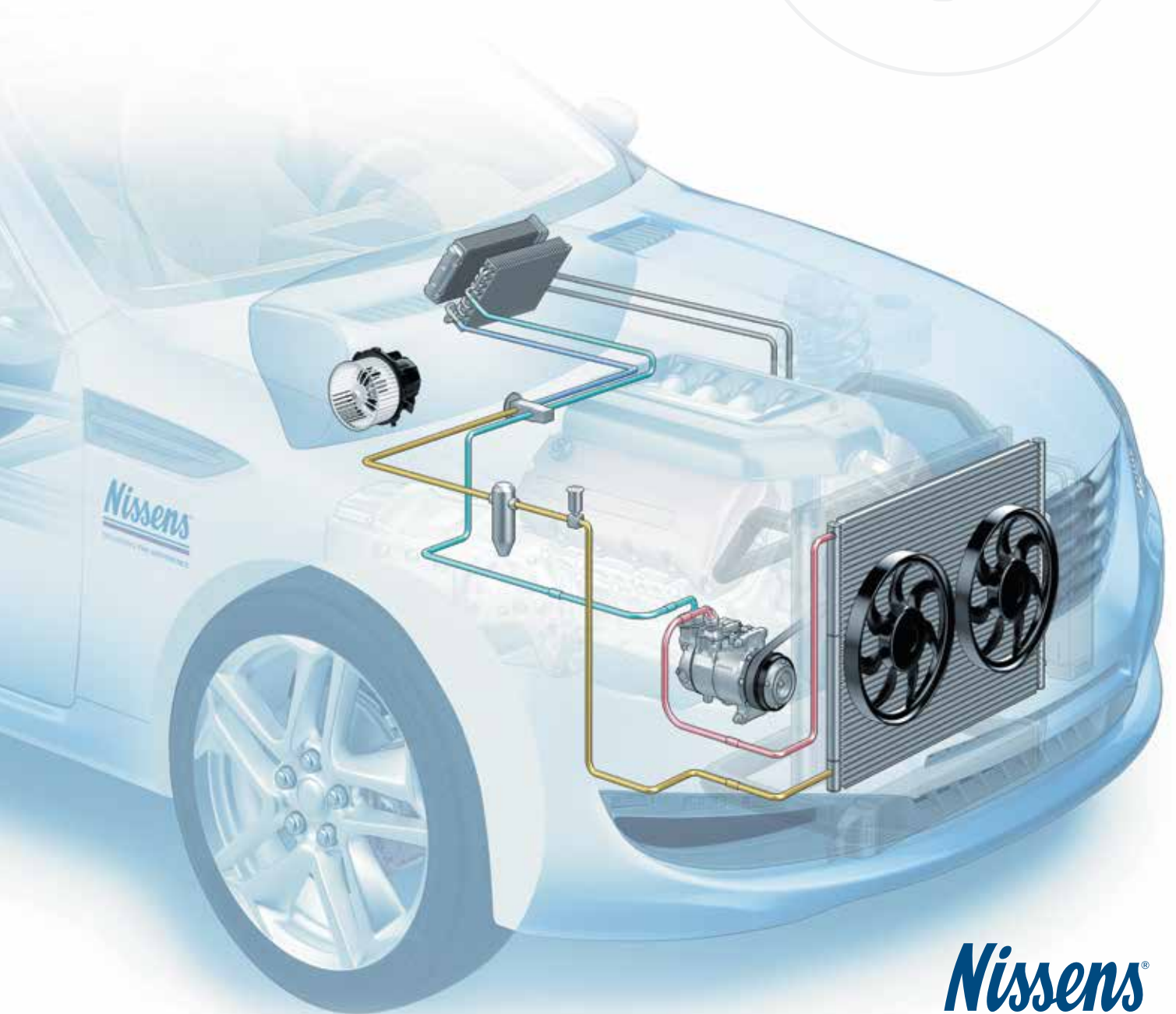


AUTOMOTIVE
THERMAL
SYSTEMS

CLIMATE SYSTEM COMPONENTS



Every day
while
you drive...

we enable your climate system to perform for you.

Today, most modern cars are equipped with an air-conditioning system. The improved cabin comfort and the increased quality of the air intake have become a standard that is no longer considered a luxury. From passenger cars to commercial heavy-duty machinery, the automotive climate systems, today, are an integrated part of the vehicle's comfort and safety.

Over the last years, Nissens has invested a significant amount of resources in research on and development of climate system components for the automotive segment. Years of thermal know-how and manufacturing experience mean that we are able to meet the emerging market need for a comprehensive range of high-quality air conditioning spare parts, whilst, at the same time, being a market educator for technical insight into the climate systems field.

