



# INSTALLATION & OPERATION MANUAL

## SUBMERSIBLE UTILITY PUMPS

### 5020PUUP



[www.aymcdonald.com](http://www.aymcdonald.com)



Non-Potable Use Only

This pump has been manufactured with your needs in mind. Properly installed in the right application, your new A.Y. McDonald pump will give you years of carefree performance.

**Important Safety Information:**  
*Carefully read and understand all of the Warnings and installation instructions in this manual. Failure to follow these instructions could lead to serious bodily injury and/or property damage. Retain these instructions for future reference.*

**⚠ DANGER**

**RISK OF ELECTRICAL SHOCK.** Always disconnect the power source before attempting to install, service or perform maintenance on the pump. Failure to do so may result in fatal electrical shock.

**⚠ DANGER**

**RISK OF ELECTRICAL SHOCK.** This pump is supplied with a grounding conductor and grounding-type attachment plug. To reduce the risk of electrical shock, be certain that it is connected only to a properly grounded, grounding-type receptacle.

**⚠ DANGER**

Water and electricity can be dangerous if certain precautions are not adhered to. This pump is designed to operate perfectly safe in a water environment; however, improper use and installation can result in personal harm from electrical shock. Please pay attention to the following warnings.

**⚠ DANGER**

Never touch any electrical device, including this pump, when it is touching water, in water, or even in a moist environment. Always unplug (disconnect the electricity) when working on or installing the unit.

**⚠ DANGER**

Keep all electrical connections away from wet and moist environments. Wet connections can cause electrical shock resulting in personal injury.

**⚠ DANGER**

Do not use this unit to pump chemicals, flammable liquids, sewage or corrosive liquids. You could injure yourself and the pump will fail. Pumping these types of liquids voids the warranty. A.Y. McDonald and other pump companies manufacture pumps for these types of liquids. Make sure you purchase a pump designed for your specific needs. This pump will handle fluids with the same characteristics as water.

**⚠ WARNING**

Always use a grounded outlet to attach the plug. A three-prong mating type receptacle is needed for safe use. This should be in accordance with the National Electric Code and any additional codes or laws required by your local government.

**NOTICE**

Height and/or piping restriction will reduce the pump output performance. See the performance chart below to insure you have the proper pump for your application. Whenever possible use the same or larger size pipe than the pump discharge for optimum performance. Reducing the pipe size will not harm your pump; it will just reduce the output.

**SPECIFICATIONS**

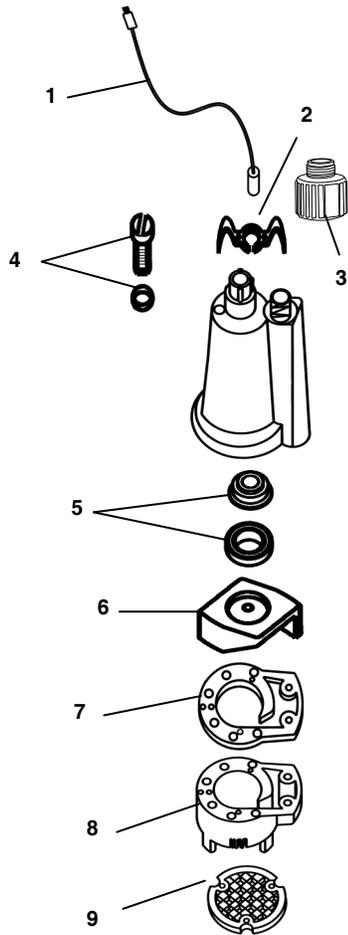
<i>Model</i>	<i>5020PUUP</i>
HP	1/5
Amps	3.6
Solids Handling	1/8"
Discharge Size	1¼"

Power supply requirements ..... 120V, 60 Hz  
 Motor ..... Continuous Duty, Capacitor Start, Thermally Protected  
 Liquid Temperature Range ..... 32°F - 120°F (0°C - 49°C)  
 Circuit Requirements ..... 15 amp

**PERFORMANCES**

<i>Model #</i>	<i>Output in gallons per minute at listed discharge height above pumping level</i>					
	<i>0'</i>	<i>5'</i>	<i>10'</i>	<i>15'</i>	<i>20'</i>	<i>25'</i>
<b>5020PUUP</b>	<b>26</b>	<b>21</b>	<b>14</b>	<b>10</b>	<b>7</b>	<b>1</b>

## PARTS LIST



### ⚠ WARNING

It is strongly recommended to use a ground fault interrupt device on any electrical appliance, including this pump, when used in a wet or moist environment. This GFCI (ground fault circuit interrupter) should be listed by Underwriters Laboratories (UL). This is required by many local codes and enforcement agencies. It is strongly recommended by A.Y. McDonald as it provides a much safer installation and will greatly reduce possible injury from electrical shock.

