

## MECHANICAL DIAPHRAGM METERING PUMPS

The OBL **URM** series are mechanically actuated diaphragm metering pumps that combine the working characteristics of a plunger with the sealing advantages of a diaphragm pump. Thanks to the quality and simple design of the diaphragm, these pumps require minimum maintenance.

### PUMP HEAD MATERIALS OF CONSTRUCTION

PARTS	50% GFRPP	PP11	PP32	A	PVC
LIQUID END	PP	PP	PP	316L SS	PVC
VALVE SEAT	PVC	316L SS	INCOLOY 825	316L SS	PVC
VALVE BALL	PYREX	316L SS	HASTELLOY C-276	316L SS	PYREX
VALVE SEAL	FKM	FKM	FKM	FKM	FKM
VALVE HOUSING	PP	PP	PP	316L SS	PVC
DIAPHRAGM	PTFE	PTFE	PTFE	PTFE	PTFE

### GENERAL FEATURES

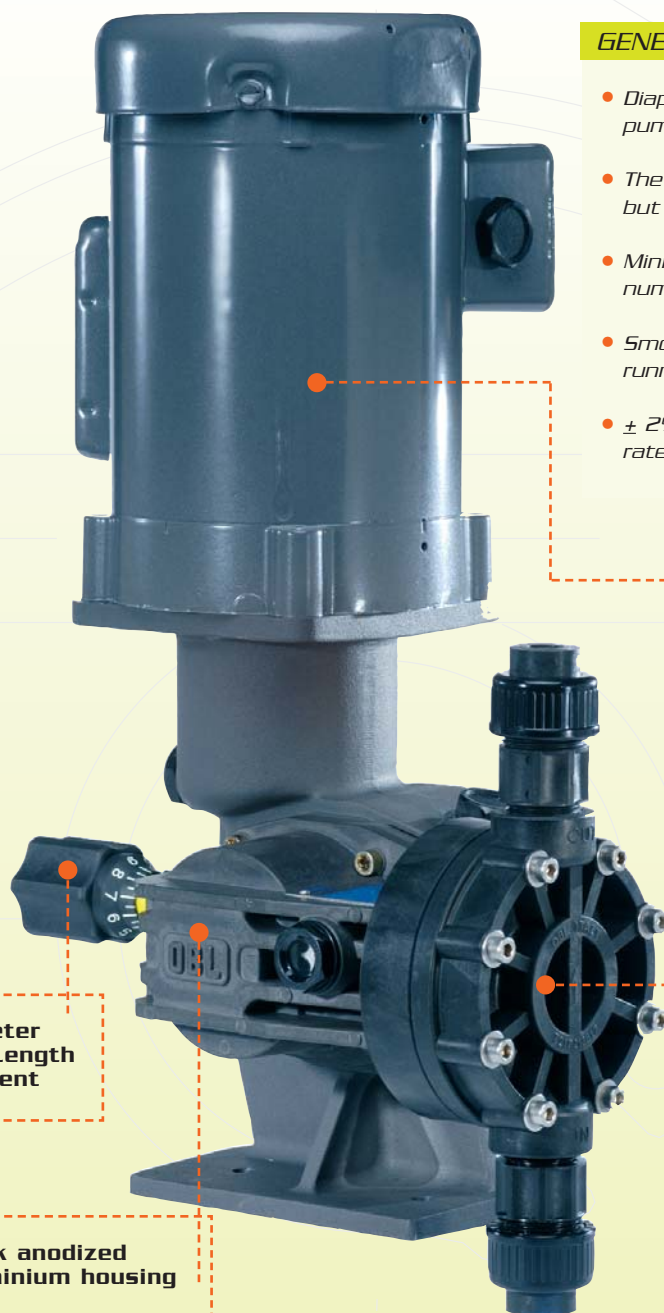
- Diaphragm, economical, robust, compact metering pump.
- The mechanical diaphragm acts basically as a plunger, but separates the housing and the pumped fluid.
- Minimum maintenance required, thanks to the reduced number of components.
- Smooth and linear adjustment, either stationary or running, via micrometer knob.
- $\pm 2\%$  accuracy within 20 to 100% of the nominal flow rate.

