

# DAVEY

## 2" Poly Pump Installation and Operating Instructions



These Instructions and the accompanying engine manufacturer's instructions must be delivered with the pump to the operator.

Please pass these instructions on to the operator of this equipment.

## General Safety Information

**Please read these instructions before installing and operating this equipment.**



Failure to follow these instructions and comply with all applicable codes may cause serious bodily injury and/or property damage.



Do not pump flammable or explosive liquids such as petrol, diesel fuel, fuel oil, kerosene or other such liquids. Failure to follow this warning can result in personal injury and/or property damage and will void the warranty.



This pump manual does not include detailed engine information. Check the engine manufacturer's manual, supplied with the product, for further information.



No oil is supplied with the engine. Oil must be added in accordance with the engine manufacturer's instructions for all petrol engines.



The pump body should always be full of water when operating, and must not be allowed to run dry for extended periods of time. Check that there is flow through the pump at all times when running, as insufficient flow can cause damage not covered by the guarantee.



Do not use the pump in a gaseous or hazardous environment or near combustible material.



Do not use the pump in an enclosed area as the engine exhaust could build up and cause asphyxiation.



Do not refuel engine while operating the pump. Shut the engine down before refuelling.



**Some engine components will get hot during normal operation. Do not touch engine components while the engine is running or immediately after running the pump.**



**Do not allow children to operate the pump.**



**Familiarise yourself with the engine's controls and learn how to shut the engine off quickly.**



**Always refuel in a well-ventilated area. Do not smoke or allow flames or sparks in the refuelling area or where fuel is stored.**



**Do not over fill the fuel tank as spilled fuel can ignite if it comes into contact with hot engine parts or sparks. After refuelling, make sure the fuel tank cap is closed properly and is secure.**



**Protect your pump from pressure spikes by installing a by-pass or safety valve if sudden shut off of the water flow is likely to occur.**

**Prior to using this pump you must ensure that:**

- The pump is installed in a safe and dry environment
- The pump enclosure has adequate drainage in the event of leakage
- Any transport plugs are removed
- The pipe-work is correctly sealed and supported
- The pump casing is filled with water before starting the pump
- Before pumping chemicals, check the suitability of the mechanical seal elastomers (i.e. EPDM)
- Ensure that the correct size strainer is installed on the suction hose at all times
- All steps have been taken for safe operation

## Product Description

The Davey 2" Poly Pump is a robust, self-priming centrifugal pump manufactured from 30% glass filled polyester and is capable of pumping most agricultural chemicals. It is powered by a Honda GX200 engine and provides flows up to 800lpm and heads up to 28 metres.

<b>Part Number</b>	<b>Description</b>
2PP65H	2 Inch Poly Pump w/GX200 Honda Engine

The Davey 2" Poly Pump is designed to provide quality performance under the following operating limits.

- Minimum water temperature: 1°C
- Maximum water temperature: 50°C
- Maximum ambient temperature: 50°C

## Inspection and Handling

### Delivery and Inspection

Upon receipt the Davey 2" Poly Pump check the unit for any damage sustained during transit. Any equipment damage or shortfall should be immediately advised to your nearest Davey dealer or Davey customer support centre.

### Handling

This pump is light weight (22Kg dry weight) and comes with a carry handle for easy portability.

## Installation

### Pump Location

For the most efficient operation, site the pump as close to the water as practical. It is essential for the correct function of the engine that it be located on a horizontal surface. If allowed to run at an inclination, the oil lubrication system of the engine may not operate correctly. Subsequent engine failure would not be covered by the manufacturer's guarantee.

The pumps should be positioned in a well-drained location to avoid possible property damage by leaking hose fittings or pump seals, spilled engine fuel, etc.

If you intend to operate your pump on a hard surface, Davey suggest a suitable resilient mounting to be fitted to your pump and engine.

### Suction Piping

A reinforced or non-collapsible hose should be used for the pump suction. The minimum suction pipe size should be 50mm (2") I.D. A strainer should always be fitted to the bottom of the suction pipe. The strainer should be kept out of sand, mud, etc., to avoid particles being drawn into the pump and causing damage by abrasion.

Always locate the pump so that the rise of suction pipe from the water is even with no humps or hollows where air may be trapped.

All pipe connections must be air tight to ensure the best priming and operation of the pump. Check that the washers in nuts and tails are in good order.

### **Discharge Piping**

Care should be taken on correct selection of discharge pipe pressure rating as the 2" Poly Pump is capable of delivering pressures up to 280kPa (41psi). The pump outlet is 2" BSP female and 2", or larger, polythene piping or equivalent should be used.

## **Pump Operation**

### **Priming the Pump**



**Do not attempt to run pump if the pump casing (pump body) has not been filled with water (primed). Severe damage will result to mechanical seal.**

**To prime the pump initially, it is necessary to fill the pump body with water before starting the engine. Remove the priming cap (on top of the pump casing near the discharge port). Fill the pump body with water and refit the priming cap tightly.**

### **Starting the Pump**

Choke and start the engine, open the discharge valve and then allow the pump to run until it is drawing water. The pump will establish prime better at higher engine speeds. Allow up to 3 minutes for long or deep suction lifts.

