Application report ITM-4 **FOOD**

High Saving Potential Using Anderson-Negele Turbidity Technology

Amul Fed (Formally Known as Mother Dairy - Gandhinagar) - India's one of the largest Dairy product manufacturer since 1994 in Gujarat. There brands is popurlarly known as "AMUL" rules the Indian dairy market. The dairy is handling 35 lacs litres per day milk for production. It is a complete zero discharge dairy and always thrive for continous process improvements.
Amul Fed India has installed around seven turbidity meter in their CIP lines supplied by Anderson-Negele as they were convinced by the performance of **ITM-4** because they were able to achieve water saving in their CIP process.

The requirement

The plant head of Amul Fed, Ahmedabad was facing a challenge wherein accurate amount of water recovery was not achieved during CIP process. This was because the plant had a **Time Based** process and they used to do water recovery via conductivity meter during their CIP process within a defined fixed time. As there was no automation to achieve exact point, amount and time for water recovery the client was looking for a solution which would optimize their CIP process in order to save more water.
With the objective to recover maximum water from their CIP process, the team from Mother Dairy approached Anderson-Negele to resolve the issue permanently in a cost effective way.

The Anderson-Negele solution

Anderson-Negele team identified that since their CIP process was done via coductivity meter the recovery of water and the product was not done as desired by the customer. Conductivity measurement cannot define exact phase seperation of two or more different media in a CIP process of a dairy plant and that is why **ITM-4 Turbidity Meter** was installed in the CIP lines to detect different phases. This will provide the exact phase separation in a more precise manner. Amul Fed was convinced with the solution and decided to automate their CIP Process as it will help to reduce the load on Effluent Treatment Plant (ETP), since they were able to set the exact range of water recovery and bring improvement in energy saving by reducing the number of CIP's.

The advantages

- Compact device, no separate evaluation unit necessary
- Reduced ETP load
- Reduces Power consumption
- Maintenance free
- ROI (Return on investment) is faster

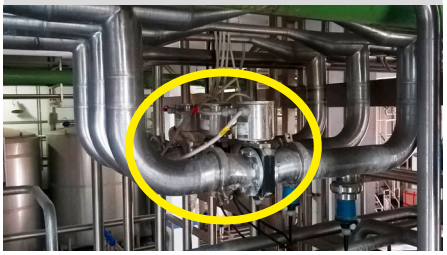
Features

- The ITM-4 measures turbidity using the 4-beam alternating light method
- 4 free selectable and externally switchable measurement ranges
- Smallest measurement range: **0...5 NTU or 0...1 EBC**
- Largest measurement range: **0...5000 NTU or 0...1250EBC**
- Colour independent measurement principle (wave length 860 nm)
- 3-A certificate with process connection Tri-Clamp and hygienic thread connection

Customer: Amul Fed (Formally Known as Mother Dairy - Gandhinagar)

ITM-4, Turbidity Meter

Installed ITM-4 in CIP Lines



Product information and CAD data

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NEGELE MESSTECHNIK GMBH
Raiffeisenweg 7
87743 Egg an der Guenz

Phone +49 (0) 83 33 . 92 04 - 0
Fax +49 (0) 83 33 . 92 04 - 49
sales@anderson-negele.com

Tech. Support:
support@anderson-negele.com
Phone +49 (0) 83 33 . 92 04 - 720