

Over 15 Years of Innovation: Airppb's Technical Strength and FTIR Gas Imaging Systems Overview

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[/EINPresswire.com/](#) -- With the continuous upgrading of global environmental governance standards and industrial safety supervision systems, accurate gas detection, reliable air quality monitoring, and professional gas calibration have become essential requirements in petrochemical, environmental protection, scientific research, and emergency response industries. Industrial parks and testing institutions are currently facing common challenges, including blind spots in traditional gas inspection, low monitoring accuracy, high cost of standard gas configuration, and difficult odor source tracing.

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For a long time, the high-end gas monitoring market has relied heavily on imported equipment, which suffers from high procurement costs, slow after-sales response, and poor adaptability to on-site working conditions. Meanwhile, many domestic products are simply assembled without independent core technology, making it difficult to meet high-standard industrial and international project demands. Against this background, Airppb, a national high-tech enterprise based in Beijing, has emerged as a reliable domestic alternative. With over 15 years of independent R&D experience, complete industry certifications, and a full-scenario product matrix, the brand provides stable and cost-effective gas monitoring solutions for global users.



1.Solid Enterprise Strength and Independent R&D Advantages

Operated by Beijing Airppb Environmental Protection Equipment Co., Ltd., Airppb is located in the Beijing Economic and Technological Development Zone. As a key high-tech enterprise of Zhongguancun and a national certified high-tech enterprise, the brand focuses on the R&D, production, and global sales of toxic and harmful gas detectors, dynamic gas calibration instruments, and ambient air quality monitoring systems. Breaking the industry's common assembly and OEM-only model, Airppb has built a complete independent technology research and development system.



Technology research and development is the core competitiveness of Airppb. The company's R&D team accounts for 60% of all staff, focusing on core technologies such as Fourier Transform Infrared Spectroscopy (FTIR) analysis, high-precision dynamic gas blending algorithms, and sensor array odor recognition. Up to now, the brand has obtained more than 46 authorized invention patents, utility model patents, and software copyrights. All core algorithms are independently developed and iteratively optimized according to complex industrial working conditions, forming obvious technical barriers in equipment stability, detection accuracy, and scenario adaptability.

In terms of standardized qualification certification, Airppb has fully passed ISO9001 quality management system, ISO14001 environmental management system, and ISO45001 occupational health and safety management system certifications. A variety of core products hold CEP (China Environmental Protection Product) Certification and CE international export certification. With independent trademark registration qualifications, all products strictly comply with domestic and international industry standards, fully meeting the qualification requirements of government bidding projects, environmental monitoring network access, and overseas market export.

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In terms of business layout, Airppb has standardized production workshops and a complete quality control system to realize independent production of all series of equipment. It also supports customized OEM and ODM services; we offer customized voltage, language interface and certification solutions to meet different national market standards, optimizing product functions and schemes according to customers' special working conditions and regional standard requirements. At present, Airppb products have been exported to more than 40 countries and regions in Europe, America, Southeast Asia, and the Middle East, winning wide

recognition from global customers for reliable quality and professional after-sales service. For complete enterprise qualification and technical system details, please visit the Airppb official website for further inquiry.

2. Full-Series Product Portfolio for All Gas Monitoring Scenarios

Based on independent core technologies, Airppb has built a comprehensive product matrix covering long-distance gas leakage remote sensing, laboratory high-precision gas calibration, park odor tracing, and grid-based ambient air quality monitoring. All MR-series equipment features high precision, strong stability, and wide adaptability, solving pain points in industrial gas monitoring, laboratory calibration, and environmental supervision in an all-round way. For detailed product parameters, selection guides, and industry solution cases, please check the FTIR Gas Analyzer & Calibration Equipment Product Catalog.

2.1 MR-ACT FTIR Remote Sensing Imager

As the flagship remote sensing monitoring device, the MR-ACT remote sensing imager utilizes Fourier Transform Infrared (FTIR) spectroscopy, solving the core defects of traditional fixed-point detectors such as limited monitoring range and manual inspection blind spots. The equipment can identify more than 400 types of toxic and harmful gases, military special gases, and petrochemical volatile organic compounds (VOCs), with a maximum detection distance of 10 kilometers, realizing large-area, full-coverage non-contact scanning monitoring.

