



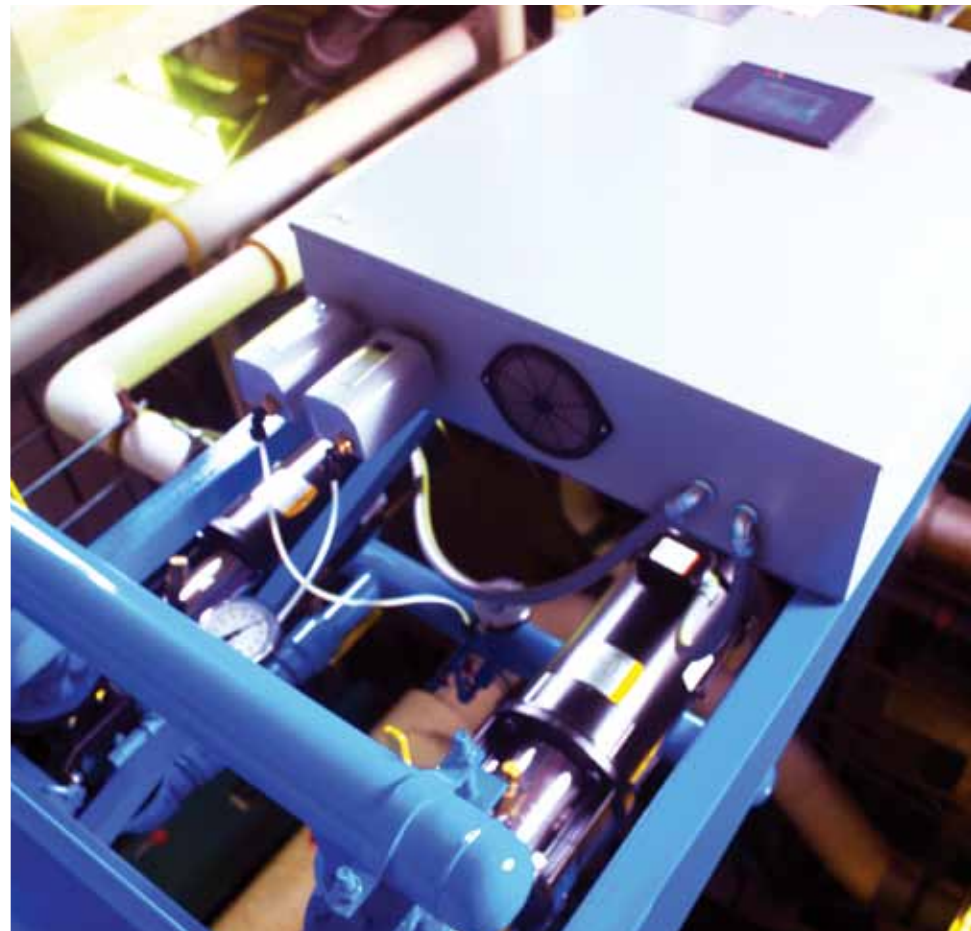
# Patterson

Reliable Packaged Solutions in Plumbing



## AQUAFLO<sup>™</sup> CONTROL

PLUMBING SYSTEMS  
PLUMBING ACCESSORIES



**High enough. Fast enough. Just enough.** Plumbing contractors worldwide are filling the need for reliable clean water supply with Aqua~FloPac™ pre-engineered packaged systems.

### Supply The Demand

AquaFloControl™ Plumbing Systems offer proven quality and reliability when it comes to delivering clean water at controlled volume and pressure to high-density residential, light industrial, independent water systems, dormitories and office buildings.

These booster pumping systems eliminate the need for job-by-job system engineering involving individual pumps, accessories and controls. They are an excellent, cost-effective technical solution for supplying high demands. Many configurations are available, along with the technical support to implement custom installations for complete customer satisfaction.



## Aqua~FloPac™

Pre-engineered, standard plumbing packages provide distinct advantages to contractors.

With Aqua~FloPac™, you can install reliable water service at controlled volume and pressure for high-density residential structures, light industrial sites, office buildings, dormitories and similar facilities. You can even provide independent water systems with custom booster plumbing packages.

All Aqua~FloPac packages are pre-engineered, so contractors only have to size them and install them. Plus, service and maintenance is easy with the rear pullout design, which allows removal of the rotating element without disturbing suction and discharge connections.

Patterson engineers the plumbing packages with variable frequency or constant speed drives to follow cooling load with maximum energy efficiency. Pump options include end suction, horizontal split case, vertical turbine, vertical diffuser and a multi-stage pump for low flow, high head conditions. The packages can also be furnished with a standard 185-gal hydro-pneumatic tank; other sizes are available.