**1/3 & 1/2 Horse Power  
with 56C NEMA Frame**

**50% Glass filled  
PP pump head**

**Micrometer  
Stroke Length  
adjustment**

**Black anodized  
Aluminium housing**



**TECHNICAL DATA**

Model	SPM	GPH	(L/h)	Maximum Working Pressure		Maximum Stroke Length in mm	Diaphragm Diameter in mm	Connections		Motor HP	Liquid Ends Available Per Pump
				PSI	(BAR)			Threaded	Flanged		
<b>60 Hz</b>											
URM9	30	2	(7.6)	145	(10)	2	94	1/4" NPT	1/2" 150#	1/3	4
URM14	43	3.2	(12)	145	(10)	2	94	1/4" NPT	1/2" 150#	1/3	4
URM28	84	6.5	(24.6)	145	(10)	2	94	1/4" NPT	1/2" 150#	1/3	4
URM36	114	8.5	(32)	120	(8.2)	2	94	1/4" NPT	1/2" 150#	1/3	4
URM45	138	10.7	(40.5)	120	(8.2)	2	94	1/4" NPT	1/2" 150#	1/3	4
URM42	43	10	(37.8)	120	(8.2)	4	108	1/2" NPT	1/2" 150#	1/3	4
URM58	60	13.8	(52.2)	120	(8.2)	4	108	1/2" NPT	1/2" 150#	1/3	4
URM90	84	21	(79.5)	120	(8.2)	4	108	1/2" NPT	1/2" 150#	1/3	4
URM121	115	28.5	(107.8)	120	(8.2)	4	108	1/2" NPT	1/2" 150#	1/3	4
URM145	138	34.5	(130.5)	120	(8.2)	4	108	1/2" NPT	1/2" 150#	1/3	4
URM120	43	30	(113.5)	95	(6.5)	6	138	3/4" NPT	3/4" 150#	1/2	2
URM158	60	40	(151.4)	80	(5.5)	6	138	3/4" NPT	3/4" 150#	1/2	2
URM236	84	59	(223)	80	(5.5)	6	138	3/4" NPT	3/4" 150#	1/2	2
URM312	114	78	(295)	70	(4.8)	6	138	1" NPT	1" 150#	1/2	2
URM384	138	97	(367)	70	(4.8)	6	138	1" NPT	1" 150#	1/2	2
URM180	43	42	(159.0)	58	(4)	6	165	1" NPT	1" 150#	1/2	1
URM228	60	58	(219.6)	58	(4)	6	165	1" NPT	1" 150#	1/2	1
URM360	84	90	(340)	58	(4)	6	165	1" NPT	1" 150#	1/2	1
URM519	118	135	(511)	58	(4)	6	165	1" NPT	1" 150#	1/2	1

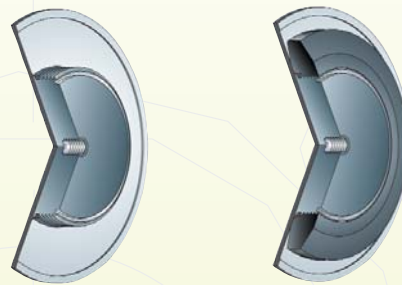
**DIAPHRAGM STRUCTURE**

The **OBL's** unique (patented) mechanical diaphragm design ensures controlled volumetric displacement, giving plunger-like performances.



**DIAPHRAGM SECTIONAL VIEW**

Sectional view without support ring      Complete sectional view with support ring



**Flow rates:**

- 2 - 10.7 GPH  
stroke length: 2mm
- 10 - 35.5 GPH  
stroke length: 4mm
- 30 - 135 GPH  
stroke length: 6mm

**Pressure:**

- Max Working Pressure 145 PSI

**Motors:**

- 1/3 & 1/2 HP, 1750 RPM, 56C NEMA Frame

**Adjustment:**

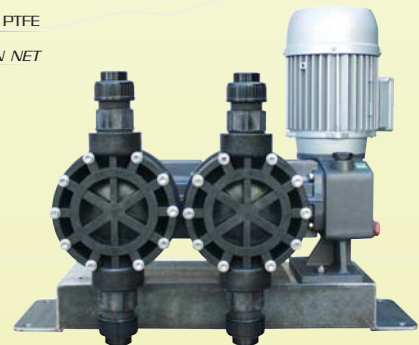
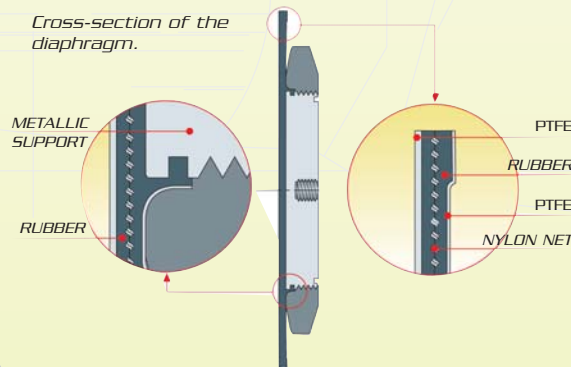
- Manual, Via 0-10 Scale Micrometer Stroke Length Knob

**Materials of Construction:**

- Anodized Aluminium Housing

**DETAIL OF THE BONDING BETWEEN DIAPHRAGM AND METALLIC SUPPORT**

Cross-section of the diaphragm.



MULTIHEADED PUMP