

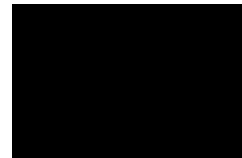
# HYDRAPUMP<sup>®</sup> SMART FLEX

## INSTRUCTIONAL MANUAL

**AUTOMATIC ON-OFF ADJUSTABLE  
WATER REMOVAL PUMP**



# TABLE OF CONTENTS



**IMPORTANT NOTE!** Please read carefully before attempting to assemble, install, operate or maintain the HydraPump® Smart Flex. Protect yourself and others by observing all the safety information. Failure to comply with instructions could result in personal injury and or property damage. Please keep these instructions for future reference.

<b>INTRODUCTION</b>	<b><u>PAGE</u></b>
WATER HAPPENS.....	01
THE HYDRAPUMP SMART FLEX.....	01
ARRIVAL AND INSPECTION.....	01
<b>SAFETY FIRST</b>	
HANDLING THE PUMP.....	02
WHILE PUMPING.....	02
KEY CONSIDERATIONS.....	03
<b>SETTING UP</b>	
INSTALLATION.....	04
ON-GOING OPERATION.....	05
ADAPTER CONNECTIONS.....	05
<b>CLEANING &amp; MAINTENANCE</b>	
IMPELLER CLEANING.....	06
DRAINING FOR STORAGE.....	07
MAINTENANCE.....	07
<b>MORE INFORMATION</b>	
SPECIFICATIONS.....	08
TROUBLESHOOTING.....	08
<b>HELPFUL INFORMATION</b>	
<i>LIQUID LEARNING VIDEOS</i> .....	09
TECHNICAL ASSISTANCE.....	09
WARRANTY INFORMATION.....	09

# WATER HAPPENS

Unexpected water can really put a damper on your day, but the HydraPump® Smart Flex can help bail you out when jobs require quick, powerful, and automated pumping:

- For pool covers that periodically flood, HydraPump® Smart Flex can be on standby for incoming water and adjusted to many heights to suit your needs.
- When pools or other water sources overflow, HydraPump® Smart Flex can be put in an always on mode to continuously pump to bring down the water level.
- If local natural water sources like rivers and lakes swell, HydraPump® Smart Flex can help keep yards and patios drier.

HydraPump® Smart Flex can help move water in these and countless other situations!

## THE HYDRAPUMP® SMART FLEX

The HydraPump® Smart Flex with HydraSense™ technology is designed to efficiently transfer water from one point to another. Simply attach to the HydraPump® Smart Flex a standard garden hose for an out of the box ready-to-go experience. With HydraSense™ technology, a height adjustable electrical sensor attached to the pump, water is detected and the pump is automatically activated.

Note:

- This pump is meant to be used with clear water.
- The pump is meant to operate independently when sufficient water is detected or continuously when attended. The sensor can have its position adjusted to a desired height.
- The pump is submersible and can operate underwater.
- This pump is often used to move large amounts of water from one basin or location to another.
- Always be cautious when using pumps around water!

## ARRIVAL AND INSPECTION

Be sure to examine HydraPump® Smart Flex package contents before use.

Your box should include:

- 1pc. HydraPump® Smart Flex
- 1pc. Pump base
- 2pcs. For outlet assembly
  - Elbow - 90 elbow with 1.5" BSP connection to outlet adapter
  - Adapter - Which includes a check valve and several outlet options (See adapter connections for more information)
- 1pc. manual packet

*There are circumstances where the pump or its parts can become damaged during shipping. If damaged during shipping, please contact Watershed Innovations customer service.*

# SAFETY FIRST!

## SAFETY INFORMATION

This manual contains information that is very important to read and understand. Information provided is for safety purposes and to prevent equipment problems. The following symbols are used to help identify safety issues and their potential impact.



This indicates a potentially hazardous situation, which MAY result in moderate injury.



This indicates a hazardous situation that could result in serious injury or death.

---

## GENERAL SAFETY



**Alert:** Contains Chemicals

This product or its power cord may contain chemicals known to the state of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling.

### **Carefully Handle the Pump**

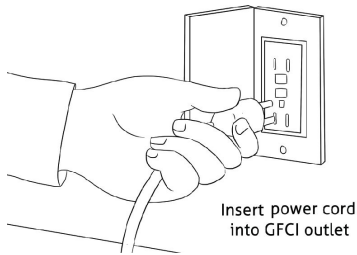
1. Wear safety equipment, including eye protection, at all times when working with pumps.
2. Use the pump handle or pump sides when making contact. Don't handle the pump by the power cord or you could damage it and make it unsafe.
3. Always plug the pump into a Ground Fault Circuit Interrupter (GFCI) that has been properly installed by an electrician.

### **Take Caution when Pumping**

Never pump gasoline or other explosive liquids. Do not operate the pump where flammable or explosive fumes or gases are present. This pump should only be used to pump clear water. This pump has only been evaluated to operate with water. Do not run the pump dry. Make sure the pump is cool and the power is disconnected before handling to avoid burns.

