



HydraPol™ Flex Modular Dry Polymer Make-up System

WATER TECHNOLOGIES

HydraPol[™] Flex Modular Dry Polymer Make-up System

Veolia's HydraPol[™] Flex modular polymer makeup and dosing system is designed to prepare and activate any type of dry polymer. Equipped with a volumetric feeder, the HydraPol Flex introduces dry polymer (from 25 kg/50 lbs bags or super sacks) into the dampening system. The output of the volumetric feeder is equipped with an automatic shut-off valve which prevents all contact between the dry polymer and moisture.

The activation of the dry polymer is initiated through an effective high shear pre-wetting stage to enhance the reaction of polymer chains. This eliminates the formation of polymer lumps and greatly reduces the chances of clogging. The pre-wetting stage consists of a cone shaped stainless steel vortex for instantaneous dry polymer dispersion in water. Prewetted particles of polymer are then transported via an eductor, to the mixing tank. The transfer pipeline also includes a high efficiency static mixer to ensure complete wetting of the polymer before entering the mixing tank.

In the mixing tank, the polymer is continuously activated with a low shear agitator. Veolia customizes the speed of the agitator and the diameter of the propeller, based on the geometry of the tank to ensure optimal activation of polymer. Once the polymer is properly mixed, the solution is transferred to the storage tank. The stainless steel mixing and storage tanks are cylindrical in design and are mounted on top of each other to reduce total footprint (up to model HP4000). All operations are fully automated through a customizable control panel for easy management of polymer preparation.



Complete Hydration of the Polymer



Features

- Accurate and consistent dosing, providing constant and repeatable concentrations
- Multiple shearing zones ensuring optimal activation of dry polymer
- Customizable control panel to govern
 operational sequences
- Handling system adapted to customer needs: vacuum or super-bag unloader
- Stacked tank design resulting in a reduced footprint
- Easy maintenance



Optional Dosing Skid



| System | 0.2% solution | | | | 0.5% solution | | | |
|---|---------------|-------------------------|-------------------|-------------------------|-------------------|----------------------------|------------|------------------|
| Maturation time | 45 | min | 90 | min | 45 ، | min | 90 | min |
| Capacities: | kg/h | (lb/h) | kg/h | (lb/h) | kg/h | (lb/h) | kg/h | (lb/h) |
| HydraPol™ Flex 250 | 0.72 | (1.6) | 0.37 | (0.8) | 1.8 | (3.9) | 0.92 | (2.0) |
| HydraPol™ Flex 500 | 1.1 | (2.4) | 0.58 | (1.3) | 2.7 | (6.0) | 1.4 | (3.1) |
| HydraPol™ Flex 750 | 1.6 | (3.6) | 0.87 | (1.9) | 4.0 | (8.7) | 2.1 | (4.7) |
| HydraPol™ Flex 1000 HydraPol™ Flex 1250 HydraPol™ Flex 1500 | 2.1 2.6 | (4.7) (5.6) | 1.2 1.4 1.7 | (2.5) (3.1) (3.7) | 5.1 6.1 7.0 | (11.2) (13.3) (15.4) | 2.8 3.4 | (6.2) (7.5) |
| HydraPol™ Flex 1750 HydraPol™ Flex 2000 | 3.4 4.1 | (0.5) (7.5) (9.0) | 1.7 1.9 2.2 | (4.2) (4.9) | 7.9 10.0 | (17.4) (22.1) | 4.6 5.5 | (10.2) (12.1) |
| HydraPol™ Flex 2500 | 4.9 | (10.8) | 2.7 | (6.0) | 12.1 | (26.6) | 6.8 | (14.9) |
| HydraPol™ Flex 3000 | 5.8 | (12.7) | 3.3 | (7.2) | 14.1 | (31.0) | 8.1 | (17.7) |
| HydraPol™ Flex 3500 | 6.5 | (14.2) | 3.7 | (8.2) | 15.7 | (34.6) | 9.2 | (20.1) |
| HydraPol™ Flex 4000 | 7.2 | (15.8) | 4.2 | (9.2) | 17.5 | (38.5) | 10.3 | (22.7) |
| HydraPol™ Flex 9000 | 14.5 | (31.9) | 8.9 | (19.5) | 34.3 | (75.5) | 21.4 | (47.1) |
| HydraPol™ Flex 15000 | 19.1 | (41.9) | 12.9 | (28.4) | 44.4 | (97.6) | 30.8 | (67.7) |

Hydra-Stat

- Real-time polymer activation monitoring
- Prevent process downtime
- Validates operation and system performance
- Optimizes polymer consumption (ROI)



Resourcing the world

Veolia Water Technologies

4105 Sartelon, Saint-Laurent, Québec H4S 2B3 Tel: 514-334-7230 Fax: 514-334-2574 instrumentation@veolia.com . www.veoliawatertechnologies.ca