

Global presence

Complete commercial and technical support delivered locally to our partners worldwide



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COMPLETE SOLUTIONS PROVIDER

CLIMATE
COMFORT
SYSTEMS

ENGINE
COOLING
SYSTEMS

ENGINE
EFFICIENCY
SYSTEM



The future is now > Join us

When looking ahead to the future of the automotive spare parts industry and seizing the current opportunities, you can trust Nissens.

Our expertise is grounded in over a century of commitment to the aftermarket and demonstrated experience in the design, production, and worldwide distribution of automotive spare parts.

As your partner who's **Delivering the Difference**, we fully back your spare parts business and affordable mobility across all vehicle segments and technologies.

Today and in the future.

Learn the difference and trust your thermal management and efficiency systems expert.



Affordable Mobility

Our focus is to supply our customers with solutions for current-technology automotive parts while looking ahead to the future and investing in new technology solutions. Thus, we can ensure easy access to appropriate spare parts and secure your business' growth.



Aftermarket Dedication

As an aftermarket-driven manufacturer, we understand its needs. In addition to offering a wide range of products and technology for all vehicle segments, we provide valuable business support to our partners.



Genuine Nissens Quality

Our premium brand quality standards mean the highest rate of raw materials and unique features, ensuring the product's easy installation, long lifespan, and supreme performance.



Future Ready

We continue investing in research and development within new energy-driven vehicles, where thermal systems and intelligent electric parts are critical for vehicle mobility.



Comprehensive Aftermarket Solution

Our range of spare parts covers essential vehicle systems for all vehicle segments and technology types, including internal combustion engines (ICE), electric, and plug-in hybrid motors (EV, PHEV, MHEV).

Nissens' 15 product lines contain 10,000 SKUs, covering over 43,000 OE parts and up to 94% EU car parc coverage in some product lines.

We continuously develop the range and coverage, introducing over 500 new part models and adding new product lines annually.



Climate Comfort
system components



Engine Cooling
system components



Engine Efficiency
system components

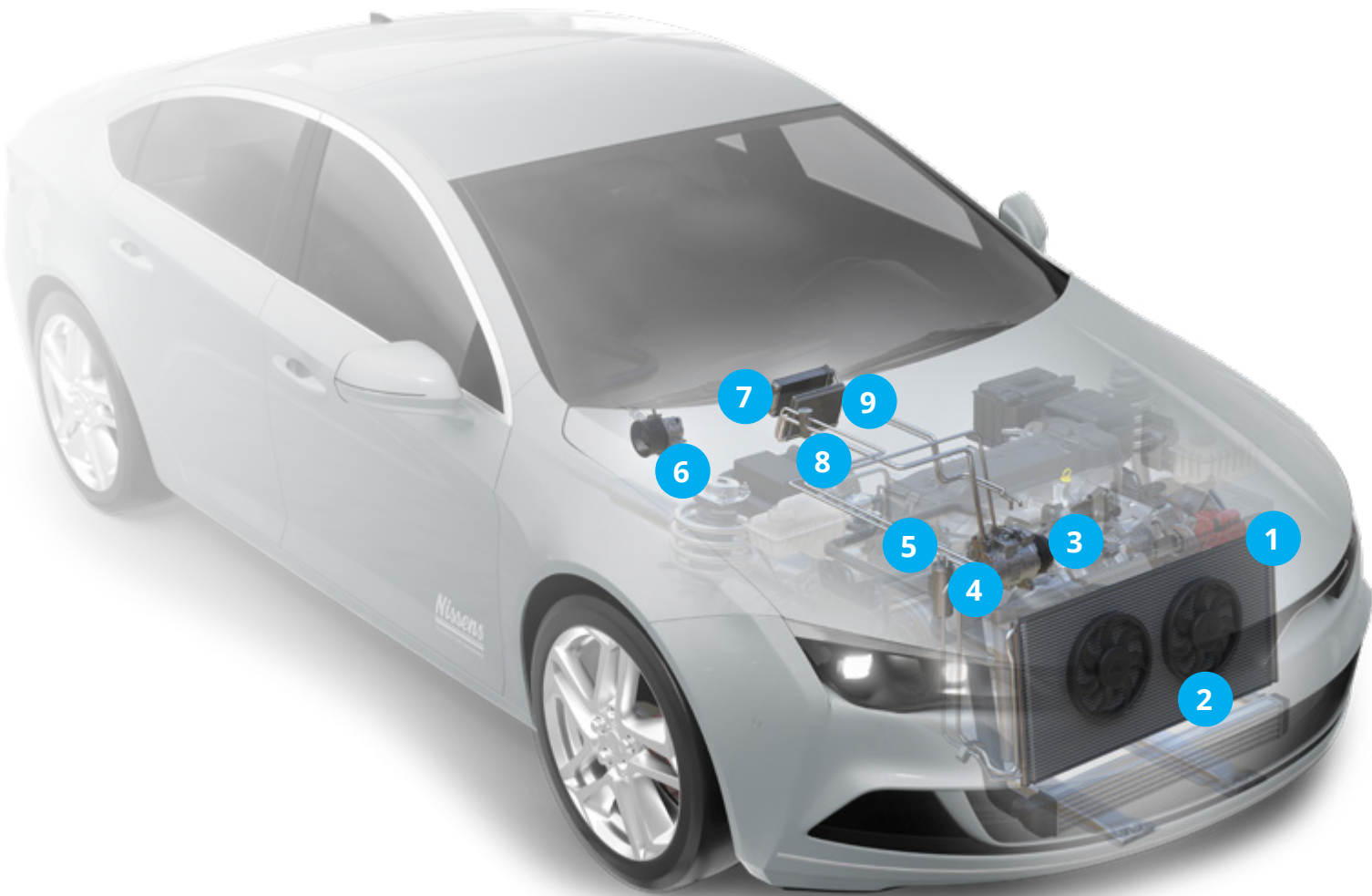


New Energy Vehicles
program components



CLIMATE COMFORT

KEY SYSTEM COMPONENTS



- | | | |
|---|--|--|
| 1 CONDENSER
AC system performance | 4 PRESSURE SENSOR
Support for proper working parameters | 7 HEATER
Warm air production |
| 2 AC FAN
Condenser function support | 5 RECEIVER DRYER / ACCUMULATOR
System protection | 8 EXPANSION VALVE
Proper working parameters |
| 3 AC COMPRESSOR
Heart of the AC system | 6 INTERIOR BLOWER
Air intake and distribution | 9 EVAPORATOR
Cold air production |

Condenser

CLIMATE COMFORT SYSTEM

Heat exchanger - crucial for the refrigerant state change in the system

THE DIFFERENCE



Competitive Range

Very competitive product range covering 87% of the European vehicle fleet, 1,100+ models in range, new models added each season.



Efficient, Reliable & Safe

Designed, manufactured and tested to match OE quality. Packaging with excellent protection against transport damages.

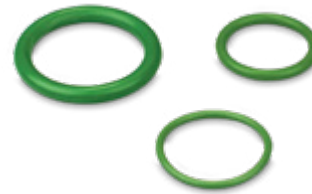
Extended product lifespan thanks to a special protection applied to condenser models particularly exposed to corrosion.

Perfect finish and product fit, enabling a quick and smooth product installation. O-rings included in the product box for selected items (First Fit).



Easy Installation with First Fit

All that is needed for a proper installation included in the product box.



Long-life Product

High resistance corrosion protection technology applied to selected condenser models.

Transport Protection

Inlet and outlet connections covered by tight closures protecting against impurities and moist absorption.

Packaging with specially designed cardboard U-profiles to protect the condenser verges against tight strapping and tensions during transportation.

Perfect Surface Finish

Optimized aluminum brazing processes significantly reduce surface impurities caused by residues of brazing pre-treatment agents.

Perfect Fit

Perfect finish in every detail such as connections, threads, bolts, mountings etc. smoothly fitting the vehicle mounting points.



Role & Operation

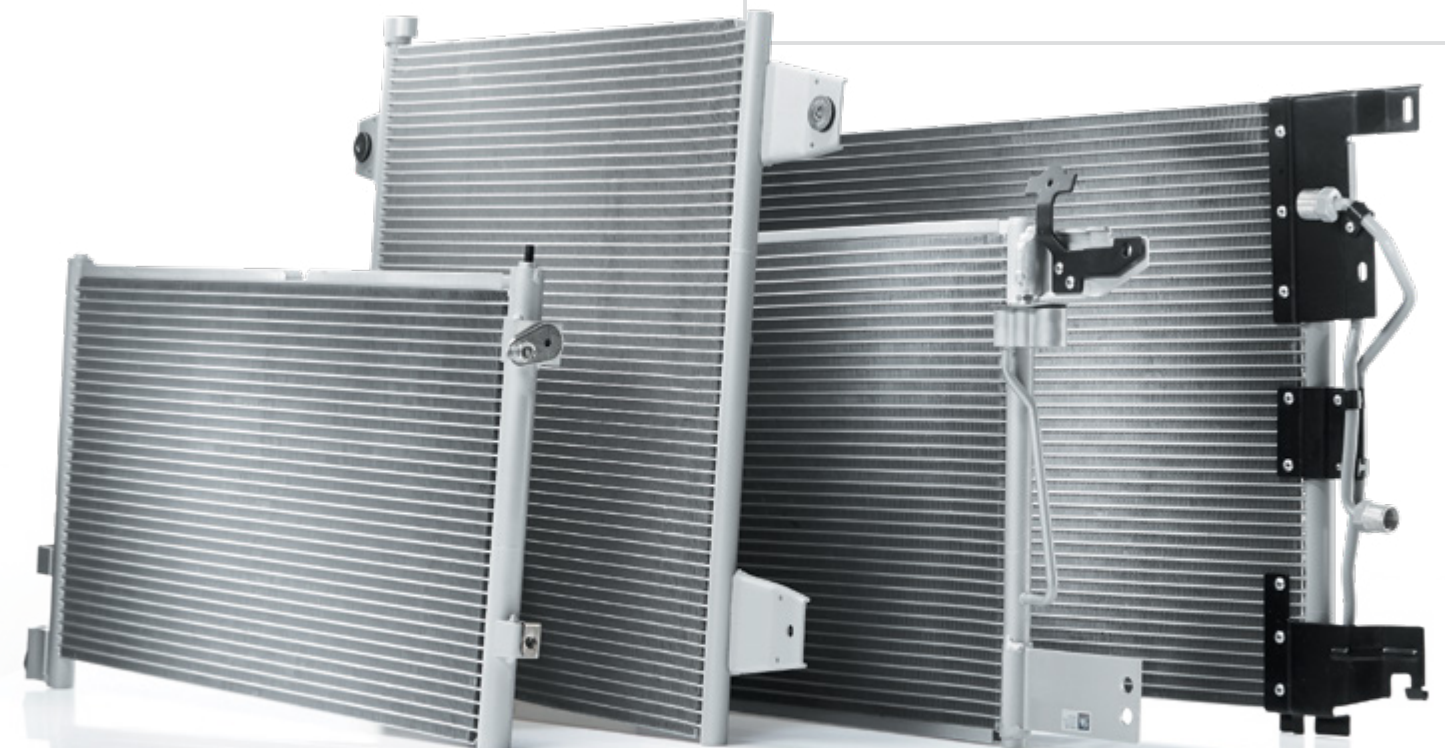
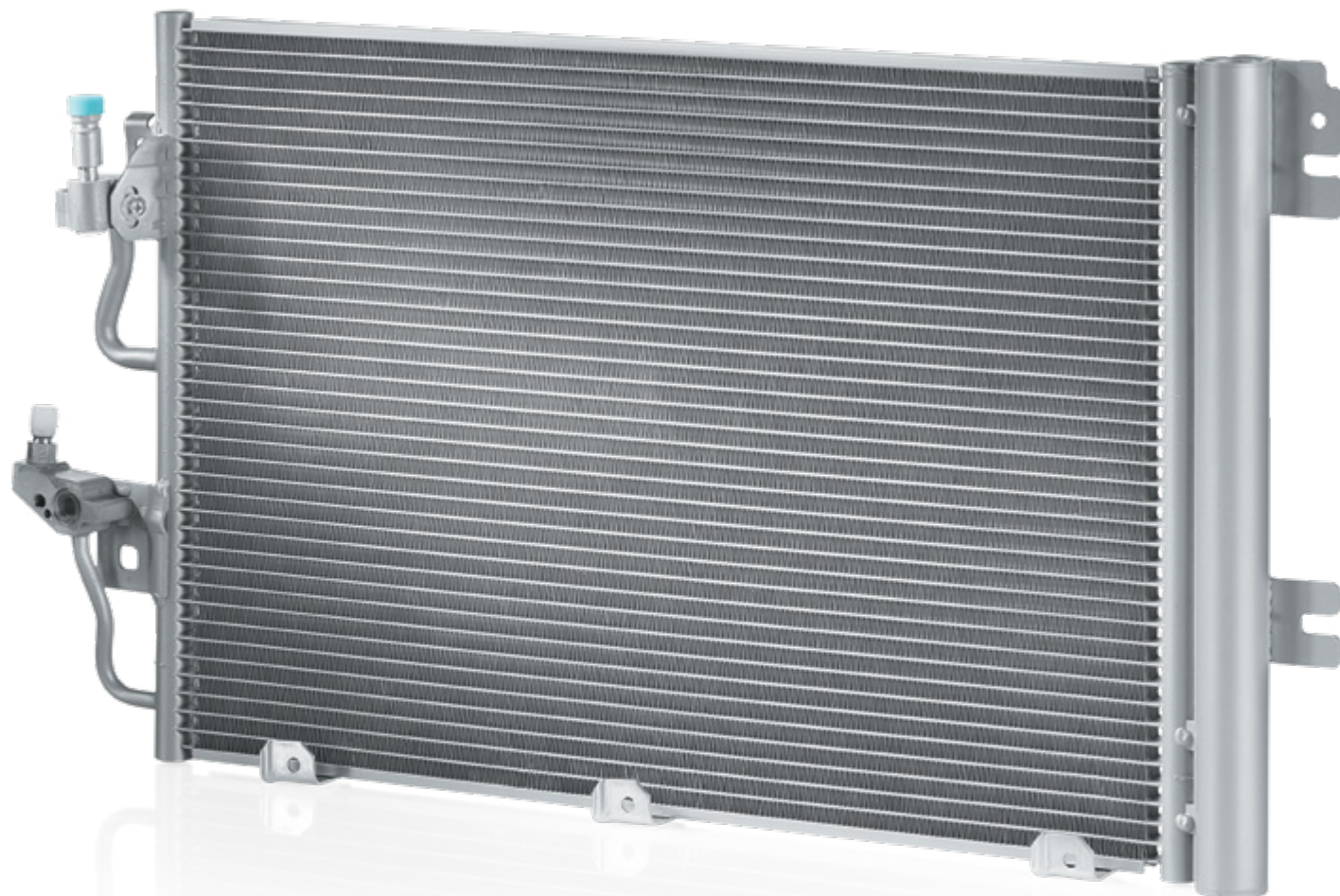
The condenser is placed at the front of the car and is typically attached to other heat exchangers in the engine compartment like engine cooling radiator or intercooler.

