



WQM-16S ... Checks the Inlet Solids and the MLSS

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MD Instruments Ltd  
Celebrates its 10<sup>th</sup> Anniversary



Eight years ago the WQM-16S (top left) was installed in a Wastewater T Works to monitor both the solids level of the works inlet (top right) and the MLSS of an activated sludge tank (bottom left). During this period NO SYSTEM FAILURE was experienced.

The current outputs are interfaced with the SCADA system for trending purposes and to ensure that the aeration process is performing satisfactorily.



The probes are cleaned once every two months. The appropriate installation of the probes in the tanks minimises the fouling build up. An Auto-Cleaning Unit (WQM-CL) can be used with the WQM-16S to clean the probes at user programmed intervals and keep the probes clean for longer periods.

The WQM-16S unit is an ideal monitoring system for small wastewater works to monitor the pH & Suspended Solids in Works Inlets, Dissolved Oxygen, Redox & MLSS in Activated Sludge Tanks, as well as Sludge Blanket detection in Final Settlement Tanks.

Please contact us by Telephone (0044-1793-433595), Fax (0044-1793-644244) or by E-mail to [sales@mdinstruments.co.uk](mailto:sales@mdinstruments.co.uk)  
To discuss your particular application.

MD Instruments Ltd was formed in October 1993 and since then it has built up a wide range of Water and Wastewater Process treatment applications with various major industrial companies. These range from SBR (Sequence Batch Reactors) to the simplest form of biological processes and different types of Settlement Tanks (both primary and final Tanks). We have a number of monitoring Systems installed in large and small Treatment Works.



We manufacture portable meters (MD-1, MD-2, MD-3, MD-4 & MD-6) which are available with data logging facilities, for DO, MLSS/RAS, SS/Blanket level profiling and SS/Turbidity of FE applications. A software package, MD-SOFT, allows the user to interface the MD-series meters to an IBM-PC.

Fixed installation units are also available for MLSS/RAS, SS/Blanket level profiling, SS/Turbidity, DO, pH/Redox, COD/BOD/TOC and Multi-Parameter Monitoring systems. See back page for further details.

Further projects are planned to enhance existing systems and develop novel sensors with the user needs in mind. These should be available by the end of this year (2003).

## Installation & Commissioning

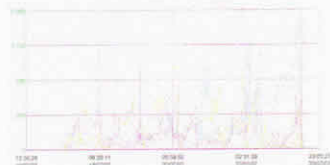
We can now undertake the complete installation of all our systems in various Treatment Works and at various stages with "quick turnaround".

## MCS-16S Checks the Coagulation Process in a Clarifier Tank

Four MCS-16S sludge blanket level detection units (see photo below) were installed in a Water Treatment Work to monitor the solids concentration of the coagulation process in four clarifier tanks. The SH4b probe, with four sensor points totalling a depth of 400mm, was positioned appropriately in the tank near the vicinity of the conical basin (see photo - right). This provided solids information within the probe region in the tank.



The four Suspended Solids current outputs (4-20mA) from each probe are linked to the SCADA system for trending purposes as well as controlling the desludging process. The graph below shows the solids trends from each probe at each point.



The MCS-16S can be used along with the SH8 (eight points), the SH16 (sixteen points) and the SH32 (thirty two points) probes. The suspended solids are measured at each point and the level of the sludge blanket is determined in metres depth (m). The average sludge solids is also calculated. Both the level and sludge solids values can be accessed via the 4-20mA current outputs as well as the RS232C digital interface.

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## OUR PRODUCT RANGE

### Fixed Installation Applications

#### A) Effluent Monitoring Systems

1. **D-CHEK** BOD/COD/TOC Monitor
2. **WQM-16E** SS, pH, NH<sub>3</sub>, Temp, DO, Cond., Colour

#### B) MLSS & Temperature Monitoring

3. **WQM-25** Dedicated monitoring unit
4. **WQM-16S** Up to eight monitoring points

#### C) Redox & Temperature Monitoring

5. **WQM-Redox** Up to two monitoring points
6. **WQM-16S** Up to eight monitoring points

#### D) DO & Temperature Monitoring

7. **WQM-2DO** Up to two monitoring points
8. **WQM-16S** Up to five monitoring points

#### E) MLSS, DO & Temperature Monitoring

9. **AS-Chek** Dedicated monitoring unit
10. **WQM-16S** Up to four monitoring points.

#### F) Sludge Blanket Detection & Monitoring

11. **MCS-2S** SS & alarm - two monitoring points
12. **MCS-16S** SS & alarm - 16 monitoring points
13. **MCS-16S** SS, Level (m) & alarm - 8/16/32 points
14. **SB-CHEK** SS, Level (m) & alarm - AUTOMATIC

#### G) SS/Turbidity & Temperature Monitoring

15. **WQM-Turb** Dedicated single Channel
16. **WQM-16S** Up to five probes

All Units provide :-

- \* Current outputs
- \* Relays
- \* RS232C interface
- \* 2x16 backlit LCD unit.
- \* SS (mg/l or %), Temp. (°C), Blanket Level (m)

#### H) Auto-Cleaning Unit

17. **WQM-CL** Cleans up to two probes  
Controlled and programmed by the above units

- \* Site Survey
- \* Installation/Commissioning
- \* One year full guarantee (labour & parts)

### Portable Meters (MD-series)

1. **MD-1** MLSS & Temp. for 5 AS/RAS sites.
2. **MD-2** SS & Blanket Level for 5 sites.
3. **MD-3** SS & Temp. for 5 F.E. sites.
4. **MD-4** SS, MLSS & Temp. - all applications
5. **MD-6** MLSS, DO & Temp.- AS plants.
6. **MD-Soft** Software package for MD-meters.

All portable meters provide data-logging facilities, and RS232C interface. All data are displayed in mg/l, °C and m, via 2x16 Dot Matrix LCD unit.

Please do not hesitate to contact us for further details on each product or to discuss your application. We can visit you to survey the site for demonstration and trial purposes.