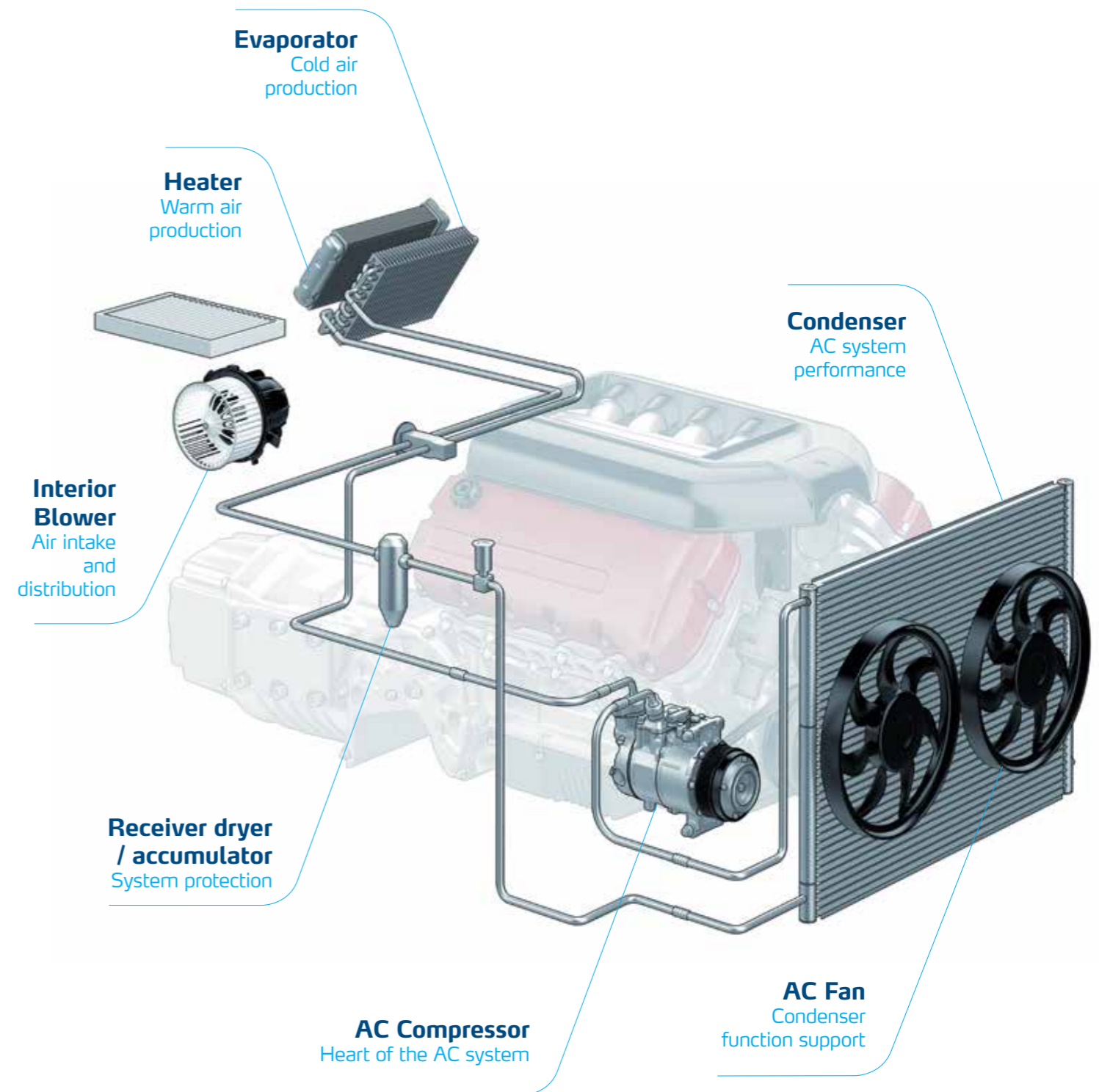
As a market leading manufacturer of most essential climate system components, Nissens offers a comprehensive product portfolio, covering more than 9,600 OE numbers. Covering everything from the fast moving to the more exotic parts of the European, Asian and American vehicle brands, Nissens is the ideal choice for quality, range and expertise.

Focusing on added features, such as 'First Fit' and 'First to Market', our partners in the IAM are always up to date and in line with the latest market trends, securing them the right position for growing and developing their markets.

Every time it involves your AC system, Nissens is right there with you - contributing to the comfort and safety of your journey.

**Experience the difference.
Enjoy the ride.**

More than 3,000
High-Quality Climate System Components
for Cars, Vans and Trucks



experience
the real
difference

Know-How

Manufacturer, reengineering and critical component improvement, wide product range

Quality

The best raw materials, design that matches OE, advanced life and performance test series



Easy installation

Product features reducing installation time, professional knowledge sharing to avoid common installation problems, excellent product catalogues

Durability & Performance

Special features improving the product lifespan, supreme thermal performance product test series



Condenser

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

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, to seize up.

Extended durability

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

OE matching quality

Designed, manufactured and tested in full accordance to requirements for OE products. Packaging with excellent protection against transport damages.

Easy Installation

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

IAM's bestseller

Very competitive product range covering +97% of the European vehicle fleet, +1,100 models in range, +75 new models added each season.



Long-life Product

High resistance corrosion protection technology applied to selected condenser models.



PROGRAM FOR
CARS
VANS
TRUCKS

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.

Easy Installation with First Fit

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



Perfect Fitting

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

Compressor

The heart of the air conditioning system

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.







