ProMinent Fluid Controls Pty Ltd

ProMix Polyelectrolyte Preparation System

For the preparation of a quality polymer solution, we offer our Australian designed and manufactured ProMix preparation package.

The secret in our production of a quality polymer solution is in our vacuum assisted wetting cone and constant rate powder feeder. The system is automatic batch makeup and a typical preparation system would consist of:

- Galvanised skid
- ProMinent Control Panel
- Dry Powder Feeder
- Storage Hopper
- ProMinent wetting assembly
- Low Speed Stirrer
- Mixing ageing tank
- Dosing tank has been allowed)
- Metering pump
- Level controls
- Inlet pipework
- Discharge and transfer pipework
- Solenoid valve
- Pressure reducing valve
- Flow control valves
- Isolation valves
- Non return valve
- Transfer valve if tank above tank
- Wetting cone including eductor
- Secondary dilution

Preferably all items are mounted on a skid for ease of installation and transportation to site. Hopper and feeder would be in stainless steel, the skid would be galvanised. The daytank and dosing tank are normally in polyethylene.











The extremely "wetted" polymer is hydraulically transferred to the mixing/ageing tank where it is stirred by a slow speed stirrer and allowed to age. After the required ageing time, prepared polymer is pumped or gravity fed to the storage/dosing tank and a new batch is commenced.

We can also supply a Spectra progressive cavity transfer pump to transfer the prepared poly to a storage dosing tank.

Secondary dilution system can be offered as an option if required.

The make-up water supply system comprises: a shut-off valve, a solenoid valve for automatic control of service water, and a flow switch to isolate the Polymer unit if water supply fails, all mounted before the wetting assembly. The wetting assembly has a fixed water flow that is used to wash the powder into the centre of the eductor where it is extensively pre-wetted and then hydraulically transferred to the mixing tank.

This hydraulic transfer method reduces the size of platform requirements needed for loading the polyelectrolyte bags.





Our polymer preparation systems are available in various designs with elevated tank design for up to 1000 litre mixing tanks, with side by side tanks for over 1000 l/h systems. Tank over tank allows for the gravity feeding of the prepared polymer to the storage dosing tank. With tank by tank design, each tank in turn is used for the preparation, ageing and dosing, so each tank is fitted with a stirrer.

For basic lower cost installations we have provided a manual preparation unit.

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