



SUBMERSIBLE PUMP - FLOAT SWITCH



TSP55

www.thetoolshed.co.nz

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Thank You

For the purchase of this ToolShed product. We try our hardest to supply customers like you with the best quality products available, at the best price possible. We cant wait to continue working together in the future.

Please contact us for any servicing, replacement parts, or questions you might have about your ToolShed product by visiting our website, or calling: 0800 948 665.

PRODUCT DETAILS

<i>Product Model</i>	<i>ToolShed Submersible Pump - Float Switch</i>
<i>Product Code</i>	<i>TSP55</i>

DISTRIBUTED BY:



Note:

This manual is for your reference only. Due to the continuous improvement of the ToolShed products, changes may be made at any time without obligation or notice.

Warranty:

This product may be covered under The ToolShed warranty. For more information, see our Terms & Conditions at www.thetoolshed.co.nz

SPECIFICATIONS

Motor Size	500 Watts / 230 Volts
Maximum Flow Rate	6 m ³ /h
Maximum Head Height	8m
IP Rating	X8
Weight	5.8kg
Outlet	1-1/4" or 1"
Power Cord Length	10m

PRODUCT IDENTIFICATION



- 1 Carrying Handle
- 2 Float Switch Height Adjustment
- 3 Pump Casing
- 4 Hose Inlet
- 5 Float Switch
- 6 Hose Adapter For Pressure Connection

SAFETY GUIDELINES

WARNING

READ ALL SAFETY WARNINGS & INSTRUCTIONS. Failure to follow instructions and warnings could lead to serious injury, electric shock, or fire.

Work Area Safety

- **Ensure that your work area is kept clean and well lit.** Lack of visibility and clutter greatly increase the risk of accident when using tools.
- **Keep bystanders, pets, and children clear when operating this power tool or machine.** They can cause distraction or risk injury to themselves.
- **Ensure you are not operating the power tool or machinery in the presence of dust, liquids, flammable gases, or anything that can create an explosive atmosphere.** Power tools and machinery can create sparks which can lead to ignition and fire hazards in working environments.

Personal Safety

- **Always wear personal protective equipment (PPE).** Eye protection, ear protection, dust masks, and other protective equipment will help to reduce the risk of personal injury or long-term illnesses.
- **Dress appropriately. DO NOT wear loose clothing that can get caught in moving parts.** Keep hair, loose clothing, jewellery, and anything else that could be of risk, away

from moving parts in the machine, or they could become caught therein.

- **Always remain alert and DO NOT operate power tools or machinery under the influence of any substances such as alcohol or drugs, including prescription medications.** Lack of focus could lead to injury or accidents while operating these power tools and machinery.
- **Always ensure proper footing and balance.** Overreaching can lead to slipping and falling which can result in injury or accident.
- **Ensure the power switch is in the OFF position before connecting any battery, or power source to the power tool or machinery.** This can cause injury as tools and machinery can suddenly fire incidentally when live, causing accidents.
- **Use all provided dust collection and extraction attachments, if included.** This equipment, along with the use of PPE dust masks, can help keep you safe from dust, and keep your work site clear from hazards.
- **Ensure loose parts such as wrenches or adjusting keys are removed before starting the power tool or machinery.**

SAFETY GUIDELINES

Electrical Safety

- **The electrical connection must always be made in a dry area.** DO NOT allow the plug outlet to get wet, water in the outlet can lead to electric shock.
- **Only use the power tool or machinery when the plug correctly matches the power outlet.** Modifying plugs greatly increases the risk of electric shock.
- **Keep the power cord away from anything that could damage it such as sharp edges, moving parts or heat.** A damaged power cord increases the risk of electric shock.
- **Only operate outdoors with the use of an outdoor extension lead.** Not all extension leads are suited to outdoor use and using one which is not can greatly increase the risk of electric shock.
- **Avoid body contact with grounded or earthed surfaces.** Surfaces such as radiators, ranges, pipes, and refrigerators can increase the risk of electric shock due to your body being earthed or grounded.
- **Never carry the power tool by the cord, or yank the cable from the power outlet.** This can damage the internal wiring and may become a hazard.

Power Tool & Machinery Use & Care

- **Use the correct tool for the job.** Forcing a tool to do a job it was not designed for increases the risk of accident or injury.
- **Disconnect tools and machinery from power, or remove batteries before doing any maintenance or adjustments, or before storing the tools and machinery.** This reduces or removes the risk of a power connection that causes the tool or machinery to accidentally fire, which can help prevent injury or accident.
- **Check the general condition of the power tool for damage or any problems that could affect the way the tool or machine works.** An unrepaired tool or machine can lead to accident and injury. Only have your tool or machine repaired with genuine parts from The ToolShed.
- **Only use the power tool and machinery with genuine parts or accessories that are designed to be used with this power tool and machinery.** Failure to do so could result in accident or injury or damage your tool or machinery.
- **Store your tool or machinery out of reach of children, and away from untrained personnel when not in use.** Use by somebody untrained, or a child, could lead to accident or serious injury.

WARNING

Electric shock can cause serious injury or, in some cases be fatal.

SAFETY GUIDELINES

Service

- **Have your tools and machinery serviced at The ToolShed with ToolShed replacement parts.** This will ensure that the safety of the power tool or machine is maintained.



WARNING

The warnings and precautions discussed in this manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

Always Use Common Sense

- It is not possible to cover every conceivable situation you can face. Always exercise care and use your common sense. If you get into a situation where you feel unsafe, stop and seek expert advice. Contact your dealer, service agent, or an experienced user. Do not attempt any task you feel unsure of!
- **Do not let familiarity gained from the frequent use of tools allow you to become complacent and ignore tool safety principles.** A careless action can cause severe injury within a fraction of a second.

