AlfaTech Services

Small is the new BIG

Integrated Solutions for Aerosol Science, Air Monitoring & Filter Testing

Established in 1993, AlfaTech Services offers a comprehensive range of technologies for aerosol measurement, air quality monitoring, filter testing, and materials characterization, serving research, industry, and environmental sectors across India. With partnerships across leading global OEMs, our portfolio covers real-time particulate and gas analysis, bioaerosol and heavy metal detection, and standard-compliant filtration testing. Backed by decades of expertise and a strong pan-India presence, we are known not just for our precision instruments but also for our responsive service, reliable support, and long-term client relationships.

AQ Guard Smart 1000/1100/1200

Air Quality Analyzer for PM & Pollutant Gases

Technical Specifications	Application
Size channels - 64 (32/ decade)	Urban air quality monitoring
Particle size range - 0.175 - 20 µm	Smart City projects
PM1, PM2.5, PM4, PM10, TSP, CN, Particle Size Distribution, P, T, RH, SO2, CO, NO2, O3, CO2	Immission monitoring of industrial plants
Measurement range (number C_N) 0 - 20,000 particles/cm^3	Measurement of dust emissions in road and rail traffic and at ports
Measurement range (mass) - 0 - 100 mg/m^3	Formation and dispersion studies

FIDAS Frog

Portable Aerosol Spectrometer

Technical Specifications	Application
Size channels - 32/decade, 256 raw data channels	Fine dust monitoring at alternating locations or in movement
Particle size range - 0.18 - 93 µm (2 measurement ranges)	Air quality monitoring indoors, at the workplace, or inside vehicles
PM1, PM2.5, PM4, PM10, TSP, CN, Particle Size Distribution	Use as an aerosol spectrometer in setups where space is limited
Measurement range (number C_N) 0 - 20,000 particles/cm^3	
Measurement range (mass) - 0 - 100 mg/m^3	

AQ Guard

Air Quality Analyzer for Monitoring Indoor Air Quality

Technical Specifications	Application
Size channels - 64, (32/decade)	Industry: production processes, bulk material handling , fenceline monitoring
Particle size range - 0.175 - 20 µm (with IAHP package installed, starting from 0.150 µm)	Construction sites: roads, railroads, demolition sites
PM1, PM2.5, PM4, PM10, TSP, CN, Particle Size Distribution, P, T, RH, CO2, Infection Risk Index, Air Quality Index	Buildings: schools, kindergartens, hospitals, hotels, offices, public service buildings
Measurement range (number C_N) 0 - 20,000 particles/cm^3	Residential buildings near construction sites or other polluted areas
Measurement range (mass) - 0 - 20,000 µg/m^3	Public transportation

FIDAS 200/200E/200S

Real-Time Dust Monitors for Air Quality and Compliant with VDI 4202-1: 2010; VDI 4203-3: 2010; EN12341: 1998; EN14907: 2005; EN16450:2017- EN 15267: 2009 and EN 15267-2: 2009

Technical Specifications	Application
Size channels - 64 (32/decade)	Regulatory pollution control in monitoring networks
Particle size range - 0.18 - 18 µm (certified range, other measuring ranges on request)	Ambient air monitoring campaigns
PM1, PM2.5, PM4, PM10, TSP, CN, Particle Size Distribution, P, T, Rel. Rh	Preliminary assessments (spot checks)
Measurement range (number C_N) 0 - 20,000 particles/cm^3	Long-term studies
Measurement range (mass) - 0 - 100,00 mg/m^3	Emission source attribution
Volume flow - 4.8 l/min	Emission dispersion studies (e.g. fires, volcanoes

U-SMPS 2050 X / 2100 X / 2200 X

Universal Scanning Mobility Particle Sizer

Technical Specifications	Application
Max. 256 (128/decade)	Filter test
Measurement range (size) - 4 - 1,200 nm	Aerosol research
Volume flow - 0.5 - 3 l/min Volume flow (sheath air) - 2.5 - 14 l/min	Environmental and climatic studies
Measurement range (number C_N) 0 - 10^8 particles/cm^3	Transportation and Brake Emissions Testing
Adjustment range (voltage) - 1 - 10,000 V (Up and down scan possible)	Interior and workplace measurements

