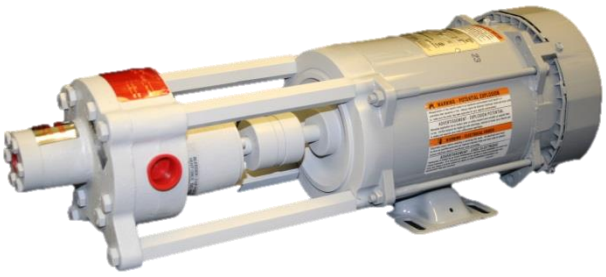
# Small Capacity Pumps

## D-Series Pumps

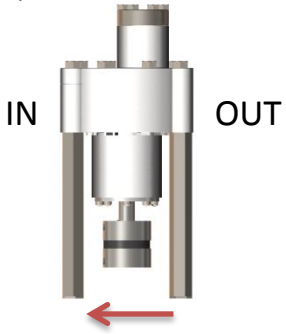
Flow Rates of 10-15 GPM (38 – 57 L/min)



- Most economical pump for intermittent duty, cylinder filling applications
- Comes with a built-in bypass valve preset to 90 psid to be used in place of an external bypass valve
- Built in strainer screen
- Shaft seal assembly/gears can be serviced in the field without disrupting the piping

| Pumps Only | | Average Delivery Rate (See page 10 for pump performance curves) | | Maximum Differential Pressure | Inlet/ Outlet Size | Motor* |
|---|---|---|---|---|---|---|
| Model | Motor Speed (RPM) | 40 PSID (3 bar) | 75 PSID (5 bar) | PSI (BAR) | FNPT (DN) | HP (kW) |
| DW-1Z **MAX 3600 RPM** | 3600 (60 Hz) 3000 (50 Hz) | 8.5 GPM (27 LPM) | 7 GPM (21 LPM) | 125 PSI (8 BAR) | ¾" (DN 20) | 1 HP (0.55 kW) |
| DW-HZ **MAX 3600 RPM** | 3600 (60 Hz) 3000 (50 Hz) | 13.5 GPM (38 LPM) | 12 GPM (31 LPM) | 125 PSI (8 BAR) | 1" (DN 2) | 1-1/2 HP (0.75 kW) |

*Explosion Proof motors are UL listed and available in 1 or 3 phase electricity for 60 Hz (3600 RPM) or 50 Hz (3000 RPM) locations, 1 phase: 115/208-230V, 3 phase: 208/230/460 V. All motors contain thermal overload protection and are 56C-frame with feet allowing the motor to be directly mounted to the pump. Foot-mount options are also available for motors with different frame sizes. ATEX certified motors also available. For external dimension drawings, please visit www.smithpumps.com.



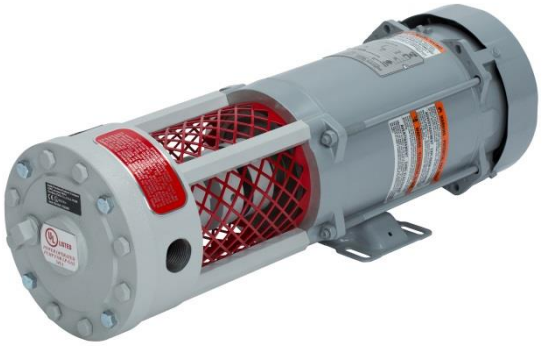

Counterclockwise

| Model | Length of time to fill LP-gas cylinders | | Weight (Pump only) | Weight (Pump, coupling, motor) |
|---|---|---|---|---|
| | 20 lb. (9kg) | 100 lb. (45 kg) | | |
| ALL D-series Models | Less than 1 minute | 3-4 minutes | 22 lbs (10 kg) | 60-67 lbs (27-30 kg) |

# E-Series Pumps

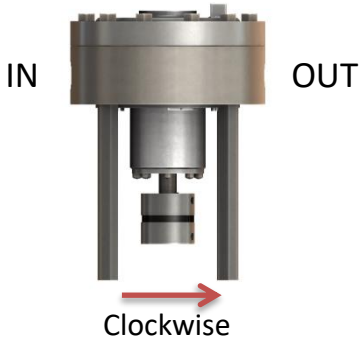
Flow Rates of 10-15 GPM (38 – 57 L/min)

- Most popular pump for intermittent duty, cylinder filling applications
- Comes with a built-in bypass valve preset to 90 psid (110 setting also available) that can be used internally or externally.
- Built in strainer screen
- Shaft seal assembly/gears can be serviced in the field without disrupting the piping
- Pump may be mounted right side up or upside down to accommodate piping