### ⚠ CAUTION

Do not use the power cord or discharge hose to carry or handle the pump. Doing so may cause damage to the power cord or discharge hose. Use the carrying handle supplied with the pump.

### ⚠ CAUTION

**EXTENSION CORDS:** For best performance, it is recommended to connect the power cord directly to the grounded GFCI outlet. If the use of an extension cord is necessary, always use a grounded waterproof type cord. Never use longer than a 25-ft. cord that is lighter than 14/3 gauge.

### NOTICE

Your pump has thermal over-load protection built in. It is not recommended for pumping liquids over 120°F. The thermal overload protector will automatically shut down the pump in an overheat situation. It will then reset itself once the pump cools down. The pump will then work again. This overload is designed as a safety device and it will fail after repeated use. Normal operation is for fluids between 32°F & 120°F.

### NOTICE

**DO NOT RUN THE PUMP DRY.** The pump depends on water for cooling and lubrication. Operating the pump without water may cause the motor to overheat or cause damage to parts of the pump. It may also shorten the life of your pump.

## PUMP USES

Your pump is designed to give you reliable performance and long life. It is designed to move water from one place to another.

		<b>Part # for Models: 5020PUUP</b>
<b>Ref. #</b>	<b>Description</b>	
1	Power Cord	<i>Please call your Professional Plumber for price and availability</i>
2	Handle	
3	Garden Hose Adapter	
4	Oil Fill Plug with O-ring	
5	Shaft Seal	
6	Impeller	
7	Gasket	
8	Base	
9	Intake Screen	

## INSTALLATION/OPERATION

1. Place the pump on a hard surface in the water. Do not set the pump directly in mud or sand. This may cause the intake screen to clog or damage to your pump.
2. The water level must be at least 1" deep for the pump to operate.
3. Plug the power cord into a grounded 120-volt AC outlet. The pump will start to operate as soon as the cord is plugged in.
4. The pump will remove water down to the following levels:  
Models  
5020PUUP - pumps down to ¼" of the surface
5. The pump should be turned off once the water reaches these levels.
6. Do not let the pump run dry. The pump depends on water for cooling and lubrication. Operating the pump without water may cause the motor to overheat or cause damage to parts of the pump. It may also shorten the life of your pump.

Anything that will pass through the intake screen holes will pass through the pump without causing damage. The intake screen on the pump removes easily for cleaning. The units can also be back-flushed using the garden hose adapter.

**NOTICE** This pump has a built in anti-airlock device. Leakage is normal from this device.

## **⚠ DANGER**

**RISK OF ELECTRICAL SHOCK.** Always disconnect the power source before attempting to install, service or perform maintenance on the pump. Failure to do so may result in fatal electrical shock.

<b>TROUBLESHOOTING</b>		
<b>PROBLEM</b>	<b>POSSIBLE CAUSES</b>	<b>HOW TO CORRECT</b>
<b>If the pump does not start or run</b>	Pump is not plugged in, switch or breaker is off	Plug pump in or turn on switch/breaker
	Check for blown fuses or tripped circuit breakers or tripped GFCI outlets	Replace fuse, reset breaker, reset GFCI outlet
	Motor thermal protector tripped	Allow pump to cool. Pump will reset
<b>If the pump runs but moves little or no water</b>	Clogged intake screen	Clean or replace screen
	Clogged discharge hose/pipe	Remove clog
	Frozen discharge hose/pipe	Allow hose/pipe to thaw
	Pump is air locked	Clean out airlock hole with a paper clip or pipe cleaner
	Low line voltage	Check wire size and increase if necessary
	Worn, damaged or clogged pump parts	Inspect for wear, damage or clog and clean or replace if necessary
Discharge head exceeds pump capacity	If pumping height is over 25', the pump will not move water. See performance chart	