

The automatic Aquafy emulsion polymer system is designed to efficiently prepare polymer solution with no polymer wastage. Enhanced process performance, reduced water and energy demand, and minimal chemical consumption are the direct benefits. The Aquafy emulsion polymer system uses a high shear dispersion chamber to effectively disperse the emulsion polymer into the dilution water stream.

Completely independent of the dilution water flow rate, the high shear mixing energy is imparted onto the polymer particles at the moment of initial wetting thereby preventing the formation of agglomerations and "fish-eyes". The polymer particles are only exposed to the high shear energy for a very short period of time and only while in the "coiled" state. When the polymer molecules are uncoiling, exposing their charge sites, they are no longer in the presence of the high shear energy. The emulsion polymer system produces a polymer solution that is approximately 80% hydrated. Further hydration requires the use of a day tank to provide additional

retention prior to feed to the process.

The Aquafy emulsion polymer system uses a 316L stainless steel dispersion chamber encasing a 316L SS mixing impeller for corrosion resistance, quality appearance, and improved strength and ductility. The impeller is direct coupled to 3450 rpm motor, which provides the highest shear energy for maximum polymer dispersion.

The Aquafy emulsion polymer system has three available PLC based control options to suit most application needs:

- 1.) For direct feed applications where a variation in polymer feed concentration is acceptable, the neat polymer pump can be controlled automatically from a remote location. The dilution water is controlled locally and manually, which may result in a variable polymer feed concentration.
- 2.) For makedown applications feeding to a day tank, the dilution water flow is set and controlled manually. The neat polymer pump paces to the water flow



Polymer Solution Discharge

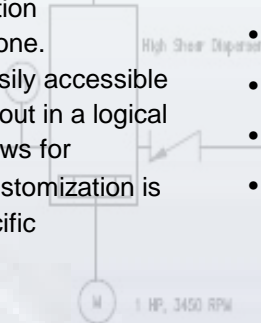
to maintain an operator specified concentration setpoint. The system turns on/off based on the level in the day tank.

3.) For applications where a constant polymer concentration is required for the process but direct feed is preferred, this control option modulates both the dilution water flow and the neat polymer flow to maintain an operator specified concentration setpoint direct to process.

Aquafy offers equipment of the highest quality designed to last. With over 45 years of combined fabrication experience, the workmanship is second to none. Experience ensures that components are easily accessible by operation and maintenance staff and laid out in a logical manner. Factory testing of all equipment allows for customer piece of mind. Polymer system customization is available to meet the customers project specific specifications.

AVAILABLE OPTIONS

- Stainless Steel Piping
- Loss of Polymer Flow Switch
- Emulsion Polymer Strainers
- Custom Control Panels
- Bulk Polymer Storage Tanks
- Bulk Polymer Mixing System
- Polymer Solution Storage Tanks
- Polymer Solution Feed Pump Systems
- Polymer Solution Post Dilution Systems
- Polymer Hydration Validation Systems



MODEL NUMBER: AP – Column 1 – Column 2 –Column 3 –Column 4 – Column 5

Column 1	Column 2	Column 3	Column 4	Column 5
Dilution Water Flow (LPH)	Pump Type	Pump Capacity (LPH)	Controls	Power (VAC)
200	D = Diaphragm	2	DF = Direct Feed	120
500	PC = Progressive Cavity	4	MD = Makedown	230
1,200	P = Peristaltic	10	DFC = Direct Feed, Constant Concentration	575
3,000		20	C = Custom	
5,000		30		
12,000		40		
30,000		50		
50,000		120		
		300		
		500		

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