The role of the condenser is to ensure that the state of the refrigerant changes from gaseous to liquid form. The change of state is called the condensation process where the refrigerant heat is extracted and exchanged with the ambient air.



Important to know

- The condenser is a component particularly exposed to corrosion, which, quickly, may weaken the mechanical construction and performance of the component as well as reduce its tightness.
- Corroded or missing fins significantly reduce the performance of the condenser thus the reliability of the entire AC system.
- A leaking or non-performing condenser leads to an excessive overload of the other AC loop components – mainly the compressor, exposing it to overheating and, in extreme cases, causing it to seize up.



Compressor

The heart of the air conditioning system

CLIMATE COMFORT SYSTEM

THE DIFFERENCE



Competitive Range

Product range with 700+ items covering more than 5,800 OE numbers.



Reliability & Performance

Excellent pumping performance, minimized noise and vibration levels, supreme product durability proven with Nissens' advanced life & performance test series.

Easy Installation with First Fit elements - all what is needed in the product box. Warranty & installation guide, installation video and Nissens' technical support are available.



Easy Installation with First Fit

All that is needed for a proper installation included in the product box.



PREFILLED PAG OIL



O-RINGS



ELECTRICAL ADAPTER (MULTI FIT APPLICATIONS)



PRE-FILTER (WHEN NEEDED)

High Precision Displacement Control

Valves of OE matching quality (MCV/ECV), fully tested before and when placed in the compressor. Additionally, random stock tests performed.

Improved Durability and Performance

Improved design of critical components such as pulley, clutch hub, bearing and wobble plate to resist higher stress, tensions and temperatures.

Electric High-voltage AC Compressors

Initial range covering the most popular hybrid and electric vehicle models, among others:

Tesla Model 3

Kia Niro

Hyundai Ioniq



Role & Operation

The refrigerant is compressed by the compressor and transported through the system to create high and low pressure.

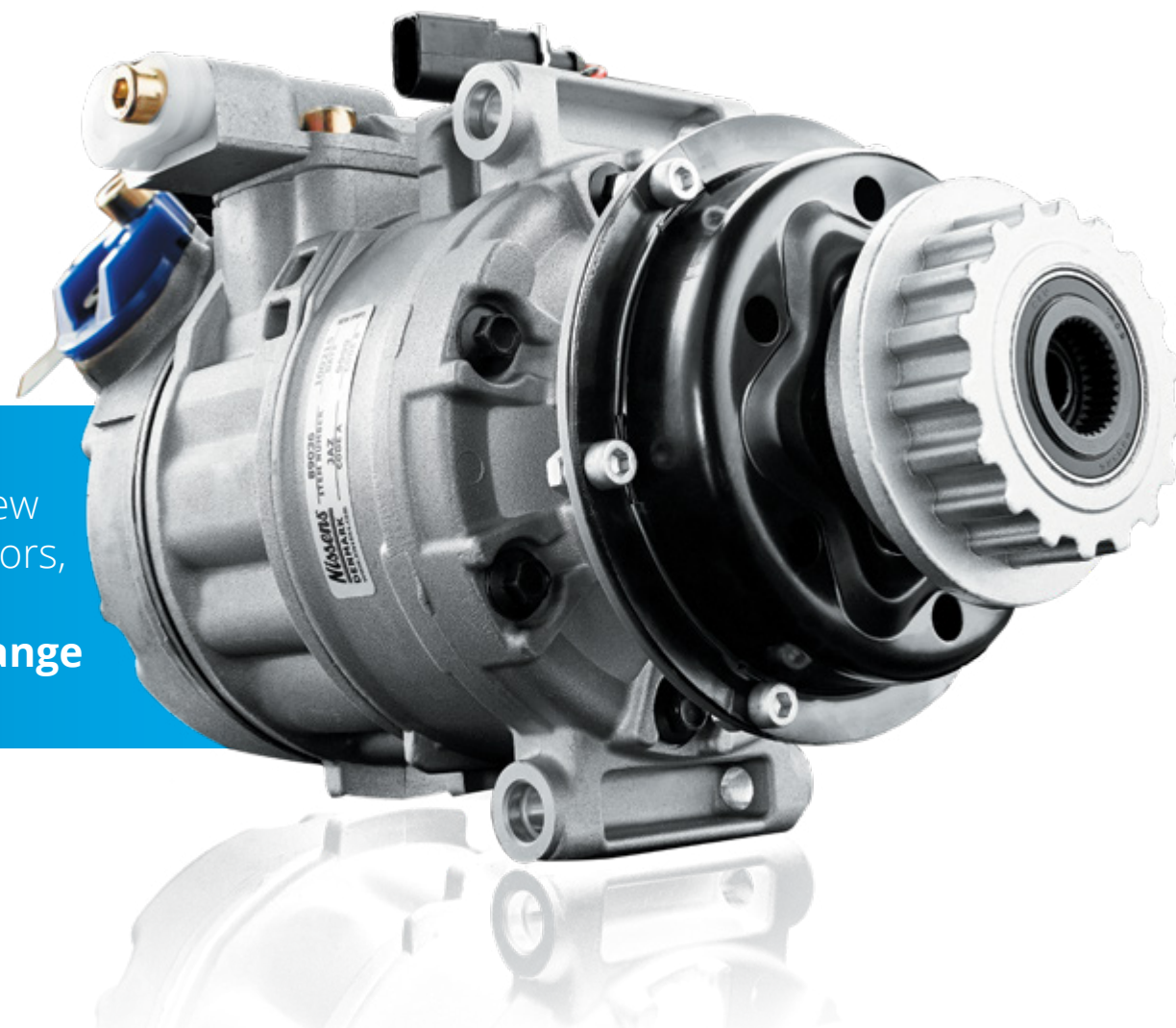
The compressor is crucial for the efficiency of the AC system. During an AC cycle, the compressor enables the refrigerant to change its state from gas to liquid and to flow through the different components of the system as well as through high and low pressure sides.



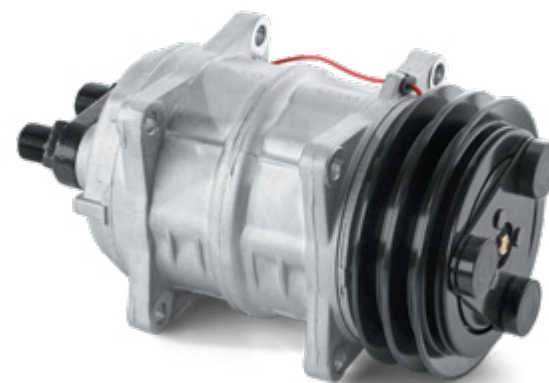
Important to know

- Proper lubrication is a must for the product vitality and lifespan
- Proper installation procedure including system flushing is crucial for the compressor's vitality
- Condenser performance influences the compressor performance and workload

Factory new compressors, no need for exchange



Solutions for heavy-duty applications



Universal compressors with fittings to fit more OE applications



Agricultural compressors for popular agricultural vehicles

Interior Blower

CLIMATE COMFORT SYSTEM

Ensures a proper air intake, flow and distribution which are required for the climate system to operate

THE DIFFERENCE



Competitive Range

Product range with 400+ items covering more than 1,300 OE numbers and constantly being broadened to incorporate the most popular market applications within the car, van and truck segments.



Reliability & Performance

Advanced in-house performance, mechanical and electrical test series ensuring a high-quality, long-life product characterized by reliable, high-performing operation as well as minimized noise emission.

Conforms with the ISO 7637, IATF 16949 standards and the directive of Electromagnetic Compatibility (EMC).



Easy Installation

Plug & Play modules ready for an instant installation. Nissens' online catalogues with detailed product information, high-quality technical drawings and rotational 360° pictures as well as close-up pictures of electrical connections/sockets. Installation videos for the most demanding and popular blower models.

Improved Resistance to Mechanical Damage and Wear

Only high-quality plastics, no recycled plastic mixtures.

High Precision Speed Control

OE control unit and electrical resistors to ensure high performance.

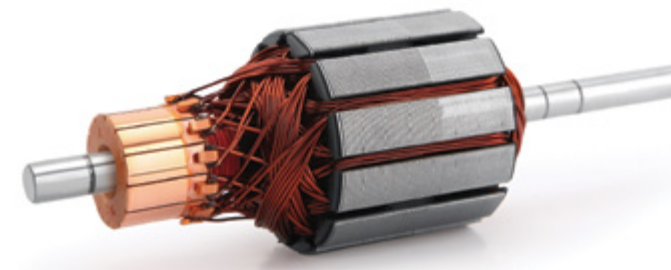


Smooth Operation of the Electrical Motor

High-quality electric motor armature ensuring reliable operation of the motor and strong protection against destructive current peaks and overvoltage.

Trouble-free Operation

A special material mixture applied to the carbon brushes developed by Nissens ensuring excellent reliability and supreme overvoltage protection.



Role & Operation

The interior blower ensures a proper amount of ambient air intake and flow of air throughout heat exchangers – heater and evaporator. Flowing through the heat exchangers, the air can be either warm or cold and thanks to the blower, the air is distributed in the car cabin.

Typically, the blower is situated in the HVAC (Heat-Ventilation-Air-Conditioning) module located between the cabin and the engine compartment.

The interior blower is an electrical device considered fragile, due to plastic elements, and electrically sensitive to vehicle system failures.



Important to know

- Clogged or worn cabin air filter reduce the interior blower's lifespan significantly
- The most common reasons for interior blower failure are failures in the vehicle's electrical system, reduced flow in the air intake system and improper product handling during installation
- The interior blower in commercial vehicle applications (taxis, buses etc.) is often exposed to faster wear (mileage and working hours)



AC Fan

An important player in the air conditioning system

THE DIFFERENCE



Competitive Range

Fan program perfectly matching the AAM needs: product range with 400+ items covering more than 1,900 OE numbers and a varied selection of fan components (e.g. motor and fan blade). Highly competitive prices.



Reliability & Performance

High-quality fan assemblies and fan components offering proven cooling performance and stable, long-life operation.

Conforms with the ISO 7637, ISO 16750 standards and the directive of Electromagnetic Compatibility (EMC).

Trouble-free Installation

High-quality wirings and electrical connections enabling a smooth installation.

Trouble-free Operation

A special material mixture developed by Nissens ensuring excellent reliability and supreme overvoltage protection.

Improved Resistance to Mechanical Damage and Wear

Only high-quality plastics, no recycled plastic mixtures.

Smooth Operation of the Electrical Motor

High-quality electric motor armature ensuring reliable operation of the motor and strong protection against destructive current peaks and overvoltage.

Corrosion Protection

Special, anti-corrosive treatment of the motor cover according to the strict REACH regulation to avoid any electromagnetic disturbance to other electronic elements.



Role & Operation

The fan plays an important, supportive role for the effective operation of the engine cooling and climate systems of the vehicle. In the climate system, the AC fan forces air through the condenser.

High operation pressures inside the condenser and the temperature produced by the condensation process require an additional air flow supporting the heat exchange between the ambient air and the refrigerant inside. Cooling provided by the fan is crucial for proper condenser operation.



Important to know

- A nonperforming AC fan has a very negative impact on the condensation process inside the condenser thus the entire AC system performance
- As an electrical device, the fan is often exposed to failure due to problems with the vehicle's electrical system, e.g. overvoltage, bad fuse, nonperforming alternator
- Depending on the vehicle application, the AC fan can be engaged by means of: pressure switch, indirect connection to the compressor clutch, the vehicle's Electronic Control Module (ECM) or signals sent from the AC-ON button



Receiver Drier / Accumulator

AC loop protection



Role & Operation

The receiver drier is a filtering unit located on the high-pressure side of the AC loop between the condenser and the expansion valve. The role of the receiver is to filter particles and debris flowing in the circuit as well as to absorb any moisture. Furthermore, it also stores oil and refrigerant.

The accumulator is a similar filtering device but applied only in vehicles with orifice tube as an expansion device. The accumulator is located on the system low-pressure side and besides the filtering and the lubricant/refrigerant storing function as in the receiver drier, it also ensures that no liquid form of the refrigerant gets into the compressor.



Important to know

- The receiver drier/accumulator must be replaced every two years or whenever the circuit has been opened.
- The inside filtering and desiccant layers can be worn out, after a long period, and cause the receiver drier to lose its ability to properly filter the refrigerant and oil.
- The receiver drier condition is crucial for the compressor vitality - a high level of moisture in the AC system can cause corrosion and reduce compressor's lubrication level significantly. Unfiltered particles, debris, metal chips etc. flowing in the loop are the main reasons for compressor failures and in worst case to seize up.
- Too much oil in the system reduces the drier ability to filter the system properly - desiccant gets too oily.

Wide Product Range

Nissens' receiver drier (and accumulator) range covers the market's most popular applications within cars, vans and trucks: 270+ items covering more than 1,100 OE numbers.

Perfect Transportation and Storage Protection

All Nissens receiver driers and accumulators are thoroughly packed to avoid any transportation damage. Furthermore, to ensure the product usability after an extended period of storage, all inlets and outlets are protected by means of special caps that prevent any impurities and moisture to enter the receiver drier.

OE Matching Quality

Designed, manufactured and tested to match the quality of OE products.

Easy Installation

Perfect finish thus easy fit, turns the installation of Nissens' evaporator into a smooth process. The part fits ideally to the HVAC's / mounting cassette.

