PULSAFEEDER®

BLACKLINE SERIES MD

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 a anodized 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 flow capabilities to 132 GPH (500 LPH) and pressures to 150 PSI (10 BAR), with a standard turndown ratio of 10:1 or up to 100:1 with the optional VFD Vector Drive. Metering performance is reproducible to within ± 2% of maximum capacity.

FEATURES

- Liquid end materials - GFPPL, 316 SS, & PVDF
- Rugged double-sided PTFE faced, long life diaphragm
- Oil lubricated ball bearings in anodized aluminum housing
- Large, easy to access oil drain port
- Manual micrometer style stroke adjustment: 10:1 turndown, up to 100:1 with VFD Vector
- 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 nonflammable liquids with proper motor selection

APPLICATIONS

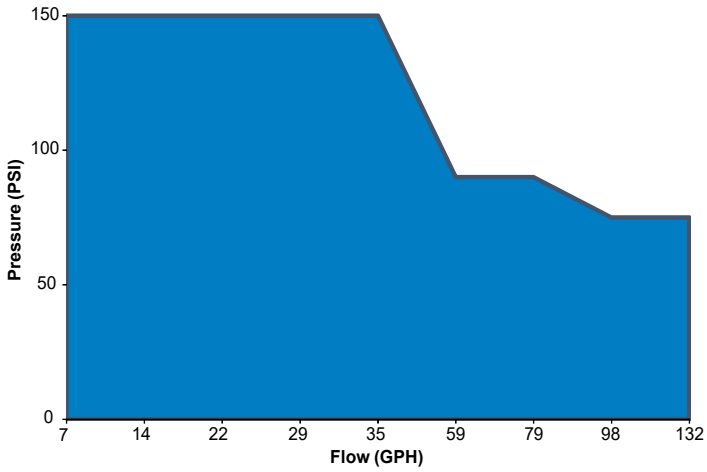
- Water & Wastewater
- Pulp & Paper
- Automotive
- Chemical Process
- Metal Process
- Power Generation

SELECTION

MODEL		MD1A	MD1B	MD1C	MD1D	MD1E	MD2F	MD2G	MD2H	MD3G
Capacity	GPH	7	14	22	29	35	59	79	98	132
nominal (max.)	LPH	26	53	83	110	132	223	299	371	500
Pressure	PSIG	150	150	150	150	150	90	90	75	75
(max.)	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									

ENGINEERING DATA

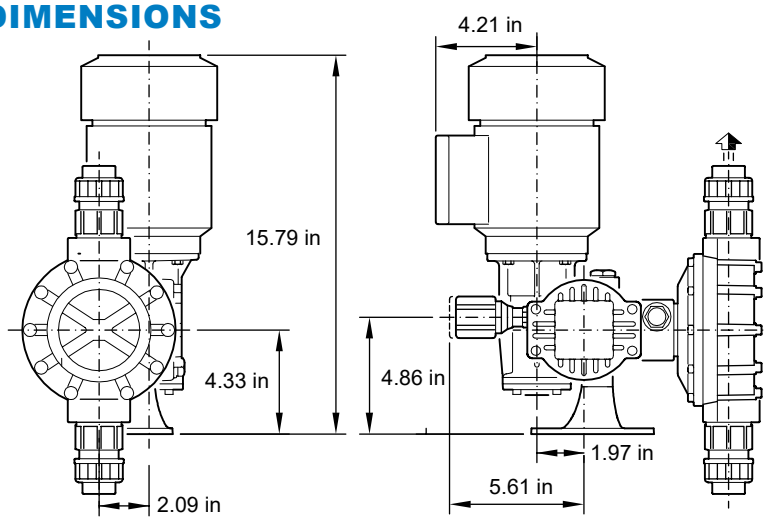
Max. Flow Rate	132 gph / 501 lph
Max Pressure	150 psi /10 bar
Max. Stroke Frequency SPM	60 - 138 strokes/min depending on model
Max. Liquid Temperature	14°F to 104°F / -10°C to 40°C
Accuracy of Repeatability	±2% at maximum capacity
Stroke Length Turndown Ratio	10:1
Turndown Ratio	10:1; 100:1 with VFD
Oil Capacity	16.9 oz (0.5 L)
Power Supply	115VAC/60Hz/1 ph; 230VAC/50-60Hz/ 1ph or 3ph
Max Ambient Temperature	14°F to 104°F / -10°C to 40°C
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
Valve Check Ball Materials	Pyrex on GFPP and PVDF Liquid End
	316 SS on 316 SS Liquid End
	Hastelloy C-276 (Optional Construction)



WEIGHT

Model No.	Weight Plastic (lbs)	Weight Stainless Steel (lbs)
MD1A (NO MOTOR)	21.5	26.0
MD1B (NO MOTOR)	21.5	26.0
MD1C (NO MOTOR)	21.5	26.0
MD1D (NO MOTOR)	21.5	26.0
MD1E (NO MOTOR)	21.5	26.0
MD2F (NO MOTOR)	26.0	37.0
MD2J (NO MOTOR)	26.0	37.0
MD2K (NO MOTOR)	26.0	37.0
MD3G (NO MOTOR)	29.0	46.0
MD1A (W/VFD & MOTOR)	67.0	71.5
MD1B (W/VFD & MOTOR)	67.0	71.5
MD1C (W/VFD & MOTOR)	67.0	71.5
MD1D (W/VFD & MOTOR)	67.0	71.5
MD1E (W/VFD & MOTOR)	67.0	71.5
MD2F (W/VFD & MOTOR)	71.5	82.5
MD2J (W/VFD & MOTOR)	72.5	83.5
MD2K (W/VFD & MOTOR)	73.5	84.5
MD3G (W/VFD & MOTOR)	74.5	91.5

DIMENSIONS



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