PROGRAM FOR
CARS
VANS
TRUCKS

Easy Installation with First Fit

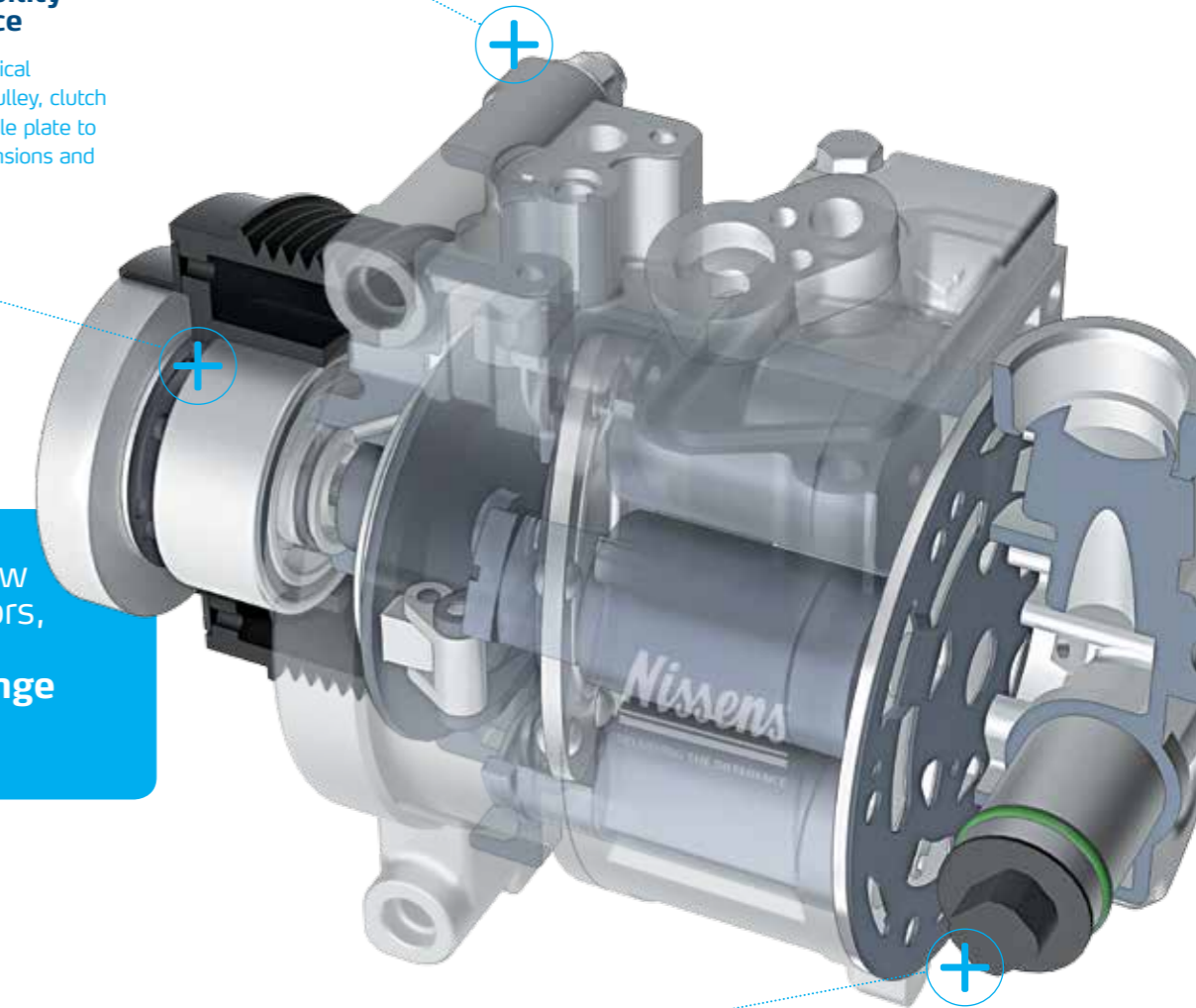


All what is needed for a proper installation included in the product box.

-  PREFILLED PAG OIL
-  O-RINGS
-  ELECTRICAL ADAPTER (MULTI FIT APPLICATIONS)
-  PRE-FILTER (WHEN NEEDED)

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.



Factory new compressors, no need for exchange

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 vitality
- Condenser performance influences the compressor performance and workload

OE matching Quality

Advanced life & performance test series and back-to-back test against OE, fully matching the requirements made for OE products.

Easy Installation

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

Reliability & Performance

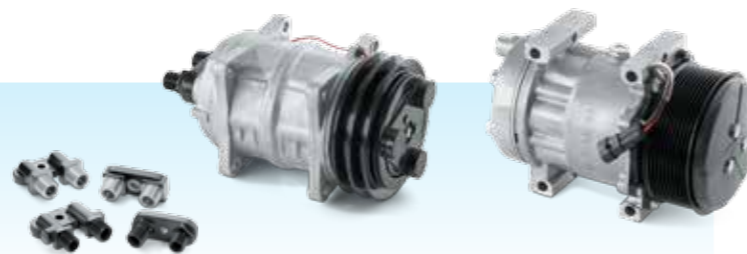
Test-proven excellent pumping performance, minimized noise and vibration levels, supreme product durability.

Competitive Range

Product range with +480 items covering more than 3,000 OE numbers.



Solutions for **heavy-duty** applications



Universal compressors with fittings to fit more OE applications

Agricultural compressors for popular agricultural vehicles

High Precision Displacement Control

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

Interior Blower

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

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.



i Important to know

- Clogged or worn cabin air filter reduce the interior blower lifespan significantly
- 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)

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.

OE matching Quality

In full accordance to requirements for OE products. Conforms with the ISO 7637, ISO 16750 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.

Competitive Range

Product range with +185 items covering more than 635 OE numbers and constantly being broadened to incorporate the most popular market applications within the car, van and truck segments.



Improved Resistance to Mechanical Damage and Wear

Material fully matching the specifications for OE products. Only high-quality plastics, no recycled plastic mixtures.

PROGRAM FOR
CARS
VANS
TRUCKS

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.

AC Fan

An important player of the air conditioning system

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 produced 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

Reliability & Performance

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

OE matching Quality

In full accordance to the same requirements as OE products. Conforms with the ISO 7637, ISO 16750 standards and the directive of Electromagnetic Compatibility (EMC).

