

Polymer preparation- and dosing system for powder type FAB



Features

- Suitable for different kinds of dry and liquid products
- 2 stainless steel preparation containers V2A including welded deflector plate
- No „clumping“ by the use of innovative mixing chamber
- Careful mixing of water and polymer products
- Handling with 15“ touch panel including graphical representation
- Controlling with Siemens S7 300 or S71500 with TIA-portal
- Fully automatic or manually operable
- Varied connection possibilities via interfaces for integration in your process
- Extensive options and individual adaptation

Technical description and process

The **waterprocesstec polymer preparation systems FAB pendulum** were developed to allow a controlled dispersion of polyelectrolytes in water. The systems serve the recognition and treatment of solid and liquid polyelectrolytes regardless of the manufacturer. The concentration (dependent of the product) of the stock solution is ca. 0,5% - 1,0 weight%. The **waterprocesstec polymer preparation systems** are mainly designed for fully automatic operation. A manual operation is also possible any time.



Through the water fast filling a water trap is introduced to the wetting of the agitators in the respective mixing tank. **The level** is measured continuously and is displayed graphically on the touch panel. Then the required quantity of polymer is metered by a dry material feeder. The concentration of this can also be stored as a recipe in the touch panel.



Via a side channel compressor the powder transport carried in **the innovative mixing head**. Already here carried a wetting with water. The early mixing prevented clumping on the water surface.

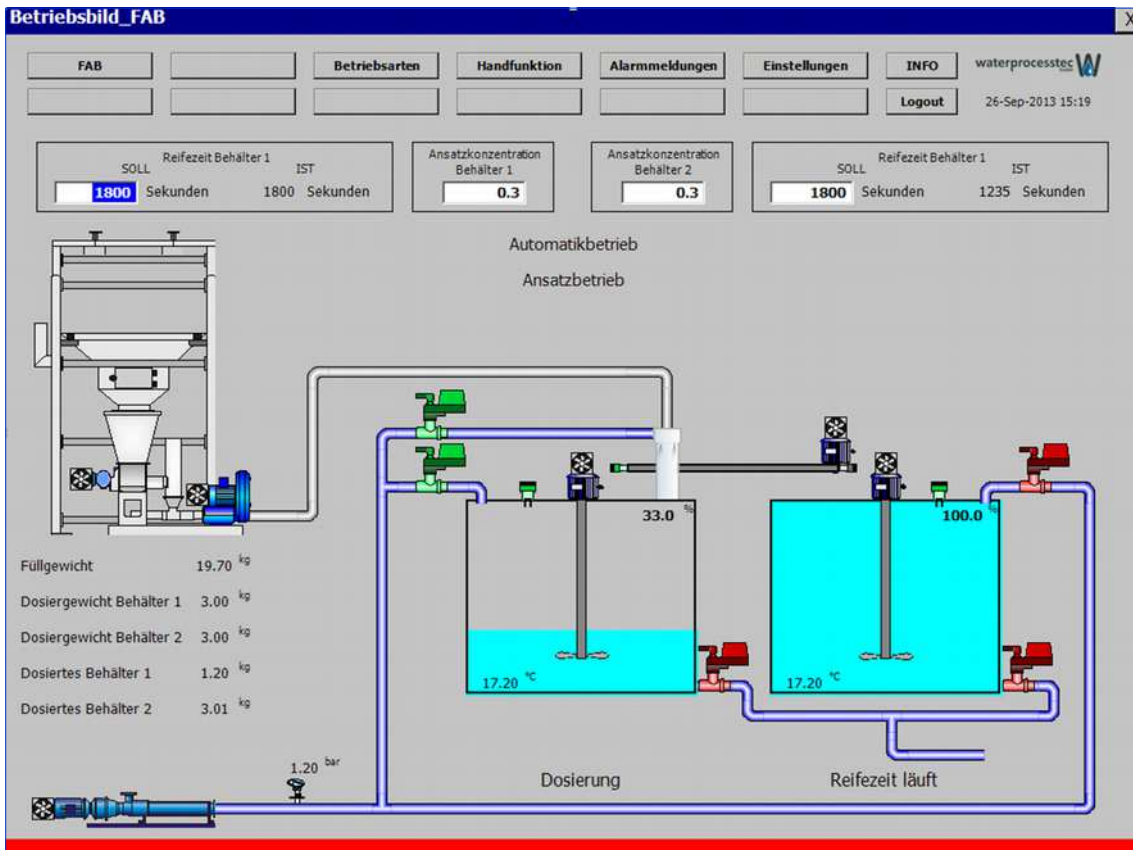


Technical description and process

An agitator is mixing the water with the polymer carefully until the maturation period has expired. The agitators are optional controlled with frequency converters. During the maturation period, it is possible to start the next approach in the second mixing tank. Through the separate approach variety of process possibilities such as approach of different concentrations, the approach of different amounts and the continuous availability of a working solution are resulting. The whole systems can **expire automatically**. Also the fully integration into your process is no problem.



