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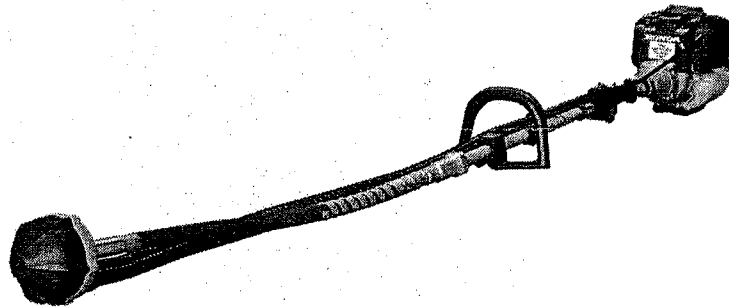
## OPERATING INSTRUCTIONS

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**PortaPump™**

**PORTABLE PUMP**

MODEL PP32



### **WARNING**

To reduce the risk of injury, all operators and maintenance personnel must read and understand these instructions before operating, changing accessories, or performing maintenance on this power equipment. All possible situations cannot be covered in these instructions. However care must be exercised by everyone using, maintaining or working near this equipment.

Thank you for your selection of Flextool equipment.

Flextool has specialised in the design and manufacture of quality products since 1951. We have taken care in the assembly and testing of this product. It is covered by a 12-month warranty. Should service or spare parts be required, prompt and efficient service is available from our branches. For contact details of our branches, please refer to section Spare Parts & Service on Page 10 of this manual.

This manual covers the operation and maintenance of the PortaPump. All information in this manual is based on the latest product information available at the time of printing. Flextool reserves the right to make changes at any time without notice and without incurring any obligation.

**READ THIS OPERATING INSTRUCTION CAREFULLY.** Pay special attention to warnings highlighted in this manual.

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## INTRODUCTION

### General Safety Instructions for the Operation of Power Equipment

The goal of Flextool is to produce power equipment that helps the operator work safely and efficiently. The most important safety device for this or any tool is the operator. Care and good judgement are the best protection against injury. All possible hazards cannot be covered here, however we have highlighted some of the important items. Individuals should look for and obey Caution, Warning and Danger signs placed on equipment, and displayed in the workplace. Operators should read and follow safety instructions packed with this product.

Learn how this machine works. Even if you have previously used similar machines, carefully check out the machine before you use it. Get the "feel" of it and know its capabilities, limitations, potential hazards, how it operates, and how it stops.

## APPLICATIONS

The PortaPump is a hand held lightweight pump designed to remove low levels of accumulated dirty water from wall foundations prior to the pouring of concrete.

Unlike other pumps the PortaPump is designed to pick up and discharge the maximum amount of residual water left in trenches including suspended solids up to 5mm.

It also has many other uses such as clearing water from ponds, bilges, sumps etc.

The PortaPump is to be used for pumping water only and is not suitable for pumping chemicals or flammable substances. It is not intended for continuous running at full volume for long periods.

## ASSEMBLY

The unit is supplied with the pump and shaft disconnected from the motor unit. To attach the flexible shaft and pump, place the threaded ferrule end of the flexible shaft approximately 20 mm from the coupling housing. Engage the square end of the flexible shaft core assembly into the squared seal sleeve adaptor.

The threaded ferrule end of the flexible shaft may now be screwed into the motor adaptor. Rotate the ferrule end of the flexible shaft in an anti-clockwise direction to engage the left hand thread. Once tightened by hand use multi-grip pliers to ensure the ferrule is tightened sufficiently to stop it from working loose and coming detached during operation.

The PortaPump as supplied includes 2 metres of flexible discharge hose attached to the pump outlet. A standard male Camlok adaptor is fitted to the opposite end of this. It is recommended that to conduct discharge water further away from the pump a 5 metre accessory hose including a 1-1/4" female Camlok coupling be used.

A 1 litre container of Honda 10w/30 engine oil is included with the unit. Engine oil capacity is 100 ml. To add oil place the unit on a level surface and remove the oil filler cap. Add oil until the oil level reaches the edge of the oil filler neck & reinstall the oil filler cap.

Fuel may now be added and the unit is ready for operation.

## FUNCTIONS AND CONTROLS

### Drive Unit

This portable drive unit is designed to power the flexshaft driven pump.

