

ECM Solutions for Pharmaceutical Industry

ECM ECO Monitoring, a.s. Bratislava (Slovak Republic) is focal company of the ECM Group consisting from a network of subsidiaries and offices to offer an optimal technical and comercial support on field of monitoring instrumentation of gases, liquids and particles.



For Pharmaceutical Industry following main solutions are offered:

Clean room monitoring

- Aerotrak instrumentation for portable and stationary clean room monitoring applications. Different pump versions and broad range of accessories are available. The portable instruments can be configured also to provide stationary networks. The stationary monitors are designed for a cost effective integration of monitoring networks in accordance to recent standards. Full support including engineering, installation, commissioning and validation is offered.



- Biotrak is a unique clean room monitor providing particle sizing, but also analysis of viable contaminants. Detection of the viable particles is provided by two laser modules. Analysis on two wavelenghtes is minimising false alarms. Biotrak is designed for instant detection of viables and for quick detection of the contamination source (like wall cracks).
- FMS software allows to configure and operate clean room data acquisition systems in full compliance to recent standads. It allows to integrate also third party instrumentation.



Thanks to this FMS is an ideal tool for upgrade of existing systems to match recent regulatory requirements.

- Particle generators and counters for performance test of filtration systems.
- Bioreset VHP bio-decontamination instrumentation is available in 3 versions to match different applications. Bioreset is providing a 6 magnitude decontamination in automatic or manual mode of operation.



Portative and stationary systems to monitor organic content in ducts

The monitoring can be for Total Organic Carbon or for specific organic pollutants as well.



Monitoring of fume hoods

Pharmaceutical plants operate many reactors with fume hoods to vent the organic vapour to the plant exhaust system. A special monitoring system allows monitoring of proper function of this system preventing area contamination or overall control the fume hood vent system for higher effect for open / closed reactor door conditions.



Mass spectrometers to monitor fermentation processes

Mass Spectrometers to monitor fermentation processes with the fastest cycle time on the market. Each mass spectrometer can replace multitude of chromatographs.



Monitoring of solvent recycling

Pharmaceutical processes are utilizing clean solvents. Special analytical equipment is allowing their proper recycling.



Monitoring of powder homogenization

Powder products must be homogenized in special mixers. A spectrometric equipment is indicating completion of homogenization.



Monitoring of powder product composition

A multi channel spectrometric system is providing continuous monitoring of powder product composition to detect production discrepancies instantly.



Monitoring of inertization of centrifuges

Centrifuges must be inverted (usually by nitrogen) to prevent powder explosion caused by static electricity. Low oxygen level analyzers help to safely control this project.



Area monitoring

Working area in pharmaceutical industry can become contaminated by disinfection gases or organic contaminants. Sensitive portable and stationary instrumentation is taking care for early detection of cases with contamination exceeding hygienic limit values.



Respirator testing

Equipment and training tool for proper usage of respirators.



Flow monitoring

Special clamp on ultrasonic monitoring systems for accurate flow monitoring without direct contact to monitored media.



Monitoring of industrial gases

High accuracy analytic instrumentation for monitoring of cleanness and of trace contaminants of industrial gases in pharmaceutical applications



Waste water monitoring systems

Batch processes in pharmaceutical industry may require a sophisticated treatment process of the industrial waste water. Important part of the analytic systems controlling the treatment process are usually fast COD analyzers and fast toxicity analyzers to prevent killing of the bacteria in biologic treatment pools by toxic or sudden increase of organic pollution.