Submersible Pump Specific Safety

- **DO NOT run the pump dry.** Running the pump dry can destroy the pump seals and will void the warranty.
- Ensure the water pump is disconnected from the mains power when installing.
- Do not install or operate the water pump in an explosive environment or near flammable material.
- Avoid inserting hands or body parts into the inlets/outlets of the water pump while it is connected to power.
- Before using the water pump, always inspect it visually. Do not use the pump if it is cracked and/or damaged. If you find damage, contact your nearest ToolShed for replacement parts or advice.
- Avoid inserting hands or body parts into the mouth of the pump if it is connected to the mains power.
- The electrical connection must always be made in a dry area. Make sure that electrical connections are protected from moisture.
- Never damage the cable, or use the cable to pull or drag the pump. If you see any damage on the power cable, replace it immediately for risk of electrocution.
- The depth of the pump in the water must not exceed 5 metres, nor be less than 0.5m.
- Ensure there is never any persons or animals working or playing in the water that is being pumped for fear of electric shock.

OPERATION

Operation

- Attach a sufficiently long and strong rope to the handle before first use (not included). The pump is submerged into the liquid with this holding rope and can also be carried with it as well as the handle.
- **NOTE: In the case of continuous use of the pump with the rope, the condition of the rope must be checked regularly as it can decay and break down over time.**
- Install the pump so that the suction openings cannot be blocked by foreign bodies.
- Ensure that the pump is stable.
- DO NOT lift the pump with the cable or pressure hose as these are not designed to handle the tensile stress from the weight of the pump.
- Submerge the pump at an angle into the liquid so that no air pocket forms on the underside of the pump. This would cause prevention of suction. Once the pump is submerged, it can be placed upright again.
- Leave the pump on the bottom of the liquid container. Use a strong rope attached to the carrying handle of the pump for lowering.
- This pump can also be operated while suspended on a rope.

Connect Pressure Pipe

For occasional use of the pump, you can use a suitable sized water hose.

The use of rigid pipes with a non-return valve is recommended for use at a fixed location. This prevents return flow of the liquid when switching off.

- Screw the pressure line onto the pressure connection.
- When using a hose, screw a suitable hose adapter onto the pressure connection.
- Push the hose firmly onto the hose adapter and secure with a hose clamp.



NOTE

All threaded connections must be sealed with thread sealing tape.

Installation

- The pump needs an area of at least 50x50x50cm clearance, as the float switch must be able to move freely so that it functions properly.

Setting the Switch

The ON/OFF operating point of the float switch can be set by adjusting the float switch in its latching holder. Prior to operation, check the following:

- The float switch must be installed so that the level of the ON operating point and the level of the OFF point can be reached easily and with little force.
- To check this, place the pump in a vessel filled with water, raise the float switch carefully by hand and lower it again. Note whether the pump switches on and off.
- Ensure that the distance between the float switch head and the latching holder is not too small. Proper operation is not guaranteed if the gap is too small.

MAINTENANCE

- Before cleaning or performing any maintenance, you must ensure the tool is switched off and disconnected from the power supply.
- Compressed air is the most effective way to clean this tool. Always wear PPE safety goggles when cleaning tools with compressed air.
- Ventilation openings and switch levers must be kept clean. DO NOT attempt to clean by inserting pointed objects through openings.
- Do not use harsh chemicals or solvents when cleaning this tool.
- If you discover any damaged or broken parts, consult your nearest ToolShed for replacements and advise.
- **Check casing and cables for damage before every use.** Visually inspect the pump every time.
- **Check float switch for damage before every use.** Lift and shake the switch to check the free movement of the contained metal balls.

Pump Cleaning

- Rinse with clean water. Remove stubborn contamination with a brush and detergent.
- Submerge the pump in a container with clean water and switch on for a short time to rinse the inside of the pump.

Cleaning the Suction Area

- Clean all accessible insides of the casing. Remove fibres which have wound around the rotor shaft by opening the pressure connection. Remove stubborn contamination with a brush and detergent.

Storage

- If there is a risk of frost, dismantle the appliance and accessories, clean them and store in a place protected from frost.

Cleaning the Impeller

If excessive deposits collect in the pump case, you must dismantle the bottom part of the pump as follows:

- Undo the three screws at the base of the pump and intake cage.
- Remove the intake cage from the pump case.
- Clean the impeller with clean water.
- **NOTE: Do not set down or rest the pump on the exposed impeller.**
- Reassemble the pump in reverse order.

TROUBLESHOOTING

FAULT	POSSIBLE CAUSE	SUGGESTED SOLUTION
The Pump Does Not Run	No mains voltage	Check cables, plug, socket, and fuse.
	Motor overheats due to: – Liquid temperature too high – Blocking by foreign bodies	Eliminate the cause of the overheating.
	Residual current device (RCD) triggered?	Activate RCD. Contact Electrician if RCD trips again.
	Motor defective	Contact your local ToolShed.
Pump Runs but Does Not Pump	Float switch has not been activated, water level too low	Manually raise the position of the float switch.
	Suction openings blocked	Rectify blockage.
	Pump draws in air	Keep the pump at an angle while submerging. Switch the pump on and off several times in order to expel air.
	Pump is blocked by foreign bodies	Clean the pump / suction area.
Delivery Rate Too Low	Delivery height too great	Comply with maximum delivery height.
	Pressure line diameter too small	Use pressure line with larger diameter.
	Pressure line blocked	Rectify blockage.
	Suction openings blocked	Clean suction opening.
	Pressure line kinked	Straighten pressure line.
	Pressure line leaks	Seal pressure line, tighten threaded connections.
Pump Runs Very Loudly	Pump draws in air	Ensure there is sufficient liquid.