Are you ready for a true revolution? And for the solid boost that it can offer to your spare parts business?

Indeed, with the new product lines for the engine efficiency & emissions systems, and the revolutionary offering within the engine-charging component, we enable you to boost your business simply, and challenge the well-known picture of the IAM.

Increased efficiency engines and strict emission limits have become a common standard for many diesel- and petrol-powered vehicles today. Efficiency & emissions systems play a crucial role in the combustion process. They define the car’s performance, have a significant influence on the vehicle’s fuel economy and, due to the emissions controls, help save the environment.

These systems are advanced in terms of design and employ a vast number of sophisticated components, including mechanical, pneumatic and electronics-driven parts. Their proper operation is of crucial importance for the car’s overall functionality. Possible malfunctions can instantly affect the vehicle’s performance, can cause serious damage to the engine, and can affect the environment as well as immobilize the vehicle.

Solid technical knowledge within the systems, their spare parts quality and availability are some of the key areas for the aftermarket to grow in today, and to offer a valuable alternative to the OE/OES. Especially within the efficiency system, key components like the turbocharger, are characterized by relatively high exchange rates and low market availability; thus, a pressing need for a competitive and reliable aftermarket offering presents itself.

Recognizing the importance of these factors, Nissens has decided to join the battle for a more competitive aftermarket within Engine Efficiency & Emissions systems. And, as whatever we do is performed with a full-scale commitment and with a solid foundation of our aftermarket expertise, we can deliver a well considered and perfectly prepared now, profitable business concept.

We are proud to invite you to take part in a completely new product group universe, known as Engine Efficiency & Emissions.

All that we do in our entire business concept is Aftermarket-driven. Along with the new product lines, we offer you a vast pool of tools that are thoroughly tailored for your business needs, to help you gain commercial success. Review the booklet’s last pages to see what we can offer you to further grow your business.
Turbocharger

Increases engine efficiency and thus its power output.

Role & Operation

Turbine-driven device that forces extra air into the engine's combustion chamber.

The turbo consists of a turbine and a compressor coupled by a common shaft. Operation of the turbo depends on the engine's exhaust gases. The energy of the exhaust gas flow is extracted and enables the turbocharger compressor to pump the air.

The part operation depends on various components across different systems in the vehicle, i.e., exhaust system, air intake/pressure system, lubrication, and engine management with electric parts, and in some cases including the cooling system.

Possible Designs

- Fixed geometry turbine
- Fixed geometry, wastegate
- Variable geometry turbine
- Multiple turbo systems

Important to know

- The turbo is a highly sophisticated and fragile component. It operates in extremely demanding and tough conditions: up to 250,000 RPM and 1,100°C of hot exhaust. Improper working conditions and specifically dirt and foreign objects inside the system can easily damage the turbo.
- Turbo functionality relies on various systems in the vehicle. Regular vehicle service, good condition of the engine and proper combustion, as well as properly operating systems such as engine lubrication, air intake system, exhaust system including EGR and DPF/Catalyst (if applicable), are of crucial importance for the turbo's proper operation and vitality.
- Lubrication is one of the most critical aspects for turbo operation. It eliminates friction and cools down its key components. Limited oil flow to and/or from the turbo will lead to accelerated wear and tear on the turbo.

Easy Handling

No fees, no charges, no return of old units. Complete, Factory New Turbo!

Range & Availability

Wide and attractive product range covering the most popular vehicle models:

- 100 turbo models as initial range
- 25 turbo models under development

Very competitive aftermarket price level. High product availability.

Efficient, Reliable & Safe

Nissens turbochargers are a completely safe choice for the car's performance, fuel economy and environment, ensuring compatibility with strict EC environmental standards.

Our turbochargers undergo an advanced series of tests, performed both internally and by independent technological institutes, within:

- Durability and performance
- Field test
- Vehicle exhaust emissions acc. European Commission (EC) norms
- Engine power output
- Vehicle fuel economy

Technical Support

Well-organized technical support setup with six local technical centers, including technical hotlines available at strategic locations in Europe.

A comprehensive training concept covering the component and understanding of the entire efficiency system (NTC EEF) is available for the wholesalers' network and independent garages worldwide.

Optimized Design

The overall product quality, including finish, material and testing, matches strict automotive OE standards.

Only the highest-rated component materials applied. Internal moving parts manufactured within proper tolerances, and are precisely calibrated.

Critical components in special design and re-engineering focus, specifically:

- Turbine and Compressor Housing
- Shaft and Turbine Wheel
- Compressor Wheel
- Actuator and Rod End
- Main and Thrust Bearing
- Wastegate/Variable Flow Mechanism
- Electrical Parts

Long-Life Product

Our comprehensive approach to product development, including the design phase, materials applied and tests performed is thoroughly prepared to ensure a proven, reliable operation of the turbo that matches the lifetime of the vehicle engine.

