



## Online Process Data Collection of Coating Material

### EISENMANN's innovative measuring system for electro-coating plants

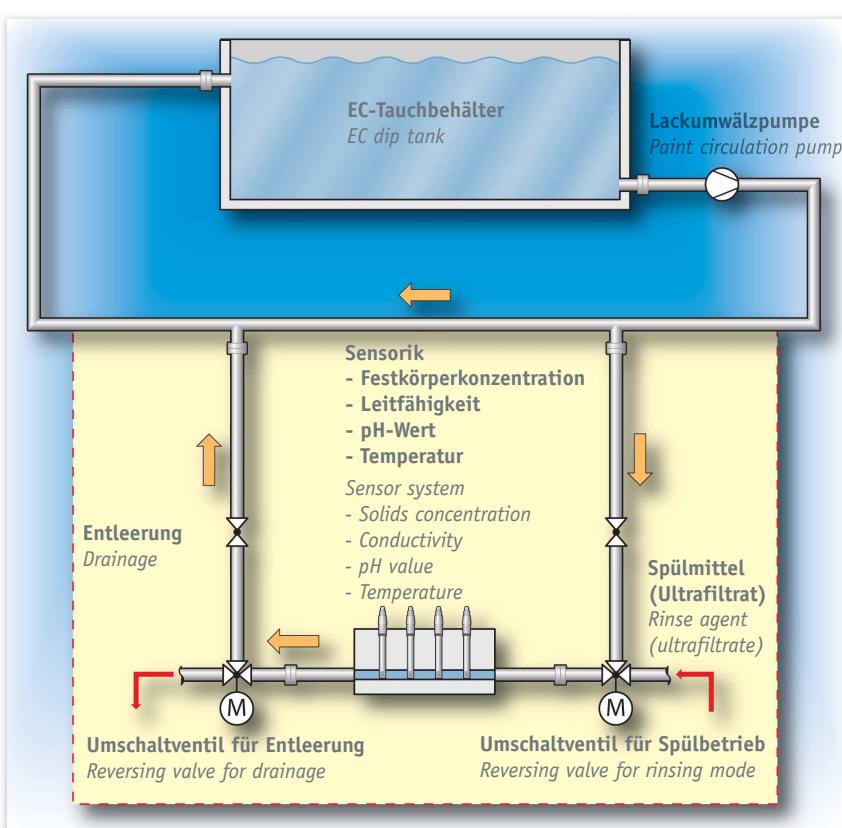
The new online measuring system for permanent monitoring of bath parameters is a low-cost tool to significantly increase process reliability during electro-coating (EC).

The innovative system collects and documents temperature, conductance and pH value in addition to solids content continuously in the paint basin. This makes it possible to respond immediately to deviations and correct them automatically.

For economical coating a large number of large-area components, optimum basin parameters such as temperature, conductivity, pH value and solids content are required. But the values, in particular the solids content, are normally checked only once per shift - and this is done

manually. Deviations from the standard values are thus established only after a long time delay, which frequently causes a high reject rate and/or expensive rework. Both these factors increase operating costs and decrease economy.

This risk can be eliminated with the new, online measuring system. Tried and tested measuring methods for collection of temperature, pH value and conductance and the solids concentration in the coating material are combined in one unit for this purpose. The latter, for instance, is done by Coriolis mass flow measurement. The measurable variable in this case is the density of the coating material. Besides its high accuracy, the sensor used for this is insensitive to soiling and requires a low calibration complexity.



The high operating reliability of the new system is also positively influenced by automatic flushing of the measurement circuit.

### Automatic collection and correction

The low-cost unit which can be integrated easily even in existing systems continuously monitors the bath parameters automatically directly on the paint basin. The collected data is transferred to the PC online and is evaluated immediately. This not only affords the advantage of minimizing laboratory effort for quality control but also allows any

Schematische Darstellung der Lackparameter Online-Erfassung



required measures to be taken without time delay. For instance, if the solids content is too low, more solids can be added immediately and this can also be done fully automatically.

## Reliability thanks to unbroken documentation

Another advantage of online measurement is that the values determined are continuously logged and archived. Thanks to the unbroken documentation, the data can be assigned to individual workpieces even at a later point. This means that, should a complaint be received, it is possible to reconstruct precisely what the parameters were when the component was coated.

## Integration of further measured values

The new measuring system also allows integration of further measurable variables, current profile curves for example. Furthermore, by combining these with the measured values from pretreatment, it is possible to implement complete documentation of all treatment parameters during the overall process.

### Advantages at a glance

- Permanent monitoring of bath parameters
- Tried and tested measuring methods in one unit
- High accuracy
- Insensitive to soiling
- Requires a low calibration complexity
- Automatic flushing of the measurement circuit
- Automatic collection and correction
- Reliability thanks to unbroken documentation
- Integration of further measured values

# EISENmann

EISENmann Anlagenbau GmbH & Co. KG  
EISENmann Service GmbH & Co. KG

Tübinger Str. 81 · 71032 Böblingen · Germany  
Daimlerstr. 5 · 71088 Holzgerlingen · Germany

Phone +49 7031 78-0 · Fax +49 7031 78-1000  
[info@eisenmann.com](mailto:info@eisenmann.com) · [service@eisenmann.com](mailto:service@eisenmann.com)  
[www.eisenmann.com](http://www.eisenmann.com)