

## E Series - Small Capacity Stationary Pumps

Designed for direct motor mount to the 56C-frame electric motor or to internal combustion engine for portable transfer applications. Each E-series pump comes complete with an internal/external bypass valve and built-in strainer. Affords the flexibility of either using the pump bypass valve to relieve within the pump in cases where it is necessary or with a simple rotation of the pump cover, the internal bypass valve can be used as an external bypass valve with the use of a return line back to the supply tank. The bypass valve cartridge is set to crack at 90 psid. Replacement parts for E-series are interchangeable with D-Series. Foot Mount, Replacement Motors and Exchange Program available.



EG-1Z on Motor

### EG Series

Part no.	Description
EG-1	Pump only, 3/4" inlet & outlet
EG1-M1-3B	Pump w/1 HP motor, 115/208/230V 1Ø (EM1-3B)
EG1-M7H	Pump w/ 3 1/2 HP motor, 7H Honda engine
E-100X	Exchange, Shaft- Seal assembly for EG-1
WW-340	Bypass Valve, 3/4" x 3/4" 10-15 gpm
VC-20	Flexible Drive Coupling, 1HP Max, Bore Diameter 5/8" or 3/4", Insert #FD-20
EG-5	Drive Gear
EG-6	Idler Gear
6230-28	O-Ring for Cover Plate

### ECH Series

Part no.	Description
ECH-1	Pump only, 1" inlet & outlet
ECH-M5B	Pump w/1½ HP motor, 115/208/230V 1Ø (EM-5B)
ECH-M6B	Pump w/1½ HP motor, 208/230/460V 3Ø (EM-6B)
ECH-M7H	Pump w/ 1 1/2 HP motor, 7H Honda engine
E-100HX	Exchange, Shaft seal assembly for EC-H
WW-340	Bypass Valve, 3/4" x 3/4" 10-15 gpm
VC-30	Flexible Drive Coupling, 1 1/2HP Max, Bore Diameter 5/8", 3/4", 7/8" or 1", Insert #FD-30
EC-5H	Drive Gear
EC-6H	Idler Gear
6230-28	O-Ring for Cover Plate

## GC Series - Small Capacity Stationary Pumps

Designed for direct motor mount to 56C-frame electric motor. The GC-series pump can be used in conjunction with an internal combustion engine for portable transfer applications. Each GC-series pump utilizes the balanced 3-gear set unique to Smith pumps. The internal porting and superior construction enable these pumps to handle continuous duty service applications and pump against high differential pressure. Features a permanently set internal bypass valve at 90 psid. Foot Mount, Replacement Motors and Exchange Program available.



### GC-1LZ

#### Ideal for AutoGas Applications

- Allows for efficient use of direct single-phase current without the increased cost of expensive phase converters requiring large HP motors that consume more power
- Balanced loading design allows for smooth operation at higher differential pressure
- Developed for marginal inlet conditions and fuel-injected Autogas vehicles. Quieter operation and longer on-times
- Superseal™ is standard
- Cambered and hardened gear set stays in liquid when vapor phase conditions exist in the pump
- Built-in internal relief valve
- Identical mounting dimensions from motor feet to drive shaft and inlet-outlet centerlines as Smith D and E Series pumps

Part no.	Description
GC-1	Pump only, with Superseal
GC-1LZ-EM-5B	Pump with 1 1/2 HP motor, 115/208/230V 1Ø, XP (EM-5B)
GC-1LZ-EM-6B	3/4" Pump - 1 1/2 HP motor with Superseal 3Ø
GC-1LZ-M7H	3/4" Pump with 7H Honda Engine
GC-1LZNSSA	GC-1LZ Pump w/special alloy steel gears and idler gear shafts
GC-1LZNSSA-EM-5B	Pump with 1 1/2 HP motor, 115/208/230V 1Ø, XP (EM-5B) w/special alloy steel gears and idler gear shafts
GC-1LX	Exchange, Shaft-seal assembly for GC-1. With Superseal.
WW-340	Bypass Valve, 3/4" x 3/4" 10-15 gpm
VC-20	Flexible Drive Coupling, 1HP Max, Bore Diameter 5/8" or 3/4", Insert #FD-20
176-S	Strainer 1 1/4" x 3/4"
179-S	Strainer 1 1/4" x 1 1/4"
649-5L	Large Drive Gear
649-6L	Large Idler Gear (need 2)

