



**MULTIQUIP**



# Electric Submersible Pumps



**Versatile pumps with a wide variety of applications**

**Construction Starts Here**

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



# Electric Submersible Pumps

Bolt-on discharge port allows easy replacement

Cast aluminum housing for light weight

Electric motor — water is discharged around the casing for cool operation

Safety First — Selected models carry the UL/CSA listing to protect your customers and your business.

Urethane-covered cast iron volute and an all-urethane impeller withstand tough dewatering projects

Strain relief cord protection

Thermal overload protection prevents motor damage

Compact, streamlined design

Cast iron/steel motor casing serves as heat conductor

Oil-filled dual seal provides lubrication when running dry

Stainless steel strainer and hardware eliminates corrosion

ST2037  
2" — 115V  
73 GPM

## Versatile pumps that handle a wide range of applications:

### Construction

Contractors prefer the rugged design of MultiQuip pumps for removing water from well casings, construction sites, cofferdams and excavations. All pump components are designed to withstand the rigors of the job site.

### Utilities

The pump of choice when dewatering manholes or transformer vaults. Service personnel value their lightweight and portability.

### Municipalities

The versatility and reliability of MultiQuip pumps makes them popular with state and local governments. Street and sanitation departments depend on our pumps for the removal of unwanted water.

### Homeowners

MultiQuip's lightweight, compact submersible pumps are the first choice for household dewatering applications such as basements and swimming pools.

MultiQuip Electric Submersible Pumps are ideal for removing water from confined areas. Their compact design and high performance enables them to get the job done where other pumps come up short. Submersible pumps provide several advantages over engine-driven pumps.

Models are available in sizes ranging from 1½" to 6" and provide high capacities — up to 36,600 GPH — with heads up to 125 feet. Single and three phase motor configurations are available to meet virtually any power requirement.

# Single-Phase Models

## Quiet, Unattended Operation

When you have a deadline to meet, you can't afford to have your pump stop working when your crew is done for the day. Multiquip submersibles are powered by electric motors and can be left running for hours.

## Versatility

Submersibles can operate completely or partially submerged in any position. Unlike engine driven pumps, they require no priming assistance and may be used indoors.

## Maintenance

Since these pumps are driven by electric motors there are no concerns regarding fuel or engine oil. All wear parts are constructed of abrasion resistant material to reduce costly downtime for repairs.

## Impellers

Urethane-covered impellers are made of high-chrome ductile iron to minimize wear and prolong service life.



## Mechanical Seal

The mechanical seal of each pump operates within an oil-filled chamber that provides positive lubrication. This helps prevent damage in the event the pump is run dry for short periods of time. Some models have dual seals.

## "Puddle Sucker"

While many applications require the removal of as much water as possible, most submersible pumps can leave as much as 1" to 2" of water. This can be very impractical when faced with a large surface area such as a basement floor. Multiquip's ST2038P "Puddle Sucker" has the ability to draw water down to a level of 1/16" or lower without having to place the pump in any type of sump.



*These models feature plastic bodies and plastic impellers*

*Includes garden hose adapter*



**Yellow Submarine**  
1 1/4" — 120V  
22 GPM



**SS233**  
2" — 120V  
60 GPM



**ST2038P**  
2" — 120V  
60 GPM



**ST2037**  
2" — 120V  
73 GPM



**ST2047**  
2" — 120V  
87 GPM



**ST2047B**  
2" — 230V  
87 GPM



**ST3020BCUL**  
3" — 230V  
170 GPM

## Motor Protection

All models have built-in thermal overload protection that shuts down the pump when the operating temperature becomes too high. The motor automatically restarts once the temperature returns to an acceptable level.

## Hardware

All hardware is made of stainless steel to resist corrosion and simplify service.

## Quality and Safety

ST-Series single phase 2" and 3" Multiquip submersible pumps are certified in accordance with ISO9001 Quality Management System standard. Additionally, selected models carry the Underwriters Laboratories (UL) listing for compliance with both U.S. or Canadian electrical safety codes.



## Pump Controls

Control boxes and float switches are available for all submersible pump models. These accessories enable the operator to either manually or automatically control pump operation. Features vary by model.



