

Accurate, Dependable Metering Pumps for Liquid Chemicals



MF Series Simplex Pump
(shown with plastic wetted end)

These simple, rugged, accurate pumps are used in many industrial plants for injecting a controlled flow of highly reactive liquids such as acids, caustics, and water treatment chemicals. Heavy duty industrial grade construction means these tough little pumps will deliver many years of trouble free 24-7-365 pumping.

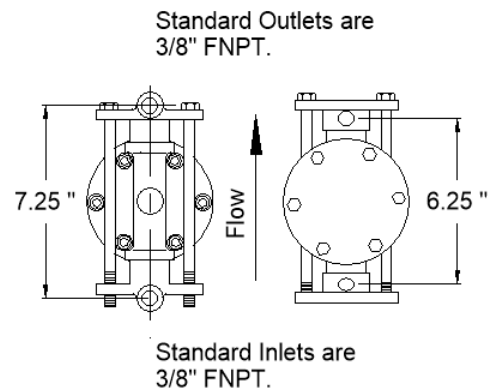
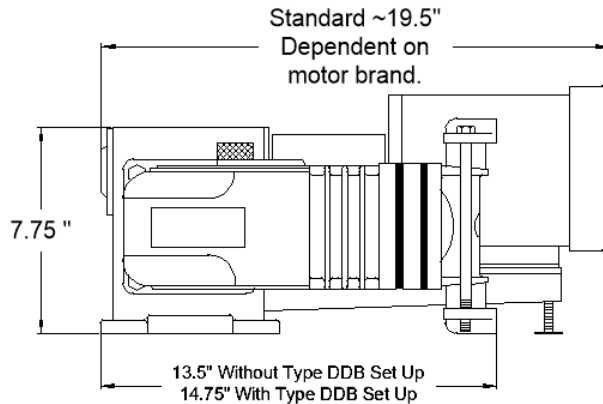
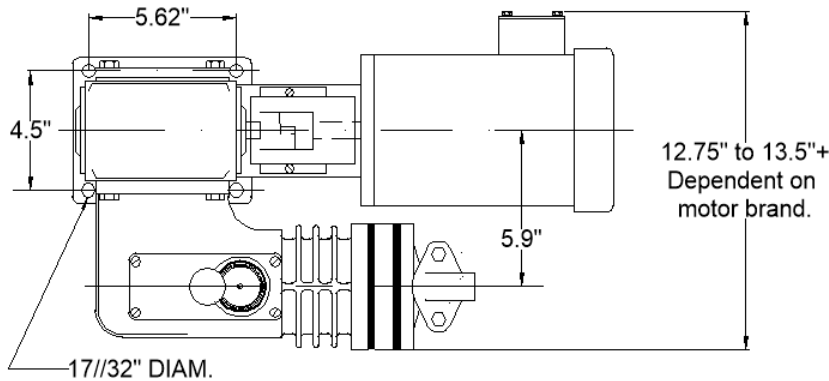
- ✓ MF Series pumps are designed for +/- 1% steady state repeatable accuracy over a 10:1 turndown range.
- ✓ Manual output control knob is located on top of the pump for easy access.
- ✓ Automatic pump output control is available for pumps equipped with variable speed motor and variable frequency drive
- ✓ Industrial grade worm gear reducer is integral with the pumping mechanism. Precision internal pump parts run in an oil bath for extended service life. No external lubrication required.
- ✓ Double diaphragm option is available for superior protection from dangerous liquids.
- ✓ When equipped with the proper materials the MF Series pumps are excellent for pumping dangerous liquids such as acids, caustics, and solvents. Liquids with suspended solids such as diatomaceous earth and lime slurry can be accurately pumped.
- ✓ Standard motors are industrial grade 1/3 to 3/4 HP, 56 frame, foot mounted TEFC. Motors are available for explosion proof, washdown, mill and chemical plant duty and for one or three phase, 50 or 60 Hz power.
- ✓ Tough fabric reinforced rubber diaphragms protect the drive train from the pumped liquid. The short stroke with 3" diameter piston increases diaphragm life by reducing fatigue.

| Model Number | Output Range (GPH)* | Output Range (LPH)* | Standard Motor HP | - Max PSI - With Plastic Wetted End | - Max PSI - With 316SS Wetted End | Strokes per minute | Piping FNPT |
|--------------|---------------------|---------------------|-------------------|-------------------------------------|-----------------------------------|--------------------|-------------|
| MF105_ | 0.5-5 | 1.9-18.9 | 1/3 | 150 | 300 (+ 1/2 HP Mtr) | 29 | 3/8" |
| MF110_ | 1-10 | 3.8-37.8 | 1/3 | 150 | 300 (+ 1/2 HP Mtr) | 29 | 3/8" |
| MF118_ | 1.8-18 | 6.8-68 | 1/2 | 150 | 300 (+ 3/4 HP Mtr) | 58 | 3/8" |
| MF136_ | 3.6-36 | 13.6-136 | 1/2 | 150 | 300 (+ 3/4 HP Mtr) | 115 | 3/8" |
| MF160_ | 6-60 | 22.7-227 | 1/2 | 150 | 300 (+ 1 HP Mtr) | 172 | 3/8" |

***Flow Rate Notes:** (1) Standard motor speed is 1,725 RPM @ 60 Hz. For 50 Hz motors running at 1,425 RPM, multiply the above range by 0.833. (2) For duplex, triplex, or quadruplex pump designs, replace the first number '1' in the part number with '2', '3', or '4'. See part numbering format on the last page. Also remember to double, triple, or quadruple the flow rate range if all pumping heads will run.