See Teeco Catalog Section B for additional Smith parts and Accessories

## Proper Motor Wiring

Before you get started specifying the proper wiring size for your installation, you will need to gather some information. First you need to determine what voltage you will be operating the motor (115v/230v). Keep in mind that motors are designed to operate +/-10% of their rated voltage. For example a 115 volt motor has a range of 103.5 to 126.5 volts. Next you will need to locate the specification plate on your motor and determine the maximum or full load amps. For example, for a 1 H.P. motor operating on 115V, the maximum or full load amps would be somewhere around 10.5. (This can vary between motor manufacturers.) The last bit of information that you will need to obtain is the distance from the breaker box to the motor. To simplify the process of determining the proper wire size, we have provided you with a chart below.

### Recommended Wire Size

Wire Size, AWG for 115 & 230 Volt  
Single Phase Circuits\*

Distance - Motor to Fuse or Meter Box - Feet

Motor H.P.	100 ft		200 ft		300 ft		500 ft	
	115V	230V	115V	230V	115V	230V	115V	230V
3/4	10	12	6	10	4	8	2	6
1	8	10	6	8	4	6		4
1 1/2	4	10	4	8		6		4

When starting your motor, Full Load Amps can be expected at normal bypass valve settings between 90-100 psid. The motor will work efficiently, provided the recommended wire size is used. Operating a pump/motor combination at the low Voltage range is very inefficient. The motor will run hot and the motor internal thermal overload device may trip. The best practice is to operate the pump/motor combination at mid-range.

Sometimes, the wire size selected is marginal, and a new pump works fine for a while. However, once the pump clearances open, the flexible drive coupling wears, and the ball bearings see some use, the pump may demand more power. At this point, the marginal wire size used is now causing a Voltage drop and excessive Amps are tripping the internal thermal overload device or external circuit breaker.

If recommended wire size is used, with the pump in the bypass mode, you should see Full Load Amp draw figures close to what is stated on your motor specification plate.

If, during normal operation, you experience amp draw in excess of Full Load Amps, this could be an indication of a problem. You will need to verify that the proper wiring size was used, look for a Voltage drop, and trouble-shoot the plumping and other related equipment utilized in the installation. Contact your local Teeco salesman or branch for more help in choosing the right size of wire for your application.



# Core Exchange Program

Turn in your old, worn out pump for credit on a new SMITH Pump or shaft seal. All exchanges are based on model for model, on a one-on-one basis.

**Core must be exchanged within one year of purchasing new or exchange unit.**

Model
DW-1X
DW-HX
ECH-1X
EG-1X
GC-1LX
MC-1X
MC-2X
MC-3X
MC-4X
MC-5X
MC-1044X
MC-1044HX
TC-2X
TC-2FX
TC-1044HX
E-100X
E-100HX
MC-100X
MC-101X
MC-102X
MC-102QX
MC-103X
MC-104X
MC-105X

**Pump Exchange only. Motor not included.**



D-Series



E-Series



MC-1, GC-1



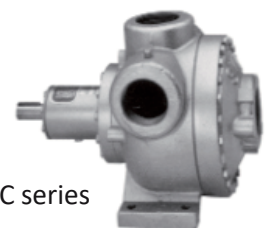
MC-3



MC-4



MC-5



TC series



Sacramento, CA  
800-225-6621

Auburn, WA  
800-426-9456

Rapid City, SD  
800-843-8660

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