



AquFlow® Metering Pumps and Systems

The Legendary Brand in Metering Pumps

Offering the widest
range of material
selection, as well
as flow rates up to
1,750 GPH (Simplex),
3,500 GPH (Duplex)



AquFlow Hydraulic Diaphragm Metering Pumps (Formerly known as HydroFlo, under Penn Process and Nikkiso)

The solution to tough chemical injection application needs, including:

- Water & Waste Water
- Oil & Gas
- Food Processing
- Chemical
- Agriculture
- Pulp & Paper
- Fire Proofing
- Industrial



AquFlow® acquired the HYDROFLO® pump line in 2007 and is committed to supporting and developing this line with all our resources. Even with a new look and a new name our customers can expect the same reliability, durability and ruggedness of the HYDROFLO pumps. We assure all the current and former users of HYDROFLO metering pumps of our resolve to continue servicing their installations with parts and replacement pumps. PLEASE CONTACT US WITH ALL YOUR METERING PUMP NEEDS.

Series 1000



Series 1000 is a rugged, compact, hydraulically actuated and balanced diaphragm metering pump. The pump is available in simplex or duplex configuration, with independent capacity adjustment for each pump head. All drive parts are fully enclosed and operate in an oil bath which minimizes friction and wear while providing protection from harsh environments. A self-compensating hydraulic system assures diaphragm position and eliminates the need for troublesome vacuum breakers and refill valve.

The easy to read micrometer knob enables convenient capacity adjustment between 0-100% while the pump is operating or stopped. In addition to manual control, the pump can be supplied with optional automatic capacity control, making it possible for the pump to control the flow rate in proportion to various process signals. A simple, externally adjustable, internal hydraulic relief valve protects the pump and the process from pump induced overpressure situations.

Features:

- Flow capacities of 0.55 to 123.6 GPH (2.1 to 467.9 LPH)
- Metering Accuracy +/- 1%
- Viscosities up to 100,000 cps
- Modular Design with Multiple Options
- Pressure up to 4,000 PSIG (275.8 bars)
- 10:1 Turndown via Stroke Length
- Internal Hydraulic Relief Valve
- Tubular Diaphragm option to handle abrasives

Series 1000 Performance Table

| Capacity GPH (LPH) | Pressure PSIG (bars) | Speed (SPM) | Plunger Diameter | Connection (MNPT) |
|--------------------|----------------------|-------------|------------------|-------------------|
| 0.55 (2.1) | 4,000 (275.8) | 29 | 3/8" | 1/4" |
| 1.10 (4.2) | | 58 | | |
| 1.85 (7.0) | | 97 | | |
| 2.25 (8.5) | | 117 | | |
| 2.70 (10.2) | | 140 | | |
| 3.30 (12.5) | | 170 | | |
| 1.25 (4.7) | 1,100 (75.8) | 29 | 9/16" | 3/8" |
| 2.50 (9.5) | | 58 | | |
| 4.20 (15.9) | | 97 | | |
| 5.10 (19.3) | | 117 | | |
| 6.10 (23.1) | | 140 | | |
| 7.40 (28.0) | | 170 | | |
| 2.25 (8.5) | 1,100 (75.8) | 29 | 3/4" | 3/8" |
| 4.50 (17.0) | | 58 | | |
| 7.50 (28.4) | | 97 | | |
| 9.05 (34.3) | | 117 | | |
| 10.9 (41.3) | | 140 | | |
| 13.2 (50.0) | | 170 | | |
| 3.05 (11.5) | 700 (48.3) | 29 | 7/8" | 3/8" |
| 6.10 (23.1) | | 58 | | |
| 10.2 (38.6) | | 97 | | |
| 12.3 (46.6) | | 117 | | |
| 14.8 (56.0) | | 140 | | |
| 17.9 (67.8) | | 170 | | |
| 5.33 (20.2) | 425 (29.3) | 29 | 1-1/8" | 3/8" |
| 10.6 (40.1) | | 58 | | |
| 17.8 (67.4) | | 97 | | |
| 21.5 (81.4) | | 117 | | |
| 27.0 (102.2) | | 140 | | |
| 31.1 (117.7) | | 170 | | |
| 10.5 (39.7) | 200 (13.8) | 29 | 1-5/8" | 1/2" |
| 21.0 (79.5) | | 58 | | |
| 35.3 (133.6) | | 97 | | |
| 42.5 (160.9) | | 117 | | |
| 50.9 (192.7) | | 140 | | |
| 61.8 (233.9) | | 170 | | |