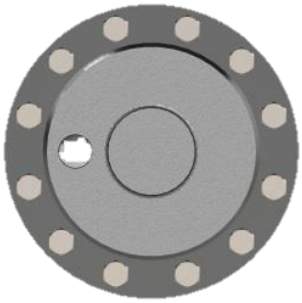
| Pumps Only | | Average Delivery Rate | | Maximum Differential Pressure (UL rating) | Inlet/ Outlet Size | Motor* |
|---|---|---|---|---|---|---|
| Model | Motor Speed (RPM) | 40 PSID (3 bar) | 75 PSID (5 bar) | PSI (BAR) | FNPT (DN) | HP (kW) |
| EG-1Z **MAX 3600 RPM** | 3600 (60 Hz) 3000 (50 Hz) | 8.5 GPM (25 LPM) | 7 GPM (21 LPM) | 125 PSI (8 BAR) | ¾" (DN 20) | 1 HP (0.55 kW) |
| EC-HZ **MAX 3600 RPM** | 3600 (60 Hz) 3000 (50 Hz) | 13.5 GPM (38 LPM) | 12 GPM (31 LPM) | 125 PSI (8 BAR) | 1" (DN 25) | 1-1/2 HP (0.75 kW) |

*Explosion Proof motors are UL listed and available in 1 or 3 phase electricity for 60 Hz (3600 RPM) or 50 Hz (3000 RPM) locations, 1 phase: 115/208-230V, 3 phase: 208/230/460 V. All motors contain thermal overload protection and are 56C-frame with feet allowing the motor to be directly mounted to the pump. Foot-mount options are also available for motors with different frame sizes. ATEX certified motors also available. For portable, gasoline engine units and external dimension drawings, please visit www.smithpumps.com

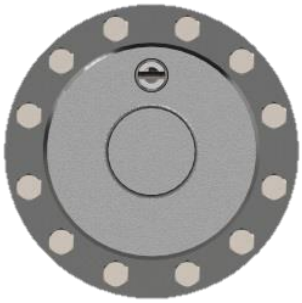



| Model | Length of time to fill LP-gas cylinders | | Weight (Pump only) | Weight (Pump, coupling, motor) |
|---|---|---|---|---|
| | 20 lb. (9 kg.) | 100 lb. (45 kg.) | | |
| ALL E-series Models | Less than 1 minute | 3-4 minutes | 25 lbs (12 kg) | 77-92 lbs (35-42 kg) |

# E-Pump Bypass Options



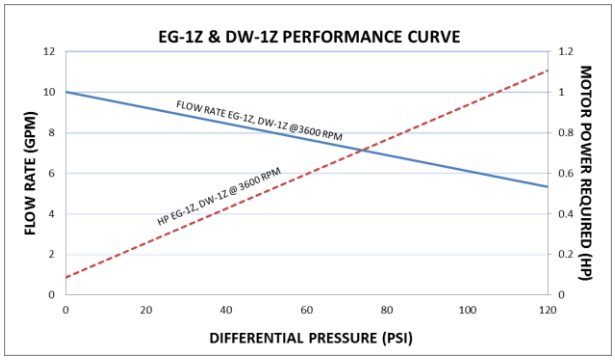
Refer to our Training Videos online at [www.smithpumps.com](http://www.smithpumps.com) for more information

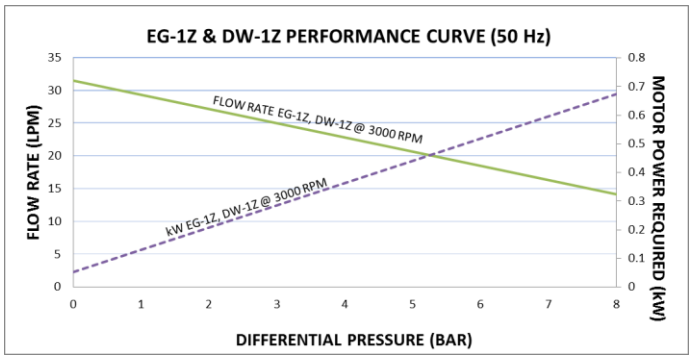


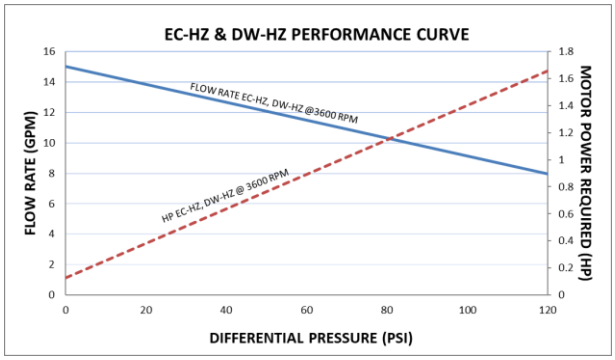
**9 O'clock position (plug is left in place, bypass valve is internal, separate external bypass must be used)**

