

A man wearing a white hard hat, safety glasses, and a grey industrial jacket with blue gloves stands in front of a large industrial structure, possibly a refinery or chemical plant. The background shows tall metal columns and pipes under a clear blue sky. The man has his arms crossed and is looking directly at the camera.

Pushing the limits together

Customized online monitoring solutions
for the process industry

 **Metrohm**
Process Analytics

We are pioneers

Wet chemistry online analyzers since 1978

Metrohm Process Analytics is the brand name of the well-known Applikon wet chemistry analyzers for the process industry. More than 40 years ago, we installed the world's first wet chemistry online analyzer to monitor alkalinity levels 24/7 in an industrial manufacturing process.

Since then, we have become one of the preferred solution providers of the global process industry for monitoring chemical parameters in large-scale industrial manufacturing processes. Due to our experience and expertise, we are better prepared than anyone else to meet your requirements with a customized turnkey solution that helps you increase yields and reduce the risks of your process.

- More than 10,000 units installed worldwide
- More than 1000 cumulative years of experience in process and chemical engineering
- Servicing many Fortune 500 companies from all major manufacturing industries
- Headquartered in Rotterdam, the Netherlands, and providing local service and support in more than 50 countries worldwide

Monitoring your process 24/7



Maximize profitability, comply with regulations, and stay safer

Over the years, our chemists in our laboratories have developed hundreds of applications for a comprehensive spectrum of wet chemistry methods, ranging from titration to electrochemistry, photometry, ion chromatography and ion selective measurements. More recently we have added spectroscopic techniques to broaden our analytic capabilities.

Bringing these solutions atline, online, or inline eliminates time-consuming manual sampling while reducing the risks to your staff from toxic matrices. Real-time results 24/7 for key quality parameters allow you to drive your process with maximum efficiency increasing product yield and reducing costs.

From monitoring a single process stream for a single parameter to monitoring multiple sample streams for multiple parameters, we plan, test, configure, and commission a turnkey solution that meets the specific requirements of your process and can be seamlessly integrated in your plant control system.

Experience you can trust

More than 10,000 units installed and commissioned worldwide

Take a look at any of the major manufacturing industries and even beyond at power generation, mineral extraction, and wastewater treatment. World-leading companies from all of them rely on our robust process analyzers. Applications are legion; here is an overview of some of the most typical and challenging ones.

Petrochemistry / Refining

- Salt in crude oil
- Hydrogen sulfide and ammonia in sour water
- TBC in styrene according to ASTM D4590

Chemicals

- Hardness in brine
- Hydroxyl number in polymer production
- Low-level moisture in propylene oxide

Semiconductor

- Nickel and hypophosphite content in plating baths
- Monitoring tetramethylammonium hydroxide (TMAH) in developer
- Hydrogen peroxide in CMP Slurry

Pharmaceuticals

- Moisture analysis in the granulation process
- Active Ingredients (API) / content uniformity
- Monitoring moisture levels in the fluid bed dryer

Surface finishing

- Acids, bases, and aluminum in etching/anodizing processes
- Acids and iron in pickling baths
- Chromium [Cr³⁺] in chromic acid electroplating baths

Power

- Boric acid in cooling water and pressurized water reactors
- Trace analysis of cations and anions in the primary circuit
- Silica in boiler feed water

Mineral extraction

- Free, Total & WAD Cyanide in gold leach slurry and wastewater
- Zinc, sulfuric acid and iron in zinc production
- Bayer aluminate liquors using thermometric titration

Wastewater treatment

- Simultaneous analysis of ammonia, nitrate, and nitrite
- Ortho- and total phosphate analysis according to DIN EN ISO 6878:2004-09 (formerly DIN 38405-D11)
- Hexavalent Chromium [Cr⁶⁺] in waste effluent



We are there for you



Global service and application support

Metrohm Process Analytics service begins from your first contact with one of our sales engineers, whether to gather pre-sale information or to schedule a consultation session to expand your current infrastructure. Our experts assist you with decision-making while taking into account the analytical and technical challenges you face in your daily operations.

Our certified service engineers are always available to provide emergency service in the shortest possible time. Standardized maintenance procedures ensure the same high quality of service is provided globally by trained and certified service engineers. They are based at local Metrohm offices in more than 50 countries.

www.metrohm.com

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