Series 2000



AquFlow Series 2000 metering pump is a compact pump designed for its accuracy and durability. Its hydraulically balanced design means the life of its components including the diaphragm is long lasting. The wear is minimized on all its drive parts by enclosing it in an oil bath. The wetted components for the pump are available in various materials to assure compatibility with tough chemicals (refer to the Material Selection table on the following page)

The ease of use is enhanced by an easy to read micrometer knob which can adjust capacity from 0-100% even while the pump is operating. The pump can also be supplied with an optional automatic capacity control. Tubular diaphragm for abrasive slurries and leak detection. Also available as an option for other critical applications.

Features:

- Design Capacities of 2.95 to 224 GPH (11.2 to 848 LPH)
- Metering Accuracy of ±1%
- Internal Hydraulic Relief Valve
- Hydraulically Balanced Diaphragm
- Discharge Pressures to 1,800 PSIG (124.1 bars)
- 10:1 Turndown via Stroke Length
- Modular Design With Multiple Options
- Duplex Option Doubles Flow Capacity

Series 2000 Performance Table

| Capacity GPH (LPH) | Pressure PSIG (bars) | Speed (SPM) | Plunger Diameter | Connection (MNPT) |
|--------------------|----------------------|-------------|------------------|-------------------|
| 2.95 (11.2) | 1,800 (124.1) | 29 | 5/8" | 3/8" |
| 5.90 (22.3) | | 58 | | |
| 9.90 (37.5) | | 97 | | |
| 11.9 (45.0) | | 117 | | |
| 14.3 (54.1) | | 140 | | |
| 19.5 (73.8) | | 191 | | |
| 4.25 (16.1) | 1,000 (68.9) | 29 | 3/4" | 3/8" |
| 8.55 (32.4) | | 58 | | |
| 14.3 (54.1) | | 97 | | |
| 17.2 (65.1) | | 117 | | |
| 20.6 (78.0) | | 140 | | |
| 28.1 (106.4) | | 191 | | |
| 7.60 (28.8) | 360 (24.8) | 29 | 1" | 3/8" |
| 15.2 (57.5) | | 58 | | |
| 25.4 (96.1) | | 97 | | |
| 30.6 (115.8) | | 117 | | 1/2" |
| 36.7 (138.9) | | 140 | | |
| 50.0 (189.2) | | 191 | | |
| 11.8 (44.7) | 210 (14.5) | 29 | 1-1/4" | 3/8" |
| 23.7 (89.7) | | 58 | | |
| 39.7 (150.3) | | 97 | | |
| 47.9 (181.3) | | 117 | | 1/2" |
| 57.3 (216.9) | | 140 | | |
| 78.2 (296.0) | | 191 | | |
| 17.1 (64.7) | 195 (13.4) | 29 | 1-1/2" | 3/8" |
| 34.2 (129.5) | | 58 | | |
| 57.2 (216.5) | | 97 | | |
| 69.0 (261.2) | | 117 | | 1/2" |
| 82.5 (312.3) | | 140 | | |
| 112 (424.0) | | 191 | | |

Series 3000



For larger flow capacities series 3000 is the obvious choice due to its unique design and construction. In spite of its high flow capacity it has an amazingly small footprint. It does not compromise on accuracy either keeping it below $\pm 1\%$ owing to its hydraulically balanced design. The Series 3000 metering pump is designed for continuous service with maximum reliability and minimum downtime.

Available in Stainless Steel, Hastelloy C, Alloy 20 and PVC it can handle corrosive chemicals with ease. It comes with the same easy to use manual and electronic control which can be operated on the fly or when the pump is stopped. With a tubular diaphragm it can easily handle abrasive slurries.

