MROY SERIES METERING PUMPS

Description

The mRoy series of metering pumps have provided users with high performance and reliabil since its introduction in 1962. Enhanced and improved over the years, it is still the industry standard for durability and accuracy in the most demanding applications.
The mRoy series is available in five model configurations to meet the demands of any applic with optimum performance and efficiency.

mRoy A
The mRoy A is a full featured model for flow rates up to 30 gph (113 l/h) and pressures up psi (24 bar).
mRoy H
The mRoy H can handle pressures up to 1800 psig (124 bar) and flow rates up to 4.4 gph (1 l/h).
mRoy J
The mRoy J can handle pressures up to 925 psig (64 bar) and flow rates up to 6.2 gph (23.5
mRoy P
The mRoy P features a special liquid end designed for high viscosity applications.
mRoy B
The mRoy B is a full featured design for flow rates up to 85 gph (322 l/h).
mRoy L
The mRoy L is a series of standard pump configurations that are stocked by Milton Roy distributors. Request data sheet PD 3311 for information on the mRoy L pump series.

General Specifications

- 10:1 turndown ratio
- Adjustable internal relief valve
- Three capacity adjustment options:
  - Micrometer (standard)
  - Electronic, 4–20 mA
  - Pneumatic 3–15 psi
- Hydraulic bypass design allows adjustment from 0 to 100% of rated capacity while stopped or running
- Hydraulically actuated diaphragm provides extra long diaphragm life
- Three year warranty
- ±1% steady state accuracy
- High performance check valves
- High quality chemical resistant urethane coating
- Models A, H, J, & P 0.7´´ (1.78 cm)
- Stroke length
- Model B 1.5´´ (3.81 cm)

Derating Table

Certain options require that the maximum capacity be derated. Multiply capacities in the capacity/pressure table above by the appr factor in the table below. If more than one option requiring derating is selected, derate by both factors.

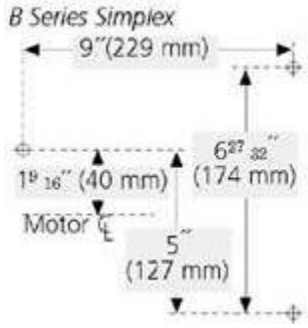
Plunger Diameter	7/16" & 5/8" (11mm & 16 mm)				1 1/16" (27mm)		19/32" (15 mm)	7/8" (22 mm)	1 7/16" (37mm)
Model	A	H	J	P	A	P	B	B	B
Electronic or Pneumatic Capacity Control	0.95	0.95	0.95	0.95	0.90	0.90	1.0	0.90	0.90
Diaphragm Rupture Detection	0.95	-	0.95	0.95	0.95	0.95	-	0.95	0.95
Double Diaphragm	0.95	-	-	0.95	0.95	0.95	-	-	-

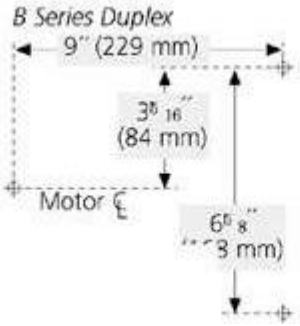
Materials of Construction

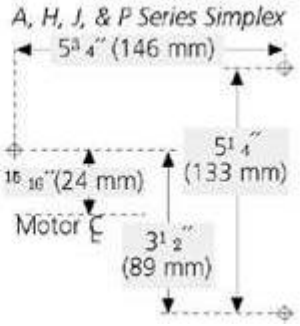
Material	Pump Model	Diaphragm Head	Cartridge	Ball Checks	Seats	Contour Plate	Diaphragm	Back Pressure Spring
Cast Iron	A, P, H	Cast Iron	316 SS	316 SS	316 SS	316 SS	PTFE	316 SS
	E	Cast Iron	416 SS	440 SS	316 SS	Steel	PTFE	316 SS
316 SS	A, P, H, J, E	CF-8M**	316 SS	316 SS	316 SS	316 SS	PTFE	316 SS
Alloy 20	A, P, H, J, E	CN-7M	20Cb-3	20Cb-3	20Cb-3	20Cb-3	PTFE	Alloy C
Alloy C22	A	CX2MW‡‡	Alloy C22	Alloy C276	Alloy C22	Alloy C22	PTFE	Alloy C
PVC‡	A, E	PVC	Hastelly	C-226	C	PVC	PTFE	PVDF Coated
PVDF‡	A	PVDF	PVDF	Ceramic	PVDF	PVDF	PTFE	PVDF Coated

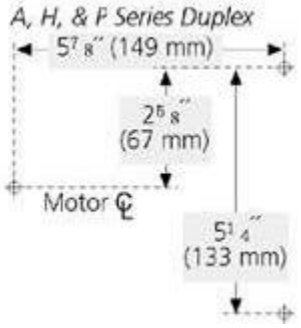
Notes:

* mRoy A cartridge is glass filled PVC. mRoy B cartidge is PVC.
† mRoy A ball checks are ceramic. mRoy B suction ball check is ceramic; discharge lower ball is ceramic, and discharge upper ball is FKM
‡ Plastic liquid ends are limited to 150 PSI (10 BAR) discharge pressure at 68°F (20°C); 80 PSI (5.5 BAR) at maximum temperature of 145°F (63°C).
** CF-8M is the cast equivalent to wrought 316 SS.
†† CN-7M is the cast equivalent to wrought 20Cb-3.
‡‡ CX2MW is the cast equivalent wrought Alloy C22.