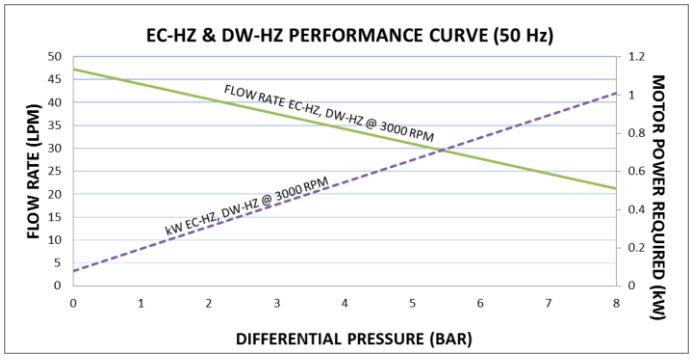
**12 O'clock position (plug is removed, bypass valve is now external, no separate external bypass valve is needed)**

# Pump Performance Curves




Performance curves based on delivery rates of Propane at 75°F (24°C). Actual flow may be 10-15% greater than predicted. Delivery rates will be reduced by approximately 15% at temperatures approaching 32°F (0°C).

Note: E and D series pumps will not develop more than 90psid due to the internal relief valve setting (110 psid setting also available). For other liquid services or for more information on predicted pump output, please visit our pump performance calculator at smithpumps.com

# MC-1, GC-1 Series Pumps

Flow Rates of 10-13 GPM (38 – 49 LPM)

- Most diverse pump used for higher differential pressures (Autogas) or intermittent/continuous duty cylinder filling
- Cambered and hardened gear set stays in liquid phase when vapor conditions exist
- 1 phase, 1-1/2 HP motor allows for user to reduce electricity costs
- Identical mounting dimensions as the E & D series pump for ease of changeability
- Can be mounted upside down or vertical to accommodate piping
- No greasing or lubrication required

GC-1LZ PUMP

| Pumps Only | | Average Delivery Rate | | Maximum Differential Pressure (UL Rating) | Inlet/ Outlet Size | Motor |
|---|---|---|---|---|---|---|
| Model | Motor Speed (RPM) | 40 PSID (3 bar) | 75 PSID (5 bar) | PSI (BAR) | FNPT (DN) | HP (kW) |
| GC-1LZ **MAX 3600 RPM** | 3600 (60 Hz) 3000 (50 Hz) | 11 GPM (33 LPM) | 9 GPM (27 LPM) | 125 PSI (8 BAR) | ¾" (DN 20) | 1-1/2 HP (0.75 Kw) |
| MC-1Z **MAX 3600 RPM** | 3600 (60 Hz) 3000 (50 Hz) | 8.5 GPM (25 LPM) | 7 GPM (21 LPM) | 125 PSI (8 BAR) | ¾" (DN 20) | 1-1/2 HP (0.75 kW) |

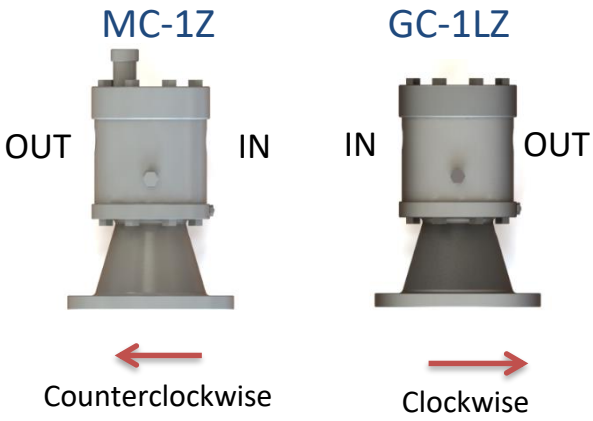
**Explosion Proof motors are UL listed and available in 1 or 3 phase electricity for 60 Hz (3600 RPM) or 50 Hz (3000 RPM) locations, 1 phase: 115/208-230V, 3 phase: 208/230/460 V. All motors contain thermal overload protection and are 56C-frame with feet allowing the motor to be directly mounted to the pump. Foot-mount options are also available for motors with different frame sizes. ATEX certified motors also available. For portable, gasoline engine units and external dimension drawings, please visit www.smithpumps.com.