### **Key Pumping Considerations**

1. A 120V AC power source is required for the HydraPump® Smart Flex to operate. It must be a Ground Fault Circuit Interrupter (GFCI) device connection.



2. The circuit breaker and outlet must be properly grounded before installing this pump. If you have questions about this, or are unsure, have the electrical circuit checked by an electrician. The pump must be installed in compliance with all local and national codes.
3. The pump will automatically detect water with the outside sensor. This can be adjusted to suit your needs. The pump can be placed in always on mode.
4. Check that the water source and piping are clear of dirt, scale, and sand. Debris will clog the pump. The pump is meant for clean/clear water.
5. The pump and its piping cannot operate below freezing.
6. The pump should not operate without water present for extended periods but if it does: unplug the pump and check the pump for damage.

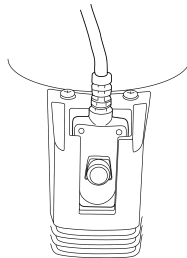
# SETTING UP INSTALLATION AND OPERATION

## INSTALLATION

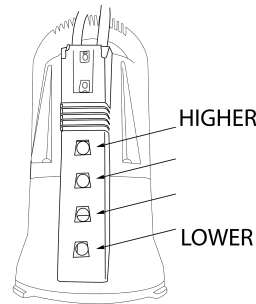
1. Set **the mode of operation** - The sensor on the pump can be placed on the top for continuous (always on) operation. A second smart mode can be set by attaching the sensor to the desired height position slot for automatic operation.



**Sensor**

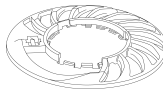


**Always On**



**Alternate Positions**

2. **Connect the elbow and adapter** - The HydraPump<sup>®</sup> Smart Flex has an elbow that must be connected before the adapter can be attached. Next the outlet adapter can be attached for connection to a garden hose or other piping. Please see the adapter connections section for more details. Alternatively, an 1.5" BSP (similar to NHT) hose fitting can be directly connected to the elbow for maximum performance.
3. **Attach the base** - the included base will 'lock' the pump into place for maximum stability.



4. **Ensure a tight seal** - When attaching piping ensure a watertight seal. Remember that the adapter includes a check valve which can be removed if not needed to increase performance.
5. **Place upright** on a hard, flat surface in the water. Do not set the pump directly on muddy or sandy surfaces since this could cause the inlet screen to clog or the pump not to function.
6. **Plug in pump** - Once the pump has been piped and properly put into position, plug the pump into a 120V GFCI outlet.
7. **Power on Self Test** - The pump will perform a power on test for about 10 seconds which may result in water being pumped even though the sensor isn't telling the pump water is present. If water is present at the sensor or the pump is in continuous operation mode the pump should begin to operate as expected.

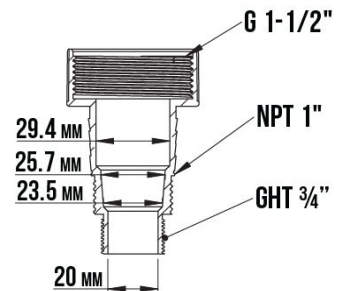
## ON-GOING OPERATION

For automatic operation, the pump will operate when the top of the sensor senses water. Water will continuously pump until the bottom of the sensor is reached. The pump will turn off after about an additional 10 seconds of pumps. The height of the sensor can be adjusted by the slots on the outside of the pump. In continuous mode the pump will always pump whether or not the pump senses water. The pump needs to remain upright at all times in order for the automatic operation to work correctly. *If the pump is not upright please correct this or damage may occur to the pump.*

*Note: In continuous operation mode do not operate the pump without water present for pumping. This could damage the pump.*

## ADAPTER CONNECTIONS

The pump adapter allows for two types of connections. The first connection is a  $\frac{3}{4}$ " Garden Hose Thread (GHT) connection and the second is a 1" National Pipe Thread (NPT) standard connection. See figure to the right:



### EXPERT TIP:

For improved outlet flow larger hoses or adapters can be attached:

- The GHT connection can be cut off for installations requiring the 1" NPT connector. The NPT threads can also be removed and a hose clamped to the remaining connector.
- Alternatively, the entire hose adapter can be unscrewed and a  $1\frac{1}{2}$ " pipe or hose can be directly attached to the pump outlet. The  $1\frac{1}{2}$ " G/BSP type has threads very similar to NPT thread type. When attaching directly to this please use plumber's tape when attaching NPT threaded connectors for a better seal.

Note: When removing the larger connections from the adapter be careful not to damage the remaining threads.

