

KSP

Continuous Polymer Stations



Catalogue
sheet

MIVALT

KSP

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Product description

The station is designed for homogenization, activation, and preparation of polymer solution from liquid concentrates (e.g., emulsion-based) in real time, at the required quantity and concentration. The output from the KSP station can be directly connected to downstream technologies for thickening, dewatering, or wastewater treatment (flotation, sedimentation, etc.).



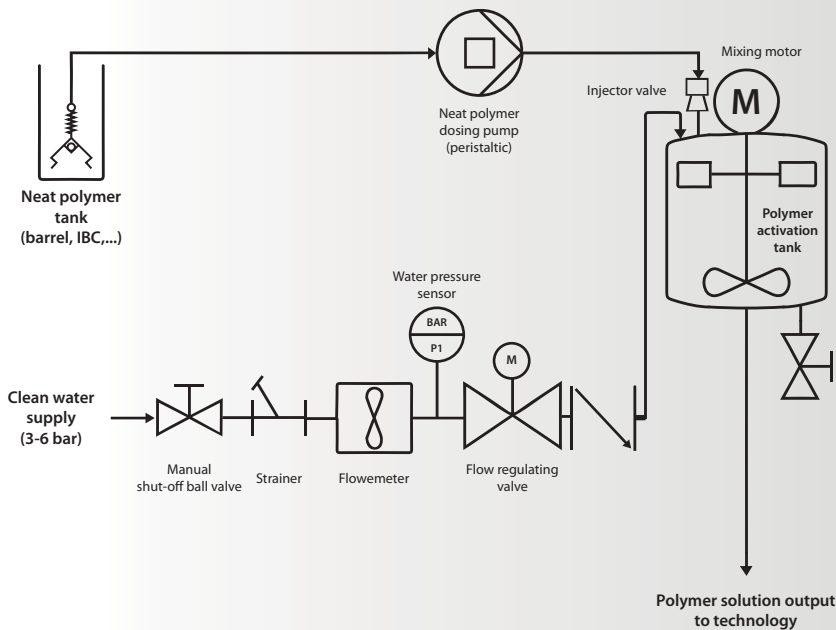
Main advantages

- Minimal installation space compared to conventional systems
- No need for an additional dosing pump for polymer solution
- Real-time adjustment of solution quantity and concentration
- No leftover mixed polymer after unexpected shutdowns
- Fully automated operation with flow measurement and system regulation
- Reliable polymer activation, minimizing consumption
- Reduced energy consumption for solution preparation and dosing
- Low maintenance requirements

Parameters

- Stainless steel mixing chamber for fast polymer activation, with an asynchronous motor-driven mixer.
- Electronic water flow and pressure measurement.
- Water flow regulated by an electronically controlled needle valve.
- Peristaltic dosing pump for precise dosing of viscous liquids, with easy pump head replacement.
- Robust polymer injection valve with Hastelloy-C spring and ceramic ball.
- Control panel with touch screen for status display and easy operation, controlled by PLC with remote operation capability.
- External start/stop signal and performance control via 4-20 mA signal.
- External operation and fault indication through potential-free contacts.
- MODBUS TCP connection for integration with a superior control system.

Operating principle



Parameters

Model	Solution flow [l/h]	Solution concentration [%]	Concentrate consumption [kg/h]	Power [kW]	Dimensions [L x W x H mm]	Weight [kg]
KSP-1500	150 - 1500	0.1 - 0.5	0.15 - 7.5	0.2	850 x 600 x 1250	120
KSP-4000	400 - 4000	0.1 - 0.5	0.40 - 20	0.3	900 x 800 x 1500	150

*The station requires a source of pressurized water with an operating pressure of 3-6 bar and a flow rate corresponding to the station's maximum throughput. Optionally, a booster pump can be provided to increase water pressure in the water supply system or to create water pressure from non-pressurized storage tanks (such as wells, etc.).

** For polymer preparation, clean, potable water free from contaminants (BOD, COD, TSS) and mechanically filtered solid particles larger than 0.05 mm should always be used. Failure to meet this condition may result in clogging of the station due to the reaction of these impurities with the polymer, requiring frequent cleaning.

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