Competitive Range

Fan program perfectly matching the IAM needs: Product range with +500 items covering more than 1,500 OE numbers and a varied selection of fan components (e.g. motor and fan blade). Highly competitive prices.



Improved Resistance to Mechanical Damage and Wear

Material matching the requirements made for OE products. 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.

Trouble-free Operation

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

Trouble-free Installation

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

PROGRAM FOR
CARS
VANS



Receiver Dryer / Accumulator

AC loop protection

PROGRAM FOR
CARS
VANS
TRUCKS

i Important to know

- The receiver dryer/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 dryer to lose its ability to properly filter the refrigerant and oil.
- The receiver dryer condition is crucial for the compressor vitality - a high level of moisture in the AC system can cause corrosion and reduce compressor lubrication significantly. Unfiltered particles, debris, metal chips etc. flowing in the loop are the main causes for the compressor to fail and in worst case to seize up.
- Too much oil in the system reduces the dryer ability to filter the system properly – desiccant gets too oily.

The receiver dryer 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 dryer, it also ensures that no liquid form of the refrigerant gets into the compressor.

Wide Product Range

Nissens' receiver dryer (and accumulator) range covers the market's most popular applications within cars, vans and trucks. +300 items covering more than 900 OE numbers.

Perfect Transportation and Storage Protection

All Nissens receiver dryers 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 dryer.

OE Matching Quality

Designed, manufactured and tested in full accordance to requirements made for OE products.

Evaporator

Cabin heat exchanger producing cold air.

PROGRAM FOR
CARS
VANS
TRUCKS

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 ensures 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.

Reliability & Performance

Test-proven, long-life and reliable operation, matching OE requirements.

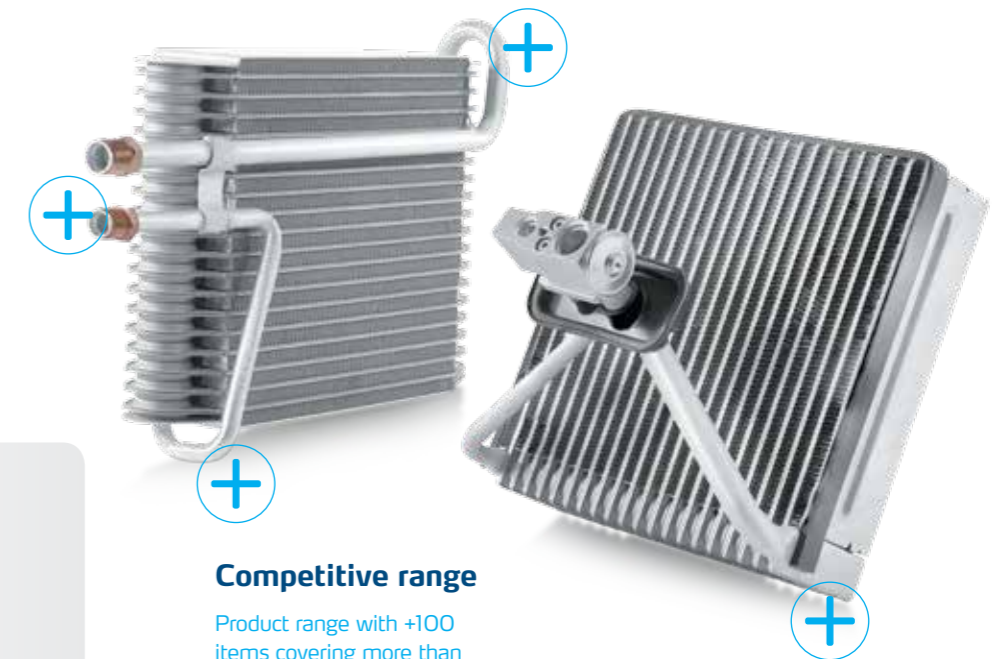
i Important to know

- 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.
- Internal contaminated and clogged or mechanically damaged or corroded evaporator cannot be repaired and must always be replaced. A new expansion device must follow the new evaporator installation



OE Matching Quality

Designed, manufactured and tested in full accordance to the same requirements as OE products.



Competitive range

Product range with +100 items covering more than 280 OE numbers.

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.

Heater

Warm air production and safety by demisting the panes

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 demisting of the vehicle's panes.



