

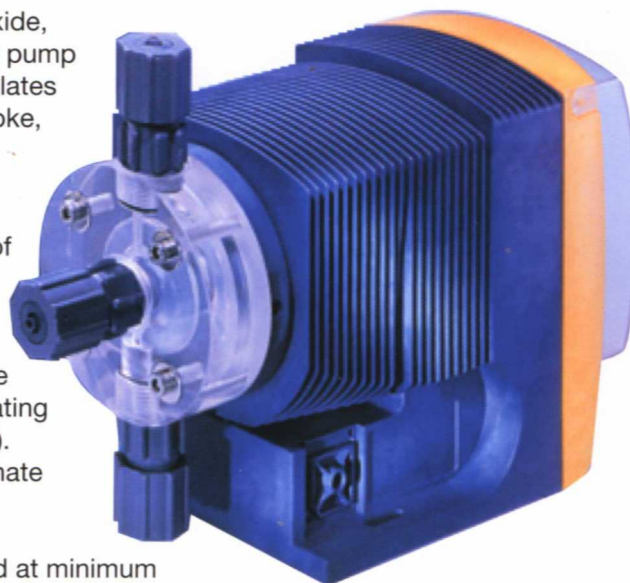
# Auto-Degassing Liquid Ends For Chemical Metering Pumps

ProMinent®

**The only choice for pumping fluids that out-gas.**

Many fluids, such as sodium hypochlorite or hydrogen peroxide, out-gas as they are drawn into the suction line of a metering pump or if the pump sits idle for a length of time. The gas accumulates in the liquid end and is compressed with each discharge stroke, causing air lock and loss of flow.

ProMinent has designed an automatic self-degassing liquid end to prevent air build-up in the dosing chamber and loss of prime or flow. When the pump strokes, entrapped gas is forced upward and channeled out of the dosing chamber through a degassing valve and the fluid is discharged from the center of the liquid end. This allows the pump to operate normally and self-prime up to its rated backpressure (eliminating the need to relieve pressure on the discharge line to reprime). This feature is also useful on drum-mounted pumps to eliminate entrapped air when changing the drums.



Dosing repeatability is +/- 2% under constant conditions and at minimum 50% stroke length when installed and used according to operating instructions.

The auto-degassing liquid end is available in polypropylene or acrylic and offered with the beta and gamma/L series metering pumps.

## Liquid End Materials

Version	Liquid end	Suction/Discharge valves	Seals	Valve balls	Valve springs	Valve seats	Diaphragm
PPE	Polypropylene	Polypropylene	EPDM	Ceramic	Hastelloy C	PVDF	PTFE
PPB	Polypropylene	Polypropylene	Viton®	Ceramic	Hastelloy C	PVDF	PTFE
NPE	Acrylic	PVC	EPDM	Ceramic	Hastelloy C	PVDF	PTFE
NPB	Acrylic	PVC	Viton®	Ceramic	Hastelloy C	PVDF	PTFE

Suction and discharge valves on all liquid ends are equipped with double ball check valves for maximum dosing repeatability. Viton® is a registered trademark of DuPont Dow Elastomers.

## Technical Data \*

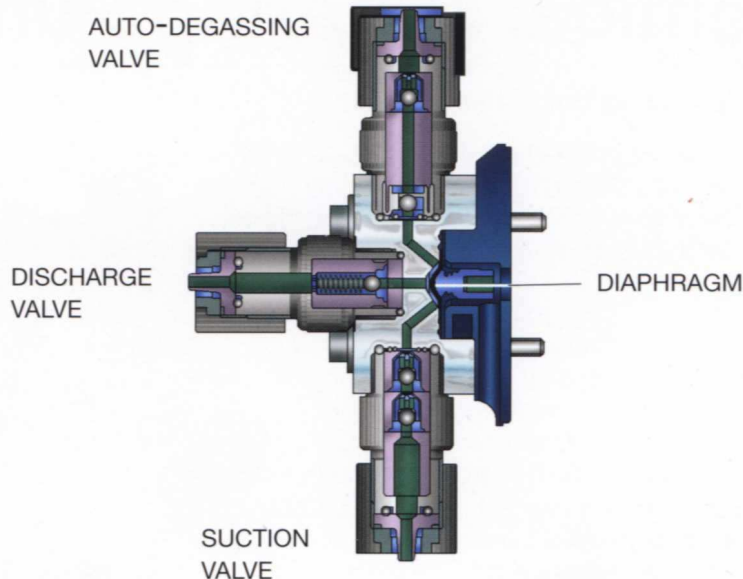
Pump Version	Capacity at Maximum Backpressure					Capacity at 1/2 Maximum Backpressure					Pre-Primed Suction Lift		Suction/Discharge		Shipping Weight	
													Max. Stroking Rate spm	Tubing Connectors O.D. x I.D. inches		
	U.S.					U.S.										
	psig	(bar)	GPH	(L/h)	mL/ stroke	psig	(bar)	GPH	(L/h)	mL/ stroke	ft.	(m)			lbs.	(kg)
1601	253	(17.5)	0.16	(0.59)	0.055	126	(8.75)	0.21	(0.78)	0.07	5.9	(1.8)	180	1/4 x 3/16	7.7	(3.5)
1602	253	(17.5)	0.37	(1.4)	0.13	126	(8.75)	0.45	(1.7)	0.16	6.9	(2.1)	180	1/4 x 3/16	7.7	(3.5)
1005	145	(10)	0.95	(3.6)	0.33	73	(5)	1.05	(4.0)	0.37	8.8	(2.7)	180	1/2 x 3/8	7.7	(3.5)
0708	101	(7)	1.74	(6.6)	0.61	50.5	(3.5)	1.98	(7.5)	0.69	6.5	(2.0)	180	1/2 x 3/8	7.7	(3.5)
0413	58	(4)	2.8	(10.8)	1.00	29	(2)	3.3	(12.6)	1.17	6.5	(2.0)	180	1/2 x 3/8	7.9	(3.6)
0220	29	(2)	4.3	(16.2)	1.50	14.5	(1)	4.7	(18.0)	1.67	5.9	(1.8)	180	1/2 x 3/8	7.9	(3.6)
1605	253	(17.5)	0.87	(3.3)	0.31	126	(8.75)	1.00	(3.8)	0.35	9.8	(3)	180	1/2 x 3/8	9.5	(4.3)
1008	145	(10)	1.66	(6.3)	0.58	73	(5)	1.98	(7.5)	0.69	9.8	(3)	180	1/2 x 3/8	9.5	(4.3)
0713	101	(7)	2.77	(10.5)	0.97	50.5	(3.5)	3.2	(12.3)	1.14	8.2	(2.5)	180	1/2 x 3/8	9.5	(4.3)
0420	58	(4)	4.12	(15.6)	1.44	29	(2)	4.6	(17.4)	1.61	8.2	(2.5)	180	1/2 x 3/8	9.5	(4.3)

