

# Clean-in-Place Systems Manufacturer Relies on METTLER TOLEDO

## Case Study

**In-line conductivity measurement technology plays an essential role in the efficient operation of Clean-in-Place (CIP) systems, ensuring the highest possible levels of cleanliness as well as optimal control over the cleaning solutions. A leading manufacturer of CIP systems has selected Thornton conductivity instrumentation for their performance and reliability.**

Suncombe Ltd is one of the UK's leading mobile Clean-in-Place systems manufacturers and hygienic process engineers.

Established in 1961, they have a wealth of knowledge in designing and manufacturing cleaning and hygienic process technology for the biopharma, food, and other hygiene critical industries. Suncombe's products are supplied to UK, European, and international companies who demand high quality, reliable CIP systems.

### CIP application

The CIP cleaning procedure is a multistep process. Wash solutions are prepared in storage tanks and used in specific 'recipes' to carry out the cleaning of vessels, pipework, etc. A final rinse with pure water takes place at the end of the cycle. Control of various process stages such as start of dosing of alkaline or acid, or rinsing with water is carried out effectively using in-line conductivity measurement. The system detects the conductivity of the solutions and provides outputs to the local process control system to manage the CIP program.

### New mobile CIP system

When Suncombe launched its latest range of portable CIP systems, it required the highest standard of instrumentation. Dave Adams, director at Suncombe said, "Our CIP systems are designed to incorporate top quality equipment to ensure that they provide reliable results in every use. We selected METTLER TOLEDO Thornton to provide conductivity instrumentation on our MobileCIP™ systems, as we use their products extensively with excellent results. We view METTLER TOLEDO as an excellent strategic partner for our systems as they provide excellent service and support."

### Conductivity equipment expectations

The conductivity instrumentation in mobile CIP systems for pharmaceutical customers requires a number of conditions including:



- Tri-Clamp® sensor connections
- Conductivity ranges from 0.01 uS/cm to 500 mS/cm
- Material certificates for wetted parts, including USP <88> Class VI
- Panel mount transmitters providing analog outputs for both temperature and conductivity
- Sanitary designed sensors

### METTLER TOLEDO solution

METTLER TOLEDO Thornton provided a conductivity system using the M300 dual-channel conductivity transmitter. This allows two conductivity sensors to be connected to the same transmitter. The M300 comes in two convenient sizes, ¼ DIN specifically for panel mount applications and ½ DIN for field, post or wall mount applications.

The system uses a Thornton 2-electrode conductivity sensor for final rinse control as well as a Thornton 4-electrode conductivity sensor for cleaning agent control. Both of the sensors are hygienically designed and have Tri-Clamp process connections as well as 3.1 B and Class VI material certificates to satisfy the requirements of the pharmaceutical industry.