Duplex and triplex horizontal configurations are standard with the Aqua~FloPac packages, and split-base options are available. Vertical and horizontal split-base configurations can fit through a 36-in. door opening, easily accommodating existing construction.

Our custom, programmable, state-of-the-art System Controller delivers highly effective energy and system management. Standard on all systems, its easy-to-read and operate interface belies its highly sophisticated capabilities. It is UL 508-A listed, features pop-up window overlays for easier monitoring and all screens include an “Emergency Stop Pumps” button.

Each pump is assembled in a Patterson Pump controlled manufacturing environment, and every pump is 100% run/flow tested and ETL third-party inspected prior to shipment. Plus, all Aqua~FloPac pre-engineered plumbing packages are prefabricated for “Quick Ship” needs.

**Aqua~FloPac Custom Booster Systems.** If an application is not covered by the standard package, Patterson will help you configure a custom package. Custom booster systems are available with multiple pumps, controls and piping materials to fit individual job needs with a working pressure to 500 psi.

Special control options include flow meters and relay/time logic to microprocessor-based controls. Additional options include custom piping arrangements and metal or fiberglass housing.

Capacities are only limited by shipping restrictions. UL-QCZJ Listed.



*This Aqua~FloPac™ VFD package serves a 3-story office building.*



*From the first floor to the penthouse, residents in this metropolitan condo (above) enjoy reliable water delivery with this Aqua~FloPac package (right) working efficiently down below.*



## Standard Variable & Constant Speed

### Aqua~FloPac Specifications

#### Mechanical

PUMPS	END SUCTION
Standard working pressure	175 psi
Impellers	Dynamically balanced
Discharge	Centerline/self venting design
MANIFOLDS/SKID	
Headers	Welded stainless steel
Support system	ANSI B-31.1 and 31.9
Bases/supports	Epoxy paint coated, structural steel
Pressure gauges	4 in. with shut-off valve
Isolation valves	Each pump suction and discharge: 2-1/2 in. and larger lug butterfly; 2 in. and smaller full port ball valves
Other valves	Watts™ combination PRV and check valve

#### Electrical

CONTROL PANEL	
UL/ETL	UL 508-A listed
Enclosure	NEMA 1; others available
Connection	Single point electrical; other types available
Alarm	Low system pressure; low suction pressure; high system pressure; others available
Interface	4.3-in., 256-color TFT LCD touch screen (6-in. screen option available)
Starters	Combination with 3 leg overload protection (constant speed); ABB VFD
Switches	Main disconnect switch with through door operator; motor (MSP) H-O-A and run lights in touch screen interface
Automatic	Alternation of equal pumps
MOTOR	
Insulation system	Class F
VFD	ABB