PROGRAM FOR
CARS
VANS
TRUCKS

Optimized Airflow

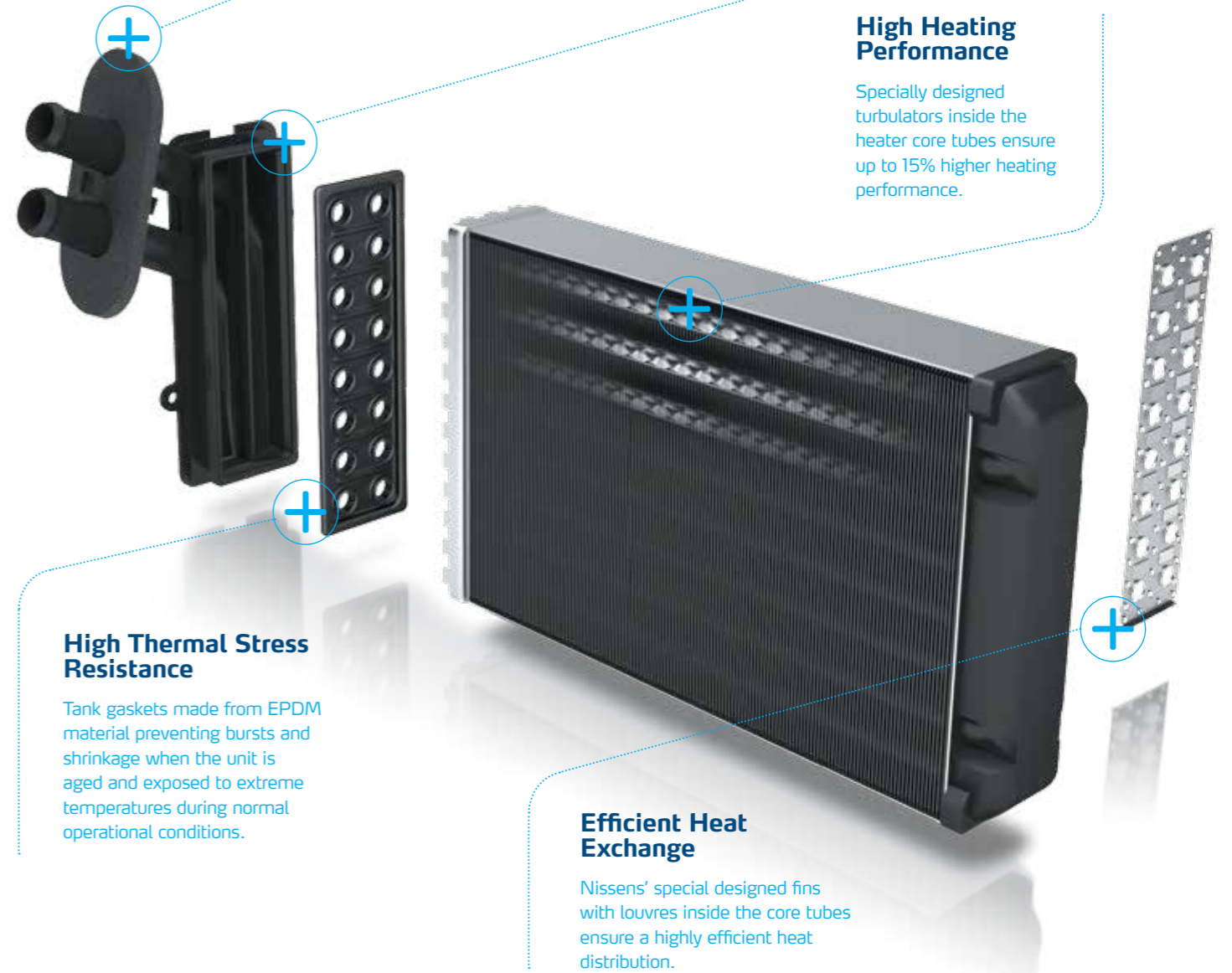
Extra foam added on selected heater models to ensure an optimized airflow.

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 Heating Performance

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



High Thermal Stress Resistance

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

Efficient Heat Exchange

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

OE matching Quality

All Nissens' heaters are designed, manufactured and tested in full accordance to the same requirements as OE products. The heater development process includes a number of life tests, examined and tested by means 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.

Competitive Range

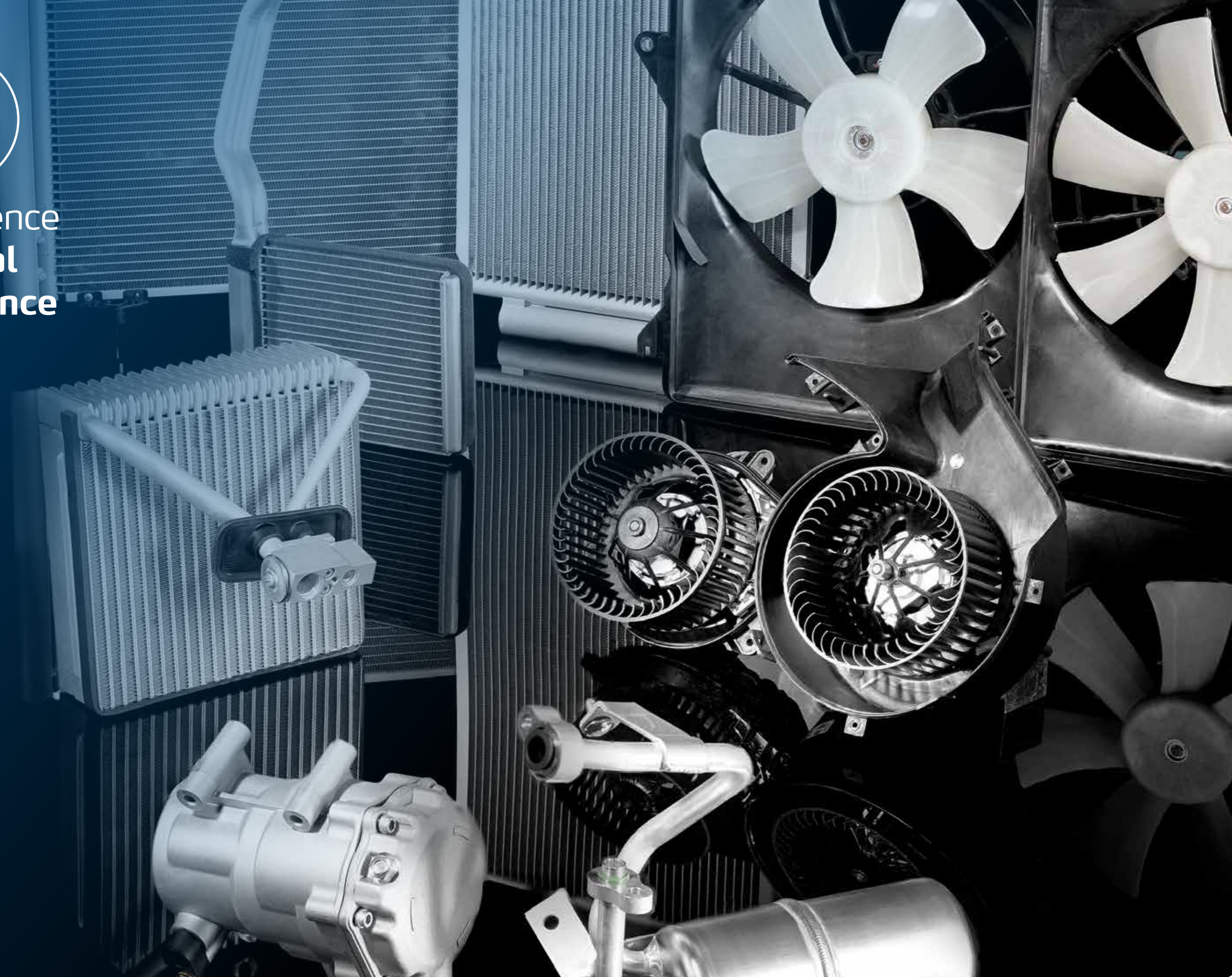
Product range with +450 items covering more than 780 OE numbers of cars, vans and trucks.