## Hoses

A full line of discharge hoses with standard and quick-disconnect fittings are available to suit your application.



# Submersible Trash Pumps — Single Phase

Heavily debris-laden water calls for rugged pumps. Submersible trash pumps are equipped with a 2" discharge port and easily handle solids up to one inch in diameter. A vortex action discharges solids away from the cast iron multi-vane impeller to prevent clogging.



Strain relief cord protection

Carrying handle

Thermal overload protection

Cast iron pump casing for demanding environments

Oil-filled seal provides positive lubrication when running dry

Easy cleanout

Cast iron impeller

Side discharge



ST2010TCUL  
2" — 120V  
95 GPM

ST2040T  
2" — 120V  
79 GPM

## Stainless Steel Trash Pump

### Pump Casing

High-strength plastic and stainless steel design for corrosive environments.

### 304 Stainless Steel

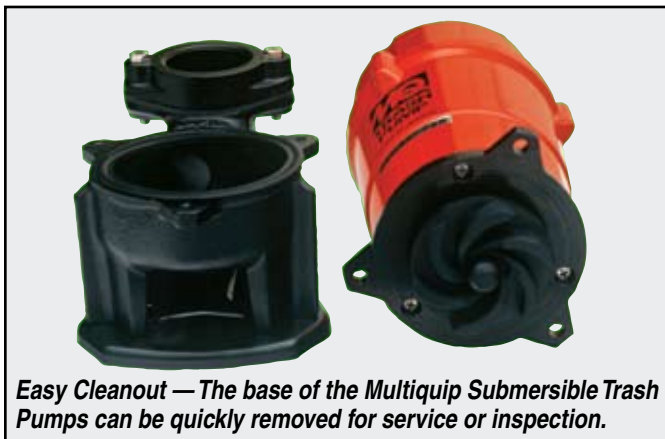
Resists corrosion; ideal for marine and certain chemical applications.

### Impeller

Abrasion-resistant plastic design for long life and chemical resistance.



PX400  
2" — 120V  
72 GPM



Easy Cleanout — The base of the MultiQuip Submersible Trash Pumps can be quickly removed for service or inspection.



# Three-Phase Electric Submersible Pumps

Multiquip 3-phase pumps are perfect for industrial dewatering applications and use with large job site generators where 3-phase power is readily available. Submersible pumps are available in 2", 3", 4" and 6" discharge sizes. All 3-phase models are available in 230/430 dual voltage, 50 or 60 Hz. Control boxes are available for all models that will also allow the use of float switches.

- The ST-2020BD is only 6.7 inches (170 mm) in diameter and can be used with 8 inch casings for dewatering applications. This pump is lightweight but durable at only 57 lbs. (26 kg).
- The ST-3050D is a very popular size for dewatering contractors and equipment rental companies. It is a good combination of flow and head: maximum flow of 145 GPM (549 lpm), maximum head of 86 feet (26 meters).
- The ST-4125D offers a threaded 4 inch discharge. It is built with a rugged cast iron casing.
- The ST-6125D features a flange discharge for pipe that can be adapted for hose. It is Multiquip's highest volume submersible pump at 610 GPM (2,309 lpm). This high-performer has a dependable cast iron casing.
- Both the ST-4125D and the ST-6125D have built in mechanical seal leak detection and come with 50 foot (15.2 meters) electrical power cables.



ST2020BD  
2" — 230/460V  
145 GPM



ST3050D  
3" — 230/460V  
270 GPM



ST4125D  
4" — 230V or 460V  
464 GPM



ST-6125D  
6" — 230V or 460V  
610 GPM

**Note:** All Multiquip 3-phase submersible pumps require a control box to provide it with all of the operation safety shut-downs and to use with float switches (if required). If these pumps are ordered to replace a unit in an existing application where a control box is already installed then the existing control box may be sufficient. If the pump is

part of a new application where a control box is not already present then a control box needs to be ordered with the 3-phase submersible pump. A control box is needed specifically to provide the 3-phase submersible pump with the voltage overload and thermal overload shutdowns, as well as a connection point for the use of float switches.



