APPLICATION BULLETIN

ARO® Water Treatment Chemical Feed

Summary

Magnetically coupled external gear pumps are proven performers for water and wastewater chemical treatment applications. They provide solutions to problems associated with other pump technologies; including pulsating flow, vapor locking and frequent and lengthy repair cycles. The smooth, constant delivery of chemicals from external gear pumps is ideal for use with flow meters and other measuring devices. With these advantages, ARO TechnaFlo magnetically coupled external gear pumps provide improved system performance and substantial economic savings.

The compact ARO TechnaFlo design allowed for easy replacement of diaphragm pumps in this 12.5% NaOCl installation.

The Ideal Chemical Feed Pump Solution for Demanding Applications

- Sodium Hypochlorite
- Ferric Chloride
- Sodium Bisulfite
- Polymers
- Sulfuric Acid
- Methanol
- Hydrofluorosilicic Acid
- Polyaluminum Chloride
- Aqueous Ammonia
- Caustic Soda
- Bioxide
- Sodium Hydroxide
- Hydrogen Peroxide
- Permanganate
- Oil/Water Suspension

Application Benefits

- Controlled Chemical Usage
- Simple Hydraulic System; No Dampeners or Back Pressure Valve Required
- Metering Accuracy Better Than 1% with Flow Meter Feedback Control
- 20:1 Turndown Ratio Available With Drive Controls
- Pulsation Free Discharge Flow
- Self Priming
- Resistant to Vapor Locking
- Simple Field Repair
- Compact Installation Footprint
- Low Maintenance Cost
- Low Initial Investment Cost
- Sealed System to Prevent Liquid Crystallization When Fluid is Exposed to Air

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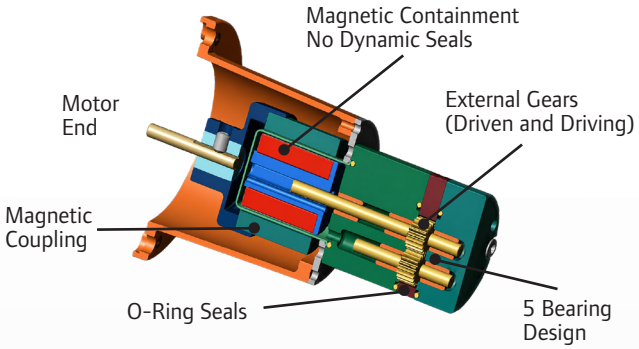
ARO®

ARO TechnaFlo Pumps Offer Leak-Free, Sealless Construction, Constant Delivery, and Versatility

- Magnetically Coupled Positive Displacement External Gear Pump
- 316SS, Hastelloy, Titanium, and Polyphenolenesulfide
- Flows to 10 GPM / 38 LPM
- Differential Pressures to 250 PSI / 17 BAR



Performance Range of Flows and Pressures - 1ml/min to 38 LPM

Pump Size (ml/rev) Required to Meet Flow at 3500 RPM						
LPH	**0 bar**	**1.7 bar**	**3.4 bar**	**6.8 bar**	**10.3 bar**	**GPH**
1.9	.11	.11	.11	.11	.19	0.5
3.8	.11	.11	.11	.11	.19	1
19	.11	.19	.19	.19	.23	5
38	.19	.23	.23	.38	.38	10
57	.38	.38	.38	.57	.57	15
76	.38	.57	.57	.57	.68	20
95	.57	.57	.57	.68	.80	25
113	.57	.68	.68	.80	.99	30
132	.68	.80	.80	.99	1.2	35
151	.80	.99	.99	.99	1.2	40
189	.99	1.2	1.2	1.3	1.6	50
227	1.2	1.3	1.3	1.6	1.6	60
303	1.6	1.6	2.0	2.0	2.3	80
378	2.0	2.0	2.3	2.6	2.6	100
568	5.3	5.3	5.3	5.3	-	150
757	5.3	5.3	5.3	5.3	-	200
946	5.3	5.3	5.3	8.0	8.0	250
1136	8.0	8.0	8.0	8.0	8.0	300
1514	8.0	8.0	12.0	12.0	-	400
1893	12.0	12.0	12.0	12.0	-	500
2271	12.0	12.0	12.0	-	-	600
LPH	**0 PSI**	**25 PSI**	**50 PSI**	**100 PSI**	**150 PSI**	**GPH**

Magnet	G	X	W
millinewton meter	459	1695	3248
In-Oz	65	240	460

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