

# Small Capacity Pumps

## SQ-Series Pumps

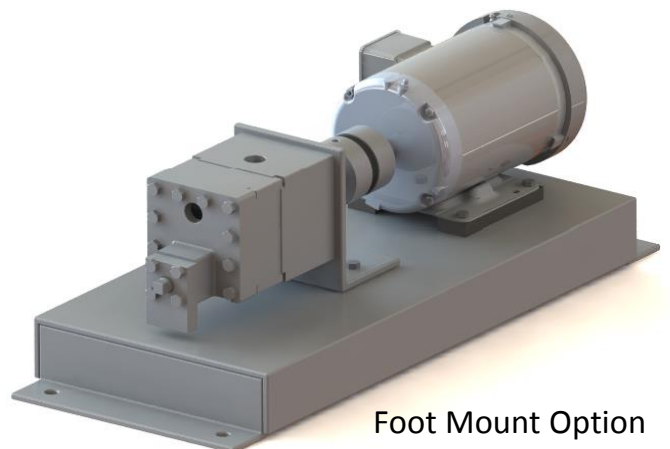
Flow Rates of 2-13 GPM (7-50 LPM)



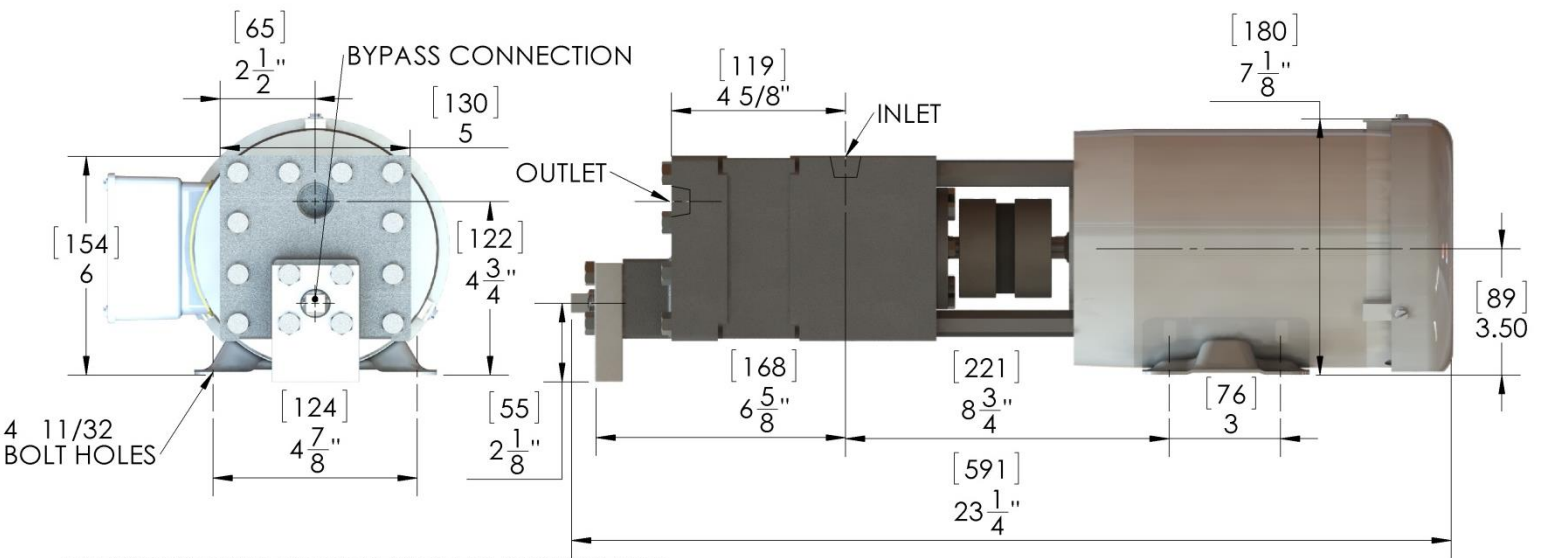
- Designed specifically for continuous duty recirculation systems
- Larger mechanical seal provides longer wear life
- Easily mounts directly to motor face with feet; no base required
- Foot mount available upon request
- No lubrication/greasing ever required