# Control Boxes and Float Switches

## Float Switches

### SW1A Single Float Switch

■ UL and CSA listed ■ 20 foot, 14 gauge electrical cord (with piggyback plug) ■ For use with ST2037, -2038P, -2040T. (See Figure 1)



### SW1WOPA Single Float Switch

■ UL and CSA listed ■ 20 foot, 14 gauge electrical cord, bare wire on end (no plug) ■ Use with control box applications (direct connection to control box); two each required.

### SW2A Dual Float Switch

■ UL and CSA listed ■ 15 foot, 14 gauge electrical cord (with piggyback plug) ■ For use with ST2047 and -2010TCUL. (See Figure 2)

## Single-Phase Control Boxes

(includes two SW1WOPA Float Switches)

### CB3 Single Phase Control Box

■ Water-resistant fiberglass housing ■ Running light ■ Use with any 120V model submersible pump.



### CB-6 Single Phase Control Box

■ Water-resistant fiberglass housing ■ Relay, transformer, and overload protection ■ Use with any 230V 1Ø pump.

## Three-Phase Control Boxes

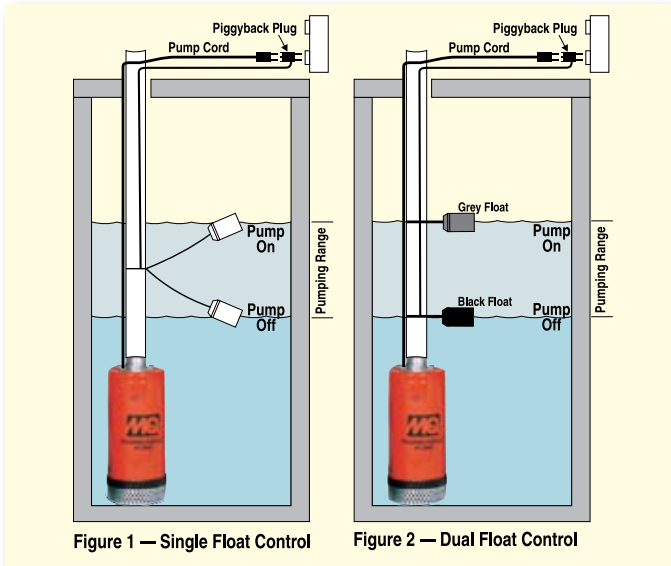
Full-featured Control Boxes (CB-series) (float switches optional)

■ CUL listed (UL for the USA and Canada) ■ Electronic overload guard helps prevent short circuits, single phasing, and power spikes. The overload guards have adjustable amperage settings ■ Watertight housing and cable glands prevent water from leaking into the box; an extra gland is provided in case float switches are used with the box ■ Operation switch and running lights are located on the front of the panel ■ Designed to accept float switches for automatic operation.

Model **CB101** for ST2020BD (230V applications only)

Model **CB102** for ST2020BD (460V applications only)

Model **CB200** for ST3050D (230 or 460V applications)



## Basic Control Boxes (MCP-series)

■ Motor circuit protector, protects against short-circuits, single phasing, and power spikes ■ Adjustable amperage range ■ UL listed watertight fiberglass enclosure ■ Use where float switches are not required.

Model **MCP101** for ST2020BD (230V only)

Model **MCP102** for ST3050D (230V only)

Model **MCP103** for ST-2020BD (460V only)

Model **MCP104** for ST-3050D (460V only)

## 4" and 6" 3-Phase Sub Pump Control Boxes (float switches optional)

■ Water-resistant fiberglass housing ■ Magnetic starter, relay, transformer, and overload protection ■ Designed to accept float switches for automatic operation.

Model **CB-402** for ST-4125 (230V); Model **CB-404** for ST-4125 (460V);

Model **CB-602** for ST-6125 (230V); Model **CB-604** for ST-6125 (460V)

# What You Should Know When Ordering a Pump

Your first concern is to pump water. Before making that telephone call to order your pump, there are a number of questions that need to be answered. The pump supplier wants to make certain that you get the pump you need. Knowing the answers to these questions will make their job easier and your ordering process much faster — and you'll know that you have the correct pump for your job.

