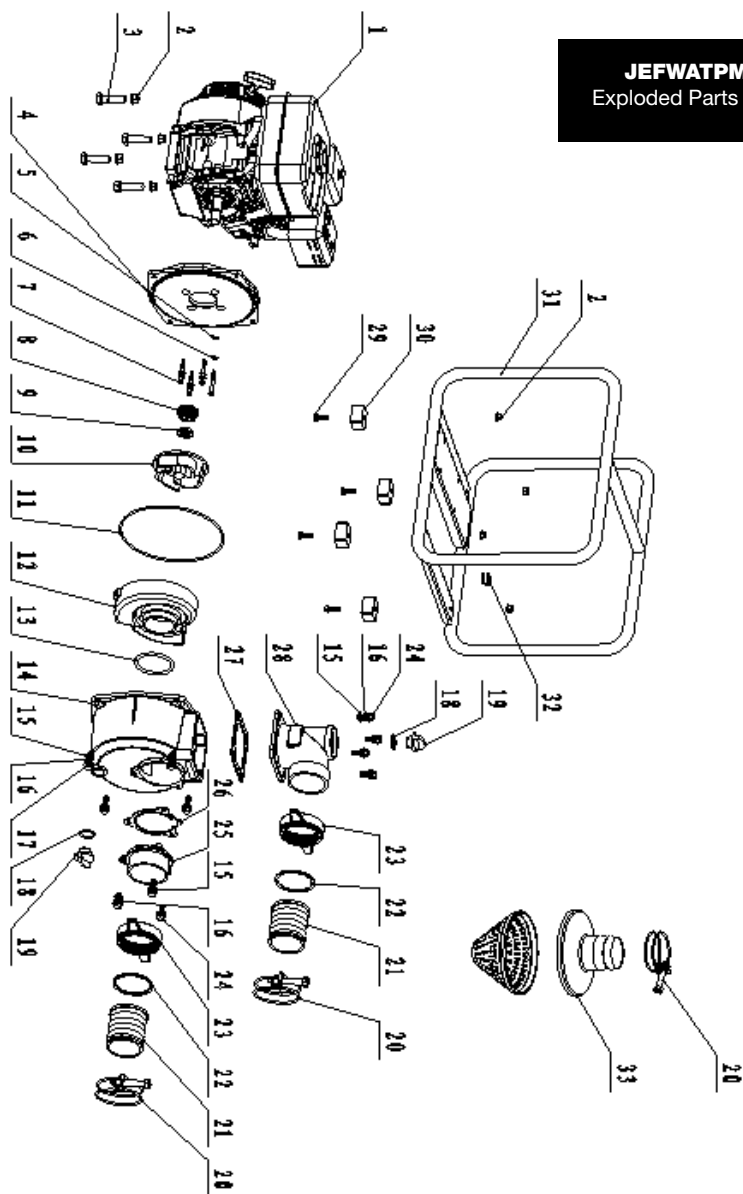
9. Parts Lists

JEFWATPMP02
Exploded Parts Diagram



NO.	CODE	DESCRIPTION	QTY.
1	016030000059	petrol engine	1
2	512040800001	flange nut M8	8
3	511060803401	flange bolt M8X34	4
4	039020100100	pump cover	1
5	513010800001	washer ø8	15
6	513010800099	rubber washer	4
7	511070806005	inner hex bolt M8x60	4
8	039020110100	mechanical seal	1
9	039020110200	porcelain seal	1
10	039020100700	water pump impeller	1
11	039020100500	O ring ø248×ø3.55	1
12	039020100800	volute casing	1
13	039020100900	rubber bushing	1
14	039020101000	housing of pump	1
15	513020800002	spring washer ø8	11
16	511010803003	bolt M8X30	4
17	039010120100	O ring	2
18	039010120200	plug packing	2
19	039020102300	Rear housing	3
20	039020102101	pipe joint	2
21	039020102000	rubber washer	2
22	039020102204	joint grip	2
23	511010802503	bolt M8X25	7
24	039020101700	inlet flange	1
25	039020101600	check valve	1
26	039020101800	rubber washer 124X124	1
27	039020101900	outlet flange	1
28	511050802001	screw M8X20	4
29	029910100100	shock absorber	4
30	032030500082	frame	1
31	029910100601	shock absorber	1
32	039020130000	filter net	1