OE Matching Quality

Designed, manufactured and tested to match the quality of OE products.

Reliability & Performance

Test-proven, long-life and reliable operation.

Competitive Range

Product range with 130+ items covering more than 480 OE numbers.

Evaporator

Cabin heat exchanger producing cold air



Role & Operation

A heat exchanger in the low-pressure side of the AC system, installed between the expansion valve and the compressor. Typically, located in a HVAC (Heat-Ventilation-Air-Conditioning) module behind the vehicle dashboard.

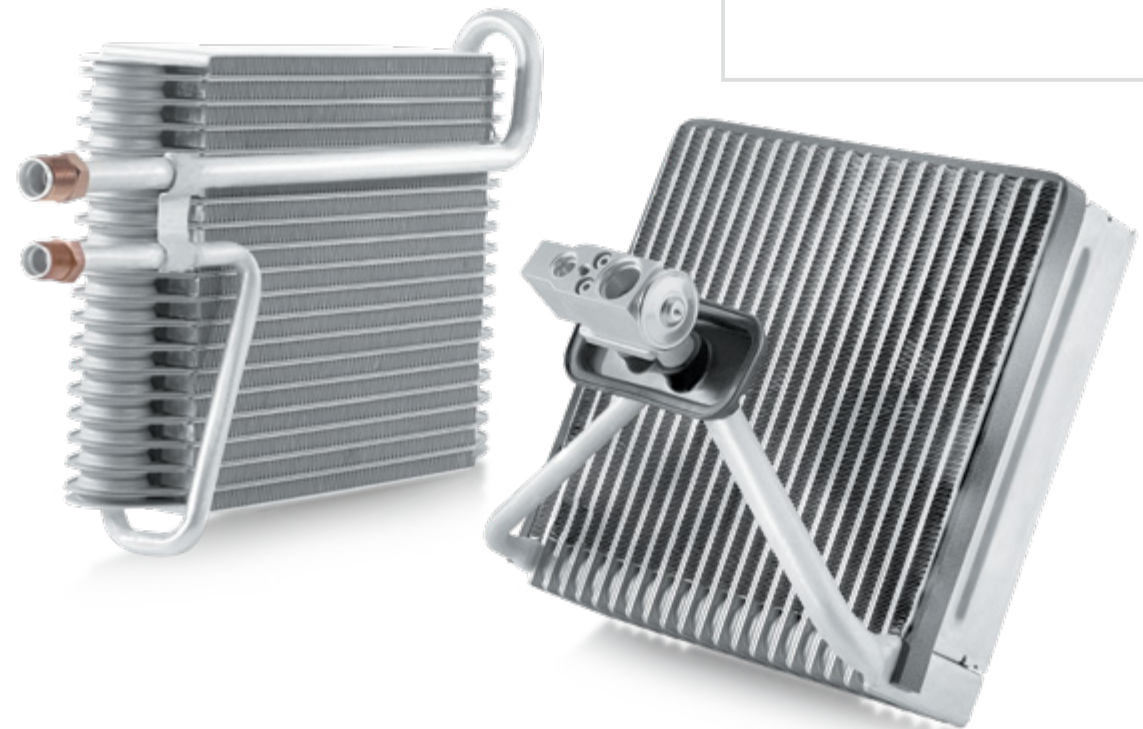
The evaporator causes the refrigerant to evaporate, thus change its state from a liquid to a gaseous form. Ambient air blown on the evaporator's surface enables the evaporation process inside, and during the transition process of the refrigerant's state, the blown air flowing through the evaporator's surface turns cold and can be directed into the vehicle cabin.

Furthermore, the evaporator dehumidifies the intake air, which is of high importance for the system's ability to demist the vehicle panes.



Important to know

- A nonperforming interior blower disables the evaporator's functionality and may lead to serious damage to the compressor.
- Clogged or worn out cabin air filter, as well as a soiled, contaminated evaporator surface will limit the evaporator's operation ability significantly.
- Internally contaminated and clogged or mechanically damaged or corroded evaporator cannot be repaired and must always be replaced. A new expansion device must accompany installation.



Heater

CLIMATE COMFORT SYSTEM

Warm air production and safety by demisting the panes

THE DIFFERENCE



Competitive Range

Product range with 400+ items covering more than 1,100 OE numbers for cars, vans and trucks applications.



Reliability & Performance

All Nissens' heaters are designed, manufactured and tested to match OE product quality. The heater development process includes a number of life tests. The products are examined and tested in terms of vibration, pressure impulse, thermal expansion, corrosion and bursting - eliminating the risk of leakage, insufficient heating performance or quality problems such as odours or oil residues, etc.



Easy Installation

Nissens' heaters are thoroughly finished in every detail. They fit smoothly into the mounting cassette in the dashboard/HVAC module, thus ensuring a smooth and quick installation. If required, selected heater models are equipped with additional connections and extra foam rubber.

Better Mechanical and Thermal Stress Resistance

Tanks made of high-quality plastics, no recycled plastic mixtures applied, to ensure strong mechanical and thermal stress resistance.

High Thermal Stress Resistance

Tank gaskets made from EPDM material preventing bursts and shrinkage when the unit is aging and exposed to extreme temperatures during normal operational conditions.

Optimized Airflow

Extra foam added on selected heater models to ensure an optimized airflow.

High Heating Performance

Specially designed turbulators inside the heater core tubes ensure up to 15% higher heating performance.

Efficient Heat Exchange

Nissens' specially designed fins with louvres inside the core tubes ensure a highly efficient heat distribution.



Role & Operation

The heater is an integral part of the engine cooling system. However, it contributes significantly to the climate system ensuring the production of warm air. The heater is often located behind the dashboard or in the HVAC module.

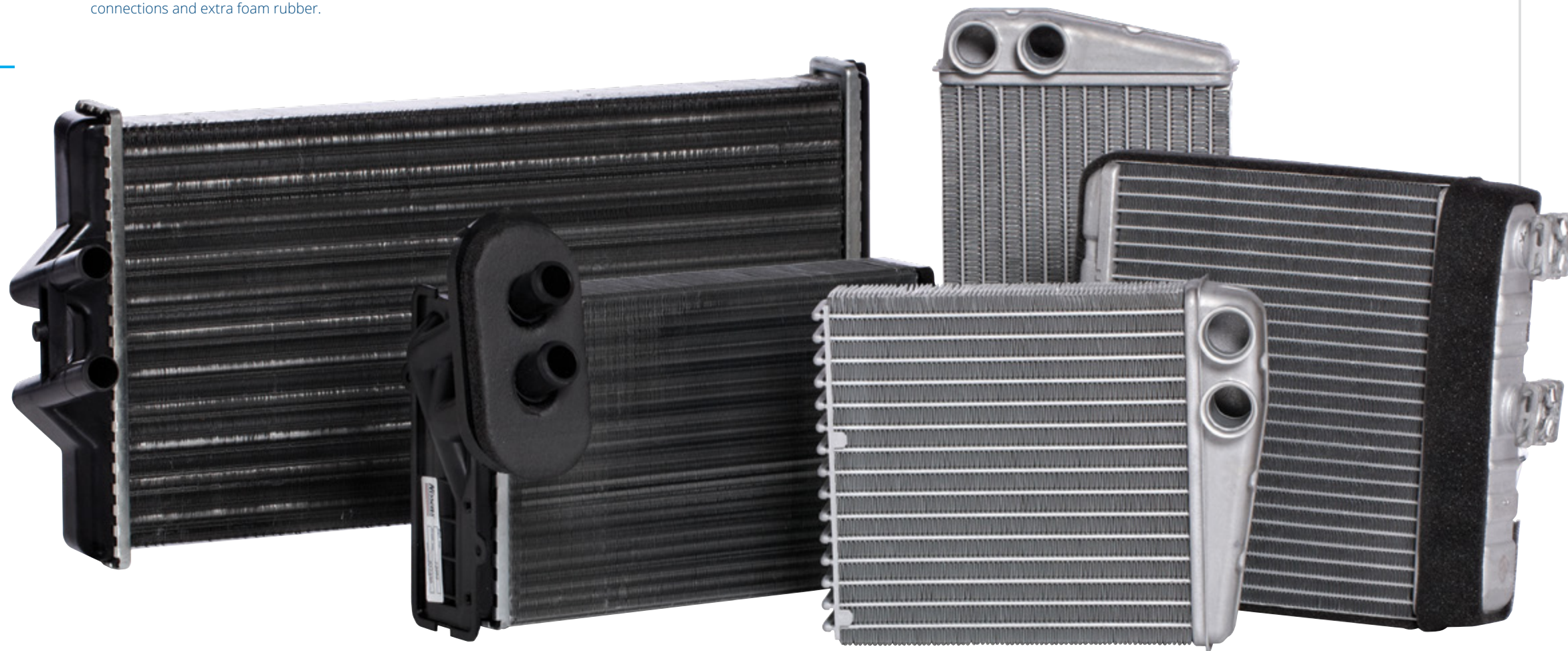
Hot coolant from the engine block passes through the heater, warming up the intake air blown on its surface by the interior blower. The air gets warmer and can be forwarded into the car cabin.

As heater produces warm air during cold days in autumn and winter, it significantly improves safety by shortening the process of demisting the vehicle's panes.



Important to know

- Scale that precipitates from water applied instead of a proper coolant may block the heater core, limiting the coolant flow. Sediment and grime from poor quality coolants, wrong coolant mixtures or residues of cooling system leak stops will also accumulate in the heater tubes limiting flow thus operation.
- Worn-out or broken thermostat valve may cause a restricted coolant flow thus preventing the heater to operate properly.
- Due to its position in a damp environment, the heater is often exposed to corrosion which may cause leakages.
- Lack of coolant, caused by leakages (in other components as well), will result in improper heater operation.



PROGRAM AVAILABLE FOR CARS + VANS + TRUCKS

Nissens
DELIVERING THE DIFFERENCE

Thermal Expansion Valve (TXV)

Proper working parameters of the AC system

CLIMATE COMFORT SYSTEM

THE DIFFERENCE



Competitive Range

Nissens' Expansion Valves offering has been developed to match the aftermarket needs and, along with the attractive product selection and wide applications coverage, related tools and concepts including technical training are offered by us to help grow your AC business.



Reliability & Performance

Nissens Expansion Valves are developed according to our renowned, high-quality standards, which include a comprehensive test and validation series. These cover, among others, strict control of the valve's pressure performance, tightness, opening and set-point setting, as well as its precise inner elements' finish and cleanliness.

The TXV range from Nissens joins our well-established collection of AC parts: compressors, condensers, receiver-dryers, evaporators and fans.



Quick & Proper Installation

First Fit Product

O-rings included in the product box; mounting bolts included when applicable



Precise, optimal operation

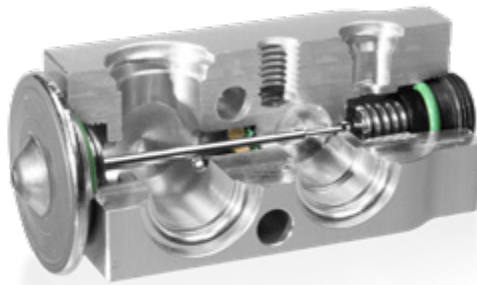
The power (sensing) element is the most important component in the Expansion Valve. Our specially designed charge formula ensures the valve's optimal operation for specific system needs in the given vehicle application.

Proper setting for operation stability

Our valve's output pressure and opening characteristics are thoroughly tested and appropriately adjusted to ensure the valve's stable and appropriate function within the common range of the refrigerant temperatures and pressures that occur during the AC cycle.

Perfectly tight, clean and fitting

Inner tightness and cleanliness are among the crucial qualities of our Expansion Valves, along with the fitment and durability provision. We make sure each Nissens Expansion Valve is a perfect and safe replacement product.



Role & Operation

The Thermal Expansion Valve (TXV) is one of the major control components of the AC loop. It's a precise metering device that controls the amount of refrigerant released into the evaporator.

The TXV separates the high-pressure and low-pressure sides of the AC loop. It is preset to maintain the superheat condition within the evaporator and, by this, to ensure the system's most optimal operation and output matching the needs for cold air production.



Important to know

- The TXV valve's malfunction leads to the AC system's worsened performance, and exposes the AC compressor to abnormal load, thus premature, severe failures such as overheating, seizure and slugging.
- Getting stuck in an open or closed position is one of the most common TXV failures. It disables the required refrigerant flow control and pushes the system parameters out of balance. System inner contamination is the major culprit leading to valve blockages.
- It is highly recommended to replace the TXV valve along with the AC compressor replacement. A thorough and effective AC system flushing procedure must always precede the TXV and/or the AC compressor's replacement.



Safe and reliable system performance

Advanced performance tests have proven, Nissens Expansion Valve is a safe, perfectly finished product designed to maintain the required refrigerant parameters (superheat), and thus the AC system's optimal thermal performance and proper balance. Furthermore, it ensures safe operation and long life span of the AC compressor, preventing it from slugging or failures related to lubrication and overheating.

TXV SENSING ELEMENT'S BEHAVIOR TEST, PRESSURE OUTPUT VS TEMPERATURE

A back-to-back test of sensing element's behavior was performed to build comparison of the outlet pressure performance generated by opening set points of various TXV brands. Nissens' item number #999222 was used for the test, along with the OE and other AAM equivalents.

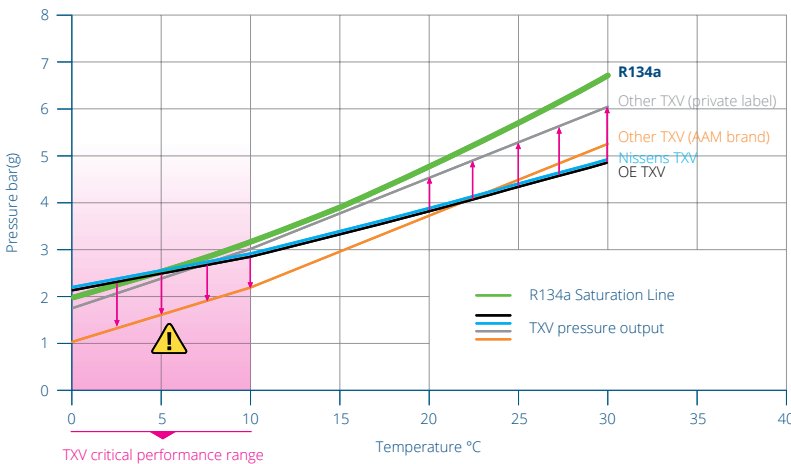
The Test Conclusions

Nissens TXV's opening behavior is based on a proper sensing element charge, and thus an appropriate set-point configuration that matches the OE unit and the system-specific requirements for the refrigerant parameters.