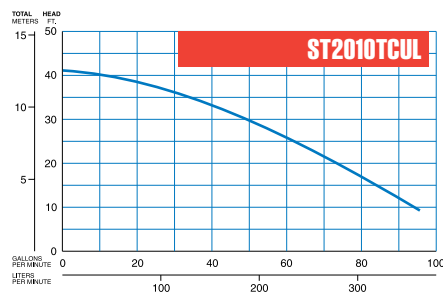
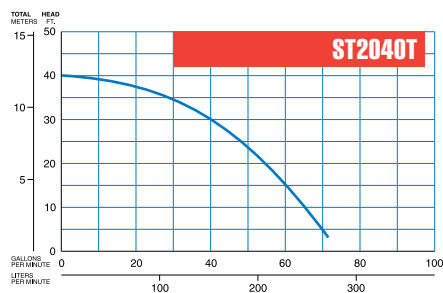
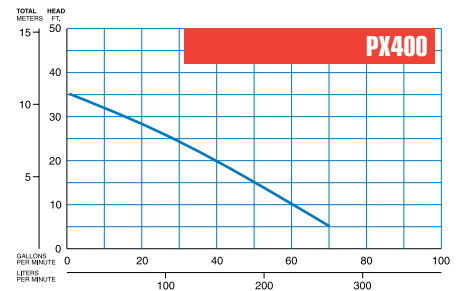
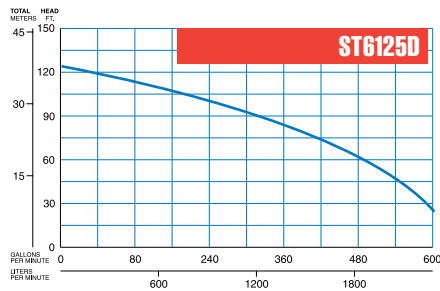
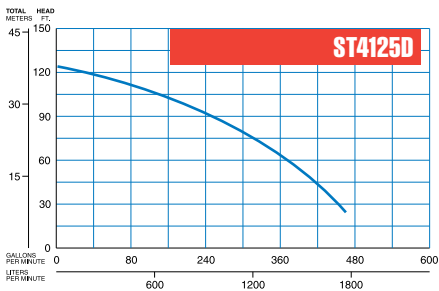
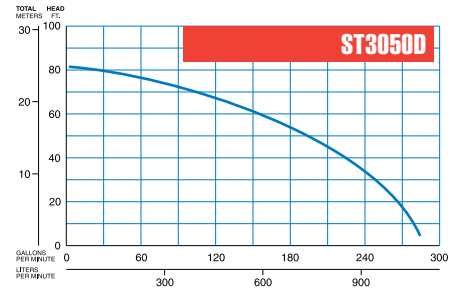
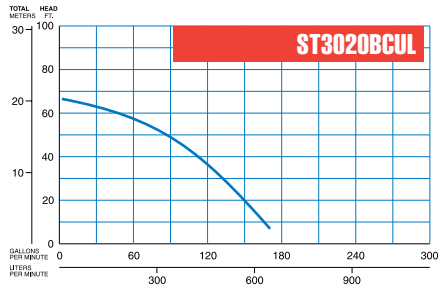
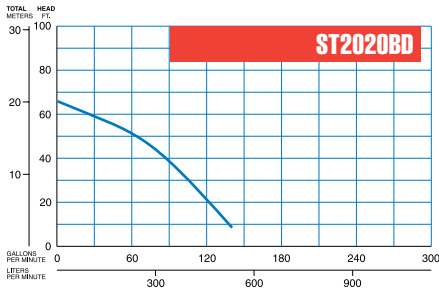
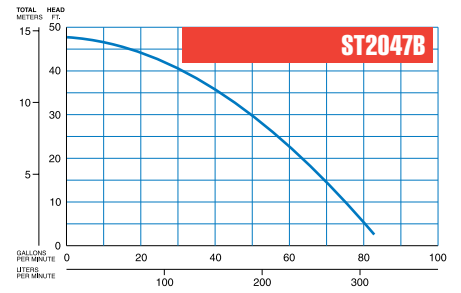
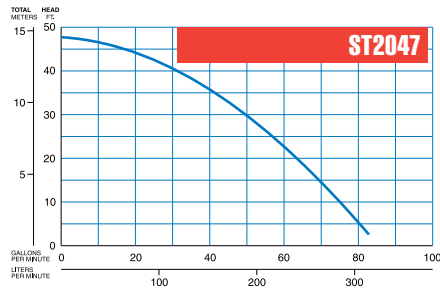
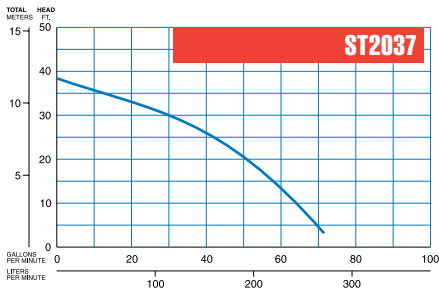
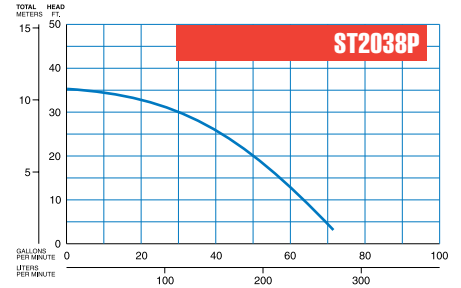
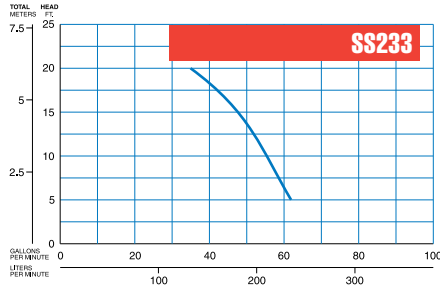
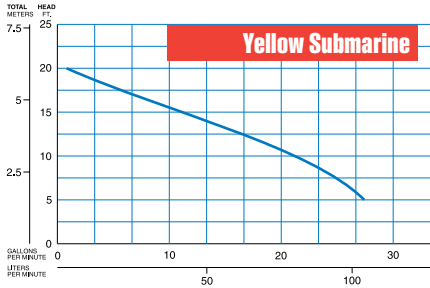
- **What is your application?** Describe your pumping application, what is it that you need to do with the pump.
- **How far under the water will the pump be located?**
- **What is the liquid that you are pumping?** If it is water, then describe the condition of the water and if you are pumping any solids or sand. Is it hot water? If it is something other than water, be very specific about the liquid and its properties.