# CLEANING & MAINTENANCE

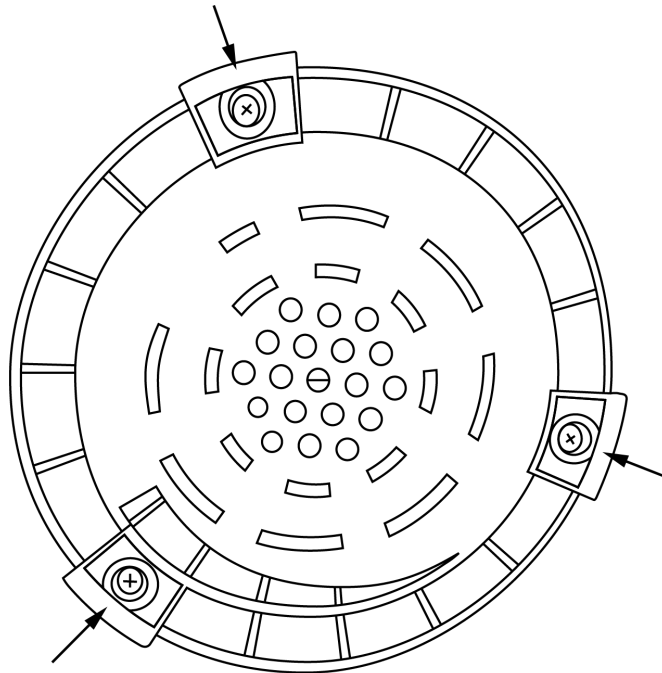
## IMPELLER CLEANING



**DANGER**

*Always disconnect the power source before attempting to clean the impeller.*

1. Unplug the pump.
2. Remove the three screws shown in the figure.
3. Remove the cover and carefully clean the impeller of all debris.
4. Before reattaching the cover, carefully reposition the gasket making sure it will not obstruct the pump openings.
5. Reinstall the cover and replace the screws using caution as to not over-tighten or strip the screws.





## DRAINING FOR STORAGE

After pumping is complete, disconnect the garden hose or other piping from the pump. Empty and remove the outlet hoses. Wipe the pump clean and store in a clean and dry place for next use.



### WARNING

*The pump may become hot during operation. Be careful when working near or touching the pump.*



### TIP:

Water and electricity do not mix. Make sure to continuously check that the power connections and cables are not in contact with water. Consult an electrician if you have any questions or concerns about the electrical circuit or pump operations.

## MAINTENANCE

Keep the pump inlet clean and free of all foreign objects. Make sure to inspect the inlet at the beginning of each use.



### DANGER

*Always disconnect the power source before attempting to clean the impeller.*



### WARNING

The motor housing is completely sealed and requires no regular service. As a result, **do not disassemble the motor housing or alter the power cord since this could result in serious injury.**

# MORE INFORMATION



## SPECIFICATIONS

These are the technical specifications for the HydraPump® Smart Flex:

- ¼ HP, Single Phase 120V, 60Hz, 3.1A Max
- Pumping Capacity 1,300GPH Max
- Maximum Head 18ft

## TROUBLESHOOTING

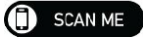
PROBLEM	POSSIBLE CAUSES	SOLUTIONS
Pump will not start	No Power or cord not connected	Check outlet power or plug in pump
	GFCI tripped	Check wiring
	Impeller Blocked	Unplug and remove debris
	Sensor not activated	Place pump in always mode or make sure sensor is touching water
Pump is very slow or limited	Inlet clogged	Clean debris from the exterior of the pump
	Restriction in the outlet hose	Check for kinks and restrictions, shorten the length if possible
	Too much lift	Reduce the outlet hose height to improve the flow rate
Pump leaks	Piping issues	Check connections and use plumbers tape to assist with connections



# HELPFUL RESOURCES



## “LIQUID LEARNING” VIDEO COLLECTION



Our overview videos can get you started with our products quickly. Visit the “Watershed Innovations” company page on Amazon or capture the QR code to the left.

## FOR REPLACEMENT PARTS OR TECHNICAL ASSISTANCE

Contact Watershed Innovations® and provide the following information: your order number, model, serial number, and a brief description of the problem.

Watershed Innovations®

Email: [info@hydrabarrier.com](mailto:info@hydrabarrier.com)

Phone: 1 (888) 876-4068 9AM to 5PM (M-F) Eastern

## LIMITED LIABILITY WARRANTY

For warranty information please go to: <https://hydrabarrier.com/pages/warranty>

## ABOUT WATERSHED INNOVATIONS

Watershed Innovations was founded in 2008 with the goal of creating user-friendly products that protect valuable property and land from water damage. Our flagship product was born out of necessity when one of our founders struggled with his backyard pool overflowing during California’s rainy season. Today, our products can be found throughout the United States as well as other countries. Our products are used in the homes and yards of consumers for protection from water damage. Our customers also include construction companies, agricultural entities, manufacturing facilities, premiere hotels, the military and other organizations that have large-scale water protection needs.

*Copyright © 2020 Watershed Innovations. All rights reserved. Watershed Innovations, the Watershed Innovations logo, HydraPump, and HydraSense are trademarks or registered trademarks of Watershed Innovations. WI-HPSF-Man-0920*