Easy Installation

Fits the engine layout and the relevant connections smoothly. Fully compatible with vehicle systems.

First Fit Product: All that is important for installation is included in the product box.

Program Available For Cars + Vans

- Easy Installation
- First Fit Product
- Optimized Design
- Long-Life Product
- Technical Support

Range & Availability

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EGR Valve

Performs the exhaust gas recirculation

Role & Operation

The exhaust gas recirculation (EGR) system is a system that reduces nitrogen oxide (NOx) emissions in combustion engines. EGR valve operates by re-circulating a portion of the engine’s exhaust gases, routing them back to the engine intake, thus introducing them to the combustion.

As a result, the oxygen content in the air-fuel charge mixture is reduced. Consequently, the combustion temperature gets lowered and the nitrogen oxide (NOx) gas concentration in the exhaust reduces significantly.

Possible Designs

- Pneumatic
- Solenoid
- Torque Motor
- DC Motor
- Water-cooled EGR system

Important to know

- EGR valves operate in the extreme temperature range of the exhaust gases. Most common issues with the EGR relate to improper quality of the exhaust gases and related systems.
- An excessive carbon/soot formation that builds up inside the valve is one of the most common causes for EGR valve failures. Excessive oil consumption and thus combustion contamination, malfunction of crankcase ventilation, turbocharger failures, improper fuel and/or improper fuel injection can lead to excessive carbon fouling, seal build up and restricting of the opening/closing function of the valve.
- Specific driving patterns (e.g. only driving short distances) over the long term can also affect the EGR valve’s operation.
- A malfunctioning EGR valve will result in improper engine combustion and lead to choking/irregular idling and can typically be spotted by engine faults registered by the ECU.

Experience the difference:

Range & Availability

An attractive initial product range covering the most popular vehicle models within Euro 4 and Euro 5 norms. Pneumatic and solenoid-operated EGR valves.

Reliable & Safe

All Nissens EGR valves are fully tested within the most critical functions to ensure the valve’s proper fit and operation.

Nissens EGR valves offer a harmonious exhaust gas recirculation process, leading to reliable engine combustion with proper exhaust emissions.

Our comprehensive examination approach for EGR valves includes the following test series:

- Dimensional validation of critical components
- Complete test of all valve’s functions
- Hysteresis measurement on electrically operated EGR valves
- Key electrical functions such as coil/sensor resistance measured and monitored
- Actuator calibration and the actuation linearity characteristic check
- Vibration test
- High-temperature performance test

Easy Installation

Fits the engine layout and the relevant connections smoothly. Fully compatible with the vehicle’s systems.

First Fit Product: Relevant gasket set of OE-matching quality included in the product box.

Proven Reliability

The highest-grade, industry acknowledged materials and comprehensive product testing is applied to our EGR valves to ensure the component’s long, reliable operation in extreme conditions that are typical for harsh environments, such as heat of combustion and exhaust gases flows.

Robust Design

The overall product quality, including finish, material and testing, matches strict automotive OE standards.

Key components made of high nickel percentage alloys, offering superior heat resistance and durability in extreme temperatures.

Critical components in special design and re-engineering focus, specifically:

- Actuator Diaphragm & Housing
- Valve Housing
- Lever and Drive Arms
- Valve Spring
- Valve Poppet, Stem & Bushing
- Position Sensor
- Plastic elements
- Gaskets & Seals

Easy Handling

No fees, no charges, no return of old units. Complete, Factory New EGR Valves!

PROGRAM AVAILABLE FOR CARS + VANS

NISSENS EGR VALVE

Product launch in 2019

Nissens

REACHING THE DIFFERENCE
Intercooler

Heat exchanger boosting air-charged engines

Role & Operation

The intercooler significantly improves the combustion process in turbo-charged systems, thus increasing the engine power effect.

The main role of the intercooler is to reduce the temperature of the hot air compressed by the turbocharger, before it reaches the engine’s combustion chamber. This has a significant impact on the charge effect, as the cooled air has a much higher density in terms of air molecules per cubic centimeter. This increases the volume of intake air, resulting in a far better engine output.

Experience the Difference:

Range & Availability

Competitive range of intercoolers covering the most popular car, van and truck models. Program of more than 520 items covering 1,700 OE numbers and more than 88% of the European car park.