Significant deviations in the sensing element's behavior, and thus opening setting of the other tested TXV brands.

The other tested valves' setting does not follow the OE valve's characteristics across various temperatures and considerably differs in the critical performance range (i.e. below 10°C).

The notable, large deviations from the OE pattern may lead to a significant reduction of the system thermal efficiency, and thus provoke severe failures of the AC compressor (e.g. slugging, lubricant dilution, overheating). Furthermore, the large deviations and different from OE behavior, reveal an improper charge technology applied for the sensing element at the other brand's valves.



Program Highlights

- 100+ Item numbers in the range
- 400+ OE applications covered



Valve Technology
Block type



Program Scope
Passenger Cars
Light Vans
Trucks



PROGRAM AVAILABLE FOR **CARS + VANS + TRUCKS**

Nissens
DELIVERING THE DIFFERENCE

Pressure sensors

Support for proper working parameters of the AC system

CLIMATE COMFORT SYSTEM

THE DIFFERENCE



High car parc coverage

The range covers the most popular applications with an ongoing development and introduction of new parts.



One-stop Shopping

Our aim is to supply the market with a holistic product selection within the AC category, enabling reliable performance of the climate comfort system and a first-time-right installation of its critical component, i.e., the AC compressor.

The sensor range from Nissens joins our well-established collection of AC parts: compressors, condensers, receiver-driers, evaporators, fans and thermal expansion valves.



Easy Installation with First-Fit parts

All that is needed for a proper installation included in the product box (when applicable).



O-RINGS (PRE-MOUNTED)



Reliable Operation

Nissens' sensors undergo a comprehensive test series, including: performance, insulation resistance, connections, and interface fitment tests.

High Durability

To secure long, trouble-free operation, besides complete functional testing, we examine our sensors in terms of pressure and burst resistance.

Program Highlights

45+

Item numbers in the range



Types of sensors

Pressure



Program Scope

Passenger Cars
Light Vans
Trucks



Role & Operation

Sensors facilitate the maintenance of proper parameters within the thermal systems, e.g. monitoring and controlling the pressure of the refrigerant in the AC system.

Since the proper parameters of the medium are crucial for the entire system's operation, the role of the sensor is critical. It enables the vehicle and its systems to operate correctly. Furthermore, the sensor's vitality is essential for the longevity of other advanced components in the system. For example, the proper functioning of the AC compressor or the AC fan relies on the correct operation of the sensor.



Important to know

- The sensor's malfunction leads to the AC system's worsened performance and exposes the AC compressor and the AC fan to improper starting thus to a quicker wear.
- The sensor measures the pressure in a specific spot in the AC loop. The readout value is used by the control unit (HVAC, Body control unit, or Engine control unit):
 - to switch the compressor clutch (on/off) or to control a variable compressor,
 - to switch additional cooling fans.

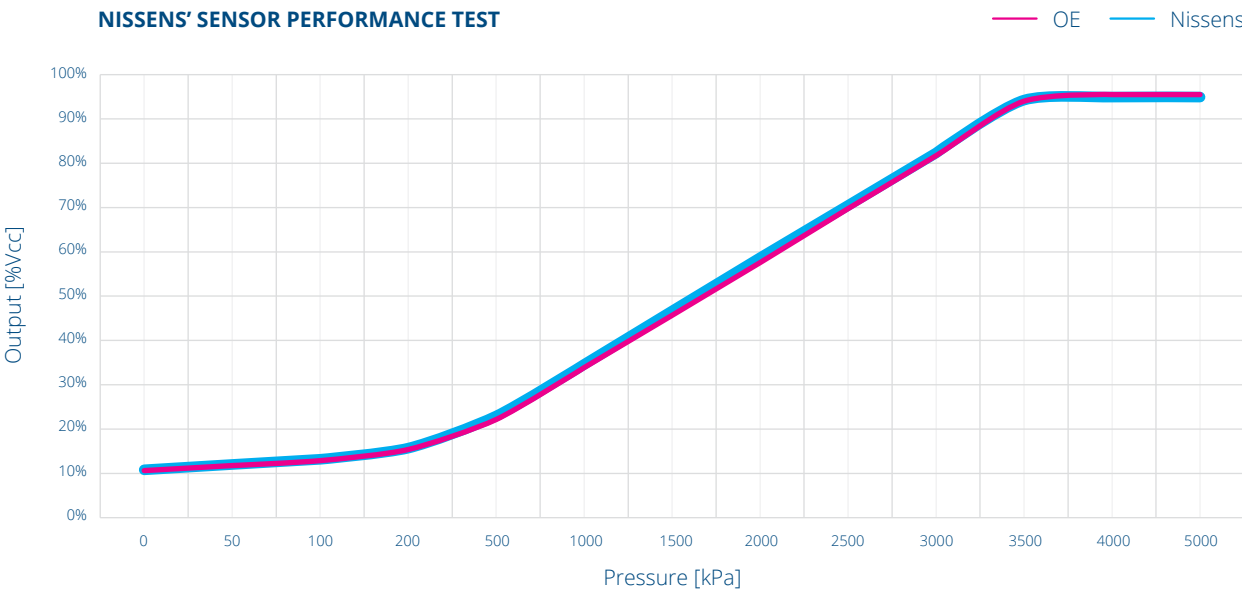


Genuine Nissens Quality - precision in every detail

The sensor's role is critical for the proper functioning of various systems and a trouble-free operation of other essential system components.

Genuine Nissens Quality standards are applied throughout all of the development, manufacturing, and testing processes to secure the most optimal and proper operation of the sensor, and its long lifespan.

NISSENS' SENSOR PERFORMANCE TEST



PROGRAM AVAILABLE FOR CARS + VANS + TRUCKS

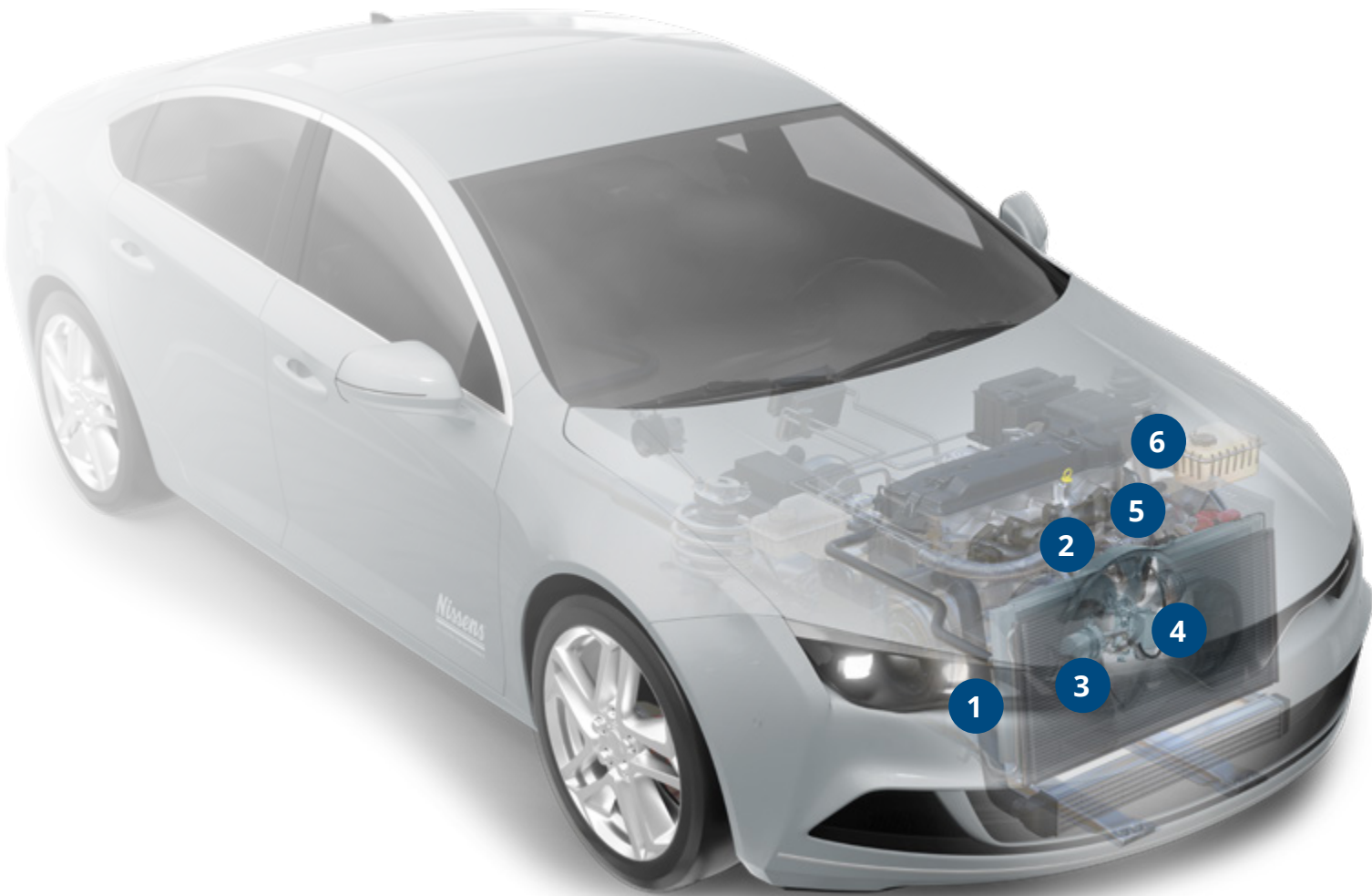


Nissens
DELIVERING THE DIFFERENCE



ENGINE COOLING

KEY SYSTEM COMPONENTS



- 1 RADIATOR**
Engine cooling
- 2 EC FAN**
Radiator function support
- 3 WATER PUMP**
Cooling system circulation

- 4 OIL COOLER**
Gearbox / engine oil cooling
- 5 TEMPERATURE SENSOR**
Support for proper working parameters
- 6 EXPANSION TANK**
Refrigerant management & distribution

Radiator

Heat exchanger - essential for engine thermal control

ENGINE COOLING SYSTEM

THE DIFFERENCE



Competitive Range

Highly competitive product range of 2,800+ models in range covering 12,100+ OE numbers and almost the entire European vehicle car parc.



Reliability & Performance

Nissens radiators are submitted to corrosion, vibration, pressure impulse, thermal expansion and thermal performance tests. Supreme results and extended lifespan are achieved thanks to a number of special features, improving critical components of the radiator.

Easy-handling packaging and excellent protection against transport damages.



Easy Installation

Perfect finish and product fit, enabling a quick and smooth product installation.

First Fit Product:

Depending on vehicle model, everything that is needed for a proper installation is included in the product box.

Caps, O-rings, nuts, clamps, plugs, gaskets, circlips, bolts, fittings, screws, hose clips ... and more.



Perfect Fit

Perfect finish in every detail such as water tanks, connections, threads, bolts, gaskets, mounting brackets, etc. This enables a trouble-free, quick and time-saving installation.

Modern Technologies

Sturdy, durable and highly performing core construction produced using advanced aluminium brazing technology – controlled atmosphere brazing (CAB).

Thermal Stress Resistance

Reinforced plastic tanks enriched with fiberglass (PA66-GF30) and produced with no recycled plastics.

Supreme Durability and Thermal Performance

Cores equipped with double-folded fins, reinforcing the fin against mechanical damages as well as increasing the total heat exchange surface.



Role & Operation

The radiator is placed in the front of the vehicle, often attached to other heat exchangers, such as the intercooler or condenser.

The radiator is essential for the cooling of combustion engines. In such engines, there may be as many as 4,000 petrol explosions per minute, each generating temperatures of up to 1,500°C. The cooling liquid, which is circulating through a cooling jacket, cools the engine block, as well as pistons, valves, gaskets, rings, engine head, and other elements of the engine.

The circulating coolant receives the combustion heat. Flowing through the radiator, it exchanges the heat with atmospheric air.



Important to know

- Water residue may block the radiator core, limiting the coolant flow. Sediments and impurities from poor quality coolants, wrong coolant mixtures, or leak stop residues will also accumulate in the radiator tubes, limiting the flow and resulting in worsened performance.
- Thermostat failures cause the cooling system to perform at incorrect temperatures, resulting in insufficient performance.
- Due to the frontal placement, the radiator is particularly exposed to light mechanical damages (insects, stone chips, high-pressure water cleaning), causing leakages.
- A leaking or non-performing radiator will expose the engine to an excessive thermal overload, which can cause it to seize.