## Duplex Sizing Chart

System, gpm	PSI Boost	System Model #	Flow Split P1 & P2, gpm	Pump P1 & P2 HP	PRV Size, in.	Header Size, in.	Weight, lb
100	35	DAP-1-2-A	50/50	2	2	3	800
100	43	DAP-1-3-A	50/50	3	2	3	850
100	61	DAP-1-5-A	50/50	5	2	3	900
100	74	DAP-3-5-A	50/50	5	2	3	1000
100	87	DAP-3-7-A	50/50	7	2	3	1050
100	104	DAP-3-10-A	50/50	10	2	3	1100
100	130	DAP-3-15-A	50/50	15	2	3	1150
120	35	DAP-1-2-A	60/60	2	2	3	800
120	43	DAP-1-3-A	60/60	3	2	3	850
120	56	DAP-1-5-A	60/60	5	2	3	900
120	65	DAP-3-5-A	60/60	5	2	3	1000
120	87	DAP-3-7-A	60/60	7	2	3	1050
120	100	DAP-3-10-A	60/60	10	2	3	1100
120	130	DAP-3-15-A	60/60	15	2	3	1150
160	30	DAP-1-2-A	80/80	2	2	3	800
160	39	DAP-1-3-A	80/80	3	2	3	850
160	56	DAP-1-5-A	80/80	5	2	3	900
160	78	DAP-3-7-A	80/80	7	2	3	1050
160	95	DAP-3-10-A	80/80	10	2	3	1100
160	130	DAP-3-15-A	80/80	15	2	3	1150
200	35	DAP-1-3-A	100/100	3	2	3	850
200	52	DAP-1-5-A	100/100	5	2	3	900
200	69	DAP-3-7-A	100/100	7	2	3	1050
200	87	DAP-3-10-A	100/100	10	2	3	1100
200	126	DAP-3-15-A	100/100	15	2	3	1150
250	26	DAP-2-3-A	125/125	3	2	3	1150
250	43	DAP-1-5-A	125/125	5	2	3	900
250	56	DAP-2-7-A	125/125	7	2	3	1050
250	74	DAP-3-10-A	125/125	10	2	3	1100
250	113	DAP-3-15-A	125/125	15	2	3	1150
250	121	DAP-3-20-A	125/125	20	2	3	1200
300	39	DAP-2-5-B	150/150	5	2	4	900
300	52	DAP-2-7-B	150/150	7	2	4	1050
300	65	DAP-3-10-B	150/150	10	2	4	1100
300	100	DAP-3-15-B	150/150	15	2	4	1150
300	117	DAP-3-20-B	150/150	20	2	4	1200
350	48	DAP-2-7-B	175/175	7	2	4	1050
350	56	DAP-4-10-B	175/175	10	2	4	1150
350	78	DAP-3-15-B	175/175	15	2	4	1150
350	100	DAP-3-20-B	175/175	20	2	4	1200
350	113	DAP-4-25-B	175/175	25	2	4	1250
400	52	DAP-4-10-B	200/200	10	2	4	1150
400	78	DAP-4-15-C	200/200	15	3	4	1200
400	100	DAP-4-20-C	200/200	20	3	4	1250
400	108	DAP-4-25-B	200/200	25	2	4	1250
500	43	DAP-4-10-C	250/250	10	3	6	1300
500	65	DAP-4-15-C	250/250	15	3	6	1350
500	87	DAP-4-20-C	250/250	20	3	6	1400
500	104	DAP-4-25-C	250/250	25	3	6	1450
600	56	DAP-4-15-C	300/300	15	3	6	1350
600	74	DAP-4-20-C	300/300	20	3	6	1400
600	91	DAP-4-25-C	300/300	25	3	6	1450

## Triplex Sizing Chart

System, gpm	PSI Boost	System Model #	P1, gpm	P2 & P3, gpm	P1 HP	P2 & P3 HP	PRV Size(s), in.	Header Size, in.	Weight, lb
150	35	TAP-11-22-AA	50	50	2	2	2	4	1000
150	43	TAP-11-33-AA	50	50	3	3	2	4	1025
150	61	TAP-11-55-AA	50	50	5	5	2	4	1050
150	74	TAP-33-55-AA	50	50	5	5	2	4	1100
150	87	TAP-33-77-AA	50	50	7	7	2	4	1200
150	104	TAP-33-1010-AA	50	50	10	10	2	4	1300
150	130	TAP-33-1515-AA	50	50	15	15	2	4	1400
200	30	TAP-11-22-AA	40	80	2	2	2	4	1000
200	39	TAP-11-33-AA	40	80	3	3	2	4	1025
200	56	TAP-11-55-AA	40	80	5	5	2	4	1050
200	78	TAP-33-77-AA	40	80	7	7	2	4	1200
200	95	TAP-33-1010-AA	40	80	10	10	2	4	1300
200	130	TAP-33-1515-AA	40	80	15	15	2	4	1400
250	35	TAP-11-23-AA	50	100	2	3	2	4	1025
250	52	TAP-11-55-AA	50	100	5	5	2	4	1050
250	69	TAP-33-57-AA	50	100	5	7	2	4	1150
250	87	TAP-33-710-AA	50	100	7	10	2	4	1250
250	126	TAP-33-1515-AA	50	100	15	15	2	4	1400
350	39	TAP-12-35-AB	70	140	3	5	2	4	1050
350	56	TAP-12-57-AA	70	140	5	7	2	4	1150
350	69	TAP-33-710-AA	70	140	7	10	2	4	1250
350	100	TAP-33-1015-AA	70	140	10	15	2	4	1300
350	117	TAP-33-1520-AA	70	140	15	20	2	4	1450
400	35	TAP-12-35-AB	80	160	3	5	2	4	1050
400	52	TAP-12-57-AB	80	160	5	7	2	4	1150
400	78	TAP-33-715-AB	80	160	7	15	2	4	1200
400	95	TAP-33-1020-AB	80	160	10	20	2	4	1400
400	113	TAP-33-1520-AB	80	160	15	20	2	4	1450
500	39	TAP-12-57-AB	100	200	5	7	2	6	1150
500	52	TAP-14-510-AB	100	200	5	10	2	6	1200
500	69	TAP-34-715-AC	100	200	7	15	2/3	6	1400
500	87	TAP-34-1020-AC	100	200	10	20	2/3	6	1400
500	108	TAP-34-1525-AB	100	200	15	25	2	6	1600
600	43	TAP-14-510-AC	120	240	5	10	2/3	6	1300
600	61	TAP-34-715-AC	120	240	7	15	2/3	6	1400
600	82	TAP-34-1020-AC	120	240	10	20	2/3	6	1500
600	108	TAP-34-1525-AC	120	240	15	25	2/3	6	1600
700	56	TAP-24-715-AC	140	280	7	15	2/3	6	1400
700	69	TAP-34-1020-AC	140	280	10	20	2/3	6	1500
700	100	TAP-34-1525-AC	140	280	15	25	2/3	6	1600
800	61	TAP-44-1020-BD	160	320	10	20	2/3	6	1550
800	87	TAP-34-1525-BD	160	320	15	25	2/3	6	1600
900	56	TAP-44-1515-CC	300	300	15	15	3	6	1600
900	74	TAP-44-2020-CC	300	300	20	20	3	6	1700
900	91	TAP-44-2525-CC	300	300	25	25	3	6	1750
1000	74	TAP-44-2525-DD	335	335	25	25	3	6	1750



