

EQUIPMENT



QUIPTEC
WASTEWATER, CLEAN-GAS & ENVIRONMENTAL SOLUTIONS



AUTOMATIC POLYMER PREPARATION UNIT

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- **Precision Dosing:** Advanced algorithms (AI-Optimised) automatically fine-tune polymer dosing in real time, eliminating operator error, ensuring optimal treatment performance, and preventing chemical overuse.
- **Labour Savings:** Fully automated preparation and dosing minimise hands-on work, lowering operational costs and allowing staff to concentrate on higher-value activities.
- **Enhanced Efficiency:** Reliable polymer delivery maintains stable process conditions, boosting solids removal efficiency and compliance with stringent environmental regulations.
- **Smart Monitoring:** Integrated IoT sensors continuously track polymer concentration, flow rates and system status, enabling proactive adjustments and rapid troubleshooting.
- **Environmental Sustainability:** Smart optimisation reduces polymer wastage and energy demand, supporting corporate sustainability goals and global environmental initiatives.
- **Cost-Effective:** Lower polymer consumption, reduced maintenance needs and extended equipment life deliver measurable OPEX savings over time.
- **Flexible & Scalable:** Configurable to handle diverse wastewater characteristics and plant capacities, from small municipal systems to large industrial installations.



Working Principle

Dry or liquid polymer is conveyed to the wetting chamber, where it is rapidly and uniformly mixed with water to avoid clumping.

The wet polymer is then introduced into the dissolving chamber for complete hydration. It then enters the aging/maturation chamber to reach the required concentration.

Automated sensors, valves, and PLC controls maintain optimal preparation conditions. The ready solution is transferred on demand to dosing points.

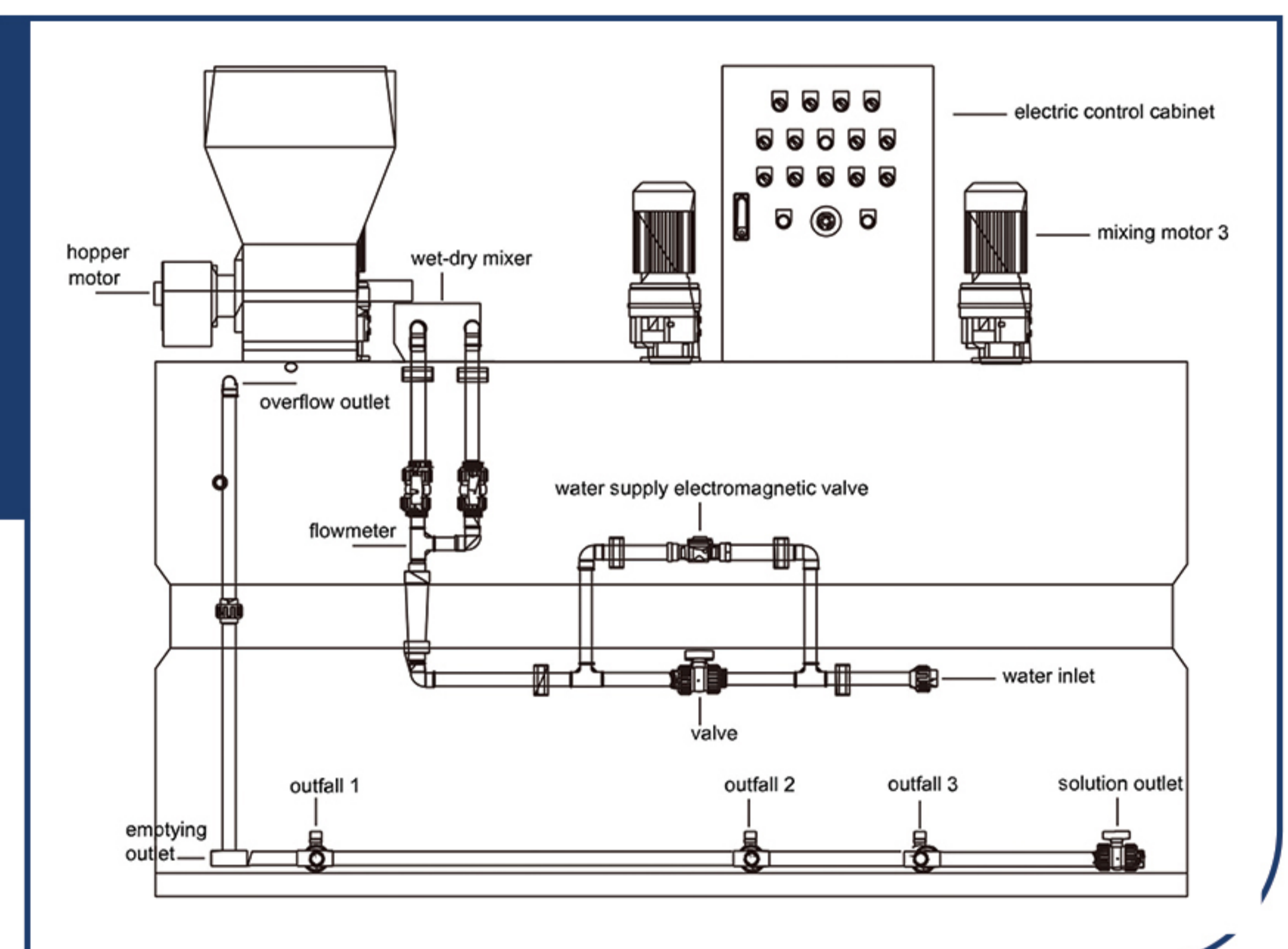
Features

Standard Features

- Durable SS304 stainless steel construction (SS316 available) for corrosion resistance
- Three-stage preparation system: Integrated tanks provide continuous wetting, dissolving, and aging for a stable, consistent polymer solution with minimal labour.
- Integrated IoT monitoring and smart sensors for continuous measurement of chemical levels, flow rates and overall system performance
- Level sensors and interlocks for safe, reliable performance
- Compact skid-mounted frame for quick installation
- Easy maintenance with service-friendly layout

Options & Accessories

- Alternative polymer feeding systems: screw feeder, vacuum conveyor, bag-break station
- Customised solution thanks to meet specific capacities
- Additional agitation or recirculation pumps for challenging polymers
- Remote monitoring and data logging
- Low-level alarms and auto-stop protection
- Integrated dosing pumps and pipelines for turnkey installations




Specifications and Parameters

Model	Capacity (L/h)	Powder hopper capacity (L)	Material	Power (kW)	L (mm)	W (mm)	H (mm)	Weight (kg)
AQT-500L	500	65	SUS304	0.99	1400	1520	1870	280
AQT-1000L	1000	65	SUS304	0.99	2000	1300	1660	410
AQT-2000L	2000	65	SUS304	1.36	2440	1520	1965	550
AQT-4000L	4000	65	SUS304	1.36	3000	1800	2115	680
AQT-5000L	5000	65	SUS304	3.55	4000	1550	1830	960
AQT-6000L	6000	65	SUS304	3.55	4000	1800	2080	1050
AQT-8000L	8000	65	SUS304	4.65	4500	1800	2100	1280
AQT-10000L	10000	100 × 2	SUS304	4.90	5000	1800	2100	1560

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