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.



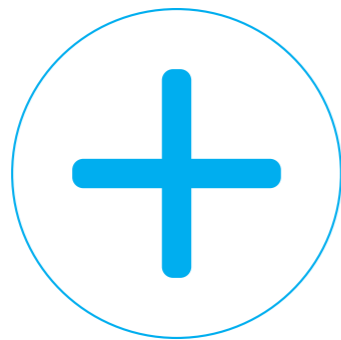
Experience
**the real
difference**





Excellent Product Concept

Real benefits for all players of
the Independent Aftermarket



We offer an effective and easy business concept that meets the most advanced standards and demands of the IAM

Full conformity with

- OE/OES/OEM standards
- REACH regulations
- MVBBER Block Exemption Regulation (European GVO)
- RTR Right to Repair
- ISO9001/TS16949
- ISO 14001
- CLEPA & FIGIEFA



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

Tailor-made logistical solutions, including supply-chain cost & time optimization. We always offer a highly flexible delivery - orders ranging from one item to entire containers and stock management support to ensure high stock rates at season peaks.



Excellent Packaging System

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

- Solid cardboard boxes
- Environmental friendly cardboard materials
- Elegant and unified design across all categories
- Easy and unified product identifying label system
- Protective inserts and profiles whenever needed
- Desiccant bags protecting the electrical components from moisture
- Tight sealings preventing impurities from entering the components
- Whenever applicable, user installation and warranty guide included in the product box



Technical Knowledge & Support Available

Nissens Training Concept enables you and your customers to benefit from Nissens' technical expertise within automotive thermal systems. Nissens' dedicated trainers are qualified to conduct technical training sessions for you to understand the system and all technical aspects of its operation. Furthermore, technical support and technical marketing materials are available to our customers worldwide.

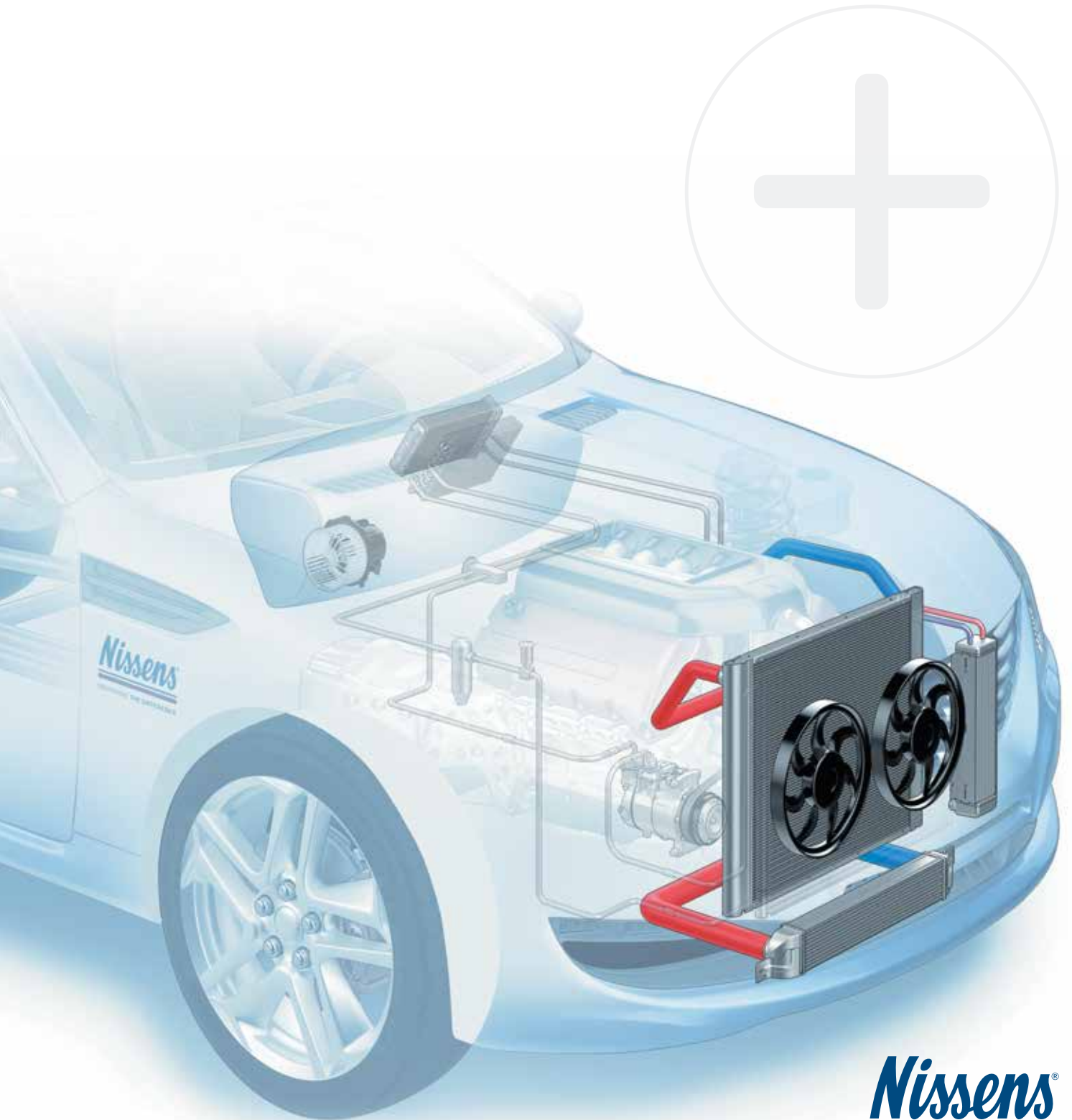
Today, the Training Concept consists of the following elements:

- Technical training academy covering most relevant topics within AC system components, operation, troubleshooting as well as consumables, service and maintenance
- Personal technical support and warranty assessment (available on selected markets)
- Technical marketing materials for workshops (installation guides, posters, etc.)



AUTOMOTIVE
THERMAL
SYSTEMS

ENGINE COOLING COMPONENTS



Every time
you start
the car...

... Nissens helps you get moving.

Every vehicle, powered by a combustion engine, needs a proper cooling for the engine. The combustion process causes very high temperature ranges, exposing the engine's block and its equipment to an extremely high thermal stress. Furthermore, turbo-charged combustion systems that have recently become widely applied both for diesel and petrol engines, also need a proper air cooling to obtain the right charge performance. Engine power transmission via automatic gear boxes and many advanced engine constructions also require oil cooling.

For the past nine decades, Nissens has been driven by the dedication to deliver a comprehensive product range to the automotive engine cooling system. Our thermal know-how, manufacturing experience and deep insight in thermal systems mean that we are flexible to meet the emerging market needs and can supply a wide range of high-quality engine cooling spare parts.

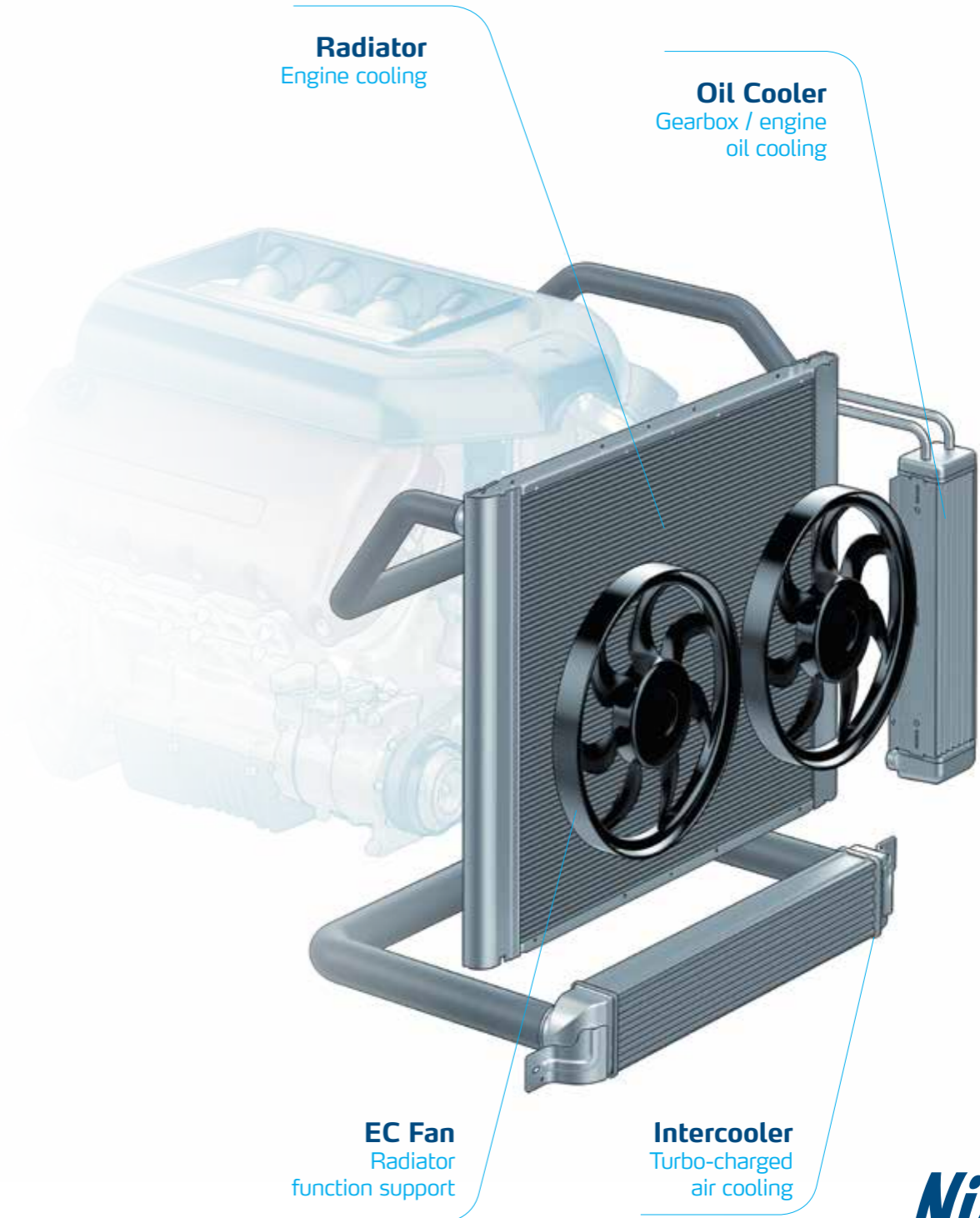
Our impressive product portfolio of more than 3,700 parts covers everything from the fast moving to the more exotic parts of the European, Asian and American vehicle brands with more than 12,000 OE numbers.