ALU
McCORD

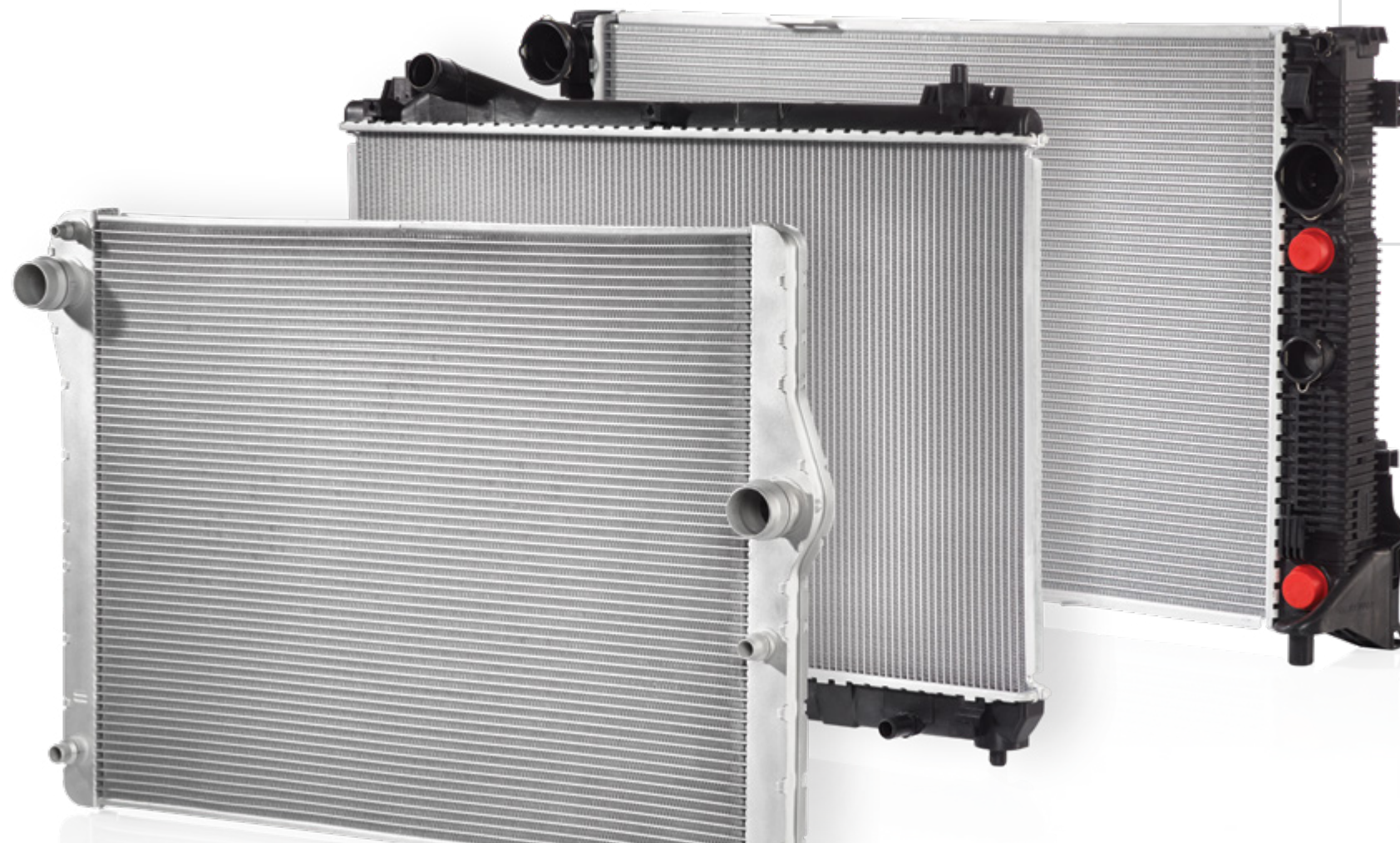
Light-weight and efficient construction of aluminum cores and plastic tanks, universally applied for passenger and commercial vehicle radiators.

5 mm

Aluminum-plastic construction with 5 mm spaces between the tubes, increasing the cooling performance, compared to the traditional 10 mm radiators.

Full
alu

Advanced radiator construction based on brazed components solely made of aluminum, without gaskets and plastic parts.



PROGRAM AVAILABLE FOR CARS + VANS + TRUCKS

Nissens
DELIVERING THE DIFFERENCE

EC Fan

An important player of the engine cooling system

ENGINE COOLING SYSTEM

THE DIFFERENCE



Competitive Range

Fan program perfectly matching the AAM needs: Product range with 400+ items covering more than 1,900 OE numbers and a varied selection of fan components (e.g. motor and fan blade). Highly competitive prices.



Reliability & Performance

High-quality fan assemblies and fan components with proven cooling performance and stable, long-life operation.

Conforms with the ISO 7637, ISO 16750 standards and the Directive of Electromagnetic Compatibility (EMC).

Reliable and Secure Speed Control

Highest quality and re-engineered fan control boxes. Only high temperature grade electronic components applied, ensuring increased durability and supremely safe operation of the device.

EC fans equipped with OE quality control box

- Reengineered electronics, securing safe operation.
- Comprehensive durability and safety test series performed on every electronic component.
- High thermal resistance, components in accordance with AEC-Q100 qualification.



Corrosion Protection

Special, anti-corrosive treatment of the motor cover according to the strict REACH regulation to avoid any electromagnetic disturbance to other electronic elements.

Smooth Operation of the Electrical Motor

High-quality electric motor armature, ensuring reliable operation of the motor and strong protection against destructive current peaks and overvoltage.



Trouble-Free Installation

High-quality wirings and electrical connections, enabling a smooth installation.

Trouble-Free Operation

A special material mixture applied to the carbon brushes developed by Nissens, ensuring excellent reliability and supreme overvoltage protection.

Improved Resistance to Mechanical Damage and Wear

Only high-quality plastics, no recycled plastic mixtures.



Role & Operation

The fan plays an important, supportive role for effective operation of the vehicle's engine cooling system. The EC fan forces air through the exchangers, such as the radiator and/or intercooler.

The EC fan keeps the engine's coolant from rising above operational temperature, thereby preventing the system from overheating. Its role is especially important at low engine revs and low speeds in slow-moving traffic.



Important to know

- Depending on the vehicle application, the EC fan can be engaged by means of a thermostatic switch or the vehicle's ECM.
- A malfunctioning EC fan will have a negative impact on the engine cooling performance, which will put excessive thermal stress on the engine.
- As an electrical device, the fan is often exposed to damage due to problems with the vehicle's electrical system, such as overvoltage, poor fuse, non-performing alternator and thermostatic switch failure.



Fan Clutch

EC fan engagement

ENGINE COOLING SYSTEM

THE DIFFERENCE



Competitive Range

Nissens' program for fan clutches covers the most popular European truck applications, 150+ items covering 540+ OE numbers.



Efficient, Reliable & Safe

Each detail is designed to achieve maximum performance and a high level of modulation, thus improved fuel consumption, less noise and less stress on the engine.

Tested for stable, trouble-free and long-life operation. Designed and manufactured specifically for the aftermarket, while tested to match OE quality, including full compliance with ISO 16750.

High Modulation Ability

Perfect modular control of Nissens' fan clutches offers a long line of benefits:

- Freeing of engine power for other tasks
- Reduction of fuel consumption
- Extension of engine life thanks to high temperature control
- Lifespan extension of fan drive belt as a result of smoother speed transitions
- Low noise emission



Role & Operation

The fan clutch is a device controlling the engagement of the EC fan. A valve inside the clutch regulates the flow of a special silicon oil. The oil transmits the engine's torque thus, rotating the fan.

The fan clutch can be driven by a belt and pulley or directly by the engine when mounted on the engine's crankshaft. Depending on the cooling needs, the fan can be engaged partially or fully - saving the engine power used for the power transmission.

There are two design types of the sensor causing the clutch to engage. One with a bi-metallic, thermostatic sensor controlling the engagement and another controlled electronically by ECU signals, influenced by engine/transmission oil temperature, coolant temperature, AC system pressures or ambient air temperature.



Important to know

- The clutch must never be repaired nor opened. The fan clutch is filled with viscous oil and opening the unit will interfere with the system.
- Proper fan clutch modulation is crucial for optimized fan speed, as this affects cooling and engine performance. A good quality clutch can modulate the fan speed with a smooth activation between engagement and disengagement.
- Common symptoms of the fan clutch failure: overheating at idle or when driving in urban traffic, ineffective climate system performance, drop in engine power, grinding noises from the engine compartment or no warm air produced by the heater.

Smooth Speed Transition

High-quality silicone oil carefully developed for fine-tuned modular operation.

Extended Durability

Temperature-resistant ball bearing with long lifespan, designed to match the lifetime of the application in question.

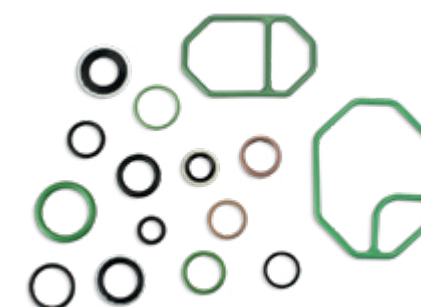
Precise Operation

Individually-tested electromagnet, manufactured using advanced, fully-automated technology.

Fine-tuned precision rotor with heavy-duty alloy.

Trouble-free Connection

Well-protected wires and connectors.



**Bolts
for fan blade
installation**
always included!

PROGRAM AVAILABLE FOR **CARS + VANS + TRUCKS**

Nissens
DELIVERING THE DIFFERENCE

Oil Cooler

Engine and transmission oil cooling

ENGINE COOLING SYSTEM

THE DIFFERENCE



Competitive Range

The range consists of 460+ complete parts covering more than 1,650 OE numbers.



Efficient, Reliable & Safe

All Nissens' oil coolers are designed and manufactured specifically for the aftermarket, and tested to match OE quality. Nissens' oil coolers are tested in Nissens' advanced in-house test facilities to ensure compliance with the high quality demands – thus promising a long service life.

The oil cooler development process includes an in-house test series, where the oil cooler is pressure-impulse tested with 100,000 impulses at a pressure of up to 10.0 bar.



High Quality Packaging

All Nissens' oil coolers are packed in our compact and elegant box design. The solid packing system minimizes possible risks of transport and storage damages to the products and the Nissens' box optimizes logistics costs and protects the environment.



Easy Installation with First Fit

80+ models of Nissens' oil coolers equipped with gaskets.

Long Life Product

Improved turbulator design, ensuring more precise brazing process, thus supreme durability and stress resistance of the component.

Temperature Resistant

Thermal expansion tested to perform during fluctuations of temperatures, ranging from 10 to 90°C.



Role & Operation

The oil applied for lubrication plays a significant cooling role. The oil cooler receives the lubricant's heat and exchanges it with the ambient air or the radiator coolant. It is typically the automatic gearbox oil that needs a dedicated oil cooler. Vehicles, driving with engine oil that is cooled by a separate exchanger, is a common sight. Especially in high-performing or downsized engine vehicles, a dedicated oil cooler is an important part of the system.

In some vehicle models, the oil cooler is built into the radiator water tank. Here, the coolant plays a supportive role in the heat exchange process. In modern vehicles, an automatic gearbox oil cooler is often designed as a stand-alone unit, mounted separately in the engine compartment or on the engine block.



Important to know

- Be aware of regular oil change and proper oil filtration. Low-quality or contaminated oil can clog the thin channels of the oil cooler, limiting the inside flow and performance.
- A leaking or non-performing oil cooler is one of the most common causes for automatic gearbox break down. The oil is crucial for the gearbox's operation as it lubricates, cleans and conditions its seals.
- In case of leakages, the lack of oil will cause the engine to overheat and shut down.
- Exposure to high stress, like high temperatures or high mileages can shorten the oil cooler's lifespan significantly.



Oil Cooler with Housing

Complete oil cooler unit

ENGINE COOLING SYSTEM

THE DIFFERENCE



Competitive Range

Nissens' program consists of 50+ items for the most popular market applications.



Efficient, Reliable & Safe

All Nissens' oil coolers are designed and manufactured specifically for the aftermarket, and tested to match OE quality. Highly profiled, comprehensive development, test and validation formula warrants our product's highest quality.

Development of the oil cooler with housing includes extensive test series of each component separately and the entire unit when assembled, to ensure its reliability and high performance needed for the lubricant flow, filtration and cooling.



Quick Installation with First Fit

Including necessary gaskets pre-mounted on the oil cooler assembly for a quick and smooth installation.



Quality in Every Detail

Critical components are designed and manufactured within appropriate tolerances, precisely calibrated and comprehensively tested to assure excellent operation and performance of the entire module. Testing of the unit with all components attached ensures optimal performance and durability of the complete assembly.

Components specifically in focus:

- Oil filter
- One-way valve
- Bypass valve
- Housing & filter housing
- Thermostat
- Gaskets

Reliable Flow & Pressure

The module's inner valves are thoroughly tested and precisely calibrated to maintain the proper lubricant flow through the unit. The one-way valve is set to eliminate possible flow constraints, delays or backflows, whereas the pressure relief valve protects against lubricant overpressure.

A Complete Solution

A complete, plug and play oil filtering and cooling solution with all parts that fit and suit. A solution that minimizes risks of engine and equipment lubrication failures and saves time by replacing the entire unit all at once.

Cooling Performance

The highly performing oil cooler made of robust, pressure-resistant aluminum, allows proper lubricant cooling, matching the engine operation needs.

Clean Lubrication

The high-quality, durable oil filter is applied to provide excellent particles retention and smooth, unhindered flow of the lubricant.



Role & Operation

The oil cooler with housing (oil cooler assembly) is a complete oil cooler unit, including various additional components such as filter housing, oil filter, bypass valve, one way valve, thermostat, gaskets and housing.

The main function of the oil cooler assembly is to cool the engine oil and secure a reliable oil filtration. To minimize risks when replacing the oil cooler, the replacement of the entire oil cooler assembly offers a complete plug and play solution.



Important to know

- The engine oil's vitality, proper volume, flow and pressure are crucial for the engine operation, securing proper lubrication and cooling of its inner parts as well as operation of other engine components, e.g. turbocharger.
- Always follow the oil type, volume and change intervals prescribed by the vehicle manufacturer.
- Exposure to high temperatures, high mileages or dilution caused by other liquids impair the function of the oil considerably and lead to severe engine failures.
- Low-quality, worn or contaminated oil can clog up the filter faster and/or the thin channels of the oil cooler, limiting the inside flow and the cooling performance.

Electric Water Pump

Ensuring Cooling System Circulation

ENGINE COOLING SYSTEM

THE DIFFERENCE



Competitive Range

Water pump program for the aftermarket: Product range with 75+ items covering both electric and auxiliary technologies.



Reliability & Performance

Designed and manufactured specifically for the aftermarket, while tested to match OE quality.

High quality construction with added features unique to the aftermarket such as overheating protection.



Quick Installation with Essential Brackets



Brushless Motors

For smooth operation with minimal sound.

High-Quality Materials & Long Life Span

All materials are new and of the highest quality. Durability tests ensure a long life span.

Improved Security Towards Overheating

All parts are equipped with a low power state fail-safe that prevents overheating if the impeller is blocked.

Fully Tested

All Nissens Water Pumps are tested to ensure perfect form, fit and operation.