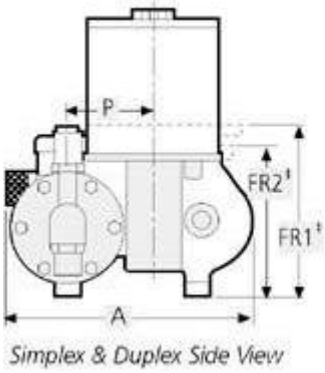




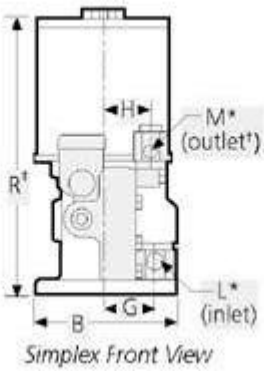


Dimensions

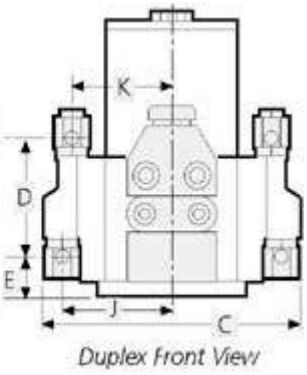
All Models Except Plastic



Simplex & Duplex Side View



Simplex Front View



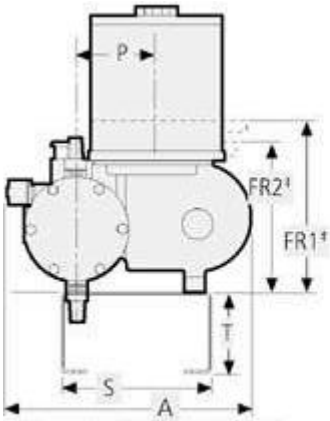
Duplex Front View

Notes:

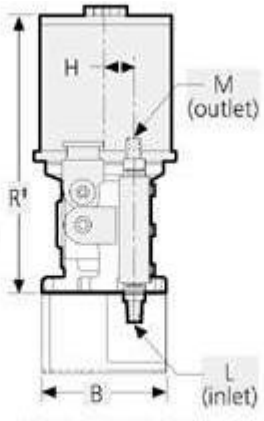
* Suction & discharge connections may be rotated 150° for mounting convenience.

† mRoy B PVC liquid end discharge connection is on top of check valve.

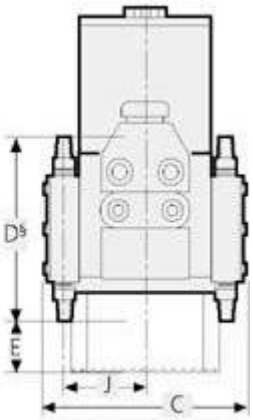
‡ "R" dimension includes integral motor."FR1" dimension is for API flange mount without motor. "FR2" dimension is for close coupled flange mount less motor.



Simplex & Duplex Side View



Simplex Front View



Duplex Front View

Notes:

** These dimensions are for mRoy A plastic pumps only. All other models, including mRoy A metallic, use the dimensions above.

‡ "R" dimension includes integral motor."FR1" dimension is for API flange mount without motor. "FR2" dimension is for close coupled flange mount less motor.

§ Suction valve extends below mounting foot. Base is optional.

Model	in./mm	A	B	C	D	E	G	H	J	K	L (NPT)	M (NPT)	P	R	S	T	FR1	FR2
A, P, J Metallic	in.	11⅞"	6"	10½"	4¼"	1 3/16"	2⅜"	2⅛"	4½"	4⅛"	½"	¼"	3¾"	13"	—	—	9⅝"	6 5/16"
	mm	302	152	267	121	46	59	54	114	105	113	6	95	330	—	—	244	157
A Plastic	in.	11⅞"	6"	9⅛"	8 9/16"	2 1/16"	—	1 7/16"	3 9/16"	—	½"	½"	3¾"	13"	7¼"	4"	9⅝"	6 5/16"
	mm	302	152	232	217	68	—	37	90	—	13	13	95	330	184	102	244	157
PVC Metallic	in.	11⅞"	6"	10½"	7⅞"	1 9/16"	2⅜"	2⅛"	4½"	4⅛"	½"	¼"	3¾"	13"	—	—	9⅝"	6 5/16"
	mm	302	152	267	200	40	59	54	114	105	13	6	95	330	—	—	244	157
B 1 9/32" Metallic	in.	18¾"	7 9/16"	13½"	6½"	2"	2⅛"	2⅛"	4¼""	4¼"	½"	¼"	6½"	—	—	—	13½"	—
	mm	476	192	343	165	51	54	54	121	121	13	6	165	—	—	—	343	—
B ⅞" & 1 7/16" Cast Iron	in.	18¾"	7 9/16"	13½"	7 13/16"	1 3/16"	3½"	3 3/16"	6⅛"	6⅛"	½"	⅜"	6⅝"	—	—	—	13½"	—
	mm	476	192	343	198	30	89	81	156	156	13	10	168	—	—	—	343	—
B ⅞" & 1 7/16" 316 SS/Alloy 20	in.	18¾"	7 9/16"	13½"	8⅛"	⅞"	3¼"	3⅜"	5¾"	4⅞"	½"	⅜"	6⅝"	—	—	—	13½"	—
	mm	476	192	343	206	22	83	86	146	124	13	10	168	—	—	—	343	—
B ⅞" & 1 7/16" PVC	in.	18¾"	7 9/16"	15⅞"	9 1/16"	1 3/16"	5 5/16"	4 5/16"	7 1/16"	6⅛"	½"	⅜"	5⅞"	—	—	—	13½"	—
	mm	476	192	403	249	30	135	110	195	156	13	10	149	—	—	—	343	—