Above capacities and suction lift refer to pumps tested on water at 115 VAC, 60 Hz, and an ambient temperature of 70°F (20°C). Higher specific gravity fluids will reduce suction lift. Higher viscosity fluids will reduce capacity.

\* Capacity ranges and pump versions are identical on both the beta and gamma/L pumps.

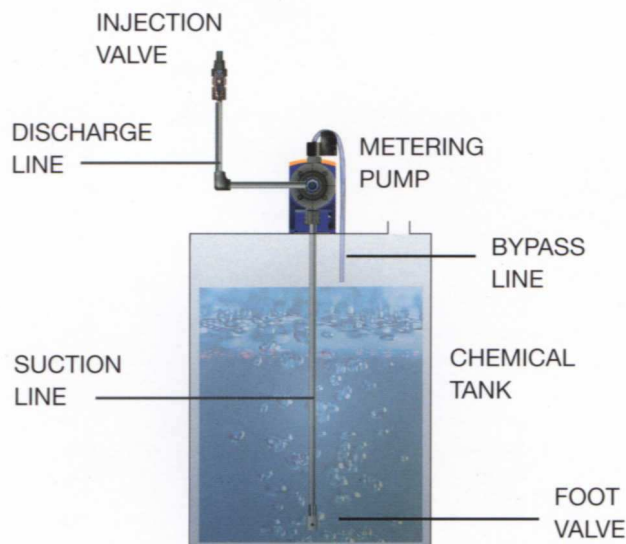
# Cutaway View

NP / PP VERSIONS 1601-1005



## Common Installation Set-Ups

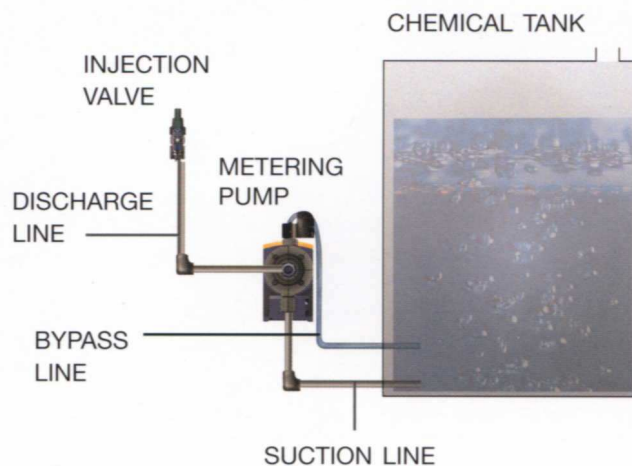
### A. Pump mounted above the tank.



#### A: SUCTION LIFT

For applications where the pump is mounted above the chemical tank, the bypass line should be routed back to the top of the tank. Install it so the bypass line is not submerged in the chemical.

### B. Pump mounted on shelf partially up the tank.



#### B: POSITIVE SUCTION

Route the bypass line to a location approximately the same level as the suction line. Install it such that any bypassed air/gas is not rerouted into the suction line. The bypass line can be routed back to the top of the tank if maximum head pressure does not exceed 2.8 psi (0.2 bar), or a chemical head of 6ft. (2m).

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