JEFWATPMP03 Exploded Parts Diagram



NO.	CODE	DESCRIPTION	QTY.
1	016030000059	gasoline engine	1
2	512040800001	flange nut M8	8
3	511060803401	flange bolt M8X34	4
4	039030100100	pump cover	1
5	513010800001	washer ø8	4
6	513010800099	rubber washer	4
7	511070806005	Inner hex bolt M8x60	4
8	039020110100	Mechanical seal	1
9	039020110200	porcelain seal	1
10	039030100700	water pump impeller	1
11	039030100500	O ring	1
12	039030100800	volute casing	1
13	039030100900	rubber bushing	1
14	039030101000	housing of pump	1
15	513011000002	washer ø10	11
16	513021000002	spring washer ø10	11
17	511011003003	flange bolt M10X30	4
18	039070101400	O ring	2
19	039010120200	plug packing	2
20	039030102300	Rear housing	3
21	039030102101	pipe joint	2
22	039030102000	rubber washer	2
23	039030102203	joint grip	2
24	511011002503	flange bolt M10X25	7
25	039030101700	inlet flange	1
26	039030101600	check valve	1
27	039030101800	rubber washer	1
28	039030101900	outlet flange	1
29	511050802001	flange bolt M8X20	4
30	029910100100	shock absorber	4
31	032040500082	frame	1
32	029910100600	shock absorber	1
33	039030130000	filter net	1

10. Troubleshooting

Symptom	Possible Cause	Action
Engine won't start	Not enough fuel oil	Add fuel - see section "4.
	Fuel nozzle cannot inject fuel or there is not enough fuel	Repair the fuel injector
	Engine switch is not in the "On" position	Move the switch to the "On" position
	Lubricant oil level is too low	Check that the oil level is topped up and sits between the upper and lower level markers
	Not enough speed or force used on the starter/recoil handle	Refer to starting procedure on page 6
	The fuel nozzle is blocked or dirty	Clean the fuel nozzle
	Lack of spark at the spark plug	Fill oil reservoir
Pump fails to prime	Priming chamber not filled correctly	Turn the circuit breaker to the "On" position
	Air leaks through the suction line joints (damaged hose, broken hose clamps, broken / ill-fitting gasket)	Adjust the socket feet
	Blocked inlet hose	Adjust to rated speed
	Engine speed is too low	Replace the carbon brush
	Impeller is damaged	Dismantle the pump and renew the impeller.
	Air leaks through damaged seal.	Renew the seal
Low output from the pump	Engine speed too low	Increase engine speed
	Impeller clogged	Clean strainer and ensure it is not submerged in mud or sediment
	Suction or delivery line obstructed	Remove the obstruction and ensure there are no kinks in the delivery line
	High friction losses in the section line	Avoid un-necessary curves restrictions or valves
	Suction lift too high	Set the pump as close as
	Congested material inside the pump	Dismantle the pump and clean out
	Damaged impeller	Dismantle the pump and renew the impeller

Limited Warranty Statement

Jefferson Professional Tools & Equipment, or hereafter "Jefferson" warrants its customers that its products will be free of defects in workmanship or material.

Jefferson shall, upon suitable notification, correct any defects, by repair or replacement, of any parts or components of this product that are determined by Jefferson to be faulty or defective.

This warranty is void if the equipment has been subjected to improper installation, storage, alteration, abnormal operations, improper care, unauthorised service or repair.

Warranty Period

Jefferson will assume both the parts and labour expense of correcting defects during the stated warranty periods below.

All warranty periods start from the date of purchase from an authorised Jefferson dealer. If proof of purchase is unavailable from the end user, then the date of purchase will be deemed to be 3 months after the initial sale to the distributor.

1 Year

- All Jefferson Water Pumps

90 Days

- All replacement parts purchased outside of the warranty period

Important: All parts used in the repair or replacement of warranty covered equipment will be subject to a minimum of 90 days cover or the remaining duration of the warranty period from the original date of purchase.

Warranty Registration / Activation

You can register and activate your warranty by visiting the Jefferson Tools website using the following address: www.jeffersontools.com/warranty and completing the online form.

Online warranty registration is recommended as it eliminates the need to provide proof of purchase should a warranty claim be necessary.

Warranty Repair

Should Jefferson confirm the existence of any defect covered by this warranty the defect will be corrected by repair or replacement at an authorized Jefferson dealer or repair centre.

Packaging & Freight Costs

The customer is responsible for the packaging of the equipment and making it ready for collection. Jefferson will arrange collection and transportation of any equipment returned under warranty.

Upon inspection of the equipment, if no defect can be found or the equipment is not covered under the terms of the Jefferson warranty, the customer will be liable for any labour and return transportation costs incurred.

These costs will be agreed with the customer before the machine is returned.

Warranty Limitations

Jefferson will not accept responsibility or liability for repairs made by unauthorised technicians or engineers. Jefferson's liability under this warranty will not exceed the cost of correcting the defect of the Jefferson products.

Jefferson will not be liable for incidental or consequential damages (such as loss of business or hire of substitute equipment etc.) caused by the defect or the time involved to correct the defect. This written warranty is the only express warranty provided by Jefferson with respect to its products.

Any warranties of merchantability are limited to the duration of this limited warranty for the equipment involved.

Jefferson is not responsible for cable wear due to flexing and abrasion. The end user is responsible for routine inspection of cables for possible wear and to correct any issues prior to cable failure.