Focus on Connectors

All connectors are designed to fit, function and seal in the same manner as OE connectors.

Optimal Performance

Flow rates are benchmarked against OE to ensure optimal performance.

Perfect Installation

Parts include vibration isolators and mounting brackets to match OE parts where applicable.



Role & Operation

The automotive water pump ensures that coolant is pushed through the engine cooling system.

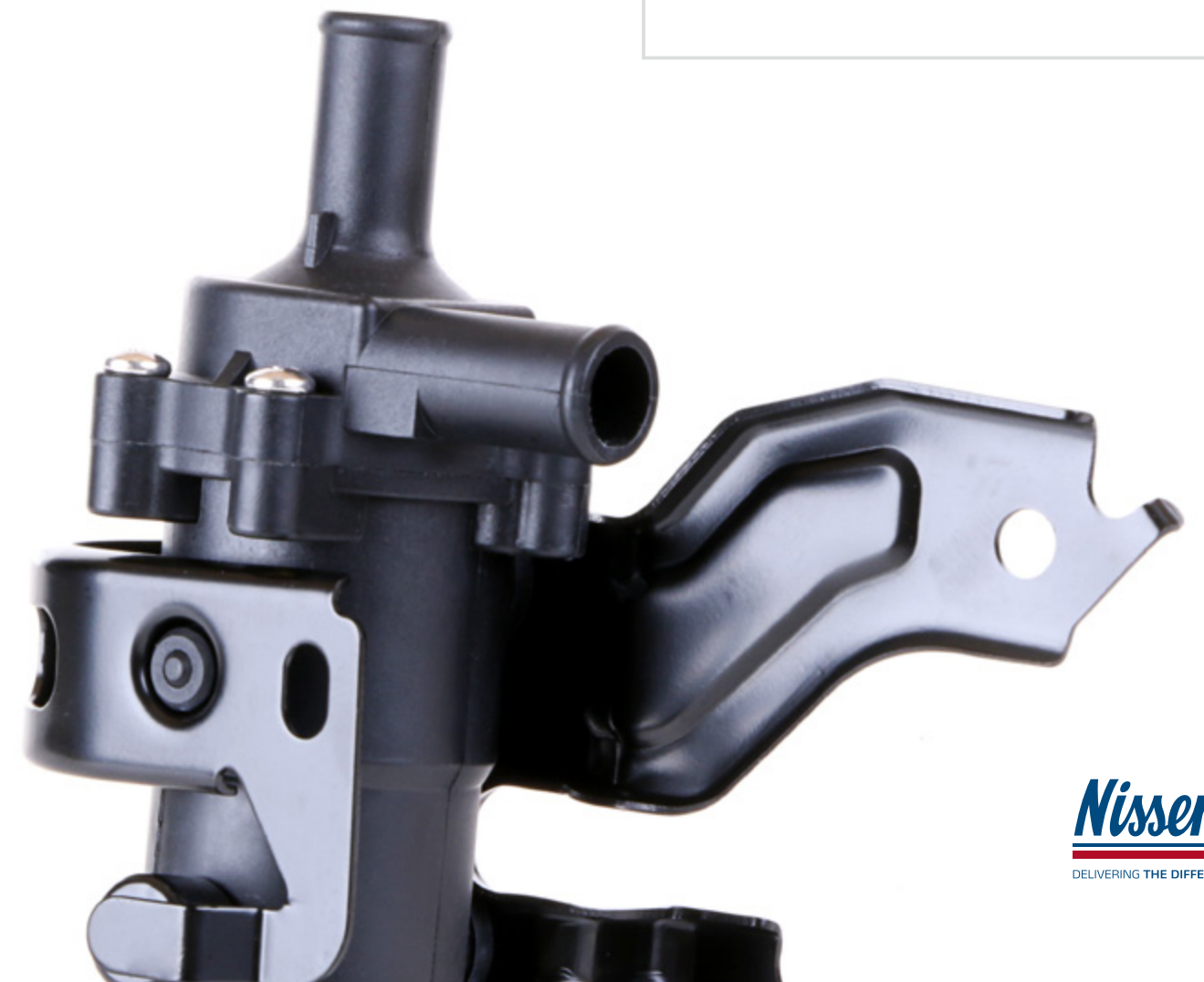
Without a properly working water pump, the coolant would linger in the system and no cooling effect would take place.

If the water pump fails, it can lead to serious damage to the engine as a result of overheating.



Important to know

- The time spent replacing the pump is often the most expensive part of the repair. Therefore, ensure that brackets are available before starting.
- A malfunctioning water pump will have a negative impact on the vehicle's cooling performance, which will cause excessive thermal stress on the engine.
- The life expectancy of the water pump will decrease rapidly if the wrong antifreeze is used, the antifreeze is replaced irregularly or not replaced at all. Contaminated antifreeze will also damage the sensitive parts of the water pump.



Expansion Tank

Engine Cooling coolant protection and re-distribution in the system

ENGINE COOLING SYSTEM

THE DIFFERENCE



Competitive Range

Our range consists of parts for all segments. Passenger cars, light commercial vehicles as well as heavy commercial vehicles.



Reliability & Performance

All Nissens' expansion tanks are designed, manufactured and tested to match OE quality. The expansion tank development process includes a number of tests, such as vibration, pressure-impulse, thermal expansion, and burst test, thus eliminating risk of leakage or insufficient cooling performance.



Easy Installation

Nissens' expansion tanks are part of our 'First Fit' program, which means that they come with sensors and caps, pre-mounted or included with the product. This ensures a quick and smooth installation.



Quick Installation

Nissens 'First Fit' concept has been applied to our Expansion Tanks range. Products come with sensors and caps, pre-mounted or included in the packaging, ensuring a quick installation.



High-Quality Plastic

Nissens applies high-quality material, e.g. PA66GF33 or PP Plastic. This ensures durable heat and stress resistance. All materials are tensile tested and no recycled materials are used.

Including Sensors

All sensors undergo functional testing and are pre-mounted on the expansion tank for a quick installation.

High Quality Pressure Cap

Pressure caps are included in the box and individually tested for correct opening pressure.

High Performance Welding

All expansion tanks are welded with advanced machinery to ensure the strongest possible connection of the top and bottom part. Each individual tank is leak tested before shipment.

Reinforced Fittings

Highest quality fittings resulting in a secure and consistent fit that will last.



Role & Operation

The expansion tank absorbs excess coolant and minimizes excess pressure in the engine cooling system.

An expansion tank helps maintain a minimal pressure increase during heated water expansion, helps reduce coolant hammer, and helps protect the engine cooling system from stress. Furthermore, the expansion tank ensures that there is no waste by re-distributing excess coolant into the system.

To help avoid and prevent premature failures, your expansion tank should be checked annually.



Important to know

- A blocked expansion tank can cause leaking or bursting in the engine cooling system as the connections, fixtures and components get stressed and damaged due to excess pressure.
- If the expansion tank is leaking, the engine could overheat as the level of coolant in the system could decrease.
- Note the level of coolant in the expansion tank when the engine's cold. Once the engine reaches operating temperature, the level must rise. If it doesn't, the system is not operating properly.



Covering

240+

Items

670+

OE references



Covering

45+

Items

220+

OE references



PROGRAM AVAILABLE FOR CARS + VANS + TRUCKS

Nissens
DELIVERING THE DIFFERENCE

Temperature sensors

Support for proper working parameters of the EC system

ENGINE COOLING SYSTEM

THE DIFFERENCE



One-stop Shopping

Our aim is to supply the market with a holistic product selection within the EC category, enabling reliable performance of the engine cooling system and a first-time-right installation of its critical component, i.e., the EC fan.

The sensor range from Nissens fits our well-established collection of EC parts: radiators, water pumps, oil coolers and expansion tanks.



High car parc coverage

The range covers the most popular applications with an ongoing development and introduction of new parts.



Genuine Nissens Quality - precision in every detail



The sensor's role is critical for the proper functioning of various systems and trouble-free operation of other essential system components.

Genuine Nissens Quality standards are applied throughout all of the development, manufacturing, and testing processes to ensure the most optimal and proper operation of the sensor, and its long lifespan.

Easy Installation with First Fit

All that is needed for a proper installation included in the product box (when applicable).



Reliable Operation

Nissens' sensors undergo a comprehensive test series, including: performance, insulation resistance, connections, interface fitment, and signal temperature curve tests.



High Durability

To ensure long, trouble-free operation, besides complete functional testing, we examine our sensors in terms of rapid temperature change, and leakages.

Program Highlights

55+ Item numbers in the range

Types of sensors
Temperature

Program Scope
Passenger Cars
Light Vans



Role & Operation

Sensors facilitate maintenance of the proper parameters within the thermal systems, e.g. monitoring and controlling the coolant's and oil's temperature in the EC system.

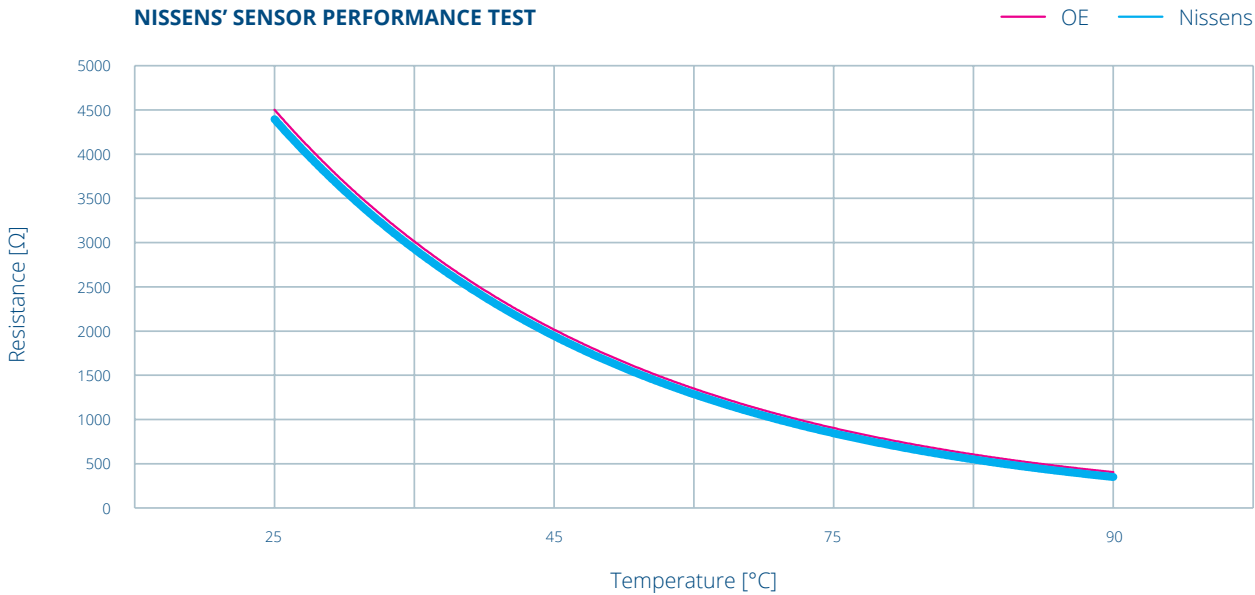
Since the proper parameters of the medium are crucial for the entire system's operation, the role of the sensor is critical. It enables the vehicle and its systems to operate correctly. Furthermore, the sensor's vitality is significant for the longevity of other advanced components in the system. For example, the EC fan's proper functioning relies on the sensor's proper functioning.



Important to know

- The sensor's malfunction leads to the EC system's worsened performance. It can also expose the EC fan to quicker wear via an improper starting.
- The sensor's signal is used primarily by the ECU (Engine Control Unit) to control the operation of the cooling fan for the radiator.
- In modern engines, the signal is also used e.g. to:
 - adjust the fuel injection,
 - regulate the charge pressure,
 - set the exhaust gas recirculation volume
- switch between cooling circuits (micro- and full circuit),
- switch or control the main or auxiliary cooling pumps,
- activate/deactivate the start-stop system.
- The signal is used for the 'Engine Temperature' gauge on the dashboard
- In addition, the signal may be used by other control e.g. HVAC-control unit.

NISSENS' SENSOR PERFORMANCE TEST





ENGINE EFFICIENCY

KEY SYSTEM COMPONENTS



1 TURBOCHARGER
Boosting power output of the engine

2 THROTTLE BODY
Harmonious engine combustion

3 TURBO OIL FEED PIPES
Reliable turbo lubrication

4 INTERCOOLER
Turbo-charged air cooling

5 EGR VALVE / MODULE / COOLER
Exhaust gas re-circulation

Turbocharger

Increases engine efficiency and thus its power output

ENGINE EFFICIENCY SYSTEM

THE DIFFERENCE



Easy Handling

No fees, no charges, no return of old units.

Complete, Factory New Turbos!



Range & Availability

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

400+ turbo models in the range.

Very competitive aftermarket price level.

High product availability.



Efficient, Reliable & Safe

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

Our turbos 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 strategical 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.

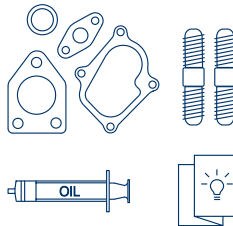


Easy Installation

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:



Relevant gaskets set

Stretch bolts (if applied by OE)

Lubricant oil

Installation guide

Optimized Design

Component developed according to advanced quality standards – Genuine Nissens Quality, and tested to match OE quality.

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.

High-Precision Control

Electrically driven actuators for the most optimal engine performance and smooth, reliable turbo flow control. Various models for Euro 5-6 engines equipped with OE-manufactured actuators.



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's 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.