- **Are you looking for an approximate flow?** Gallons per minute or per hour.
- **What is the height from the surface of the water you are pumping from to the discharge point?**
- **What is the length and diameter of your discharge hose/pipe?**
- **Is there any vertical rise in the discharge hose?** If so, what is the vertical distance from the pump to where the water is discharging, or the highest point along the discharge hose.
- **Are you using rubber/PVC water hoses, steel pipe, or PVC pipe?**

There can be more questions but these few will give you a good start in getting the correct pump for your job.



# Pump Performance Curves



# Multiquip Electric Submersible Pumps – Specifications

Model	Impeller	Disc. Size in. (mm)	Max. Solids in. (mm)	Total Head ft. (m)	Capacity GPM (lpm)	HP (kw)‡	Voltage; Phase	Starting Amp.	Running Amp.	Cable Length ft. (m)	Diameter in. (mm)	Height in. (mm)	Weight lb (kg)
<b>CENTRIFUGAL</b>													
Yellow Submarine	Plastic	1¼ (31.7)	–	20 (6.1)	22 (83)	0.25 (.185)	120V 1Ø	11.5	2.3	9 (2.7)	5.375 (136)	9.5 (24)	6 (2.72)
SS233	Plastic	2 (50)	–	20 (6.1)	60 (227)	0.5 (0.37)	120V 1Ø	30	6	20 (6.1)	7.25 (184)	14.5 (36.8)	15.5 (7.0)
ST2038P*	Neoprene Rubber over Cast Iron	2 (50)	–	42 (12.8)	60 (227)	1 (0.75)	120V 1Ø	56	8	50 (15.2)	7.7 (196)	15.4 (391)	31 (14)
ST2037*	Neoprene Rubber over Cast Iron	2 (50)	–	37 (11.3)	73 (276)	1 (0.75)	120V 1Ø	34.5	6.9	50 (15.2)	7.4 (188)	15.4 (391)	31 (14)
ST2047*	Neoprene Rubber over Cast Iron	2 (50)	–	47 (14.3)	87 (329)	1 (0.75)	120V 1Ø	49	9.8	50 (15.2)	7.4 (188)	15.4 (391)	33 (15)
ST2047B*	Neoprene Rubber over Cast Iron	2 (50)	–	47 (14.3)	87 (329)	1 (0.75)	230V 1Ø	24.5	4.9	50 (15.2)	7.4 (188)	15.4 (391)	33 (15)
ST2020BD	Cast Ductile Iron	2 (50)	–	66 (20)	145 (549)	2 (1.5)	230/460V 3Ø	28 (230V) 14 (460V)	5.6 (230V) 2.8 (460V)	50 (15.2)	6.7 (170)	23 (580)	57 (26)
ST3020BCUL*	Cast Ductile Iron	3 (75)	–	72 (22)	170 (644)	2 (1.5)	230V 1Ø	52	10.5	50 (15.2)	6.7 (170)	28.5 (720)	67 (30)
ST3050D	Cast Ductile Iron	3 (75)	–	86 (26)	270 (1022)	5 (3.75)	230/460V 3Ø	77 (230V) 39 (460V)	14.2 (230V) 7.1 (460V)	50 (15.2)	10.2 (259)	26.8 (680)	120 (54)
ST4125D	Cast Ductile Iron	4 (100)	–	125 (38)	464 (1756)	10 (7.5)	230/460V 3Ø	149 (230V) 75 (460V)	27 (230V) 14 (460V)	50 (15.2)	14.2 (361)	32.7 (831)	330 (150)
ST6125D	Cast Ductile Iron	6 (150)	–	125 (38)	610 (2309)	15 (11)	230/460V 3Ø	215 (230V) 108 (460V)	29 (230V) 19.7 (460V)	50 (15.2)	14.2 (361)	38.8 (986)	390 (177)
<b>TRASH PUMPS</b>													
PX400*	Plastic	2 (50)	1 (25)	34 (10.3)	72 (273)	0.5 (0.37)	120V 1Ø	37	7	19 (5.6)	10 (254)	17 (430)	25 (11)
ST2040T*	Neoprene Rubber over Cast Iron	2 (50)	1 (25)	40 (12.2)	79 (299)	1 (0.75)	120V 1Ø	34	6.8	50 (15.2)	10.3 (267)	16.8 (427)	34 (15.4)
ST2010TCUL*	Cast Ductile Iron	2 (50)	1 (25)	45 (13.7)	95 (360)	1 (0.75)	120V 1Ø	53	9.4	50 (15.2)	10.3 (267)	22.7 (576)	77 (35)

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**Note:** Models ST2020BD, -3050D, -4125D, and -6125D come factory-preset for operation at 230 volts. Specify when ordering if 460 volt operation is desired.

\* Complies with UL and Canadian Electrical Standards.

**Note: All Multiquip 3-phase submersible pumps require a control box to provide it with all of the operation safety shut-downs and to use with float switches (if required).** If these pumps are ordered to replace a unit in an existing application where a control box is already installed then the existing control box may be sufficient. If the pump is part of a new application where a control box is not already present then a control box needs to be ordered with the 3-phase submersible pump. A control box is needed specifically to provide the 3-phase submersible pump with the voltage overload and thermal overload shutdowns, as well as a connection point for the use of float switches.

‡ Engine power ratings are calculated by the individual engine manufacturer and the rating method may vary among engine manufacturers. Multiquip Inc. and its subsidiary companies makes no claim, representation or warranty as to the power rating of the engine on this equipment and disclaims any responsibility or liability of any kind whatsoever with respect to the accuracy of the engine power rating. Users are advised to consult the engine manufacturer's owners manual and its website for specific information regarding the engine power rating.



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