MODEL	FLOW RATE (Assume 0 psi/bar differential pressure)	PUMP INLET SIZE	PUMP OUTLET SIZE	USUAL SIZE OF TANK LIQUID OUTLET	MOTOR	NPSHr
<b>SQ-1</b> MAX 1800 RPM	5 GPM (19 LPM) @ 1800 RPM 2.5 GPM (10 LPM) @ 900 RPM	¾" OR 1"	¾"	¾" – 1- ¼"	0.25 - 0.5 HP (0.19 - 0.37 kW)	6"
<b>SQ-H</b> MAX 1800 RPM	7 GPM (26 LPM) @ 1800 RPM 3.5 GPM (13 LPM) @ 900 RPM	¾" OR 1"	¾"	¾" – 1- ¼"	0.25 - 1 HP (0.19 - 0.75 kW)	6"
<b>SQ-HH</b> MAX 1800 RPM	13 GPM (49 LPM) @ 1800 RPM 6 GPM (23 LPM) @ 900 RPM	¾" OR 1"	¾"	¾" – 1- ¼"	0.5 - 1.5 HP (0.37 – 1.1 kW)	6"
<b>SQ-HH8</b> MAX 1200 RPM	13 GPM (49 LPM) @ 1200 RPM 10 GPM (38 LPM) @ 900 RPM	¾" OR 1"	¾"	¾" – 1- ¼"	0.5 - 1.5 HP (0.37 – 1.1 kW)	6"

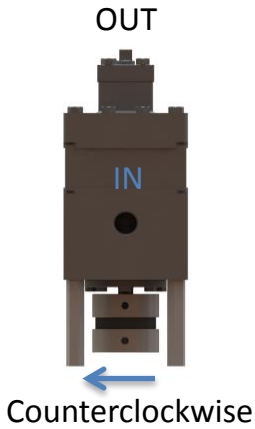
The SQ-series pumps are ideal for continuous duty, broad temperature range applications as well as variable viscosity liquids for recirculation systems or test chambers. A non-adjustable external bypass valve built into the cover, preset at 90 psi (6.1 bar) over tank pressure, is standard. For applications requiring higher than 90 psid, this bypass valve is removed and an external bypass valve is recommended. 110 psi (7.5 bar) bypass valve setting is also available.



Foot Mount Option



DIMENSIONS SHOWN ARE FOR 56-C FRAME MOTOR WITH FEET  
 PUMP SHAFT DIAMETER = 5/8" [16] STANDARD OR 1"[25] OPTION  
 MOTOR SHAFT DIAMETER= 5/8" [25] FOR 56-C FRAME MOTOR  
 PUMP DIMENSIONS ARE FOR SQ-1, SQ-H, SQ-HH, AND SQ-HH8 MODELS WITH 5/8" [25] DIAMETER PUMP SHAFT  
 OVERALL PUMP DIMENSIONS ARE LONGER FOR 1" [25] DIAMETER PUMP SHAFT  
 3/4" FNPT INLET AND OUTLET, 1" OUTLET ALSO AVAILABLE ON TOP OR SIDE OF PUMP  
 \* ALL DIMENSIONS IN INCHES, [] DENOTES MM  
 \*\*FOR A MORE DETAILED DRAWING, PLEASE VISIT SMITHPUMPS.COM



Model	Weight (Pump only)	Weight (Pump, coupling, motor)
ALL SQ MODELS	39-45 lbs (17-21 kg)	75-90 lbs (34-40 kg)

\* Weight varies depending on pump model and motor, contact factory for specific weight

## Pump Performance Curves

For specific refrigerant performance curves, please contact our engineering department or visit our predicted pump performance calculator at [smithpumps.com](http://smithpumps.com)

# Small Capacity Pumps

## MC-1, GC-1 Series Pumps

Flow Rates of 2.5 – 5 GPM (9-19 LPM)



MC-1 PUMP

- Strongly recommended as having the lowest long-run cost where heavy duty and maximum performance are required.
- Both pump models are easily mounted directly to the motors with feet, no base required.
- Foot mount is also available.
- Both pumps can be rotated upside down to accommodate pipework inlet/outlet.

MODEL	FLOW RATE (Assume 0 psi differential pressure)	PUMP INLET SIZE	PUMP OUTLET SIZE	USUAL SIZE OF TANK LIQUID OUTLET	MOTOR	NPSHr
MC-1 MAX 1800 RPM	5 GPM (19 LPM) @ 1800 RPM 2.5 GPM (9 LPM) @ 900 RPM	3/4"	3/4"	3/4"	0.25 – 1 HP (0.19 – 0.75 kW)	6"
GC-1 MAX 1800 RPM	5 GPM (19 LPM) @ 1800 RPM 2.5 GPM (9 LPM) @ 900 RPM	3/4"	3/4"	3/4"	0.25 – 1 HP (0.19 – 0.75 kW)	6"

