PROVENTIA

INNOVATIVE TECHNOLOGY

makes a difference

THE RIGHT TO BREATHE CLEAN AIR

Air pollution is a big global problem. Poor air quality poses a major threat to human health – in developed and developing countries alike. Traffic, in particular diesel engines, is the main source of air pollution in our cities.

Awareness of air pollution has launched global actions such as stricter air quality and emission limits, subsidies for sustainable solutions, the development of cleaner engines, the introduction of alternative fuels and the electrification of vehicles. That's why Proventia exists.

VISION

Our vision is zero emission.

MISSION

We help our customers in selected industries develop energy-efficient products that are friendly to the environment and to human health.

PROVENTIA'S BUSINESS AREAS

- EMISSION CONTROL • OEM • Retrofit
- THERMAL COMPONENTS
- TEST SOLUTIONS

VISION: ZERO EMISSION

Stricter emission standards are a driving force behind many of the technological changes in the machine and vehicle industries.

Over the last 20 years, emission standards in the US and EU have become increasingly stringent, with limits on emissions of both nitrogen oxides (NO_x) and particulates (PM) being now close to zero.

We have an outstanding and proven track record in DPF and SCR technologies in a variety of engines, applications and challenging operating environments. This has made us an expert in reducing PM and NO_x emissions from diesel engines.

Our offering for OEM non-road customers

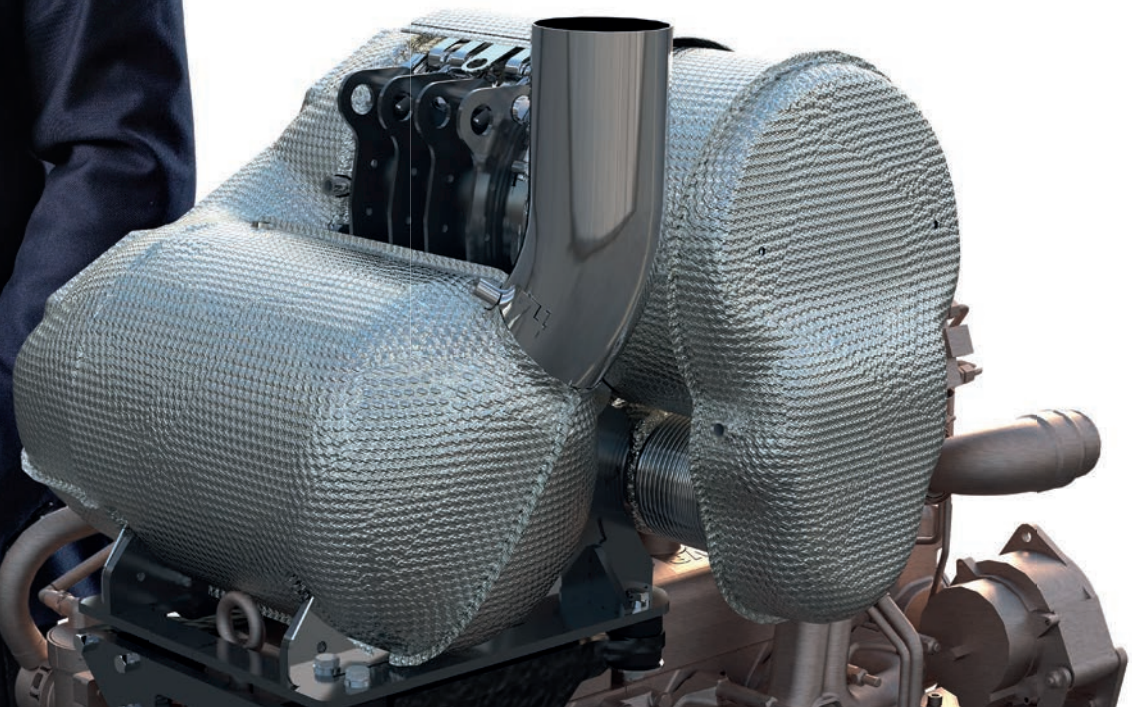
- Comprehensive engineering services • Research and development • Simulation
- Design • Prototyping • Validation • Testing services
- Urea-mixing expertise and technologies • Integrated insulation for thermal management
- Efficient manufacturing options

"We develop and supply high-tech exhaust aftertreatment systems for non-road machines. We take pride in agile engineering."

VILLE MURSU | PROJECT MANAGER, OEM EMISSION CONTROL

Market drivers

- Diesel is expected to remain the preferred energy source in non-road vehicles
- Introduction of EU Stage V emission standard in 2019–2020
- Other countries will follow the stricter rules



EVERY BREATH YOU TA

With the growing number of vehicles on the roads, the amount of harmful air pollutants, such as nitrogen oxides (NO_x) and particulate matter (PM), is increasing.

In Europe alone, many cities have failed to improve air quality to EU-accepted levels.

Air pollutant emissions from transport are a main contributor to local air quality problems in cities. Electrification is a long-term solution, but retrofitting is bringing immediate results – now. The quickest and most cost-effective way to make existing vehicles cleaner and compliant with new standards is to retrofit them with new exhaust aftertreatment (EAT) systems.

Our offering for the retrofit market

- Prizewinning NOxBUSTER® City retrofit exhaust aftertreatment system for city traffic
- Technologies and innovations that also enable high emission reduction rates at low exhaust temperatures in slow urban driving
- Reliable, easy-to-use systems with supplementary services, e.g. filter servicing and emissions monitoring
- Specific Euro VI retrofit systems for major vehicle makes and models

"Retrofitting is a fast-acting solution to improve air quality and to minimise the health, environmental and financial impacts of traffic pollution."