Features:

- Design Capacities of 15.9 to 964 GPH (60.2 to 3,649.1 LPH)
- Metering Accuracy of $\pm 1\%$
- Internal Hydraulic Relief Valve
- Hydraulically Balanced Diaphragm
- Discharge Pressures to 700 PSIG (48.3 bars)
- 10:1 Turndown via Stroke Length
- Modular Design With Multiple Options
- Duplex Option Doubles Flow Capacity

Series 3000 Performance Table

| Capacity GPH (LPH) | Pressure PSIG (bars) | Speed (SPM) | Plunger Diameter | Connection (MNPT) |
|--------------------|----------------------|-------------|------------------|-------------------|
| 15.9 (60.2) | | 29 | | |
| 31.9 (120.8) | 700 (48.3) | 58 | 1" | 1/2" |
| 48.4 (183.2) | | 88 | | |
| 54.4 (205.9) | | 117 | | |
| 77.1 (291.9) | | 140 | | |
| 25.0 (94.6) | 405 (27.9) | 29 | 1-1/4" | 1/2" |
| 50.0 (189.3) | | 58 | | |
| 75.7 (286.6) | | 88 | | |
| 100 (378.5) | | 117 | | |
| 120 (454.2) | | 140 | | |
| 35.9 (135.9) | 265 (18.3) | 29 | 1-1/2" | 1/2" |
| 71.8 (271.8) | | 58 | | |
| 109 (412.6) | | 88 | | |
| 145 (548.9) | | 117 | | |
| 173 (654.9) | | 140 | | 1-1/2" |
| 48.9 (185.1) | 180 (12.4) | 29 | 1-3/4" | 1/2" |
| 97.8 (370.2) | | 58 | | |
| 148 (560.2) | | 88 | | |
| 197 (745.7) | | 117 | | |
| 236 (893.4) | | 140 | | 1-1/2" |
| 63.9 (241.9) | 130 (9.0) | 29 | 2" | 1/2" |
| 128 (484.5) | | 58 | | |
| 194 (734.4) | | 88 | | |
| 258 (976.6) | | 117 | | |
| 308 (1165.9) | | 140 | | 1-1/2" |
| 80.8 (305.9) | 95 (6.6) | 29 | 2-1/4" | 1/2" |
| 161 (609.5) | | 58 | | |
| 245 (927.4) | | 88 | | |
| 326 (1234.0) | | 117 | | 1-1/2" |
| 390 (1476.3) | | 140 | | |
| 100 (378.5) | 75 (5.2) | 29 | 2-1/2" | 1/2" |
| 200 (757.0) | | 58 | | |
| 300 (1135.6) | | 88 | | 1-1/2" |
| 400 (1514.2) | | 117 | | |
| 482 (1824.6) | | 140 | | |

Series 4000



The AquFlow Series 4000 is a rugged, durable, hydraulically actuated and balanced diaphragm metering pump. The pump is available in simplex or duplex configuration, with independent capacity adjustment for each pumphead.

All drive parts are fully enclosed and operate in an oil bath which minimizes friction and wear while providing protection from harsh environments. A self-compensating hydraulic system assures diaphragm position and eliminates the need for troublesome vacuum breakers and refill valve.

The easy to read micrometer knob enables convenient capacity adjustment between 0-100% while the pump is operating or stopped. In addition to manual control, the pump can be supplied with optional automatic capacity control, making it possible for the pump to control the flow rate in proportion to various process signals. A simple, externally adjustable, internal hydraulic relief valve protects the pump and the process from pump induced overpressure situations.

Features:

- Design Capacities of 22.6 to 3,530 GPH (85.6 to 13,362.5 LPH)
- Metering Accuracy of $\pm 1\%$
- Internal Hydraulic Relief Valve
- Hydraulically Balanced Diaphragm
- Discharge Pressures to 3,500 PSIG (241.3 bars)
- 10:1 Turndown via Stroke Length
- Modular Design With Multiple Options
- Specifically Matched Accessories

Series 4000 Performance Table

| Capacity GPH (LPH) | Pressure PSIG (bars) | Speed (SPM) | Plunger Diameter | Connection (MNPT) |
|--------------------|----------------------|-------------|------------------|-------------------|
| 22.6 (85.5) | | 44 | | |
| 36.0 (136.3) | 3,500 (241.3) | 70 | 7/8" | 1-1/4" |
| 45.0 (170.3) | | 88 | | |
| 72.0 (272.5) | | 140 | | |
| 38.5 (145.7) | 2,000 (137.9) | 44 | 1-1/8" | 1-1/4" |
| 61.5 (232.8) | | 70 | | |
| 77.0 (291.5) | | 88 | | |
| 123 (465.6) | | 140 | | |
| 79.5 (300.9) | 1,000 (68.9) | 44 | 1-9/16" | 2-1/2" |
| 126 (477.0) | | 70 | | |
| 159 (601.9) | | 88 | | |
| 253 (957.7) | | 140 | | |
| 210 (794.9) | 370 (25.5) | 44 | 2-1/2" | 2-1/2" |
| 335 (1268.1) | | 70 | | |
| 421 (1593.6) | | 88 | | |
| 671 (2540.0) | | 140 | | |
| 304 (1150.8) | 295 (20.3) | 44 | 3" | 4" |
| 485 (1835.9) | | 70 | | |
| 609 (2305.3) | | 88 | | |
| 970 (3671.8) | | 140 | | |
| 554 (2097.1) | 160 (11.0) | 44 | 4" | 4" |
| 882 (3338.7) | | 70 | | |
| 1109 (4198.0) | | 88 | | |
| 1765 (6681.3) | | 140 | | |

