

## *Thermal Mass Flow a Good Fit for CIP*



Thermal Instrument Company (TIC) manufactures a mass flow meter that can accurately and dependably measure the DI water solution used in CIP

operations. Thermal Instrument has been measuring liquids with mass flow meter technology for more than 50 years. We offer a sanitary mass flow meter with a completely unobstructed flow path that can be plumbed into a CIP skid utilizing sanitary process connections.

“Clean-in-Place” or CIP, as it is commonly referred to, is a process that is used in pharmaceutical applications to clean out and sterilize the process piping, vessels, or other equipment used in the manufacturing process. A typical sterilization process utilizes a mixture of Deionized (DI) water with a caustic or solvent added to insure that the process piping is clean and sterile. The mixture of DI water and solvent is pumped through the process piping over a period of time which has to be measured and recorded to satisfy Good Manufacturing Processes (GMP) set in place by the Food & Drug Administration (FDA).

A large bio-research company located in the Boston, MA, area currently utilizes several Thermal Instrument Sanitary Meters in their CIP process. They were looking for an alternative flow measurement instrument for their CIP process that met the stringent requirements at a favorable price point.

Their challenges were that the prior flow meter did not allow for enough turn down to accurately capture the low end of their flow range. The meter needed to read from 20 LPM to 220 LPM. The lack of turn down was causing false alarms and forcing shut downs of their process. They also had to fit any new meter into current

process piping configurations. They wanted a lower cost alternative to Coriolis flow meters.

Thermal Instrument Company provided a sanitary meter with necessary turndown, a customizable face to face dimension, at a reasonable price point. The flow meter provides the customer with Flow and Totalized Flow information and easily connects to their PLC.

TIC’s mass flow meter model # 600-9SAN can be configured with an integral or remote electronics allowing for flexible placement within existing piping configurations.

Advantages of using a Thermal Instrument Sanitary Mass Flow Meter:

- Sanitary Construction – 316L SS with 10 RA Finish
- Easy Installation – Tri-Clamp, VCO, or VCR Connections
- Excellent Turndown not available with other flow meters
- Does not require conductivity in fluid like magnetic flow meters
- Less costly and smaller foot print than Coriolis type flow meters
- Sensors are internal and never come into direct contact with passing fluid
- Flow Rate, Totalized Flow Rate, and Temperature can be monitored
- 4-20mA output to data recorders, PLC’s etc.
- Easy to clean and maintain

***Contact us or one of our sales partners for more information on TIC Model # 600-9SAN.***