

Online Detection, Monitoring And Controlling System



Making Automation work for your Business

ONLINE DETECTION, MONITORING AND CONTROLLING SYSTEM

For the performance optimization of water treatment chemicals, Thermax developed Automated Dosing Systems which are online detection and monitoring controllers.

A underfeed of chemicals result in corrosion and scaling in the system while an overfeed results in the wastage of the chemicals along with adverse effects. Online controlling ensures that the chemicals are fed at the optimum level all the time.

HOW DOES THE SYSTEM WORKS

When water flow from the system, different types of sensors like pH, Conductivity, Corrater, ORP and Fluorometer comes into action. The fluorometer detects the chemical level in the cooling water online and transmits the signal to controller. The controller convert those signals into statics and this information appears on the screen. In case the value obtained by the sensors doesn't match with the set point entered in the system, the controller starts the relay which is assigned for that parameter and the chemical dosing pump operates accordingly.

Acid feed, blow down and halogen feed can also be controlled by the controller to the desired level of these parameters.

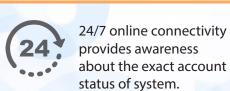
Thermax has developed three online detection, monitoring and controlling system:

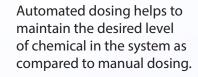
Thermread

Thermdose

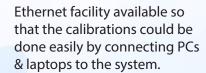
Thermread Plus

HOW DOES AUTOMATION HELP YOU?





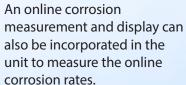








Simple design, easy to operate and low maintenance.







The information is communicated by three ways:

- Accessing Web site
- E-mail
- SMS alert on mobile phone



FEATURES

| | Thermread | Thermdose | Thermread plus |
|------------------------|-----------|-----------|----------------|
| pH meter | ✓ | ✓ | ~ |
| ORP meter | V | ✓ | ✓ |
| Conductivity meter | ✓ | ✓ | V |
| Fluorometer | ✓ | X | ~ |
| Corrater | X | X | ✓ |
| Alarm | V | ✓ | ✓ |
| Timer based activation | ✓ | ✓ | ✓ |
| Email/ SMS/ Website | V | ✓ | V |
| Blowdown valve | ✓ | ✓ | ✓ |
| Spike Set point | V | X | ✓ |
| Touchscreen | ✓ | ✓ | ✓ |
| Ethernet | ✓ | ✓ | ✓ |
| Data log report | V | ✓ | ~ |
| System summary reports | ✓ | V | ✓ |





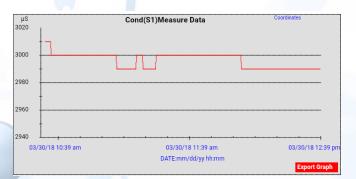


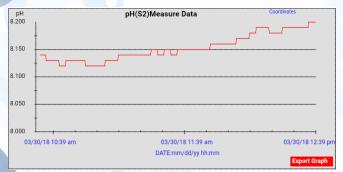
BENEFITS

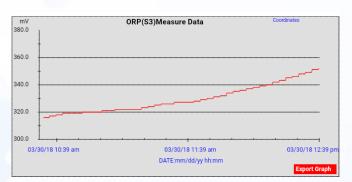
- 1. Remote Location Monitoring.
- 2. Water & Energy Savings.
- 3. Cooling water treatment cost reduction.
- 4. Reduction in effluent quantity.
- 5. Manpower cost reduction.
- 6. Increased efficiency of plant operation and life of equipment.
- 7. Reduction in plant maintenance cost.

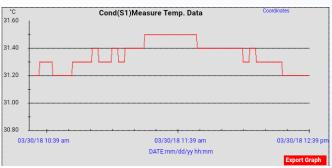


GRAPHICAL REPRESENTATION OF CHANGE IN PARAMETERS WITH TIME









*Time can be hours/days/months



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Thermax Business Portfolio

- Chemicals
- Cooling
- **Power Generation**
- Air Pollution Control
- Heating
- Water and Wastewater Solutions
- Solar
- **Specialised Services**