### Compact, Power-Packed TDH+ Model

Providing a more compact, self-contained design for higher pressures.

The Aqua~FloPac TDH+ Model is anything but standard. It is designed and engineered for maximum performance and energy efficiency with budget restraints in mind.

The TDH+ Model has a smaller footprint than other Aqua~FloPac plumbing packages and offers vertical multi-stage pumps. Plus, with a working pressure of 240 psi per pump and heads up to 555 ft, the model is capable of higher discharge pressures than the standard end suction pump. Larger sizes are available; consult the factory.

The model also offers both constant and variable speed; changeable orientation of headers; NEMA 1 and 4 enclosures; and a split-base option.



*TDH+ Model has a smaller footprint.*



*This TDH+ Model meets the constant demands of a university dorm.*

The UL-QCZJ system features a factory certified and tested UL 508-A control panel and tested pump system for reliable, uninterrupted operation upon arrival at the jobsite.

#### Responsive Service And Support.

Patterson Pump Company offers responsive support and parts coverage worldwide. Our expert applications engineering and local support will ensure accurate product selection and smooth installation, commissioning and operation phases with responsive service.

## Pumping Technology for Tomorrow's World

For the last century, Patterson has built a firm reputation of reliable pump installation worldwide—whether satisfying urban water and waste demands; harnessing and controlling ravaging floods; reclaiming arid deserts; taming rampaging and devastating fires; or protecting the planet's ecological balance.

Patterson Pump Company leads America as one of the foremost designers and manufacturers of: Split Case Pumps; Fire Pumps; Axial and Mixed Flow Pumps; Vertical Turbine Pumps; End Suction Pumps; Vertical In-Line Pumps; solids handling pumps; engineered packaged systems; and exclusive Ludlow-Rensselaer Double-Disc Gate Valves.

**Proven Quality and Reliability for More Than a Century.** It is Patterson's century-long dedication to the quality, innovation and reliability of its products that has inspired its high-quality, valued employees.

Patterson's design engineers are driven to continuously make incremental improvements throughout the company's product line and to develop leading-edge pumping technology.

Similarly, Patterson's highly trained machinists meticulously operate the cutting-edge, computer-controlled machining centers, vertical turning centers and computerized lathes in order to create Patterson products with high-precision workmanship in less time for faster delivery of standard units.

The quality and reliability of Patterson products doesn't stop at installation. Patterson is equally dedicated to providing the finest field and factory service and maintaining the best service department in the industry.

**ISO 9000 Certification.** Patterson does more than strive for quality and reliability; Patterson has invested in the company's core values.

Patterson is ISO 9000 certified, attesting to its world-class quality and dependability. The company is continually reevaluated, with a complete reassessment every three years, to ensure all elements are maintained in keeping its products world-class.

**Six Sigma.** Patterson has also invested into its Six Sigma program. Six Sigma is an optimized level of performance. That's overall excellence—not only in a world-class finished product, but also in the administrative, service and manufacturing processes throughout the company.

Patterson's Six Sigma program is a proven methodology that standardizes the right tools and techniques, while providing working teams with step-wise progressions in applying these tools. The program has successfully enhanced Patterson's reputation for high-quality, reliable pump design, manufacture and service.



*Patterson Toccoa, GA, Headquarters (above). Patterson Mullingar, Ireland, Factory (right).*



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