The motor is controlled by an ON/OFF push button which is mounted below the throttle lever on the handle.

A centrifugal clutch is fitted to the motor which disengages the drive to the pump when the motor is idling.

The clutch operates automatically and requires no adjustment.

The motor is a **4-stroke** unit and must only be used with **unleaded** petrol.

The pump is driven by a rotating flexible drive shaft that transmits the drive from the drive unit.

## HAZARDS & RISKS

NEVER allow an untrained person to operate machine without adequate instruction.

ENSURE all operators read, understand and follow the operating instructions.

SERIOUS INJURY may result from improper or careless use of this machine.

Do not operate this machine in an impaired mental state. You must be able to exercise good judgement and reactions to maintain a safe working environment.

### ! MECHANICAL HAZARDS

ENSURE that the engine operation switch is in the OFF position and the spark plug ignition lead is disconnected before removing the guards or making adjustments.

ENSURE both the pump and the operator are stable by setting up on a level surface. Make sure the machine does not tip over, slide or fall while in operation or unattended.

DO NOT leave the machine in operation while it is unattended.

Hold the pump by "D" handle attached and use the supplied carry strap to help support the weight.

Allow the engine to cool before servicing or replacing parts.

BE CAREFUL not to come in contact with the exhaust muffler when the engine is hot, since it can cause severe burns.

ENSURE that repairs to the engine and machine are carried out by COMPETENT personnel.

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### **! ELECTRICAL HAZARDS**

Follow electrical safety procedures when using the water pump in locations where electricity is present.

### **! FIRE & EXPLOSION HAZARDS**

PETROL is extremely flammable and explosive under some conditions.

ENSURE that petrol is only stored in an approved storage container.

DO NOT refuel the engine while it is in operation or hot. Allow the engine to cool before refilling.

DO NOT refuel the engine in the vicinity of sparks, naked flames or a person smoking.

DO NOT overfill the fuel tank and avoid spilling petrol when refuelling. Spilled petrol or petrol vapour may ignite. If spillage occurs, ensure that the machine is dry before starting the engine.

Motor vibrations can cause an improperly tightened fuel cap to loosen or come off and spill quantities of fuel. In order to reduce risk of fuel spillage and fire, firmly tighten fuel cap by hand.

To reduce the risk of serious injury from burns, never attempt to refuel the unit until it has been stopped and completely removed from the operator.

### **! CHEMICAL HAZARDS**

DO NOT operate or refuel a petrol engine in a confined space without adequate ventilation.

CARBON MONOXIDE exhaust gases from the petrol engine can cause death in confined spaces.

### **! NOISE HAZARDS**

EXCESSIVE NOISE can lead to temporary or permanent loss of hearing. Wear approved hearing protection while working in the vicinity of the machine to limit noise exposure, as required by Occupational Health and Safety regulations.

### **PROTECTIVE CLOTHING**

ALWAYS wear protective clothing and footwear when using the pump.

GOGGLES for eye protection may also be necessary.

USE GLOVES when handling and inspecting the flexible shaft outer casing. Excessive wear of the rubber cover can expose the wire braided reinforcement, allowing it to project and cause injury.

## ! ADDITIONAL HAZARDS

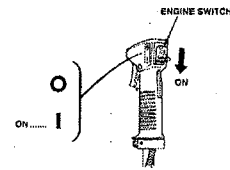
To reduce the risk of injury from loss of balance, start the motor with the unit on a flat level surface, and only pick up the unit when the engine is idling. Slip/Trip/Fall is a major cause of serious injury or death. Beware of water left on the walking or work surface.

Exercise care when working in the vicinity of unprotected holes or excavations.

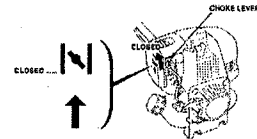
## OPERATION

To start the motor, place the unit on a flat level surface, and only pick up the unit when the engine is idling.

To start the motor, turn the engine switch to the ON position.

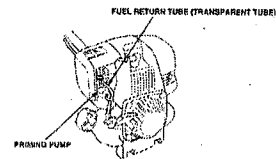


To start a cold engine, move the choke lever to the closed position.

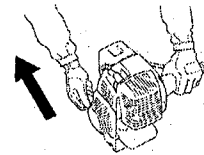


To restart a warm engine, leave the choke lever in the OPEN position.