Claiming Warranty Coverage

The end user must contact Jefferson Professional Tools & Equipment (Tel: +44 (0) 1244 646 048) or their nearest authorised Jefferson dealer where final determination of the warranty coverage can be ascertained.

Step 1 - Reporting the Defect

Online Method:

- Visit our website www.jeffersontools.com/warranty and complete the Warranty Returns form. You can complete the form online and submit it to us directly or download the form to print out and return by post.

Telephone Method:

Contact your Jefferson dealer or sales representative with the following information:

- Model number
- Serial number (usually located on the specification plate)
- Date of purchase

A Warranty Returns form will be sent to you for completion and return by post or fax, together with details of your nearest authorised Jefferson repair centre. On receipt of this form Jefferson will arrange to collect the equipment from you at the earliest convenience.

Step 2 - Returning the Equipment

It is the customer's responsibility to ensure that the equipment is appropriately and securely packaged for collection. Please ensure that you include a copy of your proof of purchase. Please note that Jefferson cannot assume any responsibility for any damage incurred to equipment during transit. Any claims against a third party courier will be dealt with under the terms & conditions of their road haulage association directives.

Step 3 - Assessment and Repair

On receipt, the equipment will be assessed by an authorised Jefferson engineer and it will be determined if the equipment is defective and in need of repair and any repairs needed are covered by the warranty policy. In order to qualify for warranty cover all equipment presented must have been used, serviced and maintained as instructed in the user manual.

Where repair is not covered by the warranty a quotation for repair, labour costs and return delivery will be sent to the customer (normally within 7 working days).

Note: *If the repair quotation is not accepted Jefferson Professional Tools & Equipment will invoice 1 hour labour time at £30 per hour plus return carriage costs (plus VAT).*

In cases where no fault can be found with the equipment, or, if incorrect operation of the equipment is identified as the cause of the problem, a minimum of 1 hour labour at £30 per hour plus carriage costs will be required before the equipment will be despatched back to the customer.

Any equipment repaired or replaced under warranty will normally be ready for shipment back to the customer within 7 working days upon receipt of the equipment at an authorised Jefferson Repair centre (subject to part availability). Where parts are not immediately available Jefferson will contact you with a revised date for completion of the repair.

General Warranty Enquiries

For any further information relating to Jefferson warranty cover please call **+44 (0) 1244 646 048** or send your enquiry via email to **warranty@jeffersontools.com**.

Jefferson® Parts & Servicing

For Jefferson approved replacement parts contact your
nearest dealer or contact Jefferson tools

Telephone: +44 (0)1244 646 048

Fax: +44 (0)1244 241 191

Email: warranty@jeffersontools.com

Disclaimer:

The information in this document is to the best of our knowledge true and accurate, but all recommendations or suggestions are made without guarantee. Since the conditions of use are beyond their control, Jefferson Tools® disclaim any liability for loss or damage suffered from the use of this data or suggestions. Furthermore, no liability is accepted if use of any product in accordance with this data or suggestions infringes any patent. Jefferson Tools® reserve the right to change product specifications and warranty statements without further notification. All images are for illustration purposes only.

EC Declaration of Conformity

We, Jefferson Professional Tools & Equipment, as the authorised European Community representative of the manufacturer, declare that the following equipment conforms to the requirements of the following Directives:

2000/14/EC (as amended)	Noise Emission in the Environment by Equipment for Use Outdoors
2004/108/EC (as amended)	Electromagnetic Compatibility
2006/42/EC (as amended)	Machinery Directive
97/68/EC (as amended)	Non Road Mobile Machinery Directive

Equipment Category: Water Pump Unit

Product Name/Model: JEFWATPMP02 • JEFWATPMP03

The conformity assessment procedure followed was in accordance with Annex VI of the Outdoor Noise Directive

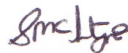
Notified Body: TÜV Rheinland LGA Products GmbH (0197)

Measured Sound Power Level: 102dB

Guaranteed Sound Power Level: 102dB

A copy of this certificate has been submitted to the European Commission and to the EU Member State, United Kingdom

Signed by: Stephen McIntyre
Position in the company: Operations Director
Date: 7th August 2014



This technical document is held by: Jimmy Hemphill

Technical file holder's address as shown below

Name and address of manufacturer or authorised representative:

Jefferson Tools, Herons Way, Chester Business Park, Chester, United Kingdom, CH4 9QR
Telephone: +44 (0)1244 646 048 **Fax:** +44 (0)1244 241 191 **Email:** enquiries@jeffersonstools.com
www.jeffersonstools.com

IMPORTANT! SAFETY FIRST!

Before attempting to use this product please read all the safety precautions and operating instructions outlined in this manual to reduce the risk of fire, electric shock or personal injury.

Jefferson Tools, Herons Way, Chester Business Park, Chester, United Kingdom, CH4 9QR

Tel. +44 (0)1244 646 048

Email: sales@jeffersonstools.com

www.jeffersonstools.com