The waterprocesstec polymer preparation system are controlled by a 15" touch panel. The extensive options for setting parameters such as alarm management allows optimal adaptation in your process.





Innovative mixing chamber



Containers with safety switch



Continuous level measurement and motor ball valves

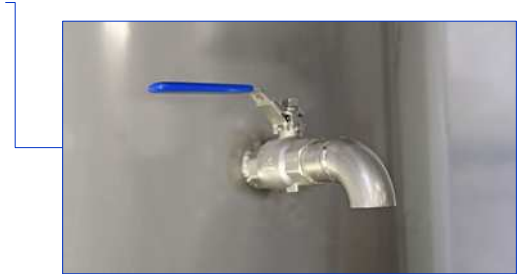


Water fast filling and dosing

Options

For an optimal adaptation and integration into your process are numerous options available:

- Sampling over **hand shut-off valve**:



- Welding sleeves and installation options in the container and in the pipelines:
 - **temperature sensors**
 - **pressure transmitters**
 - **dry run protection probes for transfer pumps**
 - **analytical measuring devices**



There are numerous optional interfaces for integration into your process or connection to your process control system. You can communicate with our systems via Profibus or Ethernet. In the interfaces you can see all parameters of our system.

Furthermore, we are able to integrate your storage tank systems or equipment components in our touch panel and visualize this.

If your equipment does not have interfaces, a connection via analog inputs/outputs and binary signals is possible.

Application areas

The **waterprocesstec polymer preparation and dosing systems type FAB** are used in the treatment of municipal and industrial wastewater in sewage plants, the recycling of process and circuit water as well as the clarification of raw and surface water for the production of industrial and drinking water. Other applications (chemical industry, paper industry, power stations) are possible without doubts.

If you have any further questions, please do not hesitate to contact us.

Technical data

Volume size of batching tank

FAB1000	gross 2 x 1200 litres, net 2 x 1000 litres
FAB2000	gross 2 x 2200 litres, net 2 x 2000 litres
FAB3000	gross 2 x 3200 litres, net 2 x 3000 litres
FAB4000	gross 2 x 4200 litres, net 2 x 4000 litres
FAB5000	gross 2 x 5200 litres, net 2 x 5000 litres

Batch quantity (application- or stock solution)

FAB1000	1000 litres/h with water supply of min. 3 m ³ /h
FAB2000	2000 litres/h with water supply of min. 5 m ³ /h
FAB3000	3000 litres/h with water supply of min. 8 m ³ /h
FAB4000	4000 litres/h with water supply of min. 10 m ³ /h
FAB5000	5000 litres/h with water supply of min. 15 m ³ /h

Batch concentration and polymer amount (higher concentrations upon request)

FAB1000	10 kg/h with 1% solution
FAB2000	20 kg/h with 1% solution
FAB3000	30 kg/h with 1% solution
FAB4000	40 kg/h with 1% solution
FAB5000	50 kg/h with 1% solution

Water quality

temperature +5°C...+45°C (other ranges upon request)

Supply voltage and connected load

FAB1000	3 x 400 VAC+N+PE, 3 x 16A
FAB2000	3 x 400 VAC+N+PE, 3 x 16A
FAB3000	3 x 400 VAC+N+PE, 3 x 16A
FAB4000	3 x 400 VAC+N+PE, 3 x 32A
FAB5000	3 x 400 VAC+N+PE, 3 x 32A

Materials

Batching tank	stainless steel V2A
Pipelines	stainless steel V2A
Machine frames	stainless steel V2A
Dry material feeder	stainless steel V2A
Control cabinet	sheet steel painted

Electrical components (if not otherwise requested)

Control SPS	Siemens S7-300 oder S7-1500 with TIA-portal
Touch panel	promesstec TSP1550
Frequency converter	Toshiba
Emergency-off relay	Pilz
Control elements	Siemens
Contactors	Siemens
Motor protection switches	Siemens
Terminals	Phoenix
Safety switch	Schmersal
Measurement	BD SENSORS, Endress&Hauser, promesstec
Motor ball valves	END
Agitators	SEW-Motoren, rest own manufacturing facilities
Pumps	Netzsch