SNE-ALPHA

Tabletop Scanning Electron Microsocope + EDS

Technical Specifications	Application
Resolution: 5.0 nm (SE, 30 kV)	Particulate Matter (PM) Characterization
Magnification: upto 250,000x	Source Identification & Elemental Analysis
Detectors: SE, BSE	Microplastics and Nanoparticle Detection
5-axis Fully Motorized Stage	Crystallographic and Microstructural Properties
Accelerating Voltage: 1 - 30kV	Soil & Sediment Surface Morphology
Optional Features: EDS, Ion sputter coater	Bioaerosol & Biological Particle Imaging
Optional Upgrades: CL, Raman, EBSD	Geology and Mineralogical Analysis

Aerosol Spectrometer System for Process Measurement

Promo

Technical Specifications	Application
Measurement range (size) - 0.12 - 100 µm (multiple ranges available simultaneously)	Testing of complete filters, inertial and wet separators or electrostatic precipitators
Volume flow rate - 5 lpm	Control of grinding & classification processes
Size channels - Max. 128 (64/decade)	Monitoring production processes in food, pharmaceutical and chemicals industries
Measurement range (number C_N) < 1 x 10 particle/cm^3	Emission monitoring of installations
Thermodynamic conditions: +10 to +40 °C, -100 to 50 mbar	Brake and Tyre emissions

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Onboard Vehicle Emission Monitor

parSYNC Flex-PNC

Technical Specifications	Application
Integrated Portable Emission Measurement system (iPEMS) for real driving tests	Real Driving Emissions Testing
Provides gaseous (CO, CO2, NO, NO2, O2, HC) and particle (PM, PN23, PN10) measurement simultaneously	Suitable for mobile emissions of large variety of sectors (LD, HD, onroad, offroad, marine, motorcycle) and fuels (gasoline, diesel, hydrogen hybrid, P/D Blends, LPG, LNG, CNG)
Optional addition of external devices (wireless OBD, EFM, NH3, Weather Station)	Fleet Monitoring & Maintenance
Easy to operate with hot-swappable battery and highly portable (18-20 kgs)	Engine R&D & After-Treatment Evaluation

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Real-time Bioaerosol Air Monitor

Rapid - E

Technical Specifications	Application
Particle size range: 0.3 - 100 µm	Industrial / Env pollution monitoring
Bio-aerosol measured: Pollen, Virus, Bacteria, Fungal spores and inorganic pollutants	Allergen detection for health studies
Utilizes morphological, chemical and fluorescence lifetime properties of the particle to distinguish different bioaerosols	Wildfire smoke analysis
Op Temp: - 10°C - 40°C | Rh: 0 - 95% | 25 kgs	Agricultural and Forest Meteorology

PmX-5050

Metal Analyzer for Ambient Air

Technical Specifications	Application
Measurement Range: 0 - 200 µg/m^3	Heavy metal monitoring in ambient air for health studies
Min Detection Limit : 0.1 ng/m^3 for most elements	Brake dust measurement studies
Metals detection from Al (13) to Bi (83) incl all hazardous metals like Pb, Hg, As, Cd, Zn, Fe	Environmental impact Assessment of Mining and Metal Manufacturing Operations
Op temp: 0°C - 40°C | RH: 0 - 80% Altitude: up to 1000m	Chemical Speciation of Particulate Matter from Metal and Refining Plants
X-Ray tube: 50W, 50kV, 3mA X-Ray detector: SDD	Source apportionment studies in Air Quality Monitoring

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Filter Media Test Rigs, Filter Element Test Rigs and Respiratory Mask Test Rigs

AlfaTech Services exclusively represents Palas GmbH in India, offering the world's most comprehensive range of filter media test systems. We provide fully customizable solutions to meet specific testing requirements, ensuring compliance with relevant standards across automotive, industrial, and respiratory filtration applications. Reach out to our product experts for your specific requirements!

Utiliziing the power of small to make BIG changes

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