Press the priming pump several times until a flow in the fuel return tube is visually noticed.



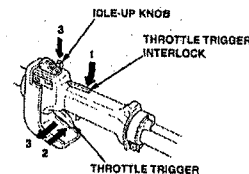
Pull the starter grip lightly until you feel resistance while holding the unit steady, then pull briskly. Return the starter grip gently.



If the choke lever is in the CLOSED position, gradually move it to the OPEN position as the engine warms up.

The idle-up function helps the engine start by opening the throttle valve in the carburettor moderately when the engine won't start.

1. Hold down the throttle interlock.
2. Pull the throttle trigger.
3. Push the idle-knob, then release the throttle trigger and the interlock.
4. Start the engine.



Always operate the unit at full throttle, when pumping this will ensure correct delivery and avoid damage to the drive mechanism.

Be careful starting and/or using the throttle on loose gravel surfaces. Loose gravels may be sucked into the flywheel cooling fins causing damage to the unit.

Carefully identify potential hazards around the intended area of use before you commence using the pump.

The patented impeller design will pass some vegetable matter but not long fibrous weeds or sticks of wood. This impeller is self-cleaning and will in most circumstances clear blockages by the backflush of water already in the discharge hose. For this to occur the engine must be running at idle speed with some head of water in the hose.

If the impeller becomes entangled and jammed, the pump volute may be removed by undoing the 5 cross recess head screws attaching it to the aluminium manifold and pulling it away. Take care not to distort, cut or compress the moulded seal between the manifold and the volute during removal and reassembly. Clean out all debris and ensure the impeller rotates freely before reassembly. If the impeller remains locked after all debris has been cleared, do not attempt to dismantle the pump any further. Return the pump to Flextool (Aust.) Pty. Ltd.

#### CARE AND PREVENTIVE MAINTENANCE

Keep the unit clean.

Check the oil level in the engine crankcase daily, it should reach the edge of the oil filler neck. The engine oil capacity is only 100 ml and running the engine with a low oil level will cause serious engine damage.

The pump head must be handled with care, and be properly maintained in order to avoid unnecessary breakdowns. Check regularly for signs of wear and rectify any faults immediately.

The exterior of the flexible drive shaft is subject to abrasion and wear. If the pump is operated unchecked, water may eventually enter the pump head or the flexshaft. Naturally, the cost of repairing a pump which has been allowed to deteriorate will be greater. Regular inspection of the pump head and the flexible shaft will avoid these problems.

Check the flexible shaft for kinks and external damage by laying it out straight on a workbench or the floor. Although it still operates, a badly kinked flexible shaft may result in a failure of inner core.

Check the outer casing rubber cover for damage where it enters the ferrule at the pump head. Damage can be caused by excessive bending of the flexible drive shaft near the pump head or coupling.

#### SERVICE

Replace the oil in the motor crankcase with Honda 10W/30 oil after the first month or 10 hours use, then replace once every 6 months or after 50 hours use. Check and replace oil more frequently when using the engine in harsh conditions.

The air cleaner element fitted is a wet foam type. Service the air cleaner element regularly by washing the element in a non-flammable solvent and let it dry thoroughly. Soak the element in clean engine oil, squeeze out the excess oil and reinstall the air cleaner element.

A fuel tank strainer is fitted to the unit. A clogged filter may cause poor engine performance requiring the fuel filter to be removed from the fuel tank and cleaned.

Inspect, clean and/or replace the spark plug regularly.

#### CLEANING AND STORAGE

It is advisable to flush the pump head and wash the flexshaft with clean water after each use and before storing.

Ensure the cooling fins on the motor are kept unobstructed.

#### WARRANTY

FLEXTOL products are covered by warranty for a period of twelve (12) months from the date of purchase against defects in material or workmanship provided that:

- The product has been operated and maintained in accordance with the operating instructions.
- Has not been damaged by accident, misuse or abuse.
- Has not been tampered with or repaired by any unauthorised person.

The owner is responsible for the cost of transportation to and from the authorised repairer and the unit is at the owner's risk while in transit to and from the repairer.

#### TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSES AND CORRECTION
Engine does not start	<ul style="list-style-type: none"><li>• Check the ON/OFF switch to make sure that it is switched to "ON".</li><li>• Check the crankcase oil level.</li><li>• Check the spark plug for cleanliness and clearance.</li><li>• Check the carburettor jet and bowl to ensure they are clean.</li></ul>
Engine stops	<ul style="list-style-type: none"><li>• Check the fuel supply</li><li>• Check the condition of the air filter</li></ul>
Engine lacks power	<ul style="list-style-type: none"><li>• Check the condition of the air filter</li><li>• Check impeller for free rotation</li></ul>
Pump does not work	<ul style="list-style-type: none"><li>• Check strainer for clogging</li><li>• Check the pump head for tightness and damage</li></ul>

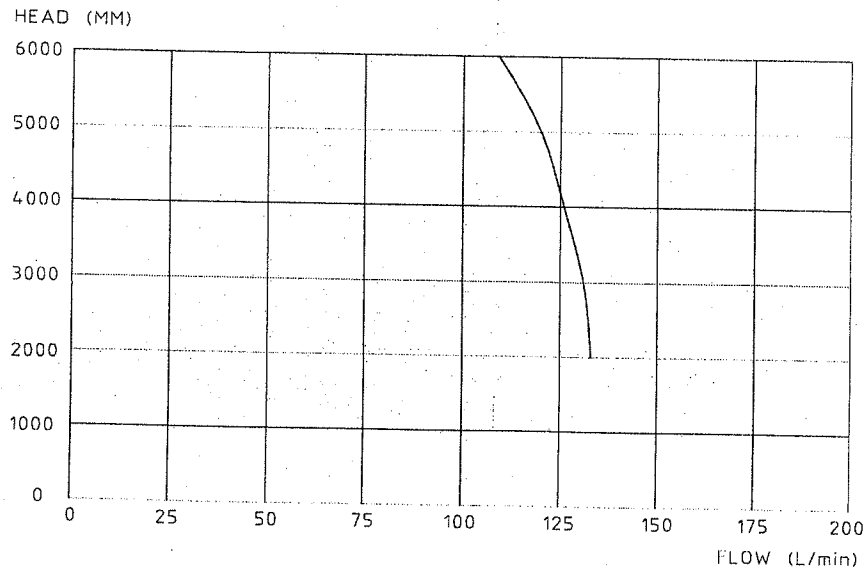


## SPECIFICATION & PERFORMANCE

### Specification

Product Part Number	F03600
Product Description	Portable Pump
Product Model	PP32
Inlet and Outlet Diameter	32 mm
Flow Capacity	135 L/min Max. Working Range
Delivery Head	5 m Max. Working Range
<b>Engine</b>	
Engine Model	HONDA GX35
Engine Type	OHV 4-stroke, single cylinder, forced air cooling
Max. Output	1.2 kw
Max. Torque	1.9 N.m
Engine Oil Capacity	100 ml
Fuel Tank Volume	0.65 litre
Fuel Consumption	360 g/kWh
Displacement	35.8 cc
Ignition Type	Transistorized magneto
PTO Shaft Rotation	Counter-clockwise
Product Net Weight	9.3 kg
Package Dimensions	1210 mm x 250 mm x 270 mm

### Performance Curve



Notes: Tested at motor speed 4500RPM

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**CONTACT INFORMATION FOR SPARE PARTS AND SERVICING**

**Flextool (Aust.) Pty. Ltd. ABN 53 116 784 626**

**Melbourne Head Office**

400 Victoria Street, Brunswick VIC 3056, Australia  
Tel: (03) 9356 8300 Fax: (03) 9356 8301

**Sydney**

Unit 1, 52 Heathcote Road, Moorebank NSW 2179  
Tel: (02) 9601 1422 Fax: (02) 9824 3077

**Brisbane**

14 Manton St, Morningside QLD 4170  
Tel: (07) 3902 2350 Fax: (07) 3399 4822

**Adelaide**

68 Daws Road, Edwardstown SA 5039  
Tel: (08) 8374 4300 Fax: (08) 8374 4194

**Perth**

Unit 3, 47 Tate Street, Bentley WA 6102  
Tel: (08) 9451 2077 Fax: (08) 9350 5011

**Free Call Tel:1800 801 108** (Outside the above metropolitan areas)

**Internet:** [www.flextool.com.au](http://www.flextool.com.au)

**Email:** [sales@flextool.com.au](mailto:sales@flextool.com.au)