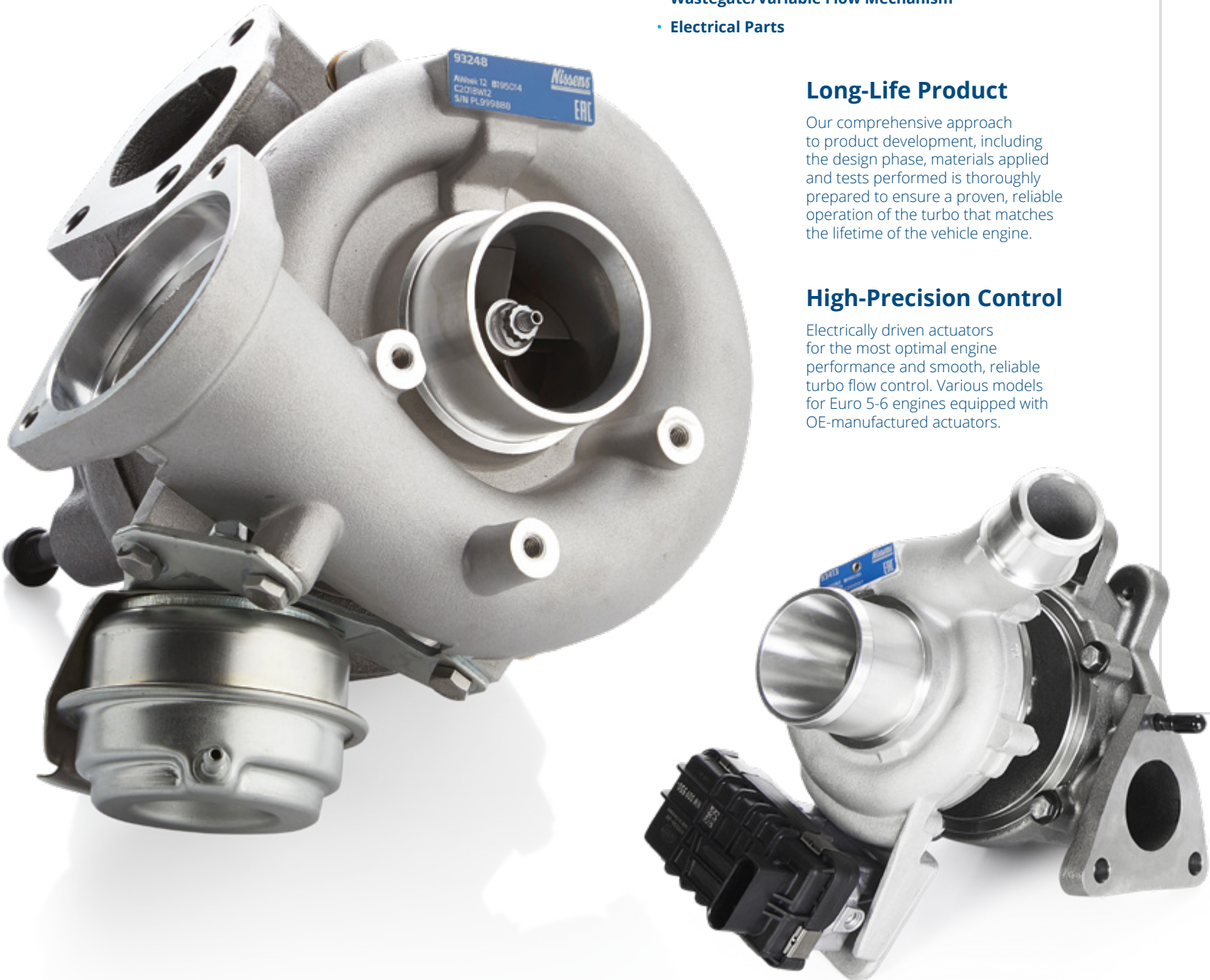
Possible Designs

- 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's 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 of turbo's 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.



Turbo Oil Feed Pipes

Reliable turbocharger lubrication

ENGINE EFFICIENCY SYSTEM

THE DIFFERENCE



Proper Turbo Lubrication

Nissens Oil Feed Pipes are designed to ensure appropriate lubrication and cooling of the turbo's shaft - the critical conditions needed for a reliable operation of turbocharger units.



First-time-right Installation

Experts recommend replacing the oil feed pipes whenever fitting a new turbo. With the oil feed pipes in our range, we support the aftermarket with a holistic service and product selection, enabling first-time-right installation and proper maintenance of advanced components such as the turbocharger.



Competitive Range

Find all the system's essential parts in one place. Nissens' competitive offering for the Engine Efficiency category includes turbochargers, oil feed pipes, EGR elements and intercoolers. The oil feed pipes range from Nissens caters for 260+ models and covers 99% of vehicle models where Nissens' turbo is available.

Long-Life Product

Our comprehensive approach to product development, including the design phase, materials applied (galvanized steel), and tests performed guarantee the pipe's long lifespan.

Easy Installation

Perfect finish and full compatibility with the vehicle and turbo's layout enable a quick and smooth product installation.

Reliability & Performance

Materials applied and tests performed warrant a proven, reliable operation.



Product range

Vehicle models where Nissens turbo is available



Role & Operation

In turbocharged engines, the oil feed pipe (or line) is connected to the engine lubrication system. Its main function is to secure appropriate lubrication needed for the turbocharger unit and specifically, for its shaft.

The feed pipe supplies engine oil from the engine block directly to the turbo's bearing system thus ensures the turbo's shaft lubrication and cooling.



Possible Designs

- Solid metal design (steel / aluminum)
- Solid metal design combined with elastic articulation
- Turbo OFP sharing flange with oil-return pipe



Important to know

- Appropriate lubrication is the key condition for any turbo to operate and the OFP is considered as an integral part of the system lubricating the turbo.
- Always install a new OFP to avoid critical failures of a newly installed turbo - reuse and cleaning of the OFP is often impossible due to a design with many curves.
- In many cases, the OFP's malfunction is the root cause of severe turbo failures. It is an area where oil flow restrictions can easily occur.
- Represents a relatively low cost when replaced compared to the expensive turbocharger/engine failures it may provoke when malfunctioning.

YOUR TURBO SPECIALIST

We supply the market with a holistic product selection, enabling reliable performance of key automotive systems and first-time-right installation of their critical components. Our OFP offering is developed to match the turbo market needs and the product range offered covers the most popular vehicle applications.

PROGRAM AVAILABLE FOR CARS + VANS + TRUCKS

Nissens
DELIVERING THE DIFFERENCE

EGR Valves, Modules & Coolers

Perform the exhaust gas recirculation

THE DIFFERENCE



Easy Handling

No fees, no charges, no return of old units.

Complete, Factory New EGR Valves, Modules and Coolers!



Range & Availability

Comprehensive product range covering the most popular vehicle models within all norms, up to Euro 6. Nissens' EGR system spare parts cover valves in pneumatic, solenoid, torque, and DC-motor technologies, valve modules, and coolers. The complete range caters for 230+ spare part models covering 1,300+ OE numbers.



Reliable & Safe

All Nissens EGR components are fully tested within the most critical functions to ensure the product's proper fit and operation.

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

Our comprehensive examination approach includes the following test series:

- Dimensional validation of critical components
- Complete test of all the 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

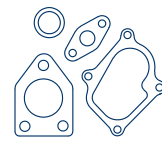


Easy Installation

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

First Fit Product:

Relevant gasket and screws 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.

Long Lifespan

Nissens EGR coolers are submitted to various durability test series to ensure the product's extended, trouble-free operation.

Line Extension Summer 2024

Robust Design

Component developed according to advanced quality standards – Genuine Nissens Quality, and tested to match OE quality.

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

Critical components in a 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

Proven Thermal Performance

The part's thermal performance is thoroughly examined to simulate the natural working conditions of high temperature and pressure exhaust flow present in the exhaust systems.



Role & Operation

The exhaust gas recirculation (EGR) system is a system that reduces nitrogen oxide (NOx) emissions in combustion engines.

EGR 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
- Pneumatic Bypass



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 of 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, soot 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.

Line Extension Truck Application EGR Coolers

The EGR cooler is a water-to-air heat exchanger that routes exhaust gases between the turbo and the EGR valve. It is often integrated with the EGR module. Applying the EGR cooler improves the overall effectiveness of the EGR system in lowering the formation of harmful NOx gases.

The Nissens' range now expands with premium-quality EGR coolers for heavy-duty commercial applications.



PROGRAM AVAILABLE FOR CARS + VANS

Nissens
DELIVERING THE DIFFERENCE

Intercooler

Heat exchanger boosting air-charged engines

THE DIFFERENCE



Range & Availability

Competitive range of intercoolers covering the most popular car, van and truck models. Program of more than 570 items covering 2,000 OE numbers and around 80% of the European car parc.

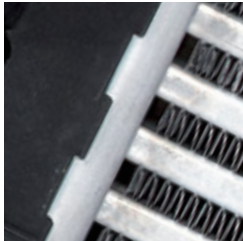


Efficient, Reliable & Safe

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 in Nissens intercoolers.



Mechanical and Thermal Stress Resistance

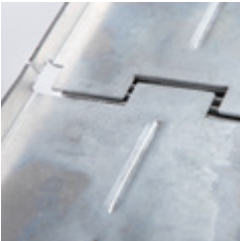
Plastic tanks designed with specially reinforced inner crossbars and specially strengthened inlets and outlets, to protect the tank against stress caused by high temperatures and mechanical tensions.



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 to lower the influence of thermal expansion on the core construction.



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.

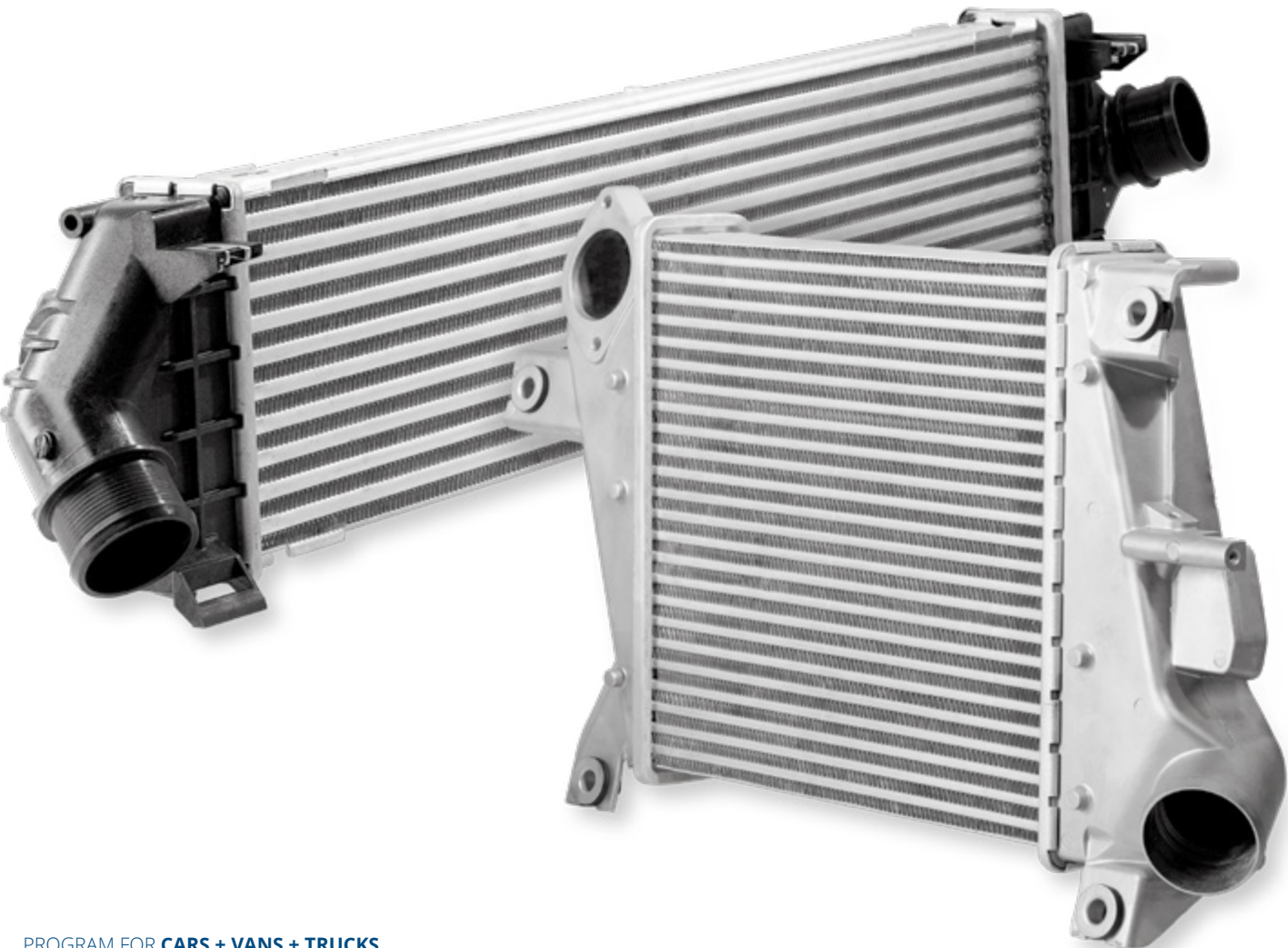


Optimized Design

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

Perfect Finish

Connections and mounting points are designed with a complete fit with the vehicle's layout, enabling a firm and easy installation.



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.



Possible Designs

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



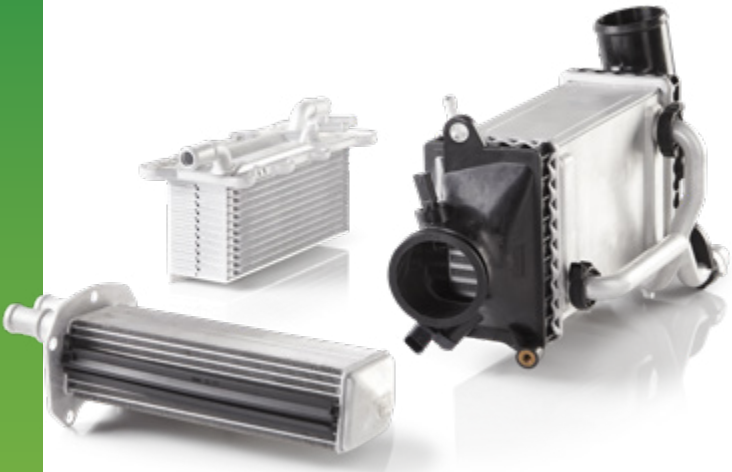
Important to know

- 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.

Line Extension Water-cooled Charge Air Cooler (WCAC)

The WCAC is an air-to-liquid heat exchanger designed to cool the charged engine's intake air after it has passed through a turbocharger but before it enters the engine.

