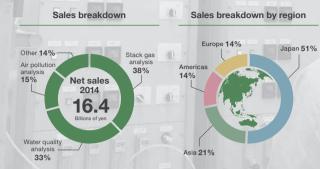
Process & Environmental Instruments & Systems





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HORIBA supports global environmental measures and new energy industries

We supply instruments to various industries whose work is essential for environmental emissions reduction and process monitoring. We play an important role in gas measurement and monitoring of industrial liquid waste in the electric power, steel, and chemical industries as well as energy industries including oil refining, and heavy chemicals; purified water management for medical and semiconductor use; and constant monitoring and control of water quality in the pharmaceutical, food, and cosmetics fields. In addition, HORIBA's accurate and accessible technology helps ensure public safety by providing accurate environmental radiological measurements, demand for which has expanded since the Great East Japan Earthquake of March 2011.

2014 results and 2015 forecasts

Solid demand for stack gas analyzers in Asia Aiming to expand sales in Japan's waterrelated market

In 2014, sales of stack gas analyzers for thermal power plants and factories increased in Japan and China, while sales of portable gas analyzers increased in Europe. In addition, water quality measurement instruments launched in 2014, sold well in Japan while sales in China, South Korea, and other Asian countries were also solid. This activity led to an increase in sales and operating income year-on-year.

In 2015, we expect sales of stack gas analyzers to continue to be firm in various regions. In addition, we will continue to pay attention to demand growth for air pollution analyzers in Asia. As to our process measurement equipment business in North



Stack gas analyzers

HORIBA has a leading market share in Japan in continuous emission monitoring systems used in plants and other facilities that generate gaseous emissions and soot. Our instruments have established a widely recognized credibility for robust and reliable sampling systems, which are essential in continuous measurement of a variety of gases. The analyzers are used in applications for power generation, petrochemicals, steel, paper foods and pharmaceuticals.

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Air pollution analyzers

HORIBA's air pollution analyzers have won high acclaim in the field as highly reliable analyzers that demonstrate excellent precision and long-term stability at ppb* concentrations. They are used in over 50 countries to monitor air quality by municipal governments and private industries. Demand has been expanding for PMZ.5-related monitorino.

* ppb: parts per billion. One part per billion denotes one part per 1,000,000,000 parts. This notation is mainly used for describing low concentration measurements.



Water quality analyzers

HORIBA's products are used for monitoring and control in water treatment processes. We have a wide-ranging water quality product line to measure pH, the basic water quality indicator, as well as chemical oxygen demand (COD), total nitrogen, and total phosphorous.

Our products have been highly evaluated in the water quality analysis field by companies in the electric power, gas, petrochemical, steel, paper, food, and pharmaceutical industries

Major products and market shares

Stack gas analyzers

These analyzers provide highly sensitive and precise measurements of NOx, SOz, CO, COz, and Oz constituents in gases emitted by boilers and furnaces in thermal power stations and refuse incineration facilities. A single unit can simultaneously and continuously measure all five gases. HORIBA has a leading market share in this competitive market in Japan and seeks sales growth in the global market.



H-1 series of industrial water quality analyzers

These industrial water quality analyzers perform in a wide range of applications from pure water for semiconductor and food to water treatment to sewage and industrial wastewater. They confirm progress in wastewater treatment processes and control water treatment equipment. Moreover, we have developed pH electrodes that resist damage in harsh environment by strengthening their toughness, thereby reducing the frequency of electrode replacement and maintenance operations by responding to expanding worldwide needs for remote monitoring services in water and sewage quality management and process monitoring, HORIBA pursues sales growth in the global market.





America, we are carefully following the outlook of the shale gas industry and the capital expenditure trend of petrochemical companies. In Japan, we plan to expand sales of water quality measurement instruments for the public and private sectors.

Aiming to become global No. 1 in the environmental regulation business

HORIBA is determined to grow its markets share in the global environmental analytical instrument markets, estimated at ¥150 billion, by utilizing its accumulated know-how and experience in Japan, Europe, and the Americas. We also aim to expand our market share in waste water monitoring for water supply and sewerage systems, and the water quality measurement and monitoring field in the environmental area such as lakes and rivers, by giving added emphasis

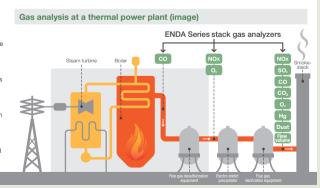
to pH measuring technology, a HORIBA core business since its foundation in the 1950s. Moreover, we will further develop business by leveraging HORIBA's expertise in the environmental and analytical instrument markets in Asia and other emerging nations, where demand is projected to grow rapidly. Such instrumentation includes stack gas analyzers, water quality measurement instruments, and air pollution monitoring and analysis instrument. In addition, based on the process measurement equipment business we acquired in 2013, we will expand our process measurement business in various industries.

Adoption example of stack gas analyzers at a thermal power plant

Growing demand stack gas analyzers

In developed countries which have tightened regulations on emission gas, we have seen the introduction of denitration and desulfurization processes, which have lowered emission gas concentration levels. HORIBA provides instrumentation which can analyze both gases at extremely low concentrations as well as the measurement equipment needed for monitoring these processes.

In emerging countries, environmental pollution has led to introduction of regulations similar to those of developed countries. Based on the technologies accumulated in improving Japan's environmental problems, HORIBA will continue expanding in the global market.



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