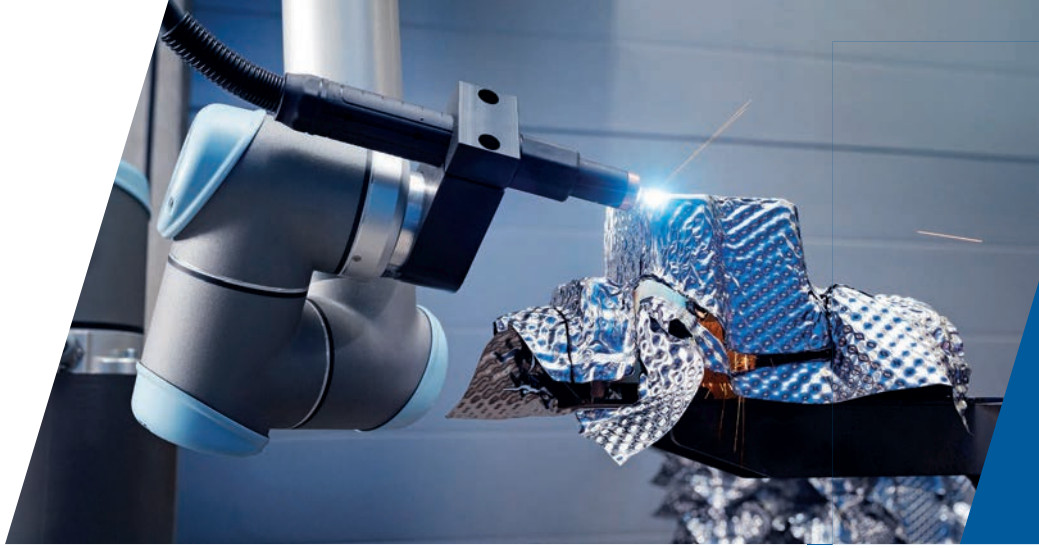
JAAKKO KURIKKA | PROJECT MANAGER, RETROFIT EMISSION CONTROL

AKE

Market drivers

- Poor air quality in cities
- Cities have failed to comply with NO_x level requirements
- Most buses and heavy vehicles still run on diesel
- The need to upgrade existing diesel vehicles to a stricter emission standard

SOME LIKE IT HOT



Efficient heat insulation is essential in the engine, machine and vehicle industry today.

Proventia Thermal Components were first developed for temperature- and performance-critical exhaust pipelines and aftertreatment systems. The high insulation efficiency of our thermal components ensures that exhaust aftertreatment systems function optimally and achieve the best possible emission reduction performance.

The same high-performance insulation technology is suitable for any engine component or engine compartment. Insulation reduces thermal radiation and enables the most effective use of the cramped engine compartments of today's technologically complex machines.

The high-quality flexible production of our thermal components is scalable to fit the requirements of both small-volume series and large-volume manufacturers in the most cost-effective way.

Our offering for the thermal insulation market

Design, manufacturing and supply:

- Thermal insulation parts
- Assembly-ready installation kits
- A fully integral insulation solution

“High-performance insulation makes complex engine and machine design possible.”

KAI YLIMÄKI | DESIGN ENGINEER, THERMAL COMPONENTS

Market drivers

- Energy-efficient machines and vehicles demand efficient insulation
- Temperature-sensitive components require effective insulation in tight engine compartments

WINNER TESTS IT ALL

Increased vehicle complexity and new energy sources require advanced development and testing capabilities in the automotive industry.

The popularity of electric cars has accelerated as a result of leaps in battery technologies, and various hybrids and fully electric vehicles have been launched. Electrification and alternative fuels have increased the need for vehicle R&D and testing, and especially new testing capabilities and systems.

Proventia offers a modern and flexible approach, with modular test laboratories and centres. Proventia Test Solutions allow customers to rapidly increase their development capacity and change the setup at any time, or expand the capacity in stages.

As Proventia Test Units are manufactured and pre-commissioned before delivery, they are fast and convenient to deploy.

Each Proventia Test Unit is an independent test laboratory that can be equipped with a customer-specific combination of key equipment.

Our offering for the testing market

- A modular test solution concept that scales from a single unit to large test centres
- Modular test units are suitable for the development and testing of engines, powertrains, batteries and e-components

"I'm proud to belong to a team that can offer a flexible modern modular test solution for the development needs of the rapidly changing automotive industry."

MIKA LAKSO | PROJECT MANAGER, TEST SOLUTIONS

Market drivers

- Automotive industry is shifting towards complex powertrains
- Demand for electric vehicle and battery testing is increasing
- Alternative fuels, e.g. biodiesel and hydrogen, are increasing the need for development and testing

What we do today means cleaner air tomorrow

We are an agile technology supplier for the engine, machine and vehicle industries. With our skilled and experienced team of professionals, we offer systems and solutions for world-leading manufacturers.

Proventia's technologies are based on high-quality Finnish engineering. Our head office, research and development and test unit assembly are based in Oulu, Finland.

We have efficient manufacturing sites in Finland and the Czech Republic. Our audited, first-rate subcontracting chain complements our own production.

Proventia has around 140 employees. The company was founded in 1994 and belongs to Head Team, a group of technology companies.

Proventia's technologies stand for cleaner air on every continent – for all of us.

PROVENTIA

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