It is commonly used for modern, high-performance, and downsized engines that must meet strict requirements for improved fuel economy and reduced emissions.



Throttle Body

Harmonious engine combustion

THE DIFFERENCE



Range & Availability

Nissens' throttle body program covers the most popular applications and has been developed based on a thorough analysis of the market & car parc coverage data. The initial range of 77 items covers 280 OE numbers and 33% of the European car parc and is already being further expanded.



Efficient, Reliable & Safe

Nissens Throttle Body is a product thoroughly tested in a completely functional, high-temperature endurance, durability, load, and corrosion test series.

The product is fully compatible with the vehicle, ensuring harmonious operation from the very first start of the engine. It ensures an excellent performance within the efficiency system, supporting optimal engine combustion process and emissions control system's operation.

All Nissens Throttle Bodies are safely packed, guaranteeing protection against transportation damages and dirt ingress.



Easy and Safe Installation

The product fits the engine layout precisely, and the necessary installation parts are included in the product box (First Fit product) whenever needed, and depending on the application:

- O-ring
- Gaskets
- Clip

Genuine Nissens Quality

Developed and tested for excellent performance, and long, trouble-free operation.

One-stop-shop

Key engine efficiency system's spare parts from a renowned supplier.

Program Highlights



Design / Technology

- Air/Water circuit coat
- With / without vacuum pass
- Electric and electric-mechanical



Segment scope

- Passenger Vehicles (PV)
- Light Commercial Vehicles (LCV)



Application

PETROL ENGINE
THROTTLE VALVES

The throttle body regulates the airflow (mixture control).

Possible Functions:

- Idle control
- Speed control
- ASR traction control
- Fuel consumption control
- Emission control

DIESEL ENGINE
REGULATING THROTTLE VALVES

The throttle body increases the manifold vacuum.

Function:

- Exact metering of the exhaust gas recirculation rate
- Prevention of shaking after the engine is switched off by closing the valve when the engine is turned off
- Essential component for regenerating the diesel particulate filter



Role & Operation

The component is a part of the air intake system, sitting between the air filter box and the intake manifold. It adjusts the airflow to the engine, based on the accelerator pedal's position. It might include sensors or valves for a precise control and, in some models, connects to a vacuum line or coolant circuit for temperature regulation. Pushing of the accelerator the accelerator rotates the throttle plate, allowing the air in, and, with the ECU and MAF sensor's input, adjusts fuel injection for optimal air-fuel mix.



Important to know

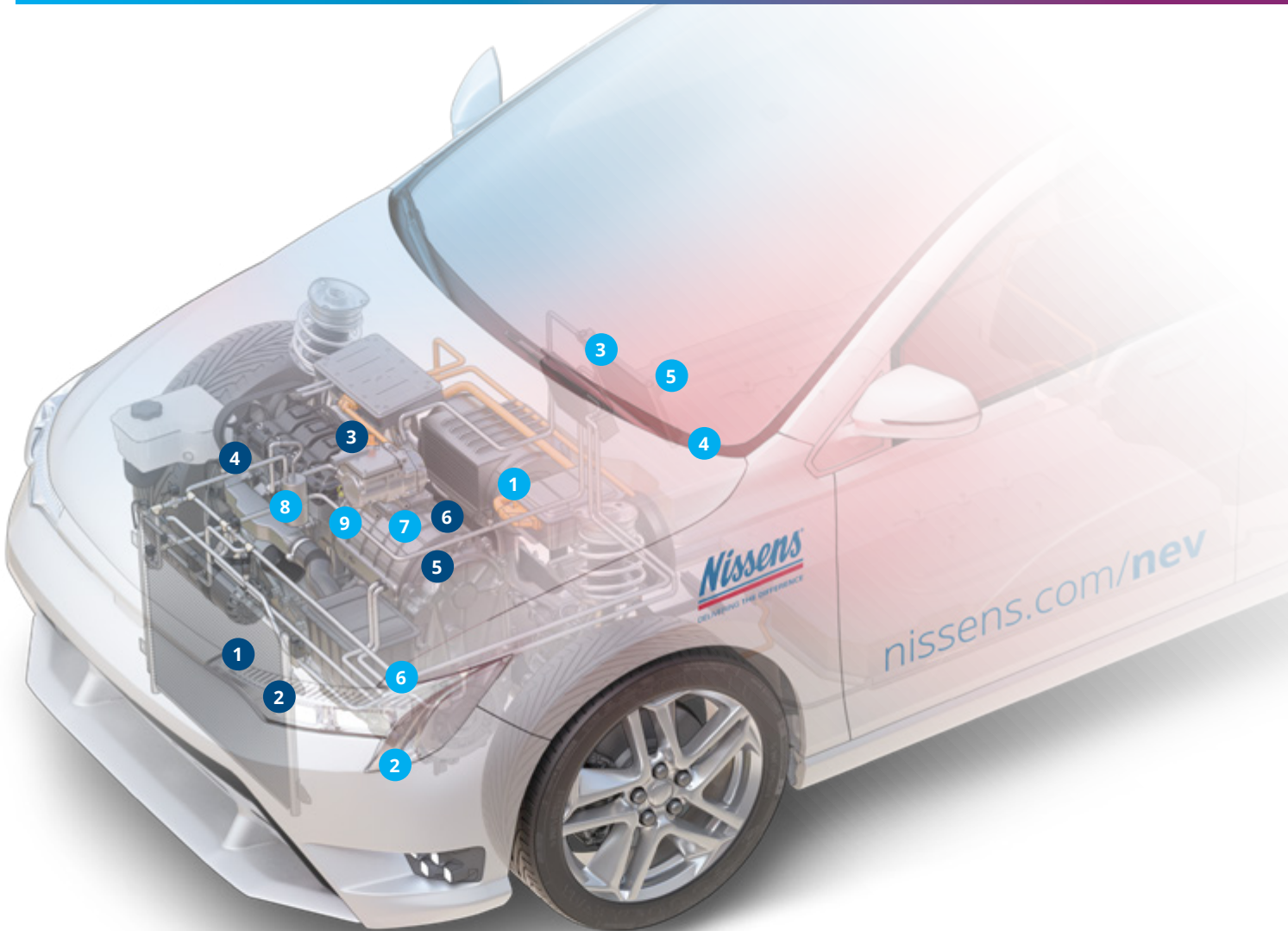
- There are a few symptoms of a malfunctioning throttle body, resulting in engine running failures:
 - irregular idling speed,
 - incorrect acceleration,
 - stalling.
- Internal contaminations are the most common cause of throttle body's malfunction, resulting in a faulty air supply control due to a limited movement of the throttle valve.
- Another reason for engine failure are vacuum leaks that lead to inconsistencies between the amount of air sucked into the system and throttle valve's position.





NEW ENERGY VEHICLES

COMPONENT PROGRAM



CLIMATE COMFORT SYSTEM

- 1 AC Compressor
- 2 Condenser
- 3 Cabin Blower
- 4 Heater
- 5 Evaporator
- 6 AC Fan
- 7 Receiver-dryer
- 8 Pressure Sensor
- 9 Expansion Valve

ENGINE COOLING SYSTEM

- 1 Radiator
- 2 EC Fan
- 3 Oil Cooler
- 4 Expansion Tank
- 5 Water Pump
- 6 Temperature Sensor

Thermal Management & Engine Efficiency

Vehicle's Mobility & Comfort

THERMAL & EFFICIENCY SYSTEMS

THE DIFFERENCE



Competitive Range

The newest technology vehicles' car parc grows fast, and we are ready to support you with a competitive offering of replacement parts and technical expertise within thermal management systems.

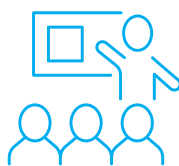
Explore the difference in our constantly expanding component program for Hybrid and Electric Vehicles.

WE COVER THE MARKET'S MOST POPULAR MODELS:

BMW i3, i8, Hybrid	Nissan Leaf EV
Chevrolet Volt	Opel Ampera
Fiat 500 EV	Renault Zoe EV
Hyundai Ioniq EV, Hybrid	Skoda E-Citigo EV
Hyundai Kona EV, Hybrid	Tesla S, 3, X
Kia Niro Hybrid	Toyota & Lexus Hybrid
Mitsubishi Outlander PHEV	Volvo XC90 Hybrid
	VW Golf VII GTE Hybrid

Soon in the range

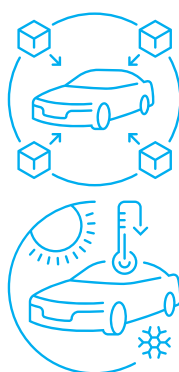
Audi E-Tron
BMW IX Series
Mercedes EQC-Series



HV Systems Knowledge Sharing

We share valuable technical expertise of the advanced, high-voltage systems. Specific installation guides, technical and troubleshooting tips are made available as part of the company's services provided to the Automotive Aftermarket AAM.

Reach out to your Nissens counterpart to know more about Nissens' New Energy Vehicles program.



One-Stop Shopping For Key System Parts

Climate Comfort, Engine Cooling & Efficiency Systems

Component Item Numbers

CLIMATE COMFORT THERMAL MANAGEMENT

Blowers	93
Compressors	50
Condensers	166
Evaporators	36
Expansion valves	42
Receiver dryers	38
Heaters	62
Pressure sensors	23

ENGINE COOLING THERMAL MANAGEMENT

Radiators	202
Water pumps	38
Expansion tanks	74
Fans	31
Oil coolers	82
Temperature sensors	25

ENGINE EFFICIENCY

Intercoolers	41
Turbos	13
Oil feed pipes	4
EGR system components	9

Range Highlights

1,000+

Item numbers in the range

4,200+

OE numbers covered by the range

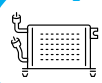
40

Vehicle brands covered by the range

160+

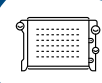
New items coming soon to the range

74%



Coverage* by Nissens' Condensers

76%



Coverage* by Nissens' Radiators

* EU Car Parc of BEV/HEV



Battery Electric (BEV)
Hybrid Electric Vehicles (HEV)

Effective Business Solutions

We're a solid business partner and **the aftermarket-dedicated manufacturer** conforming to the highest standards.

No matter which step of your journey with the premium 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 over a century-long experience in the aftermarket.



GENUINE NISSENS QUALITY

REACH regulations
MVBER Block Exemption Regulation (European GVO)
RTR Right to Repair

IATF 16949
ISO 14001
CLEPA & FIGIEFA

DELIVERING THE DIFFERENCE

01 PRODUCT SELECTION



NISSENS' CUSTOMER PORTAL

Intuitive, accurate product selection and purchase in our Customer Portal solution.

- Detailed technical product data, including OE numbers, AAM alternative product numbers, etc.
- High-quality and detailed technical drawings with various useful dimensions
- High-quality color pictures
- Close-up pictures of the electrical connections (if applicable)
- Rotating 360° pictures
- Installation videos (for the most demanding installations and for popular blower models)

customerportal.nissens.com



MASTER DATA

We share high-quality, complete, up-to-date master data that conforms with OE data.

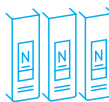
Wide range of online solutions for data integration.

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.



02 PRODUCT PACKAGING



EXCELLENT PACKAGING

Careful protection against transport damage and easy product handling from supply processes to final destination delivery.

- Solid, environmentally friendly cardboard boxes
- Elegant and unified design across all categories
- Easy and standardized product identification
- Protective inserts and profiles
- Desiccant bags, protecting the electrical components against moisture
- Tight seals preventing impurities from entering the components

03 LOGISTICS SOLUTIONS



BUSINESS DEVELOPMENT

Our Business Development Model is a perfect tool to grow your business even more. We 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 resources priority plan to optimize your sales and profits
- Thorough GAP analysis
- Tailored step-by-step plan for your growth cultivation



COST-EFFICIENT LOGISTICS

Supreme Product Availability & Efficient Logistical Solutions to develop our Partners' Business

We offer fully tailored logistics solutions such as:

- Supply-chain cost and time optimization
- Highly flexible delivery - orders ranging from one item to entire containers
- Stock management support to ensure high stock rates at seasonal peaks.

04 AFTER-SALES SUPPORT



KNOWLEDGE SHARING

Nissens Training Concept enables you and your customers to understand the system, and all technical aspects of its operation. Furthermore, technical support and technical marketing materials are available to our customers worldwide.

- Advanced technical training academy including train-the-trainer program, onsite and online trainings, e-learning and a LMS system
- Personal technical support and warranty assessment (available for select markets)
- Technical marketing materials for workshops (installation guides, posters etc.)



PRODUCT TECHNICAL SUPPORT

Easy-to-use webpage for automotive professionals with a library of more than 100 technical assets such as technical stories, installation guides tips, bulletins, and tools dedicated to technicians.

15+ languages supported, great explanatory pictures and videos, Nissens e-learning modules are included.

nissens.com/support

+ Sustainable & Responsible Approach

Environmental footprint

Our spare parts prolong the lifespan of vehicles, limiting the environmental impact.

We continuously reduce the environmental strain, among others, by:

- + Packaging optimization
- + Raw materials use optimization
- + Logistics solutions optimization

Corporate Social Responsibility

We respect our employees and customers around the world.

Our heritage, culture, and behavior are the foundation of our CSR commitments to the surroundings.



Nissens Automotive A/S has been certified bronze in the prestigious EcoVadis Sustainability Rating



MEET US TO LEARN MORE

Our dedicated team of experts looks forward to hearing about your specific business needs and the challenges you may face. Together we will choose the most suitable and effective solution for you to grow further.

To arrange a meeting with one of Nissens' specialists, visit www.nissens.com/meet





Trust **the Experts**

Alongside our established reputation as a premium-quality aftermarket components and systems supplier, we are excited to share our technical knowledge resources to support independent sector's professionals.

We enable technicians to increase their knowledge and skillset within the automotive Air-Conditioning, Engine Cooling, and Engine Efficiency systems via a variety of technical support solutions and the top-notch technical program covering, among others:

- **Technical training**
- **Product-dedicated hotline**
- **Technical articles**
- **Troubleshooting and best service practice tips**
- **Product-specific technical bulletins**
- **Product installation guide**
- **Important vehicle data**

Technical support assets & information are available at www.nissens.com/experts