Material Selection for All AquFlow® Metering Pumps

| PART | Pumphead | Check Valve Body | Check Valve Seat | Check Valve Element | Diaphragm | Contour Plate |
|---|--|--|--|---|-----------|--|
| MATERIALS AVAILABLE FOR ALL SERIES | 316 SS, Alloy 20 Hastelloy C PVC or PVDF | 316 SS, Alloy 20 Hastelloy C PVC or PVDF | 316 SS, Alloy 20 Hastelloy C PVC or PVDF | 316 SS, Alloy 20 Hastelloy C or Ceramic | PTFE | 316 SS, Alloy 20 Hastelloy C PVC or PVDF |

AquFlow Advantage

Our current design of Aquflow pumps is the result of continuous improvement and refinement over a period of 36 years. Ever since HYDROFLO was founded in 1972 (Plumsteadville, PA) we had a passion to seek and listen to feedback from our customers who have been as vocal as they have been loyal. Whether it is design improvement or availability of an additional option, we make sure our customers have as much say as our engineers. The result is a range of metering pumps that meet and exceed most, if not all, expectations of our customers.

Manufactured in a state-of-the-art facility in Irvine, California, Aquflow pumps measure up to the highest standards of quality and consistency. Additional in-house capabilities added recently ensure we have the ability to provide customized solutions to your complex applications quickly and economically.

AquTank System

When you need a pump system put together with a tank and all the accessories you can rely on our engineers to put it together in any configuration. From one or two tank system to complex multi- pump and multi-tank skid mounted assemblies we can design for system integrity, ease of control and trouble free operation. For chemical feed applications AquTank systems can be engineered with our pumps in a cost effective package using materials that are compatible with the most aggressive chemicals.

Options

Motor – AC, DC, Single phase, Three phase, TEFC, TENV, Explosion Proof, 90V, 115V, 230V, 460V etc.

Speed Control – AV or DC Variable Frequency drives

Capacity Control – Manual, Electric or Pneumatic

Liquid Connections – NPT, Flange, Sanitary Tri Clamp etc.

Diaphragm Head – Degassing Valves, Leak Detection, Tubular Diaphragm, Double Diaphragms and Double Check Valves

Accessories

We can source accessories that match well with the Aquflow pump you select, including:

- Tanks / Containers
- Mixers
- Pressure Gauges
- Gauge Isolators
- Injection Quills
- Back Pressure Valves
- Safety Relief Valves
- Calibration Columns
- Pulsation Dampeners
- Electrical Control Panels...Etc.

Service & Support

We at AquFlow or your local distributor stand ready to assist you in sizing and selecting the right pump and system for your application. We will make sure that you are provided with all the technical details including specifications, flow characteristics, dimensions etc. to make an informed decision.

Once the order is placed we at AquFlow make sure that your pump is manufactured and tested to the highest standards in the industry. Our delivery time for most standard pumps could be less than a week ARO.

At AquFlow we believe that the best service we can provide is a trouble-free pump. Our reliable pump designs minimize the need for maintenance and service. Our personnel are also available for phone consultation to assist you in solving pump problems to prevent expensive downtime.

AquFlow stands with you from the very beginning of the process of selecting the right pump to installation and trouble-free operation of your pump system.

Ask us about AquFlow Solenoid Metering Pumps:

- Air-operated Diaphragm Pumps
- Sanitary Lobe, Progressive Cavity, Peristaltic Centrifugal, Flex Impeller, Drum Pumps



AquFlow

The Gold Standard in Metering Pump Technology

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