### **Pump Operation**

High performance can be obtained from these pump if the engine speed is increased, however, we do not recommend the pump be operated over 3,600rpm for extended periods as this may overload the engine. Operating the engine at full throttle for extended periods will shorten the engine's life and may result in premature failure. For operations such as irrigation or dam and tank filling, the throttle should be closed to around ¾ maximum. This should correspond to around 3,000rpm maximum.

### **Pumping Other Than Clear Water**

When pumping other than clean water, the specific gravity or relative weight of the fluid may be different to water. If the fluid being pumped is heavier than water, such as pumping liquid fertilizers, then the load on the pump will be increased. In these cases care should be taken to ensure the engine is operated at lower flows to relieve the load. This can be achieved by partially closing an outlet valve.

### **Avoiding Pump Damage**

Pumping water containing sand, dirt or other abrasive materials will result in accelerated pump wear and mechanical seal failure. Damage of this kind is not covered by the guarantee.

Never operate the pump against closed head or with no discharge flow as this will lead to damage to the pump not covered by the guarantee. If the pump is required to operate at no flow then a bypass line should be used to return flow to the source or to waste.


This pump is not designed to boost high incoming pressure and should not be connected to mains or other pressuring water supplies as this may result in discharge pressures above the rated casing pressure capacity. Damage to the pump from such over pressurisation is not covered by the guarantee.

### **Storage of Pump**

The pump should be drained of water or chemicals and normal engine storage procedure should be followed. Run the pump until the fuel is exhausted; drain the fill the sump with fresh oil. The pump should be stored in a dry place. Before starting the pump after storage it should be checked to make sure that it is free to rotate by pulling the starter rope with the ignition off.

## **Trouble Shooting**

### **Pump is running but fails to deliver water or desired pressure.**

- 1)  Turn the unit off.
- 2) Check suction line is free of debris or blockages and check that the pump has not lost its prime. If so, remove blockage & repeat, starting at step 1).
- 3) Check that the suction valve is open.
- 4) Check that the discharge valve is open.
- 5) Check for air leaks. These may not always be visible to the naked eye unless pressure is applied to the suction line.
- 6) Check that the suction line is not too long.
- 7) Check that the motor speed is not too slow?
- 8) Check that the discharge piping is not undersized for this application?



# Davey® Repair or Replacement Guarantee

In the unlikely event in Australia or New Zealand that this Davey product develops any malfunction within warranty periods beginning from the date of original purchase due to faulty materials or manufacture, Davey will at our option repair or replace it for you free of charge, subject to the conditions below.

Should you experience any difficulties with your Davey product, we suggest in the first instance that you contact the Davey Dealer from which you purchased the Davey product. Alternatively you can phone our Customer Service line on 1300 367 866 in Australia, or 0800 654 333 in New Zealand, or send a written letter to Davey at the address listed below. On receipt of your claim, Davey will seek to resolve your difficulties or, if the product is faulty or defective, advise you on how to have your Davey product repaired, obtain a replacement or a refund.

Your Davey Two Year Guarantee naturally does not cover normal wear or tear, replacement of product consumables (i.e. mechanical seals, bearings or capacitors), loss or damage resulting from misuse or negligent handling, improper use for which the product was not designed or advertised, failure to properly follow the provided installation and operating instructions, failure to carry out maintenance, corrosive or abrasive water or other liquid, lightning or high voltage spikes, or unauthorized persons attempting repairs. Where applicable, your Davey product must only be connected to the voltage shown on the nameplate.

Your Davey Guarantee does not cover freight or any other costs incurred in making a claim. Please retain your receipt as proof of purchase; you **MUST** provide evidence of the date of original purchase when claiming under the Davey Guarantee.

Davey shall not be liable for any loss of profits or any consequential, indirect or special loss, damage or injury of any kind whatsoever arising directly or indirectly from Davey products. This limitation does not apply to any liability of Davey for failure to comply with a consumer guarantee applicable to your Davey product under the Australian or New Zealand legislation and does not affect any rights or remedies that may be available to you under the Australian or New Zealand Consumer Legislation.

In Australia, you are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Should your Davey product require repair or service after the guarantee period; contact your nearest Davey Dealer or phone the Davey Support Centre on the number listed below.

For a complete list of Davey Dealers visit our website ([davey.com.au](http://davey.com.au)) or call:



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## AUSTRALIA

**Davey Support Centre**  
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Fax: 1300 369 119  
Website: [davey.com.au](http://davey.com.au)

## NEW ZEALAND

**Davey Support Centre**  
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Penrose, Auckland 1061  
Ph: 0800 654 333  
Fax: 09 527 7654  
Website: [daveynz.co.nz](http://daveynz.co.nz)

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\* Installation and operating instructions are included with the product when purchased new. They may also be found on our website.