The GC-1LZ contains an internal, permanently set relief valve set to 150 psid. The GC-1LZ mechanical seal is exposed to inlet pressure only, extending shaft seal life.

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

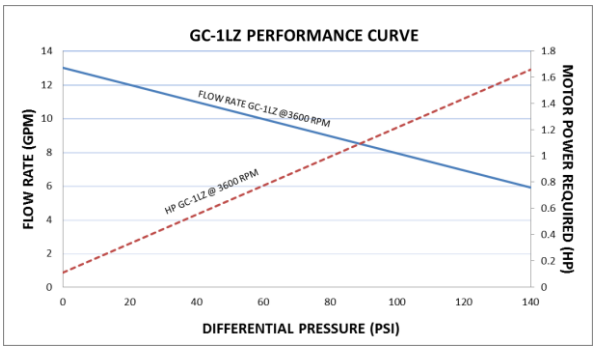
External bypass valves and Y-type strainers are recommended.

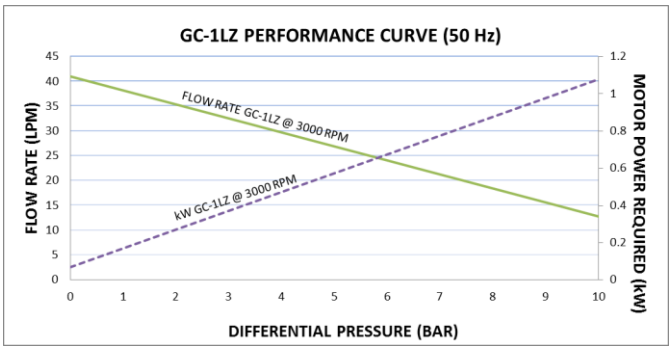
MC-1 PUMP

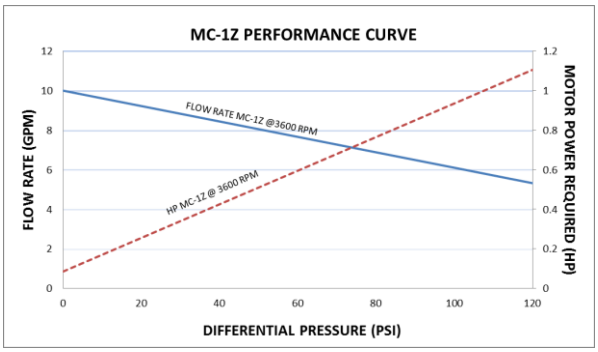


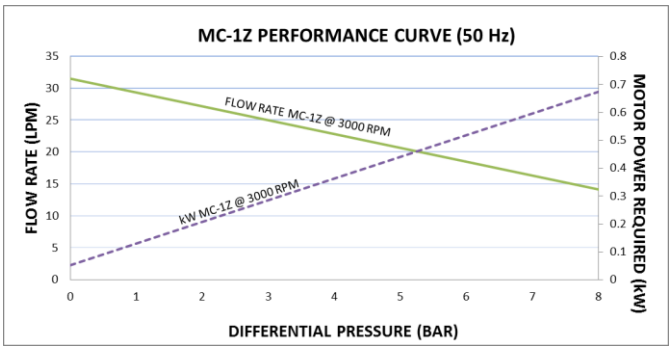

| Model | Length of time to fill LP-gas cylinders | | Weight (Pump only) | Weight (Pump, coupling, motor) |
|---|---|---|---|---|
| | 20 lb. (9 kg.) | 100 lb. (45 kg.) | | |
| GC-1LZ, MC-1 | Less than 1 minute | 3-4 minutes | 20 lbs (9 kg) | 73 lbs (34 kg) |

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




Performance curves based on delivery rates of Propane at 75°F (24°C). Actual flow may be 10-15% greater than predicted. Delivery rates will be reduced by approximately 15% at temperatures approaching 32°F (0°C).

Note: MC-1 series pumps will not develop more than 110 psid due to the internal relief valve setting. For other liquid services or for more information on predicted pump output, please visit our pump performance calculator at smithpumps.com.