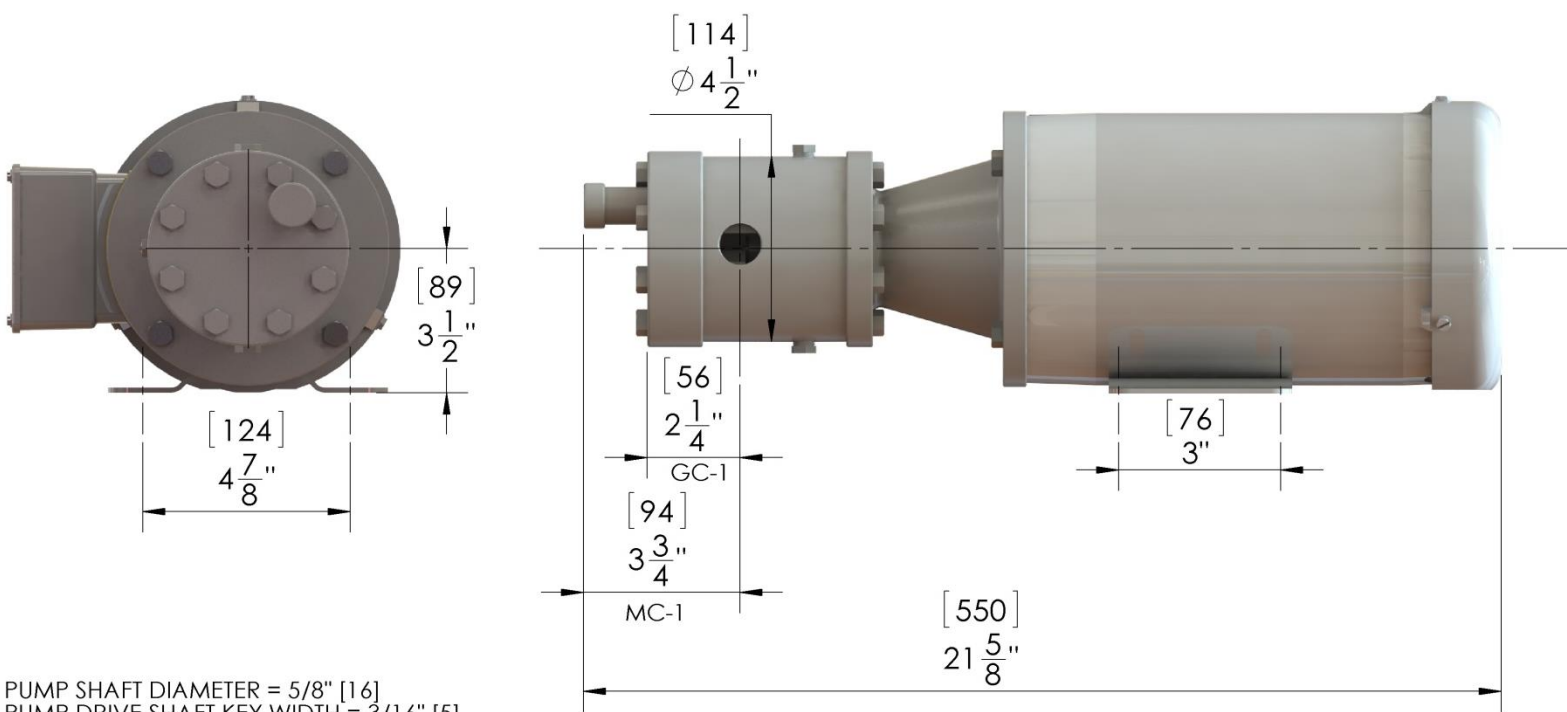
The MC-1 contains an internal, *adjustable* bypass relief valve set at 100 psid with maximum setting of 110 psid.

The GC-1 contains an internal, *permanently* set bypass valve at 100 psid. 150 psid option is also available. The GC-1 mechanical seal is exposed to inlet pressure only, extending shaft seal life.

External bypass valves are recommended.



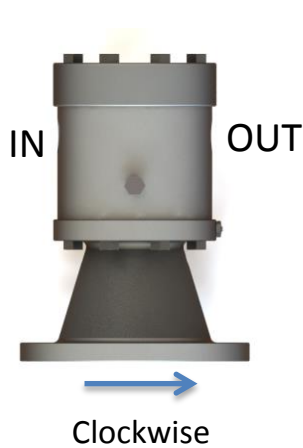
GC-1 PUMP



PUMP SHAFT DIAMETER = 5/8" [16]  
 PUMP DRIVE SHAFT KEY WIDTH = 3/16" [5]  
 PUMP DIMENSIONS ARE FOR MC-1 AND GC-1 PUMPS, 3/4" INLET AND OUTLET  
 MOTOR SHAFT SIZE = 5/8" [16]  
 MOTOR DIMENSIONS ARE FOR 56C FRAME MOTOR WITH FEET, 1 HP (.75 kW)  
 \* ALL DIMENSIONS  $\pm$ 1/16 IN INCHES, [ ] DENOTES MM  
 \*\*FOR A MORE DETAILED DRAWING, PLEASE VISIT SMITHPUMPS.COM

### MC-1

### GC-1



Model	Weight (Pump only)	Weight (Pump, coupling, motor)
MC-1, GC-1	20 lbs (9 kg)	75 lbs (34 kg)

\* Weight varies depending on pump model and motor, contact factory for specific weight

## Pump Performance Curves

For specific refrigerant performance curves, please contact our engineering department or visit our predicted pump performance calculator at [smithpumps.com](http://smithpumps.com)