

PULSAFEEDER®

The BLACKLINE Series MD is a motor driven, spring return mechanical diaphragm metering pump for precise and accurate metering control. With many standard features, the Series MD includes oil lubricated ball bearings in die-cast aluminum housing, long life reinforced PTFE diaphragm, micrometer style stroke length adjuster and many liquid end material options to suit any application.

Nine distinct models are available, having pressure capabilities to 132 GPH (500 LPH) and pressures to 150 PSI (10 BAR), with a turndown ratio of 10:1. Metering performance is reproducible to within $\pm 2\%$ of maximum capacity.

Standard Features

- Liquid End Materials – GFPP, 316 SS & PVDF.
- Rugged double-sided PTFE faced, long life diaphragm.
- Oil lubricated ball bearings in die-cast aluminum housing.
- Manual micrometer style stroke adjustment; 10:1 turndown.
- Standard NEMA 56C or IEC71 motor frames available.

Optional Features

- Variable Frequency Drive for Automatic Control.
 - ❖ Fully Scalable 4-20mA, 0-10VDC signals.
 - ❖ NEMA 4X Enclosure.
- ATEX Group II, Category 3 – Zone 2/22 for non-flammable liquids with proper motor selection.

Controls



Manual or Automatic Stroke Length

- Turn-Down Ratio 10:1



VFD Stroke Rate

- Turn-Down Ratio 10:1
- 4-20mA or 0-10VDC Input

Operating Benefits

- Reliable metering performance.
- Highly efficient operation.
- High viscosity capability.
 - ❖ Up to 1000 CPS
- Leak-free, seal-less, liquid end.



Aftermarket

- KOPkits
- Gauges
- Dampeners
- Pressure Relief Valves
- Tanks
- Pre-Engineered Systems
- Process Controllers- MicroVision



BLACK
LINE Series MD
Mechanical Diaphragm Pumps

BLACK LINE Series MD

Specifications and Model Selection

| MODEL | | MD1A | MD1B | MD1C | MD1D | MD1E | MD2F | MD2G | MD2H | MD3G |
|-------------------------|--------|------|------|------|------|------|------|------|------|------|
| Capacity nominal (max.) | GPH | 7 | 14 | 22 | 29 | 35 | 59 | 79 | 98 | 132 |
| | LPH | 26 | 53 | 83 | 110 | 132 | 223 | 299 | 371 | 500 |
| Pressure (max.) | PSIG | 150 | 150 | 150 | 150 | 150 | 90 | 90 | 75 | 75 |
| | BAR | 10 | 10 | 10 | 10 | 10 | 6 | 6 | 5 | 5 |
| Strokes/Minute | SPM | 84 | 60 | 84 | 116 | 138 | 84 | 118 | 138 | 118 |
| Viscosity | CPS | 1000 | | | 500 | | 1000 | 500 | | |
| Connections: | FNPT | 1/2" | | | | 3/4" | | 1" | | |
| | BSPT-F | 1/2" | | | | 3/4" | | 1" | | |

Engineering Data

Liquid End Materials Available:

GFPPL Head & Valves
PVDF Head & Valves
316 SS Head & valves

Valve Seat Materials:

PVC on GFPPL Liquid End
PTFE on PVDF Liquid End
316 SS on 316 SS Liquid End
Incoloy (Optional Construction)

Valve Check Ball Materials:

Pyrex on GFPPL and PVDF Liquid End
316 SS on 316SS Liquid End
Hastelloy C-276 (Optional Construction)

Important: Material Code - GFPPL=Glass-filled Polypropylene,
PVDF=Polyvinylidene Fluoride.

Engineering Data

Reproducibility:

+/- 2% at maximum capacity
up to 1000 CPS

Viscosity Max CPS:

Stroke Frequency Max SPM:

60 to 138 Strokes Per Minute
max. (Depending on model
selection)

Stroke Length Turn-Down Ratio:

10:1

Power Input:

115 VAC/60 Hz/1 ph
230 VAC/50-60 Hz/1 ph or 3 ph

Max Ambient Temperature:

104°F (40°C)

Max Fluid Temperature:

104°F (40°C)

Oil Capacity:

15.2 oz (0.4 L)

Custom Engineered Designs – Pre-Engineered Systems

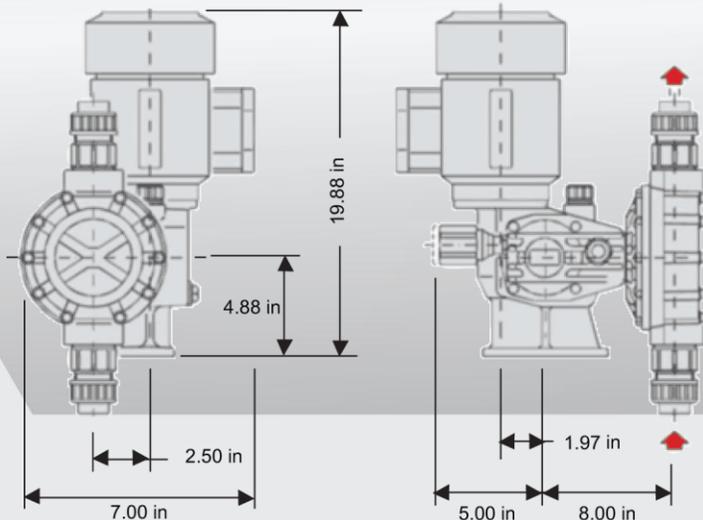


Pre-Engineered Systems

Pulsafeeder's Pre-Engineered Systems are designed to provide complete chemical feed solutions for all electronic metering applications. From stand alone simplex pH control applications to full-featured, redundant sodium hypochlorite disinfection metering, these rugged fabricated assemblies offer turn-key simplicity and industrial-grade durability.

The UV-stabilized, high-grade HDPE frame offers maximum chemical compatibility and structural rigidity. Each system is factory assembled and hydrostatically tested prior to shipment.

Dimensions



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BLMD001 C15