MF SERIES DIAPHRAGM METERING PUMPS

DIMENSIONAL DIAGRAM, MF SERIES SIMPLEX PUMP



SPECIFICATION: The Contractor shall furnish a diaphragm metering pump as follows: (liquid), pumping rate: __ GPH, at a maximum pressure: __ PSI. The pump output will be adjustable from 0 to 100% while the pump is running using an adjustment knob located on the top of the pump. The pump will be of the mechanical diaphragm type with the piston directly connected to the diaphragm. Double check ball valves for both the suction and discharge connections will be included. The industrial grade gear reducer will have a bronze wheel and steel worm and will be permanently lubricated. The pump mechanism will be enclosed and running in an oil bath. No external lubrication will be required. Pump wetted end materials of construction: wetted end: ____, diaphragm: ____, replaceable valve seats: ____, double valve balls: ____, (optional: Type DDB double diaphragm will be provided for extra protection from the pumped liquid, backup diaphragm material: ____.) Piping connections will be 3/8" NPT.

The motor will be 56 frame C face, directly mounted to the gear reducer, 1/3 HP, 1/2 HP or 3/4 HP, 1/60/115-230 or 3/60/230-460, 1725 rpm, TEFC. Paint finish: Manufacturer's standard acrylic enamel, or optional polyurethane top coat with epoxy primer for premium corrosion resistance.

Available Wetted End Materials - Resist Corrosion and Abrasion

| Solution Head and Valve Bodies | Diaphragm | Backup Diaphragm | Valve Balls | Valve Seats |
|--------------------------------|-----------------------|------------------|-------------|-------------|
| PVC | Neoprene | Neoprene | 316 SS | Neoprene |
| Teflon/Kynar | Teflon faced Neoprene | Hypalon | Ceramic | EPDM |
| 316 SS | Hypalon | Viton | Hastelloy C | Viton |
| Polypropylene | Viton | EPDM | Teflon | Teflon |
| | Teflon faced Viton | | | 316 SS |
| | EPDM | | | Ceramic |

Pump Part Number Form – MF SERIES

| | |
|-------------------------|---|
| Pump Series | |
| MF | |
| Pump Heads | |
| 1 - Simplex | |
| 2 - Duplex | |
| 3 - Triplex | |
| Capacity - G P H | |
| 05 | F |
| 10 | |
| 18 | |
| 36 | |
| 60 | |
| Valve Cap Sizes | |
| 2 - 3/8" NPT (standard) | |
| 3 - 3/8" + M200 SLV | |
| 4 - 3/4" NPT | |

| | |
|-----------------------------|--|
| Solution Head | |
| S - 316SS | |
| P - P V C | |
| T - Teflon | |
| PP - PolyPro | |
| Diaphragm | |
| E - E P D M | |
| N - Neoprene | |
| H - Hypalon | |
| V - Viton | |
| TN - Teflon-Neoprene | |
| TV - Teflon-Viton | |
| Valve Balls | |
| C - Ceramic | |
| H - Hastelloy C | |
| S - 316SS | |
| T - Teflon | |
| Valve Seats | |
| E - E P D M | |
| N - Neoprene | |
| S - 316SS | |
| T - Teflon | |
| V - Viton | |
| DDB Double Diaphragm | |
| 0 - (zero) - No DDB | |
| E - E P D M | |
| H - Hypalon | |
| N - Neoprene | |
| V - Viton | |

| | |
|-----------------------|--|
| Motor H P | |
| 0 - (zero) - No Motor | |
| A - 1/3 HP | |
| C - 1/2 HP | |
| D - 3/4 HP | |
| E - 1 HP | |
| F - 1.5 HP | |
| G - 2 HP | |
| Motor Type | |
| S - Standard | |
| X - Explosion Proof | |
| W - Washdown Duty | |
| M - Mill & Chem Duty | |
| H - 50 Hz | |
| Motor Phase | |
| 1 - Single Phase | |
| 3 - Three Phase | |

| | |
|-----------------------------------|--|
| Epoxy-Poly Paint | |
| E - Epoxy-Polyurethane | |
| <i>(Enter only if applicable)</i> | |

EX.)

| | | | | |
|--------|---|-------|---|-----|
| MF1102 | - | SNSNN | - | CS1 |
|--------|---|-------|---|-----|

Selection from each category

Z = Special or Custom

MADDEN PUMP

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