

# FPO

## FIBER POTENTIAL ANALYZER

Innovative online measuring device to determine the zeta potential of fibers in paper and board machines fully automatic and accurate



### ADVANTAGES

- fully automatic operation (sample taking, measurement, cleaning)
- integrated switch for two independent sampling points
- up to 6 months no maintenance necessary
- high accuracy and reproducibility
- data transfer by standard interface to the process control system (optional: data storage on web server)
- savings in material, time and energy



### USERS

- chemical suppliers
- paper producers
- board producers
- machine manufacturers



### BASIC

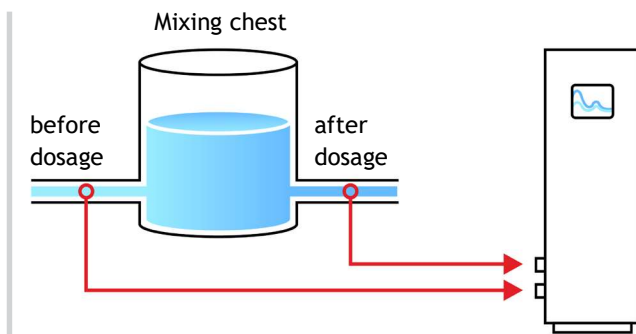
The surface charge (zeta potential) of fibers and fillers in the wet-end of the papermaking process is a very important parameter. The only way to get an information about it functioned via lab devices, for example the FPA *touch!* Fiber Potential Analyzer. Knowing the zeta potential before and after the different dosing points for additives, which are supposed to interact with the fiber is essential for a functioning and efficient process, which at the end has a big influence to the quality of the finished product. A disadvantage of the lab device is the time that is needed to take the samples at the machine, to carry them to the lab and to do the testing. With the FPO Fiber Potential Analyzer Online, a device is now available, which is connected directly to the process and by this delivers real time data.

## FEATURES

The online device uses the established measuring principle of the lab device. The device can take samples at two different points (e.g. before and after a dosing point), which allows three measurement per hour and dosing point.

The measurement functions fully automatic and so does the cleaning of the device, no effort is necessary. The data can be sent to the process control system or, if requested, also to an internet server, which allows a location-independent evaluation of the data.

## EXAMPLE



zeta potential analysis before and after machine chest



Display of results (example)

## APPLICATION AREAS

- wet-end of paper and board production
- process optimization
- product optimization
- r&d
- quality assurance
- troubleshooting

## MEASUREMENT

surface charge of fibers (fiber zeta potential), streaming potential & conductivity, pH value, temperature

- accuracy: approx. ±5 %
- data-storage: approx. 100.000 measurements (at least 3 years)
- measurement interval: adjustable, depending on the automatic cleaning effort, max. 6 per hour (3 per channel)

## TECHNICAL DATA

- device dimensions: 175 x 60 x 41 cm (H x W x D)
- device weight: approx. 160 kg
- power supply: 100-240 VAC, 50/60 Hz
- maintenance interval: 6 months recommended
- rinsing water supply: at least 2 bar  
at least 5 bar for optional cleaning
- compressed air: at least 6 bar