Efficient, Reliable & Safe

Designed and manufactured towards the aftermarket, while thoroughly tested to match OE quality - Nissens intercoolers are submitted to corrosion, vibration, pressure impulse, thermal expansion and thermal performance tests. Easy-handling packaging and excellent protection against transport damages. Supreme thermal performance and extended lifespan thanks to a number of special features applied to Nissens intercoolers.

Possible Designs

- Plastic tanks, aluminum core
- Full aluminum construction
- Water-cooled charge-air cooler

Important to know

- A malfunctioning intercooler causes an engine efficiency drop and can lead to serious damage of the turbocharger, exhaust filters (DPF/FAP) or the entire engine.
- Pay attention to symptoms of a defective or leaking intercooler, such as noticeable drop of engine power, increased fuel consumption or unnatural smoke from the exhaust system.
- Intercoolers must always be replaced after the vehicle’s turbocharger has failed and whenever a new turbo is installed. Carbonized oil and metal chips from the damaged turbo may clog the intercooler channels, causing the newly installed turbo to fail.

Mechanical and Thermal Stress Resistance

Plastic tanks designed with special reinforcing inner crossbars and specially strengthened inlets and outlets, to protect the tank against stress caused by high temperatures and mechanical tensions. Reinforced with at least 30-35% fiberglass. No recycled plastics are used in the mixture. All Nissens’ truck intercoolers are custom-welded, ensuring an exceptionally strong and durable welding seam.

Thermal Stress Resistance

Specially designed side panels with cuts tolower the influence of thermal expansion on the core construction.

Optimized Design

Specially designed core and plates to minimize influence of the mechanical stress and breakdown.

Excellent Cooling Performance

Tubes equipped with turbulators, ensuring better airflow and larger surface to exchange the heat. Compact fin construction with louvres increasing the heat exchange.

Perfect Finish

Connections and mounting points are designed with a complete fit for the vehicle layout, enabling a firm and easy installation.
SOLUTIONS THAT SIMPLY WORK

No matter which step of your journey with the excellent Nissens product program you are at, we are ready to guide you to commercial success. Take advantage of our wide offer of effective business tools created and based on a century-long experience in the aftermarket.

PRODUCT SELECTION

Follow hundreds of customers worldwide who already benefit from our solutions

- Countries with wholesalers distributing Nissens products
- Products selected by customers
- Distribution centres worldwide
- NTC technical training sessions

PRODUCT PACKAGING

- Countries with wholesalers distributing Nissens products
- Customized product and stock related data files
- Shared monthly with customers in an automated data exchange process
- Distribution centres worldwide ensuring an optimal time-to-market and high availability rates
- NTC technical training sessions given within thermal systems

LOGISTICS SOLUTIONS

- Stock management support to develop our partners’ business
- Efficient logistical solutions to provide supreme product availability & cost-efficiency
- Tailored step-by-step plan

MARKETING

- Nissens Training Concept enables you and your customers to understand the system, and all technical aspects of its operation. Furthermore, technical support and marketing materials are available to our customers worldwide.
- Technical training academy, covering most relevant topics within system components, components installation as well as components consumables, service and maintenance
- Personal technical support and warranty assessment (available for select markets)
- Technical marketing materials for workshops (installation guides, posters etc.)

EXCELLENT PACKAGING

- Careful protection against transport damage and easy product handling from supply processes to final destination delivery
- Solid, environmentally friendly cardboard boxes
- Desiccant bags, protecting the electrical components against moisture
- Tight seals preventing impurities from entering the product
- Protective inserts and profiles
- Easy and unified product identification
- Elegant and unified design across all categories
- Solid, environmentally friendly cardboard boxes

MASTER DATA

- We share high-quality, complete, up-to-date master data that conforms with OE data
- Wide range of online solutions for data integration

KNOWN INDUSTRY PLATFORMS

- Nissens entire product range data is available on the professional cataloguing industry platforms TecDoc/ TecCom, and Nissens is acknowledged as a TecDoc certified data supplier.

COST-EFFICIENT LOGISTICS

- Our Business Development Model is a perfect tool to grow your business even more.
- With a perfect combination of the newest and highest-quality market and product data, and our comprehensive product sales knowledge, we can offer our partners a valuable review of real sales opportunities per product group for their ongoing development.
- 360-degree outlook on your real potential with a resource priority plan to optimize your sales and profits
- Thorough GAP analysis
- Tailored step-by-step plan for your growth cultivation

COUNTRY WIDE

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THAT SIMPLY WORK

- To contact us and find more information, visit www.nissens.com

Our dedicated team of experts looks forward to hearing about your specific business needs and challenges you may face. Together we will choose the most suitable and effective solution for you to grow further. To contact us and find more information, visit www.nissens.com