



Concentration of spin bath in Viscose (rayon) fiber and filament production - a key for perfect fiber and filament quality.

Our **TALI 400 S** measures the sulphuric acid and zinc sulphate concentration of the spin bath and controls the process by means of a continuous online analysis. In connection with a density measurement, also the amount of sodium sulphate can be determined.

Reduced deviations of spin bath concentrations stabilize the product quality. By means of the online measurement, efficient process control is achieved, which reduces costs for labor, input of chemicals and avoid human errors.

The benefits of **TALI 400 S** have been proven for more than 20 years in numerous Viscose productions worldwide.

Scope:

Titration apparatus for continuous online analysis of the spin bath in viscose (rayon) fiber- and filament productions to determine the concentrations of H_2SO_4 (sulfuric acid) and $ZnSO_4$ (zinc sulfate) for consequential process control, using industrially standardized signals.

Method:

Automatic procedure based on the principle of pH titration: Solutions of alkaline NaOH (sodiumhydroxide) and complex former are added to the spinbath. The amount of NaOH required to reach the equivalence point between the alkaline solution and the acid spin bath allows for calculation of the concentrations of H_2SO_4 and $ZnSO_4$.

Results:

The effective concentration values are displayed graphically together with set tolerance limits. A measurement history view presents detailed information about each measurement together with time stamps.

Measuring ranges:

H_2SO_4 0 - 250 g / l
 $ZnSO_4$ 0 - 250 g / l
 $Na_2SO_4^*$ up to 250 g / l

Accuracy:

H_2SO_4 < ± 1.0 g / l
 $ZnSO_4$ < ± 1.0 g / l
 $Na_2SO_4^*$ < ± 1.0 g / l

Measurement frequency:

Programmable

Output signal:

Analogous 0 - 20 mA or
4 - 20 mA for H_2SO_4 and
 $ZnSO_4$ concentrations
Analogous 0 - 20 mA or
4 - 20 mA for $Na_2SO_4^*$
concentration

Closed control loop:

The output signals can be used for automatic dosing and control of H_2SO_4 and $ZnSO_4$, to maintain the concentration within set limits

Alarm levels:

Can be specified individually according to requirements

Ambient conditions:

Temperature max. 35 °C
Relative humidity max. 90 %, not condensing

Dimensions:

Height: 1600 mm
Width: 1040 mm
Depth: 725 mm
Weight: approx. 170 kg

Electrical mains supply:

230 / 115 VAC ± 10 %, 50 / 60 Hz, 40 W mono phase triple wired (direct connection)
Phase - neutral feeder - ground connection

*Option: External density measuring system for calculation of the Na_2SO_4 conc.
Technical data and pictures are subject to change!

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