Widely applied in petrochemical parks, hazardous chemical storage bases, military security, and emergency rescue scenarios, the MR-ACT device can accurately locate gas leakage points and visualize gas diffusion trajectories in real time. It provides reliable data support for daily safety inspection and emergency disposal of sudden chemical leakage accidents, becoming essential professional equipment for industrial hazardous gas remote monitoring.

2.2 MR Series High-Precision Dynamic Gas Calibration Systems

Including MR-DF2, MR-DF3, and MR-D02 models, Airppb's dynamic gas calibration systems are core equipment for laboratory gas detection. The series realizes accurate dilution and multi-component dynamic concentration configuration of gas and liquid raw materials, effectively solving the problems of large concentration error of traditional static gas mixing, high cost of purchased standard gas, and low calibration efficiency.

The MR-DF2 is a conventional high-precision model with dual-channel output, suitable for daily instrument calibration in professional laboratories. The portable MR-DF3 supports rapid on-site gas distribution and calibration for outdoor emergency scenarios. The MR-D02 multi-component gas-liquid hybrid gas distribution instrument is customized for special gasification material configuration scenarios. With outstanding precision and stability, the full series is widely used in third-party testing laboratories, gas instrument manufacturers, and university scientific research institutions.

2.3 MR-AX Odor Monitor (Electronic Nose System)

Aiming at the global environmental supervision demand for odor pollution management, the MR-AX odor monitor adopts advanced sensor array and pattern recognition technology, which can automatically identify and quantify the concentration of various odor pollutants. It targets typical odor pollution scenarios such as sewage treatment plants, landfill sites, chemical industrial parks, and livestock breeding bases.

Replacing traditional manual odor identification with strong subjectivity, the MR-AX device supports 24-hour uninterrupted online monitoring, realizing real-time odor source localization and data recording. It provides objective and accurate monitoring data for environmental compliance supervision and effectively solves the problem of resident complaints caused by industrial odor emission.

2.4 MR-A(M) Micro Ambient Air Quality Monitoring Station

With authoritative CEP environmental protection certification, the MR-A(M) micro air quality monitoring station is specially designed for urban grid-based environmental monitoring and fugitive emission monitoring. Featuring miniaturization, flexible deployment, and low energy consumption, the equipment can be arranged in large quantities to monitor VOCs, toxic gases, particulate matter, and other key air quality indicators in real time.

The monitoring data is stable and accurate, which can be seamlessly connected with environmental supervision platforms. It is widely used in urban road grid monitoring, industrial park ambient air quality assessment, and regional atmospheric pollution prevention and control projects, helping enterprises and regulatory departments realize refined environmental management.

3.Core Industry Application Scenarios and Service Advantages

Airppb's full-series gas monitoring and calibration equipment covers multiple high-demand industries. In the petrochemical field, it realizes full-range leakage early warning of volatile and toxic gases; in the environmental protection industry, it supports grid-based air quality monitoring and odor pollution rectification; in scientific research and testing institutions, it provides high-precision gas calibration guarantees for experimental data; in emergency security fields, it provides accurate data support for hazardous chemical accident disposal. In addition, the brand's mature OEM/ODM customization services can meet the personalized equipment needs of global dealers and engineering projects.

4.Conclusion

Different from ordinary assembly manufacturers, Airppb insists on independent R&D and technological innovation, with complete qualifications, rich project experience, and a comprehensive product matrix. It perfectly balances high precision, stable performance, and cost-effectiveness, providing a high-quality domestic alternative to imported gas monitoring equipment. With global sales layout and professional full-cycle after-sales service, Airppb continues to provide reliable gas detection and monitoring solutions for industrial safety and environmental governance worldwide.

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The report quoted Ekurhuleni Municipal Disaster and Emergency Management Department spokesman William Ntiladi as saying that the accident occurred in an informal settlement in the Boksburg area of the city. The department received an accident report at about 8 o'clock that night. At first, they thought it was a gas explosion. After arriving at the scene, they discovered a nitric acid gas leak in a yard.

Ntiladi said the accident killed 24 people, including women and children. Preliminary judgment is that the accident is related to illegal mining activities in the area.

Reports say rescue efforts are still ongoing.

Beijing Airppb Environmental protection equipment Co., Ltd.

Beijing Airppb Environmental protection equipment Co., Ltd.

+86 138 1110 0776

airppb@airppb.com

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