Focusing on value-adding features, such as 'First Fit' and offering 'First to Market' products to the newest vehicle models, we offer our IAM partners an excellent product program in order to secure them the right position for growing and developing their business.

Every time your vehicle's engine is started, Nissens is right there with you. With a comprehensive program of key components for all cooling needs, we enable your vehicle to operate and you to move!

Experience the difference.

More than 3,700 High-Quality
Engine Cooling Components
for Cars, Vans and Trucks



experience
the real
difference

Know-How

Manufacturer, reengineering and critical component improvement, wide product range

Quality

The best raw materials, design that matches OE, advanced life and performance test series



Easy installation

Product features reducing installation time, professional knowledge sharing to avoid common installation problems, excellent product catalogues

Durability & Performance

Special features to improve the product lifespan, supreme thermal performance product test series



Radiator

Heat exchanger - essential for engine thermal control

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 flow and cause limited 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.

OE Matching Quality

Easy Installation

Reliability & Performance

Competitive Range

Designed and manufactured towards the aftermarket, while thoroughly tested in full accordance to OE requirements. Easy-handling packaging and excellent protection against transport damages. Nissens radiators are submitted to corrosion, vibration, pressure impulse, thermal expansion and thermal performance tests.

Perfect finish and product fit, enabling a quick and smooth product installation. Whenever needed, additional installation parts are included in the box (First Fit).

Supreme thermal performance and extended lifespan thanks to a number of special features, improving critical components of the radiator.

Highly competitive product range of +2,800 models in range covering +12,750 OE numbers and almost the entire European vehicle car park. +100 new models added each season.



Modern Technologies

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

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.



Thermal Stress Resistance

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

PROGRAM FOR
CARS
VANS
TRUCKS

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.

First Fit

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.



ALU McCORD

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

5mm

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.

Intercooler

Heat exchanger boosting air-charged engines

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 reaching 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.



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.

OE Matching Quality

Designed and manufactured towards the aftermarket, while thoroughly tested in full accordance to OE requirements. Nissens' intercoolers are submitted to corrosion, vibration, pressure impulse, thermal expansion and thermal performance tests. Easy-handling packaging and excellent protection against transport damages.

Easy Installation

Perfect finish and product fit, enabling a quick and smooth product installation. Whenever needed, additional installation parts included in the product box (First Fit).

Reliability & Performance

Supreme thermal performance and extended lifespan thanks to a number of special features applied for Nissens' intercoolers.

Competitive Range

Competitive range of intercoolers covering the most popular car, van and truck models. Program of more than 500 items covering 1,600 OE numbers and more than 85% of the European car park.



Excellent Cooling Performance

Tubes equipped with turbulators, ensuring better air flow 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 thus break-down.

Mechanical and Thermal Stress Resistance

Plastic tanks designed with special reinforcing inner cross-bars and specially strengthened inlets and outlets to protect the tank against stress caused by high temperatures and mechanical tensions.

Perfect Finish

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



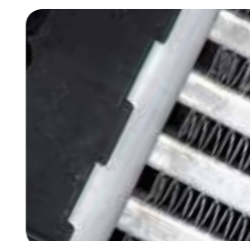
Thermal Stress Resistance

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



Durability

Reinforced plastic tanks, enriched with at least 30-35% fibreglass. No recycled plastics are used in the mixture. All Nissens' truck intercoolers are custom-welded, ensuring an exceptional strong and durable welding seam.



PROGRAM FOR
CARS
VANS
TRUCKS

EC Fan

Radiator function support

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.



i 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 cause excessive thermal stress on the engine.
- As an electrical device, the fan is often exposed to failure due to problems with the vehicle's electrical system, such as overvoltage, poor fuse, non-performing alternator and thermostatic switch failure.

OE Matching Quality

Designed and manufactured for the aftermarket, while tested in full accordance to OE requirements. Conforms with the ISO 7637, ISO 16750 standards and the Directive of Electromagnetic Compatibility (EMC).

Reliability & Performance

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

Competitive Range

Fan program perfectly matching the IAM needs: Product range with +500 items covering more than 1,500 OE numbers and a varied selection of fan components (e.g. motor and fan blade). Highly competitive prices.

Reliable and secure fan speed control



EC fans equipped with OE quality control box

- Reengineered electronics, securing safe operation and quality in full compliance with OE requirements.
- Comprehensive durability and safety test series performed on every electronic component.
- High thermal resistance, components certified according to AEC-Q100 qualification.



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.

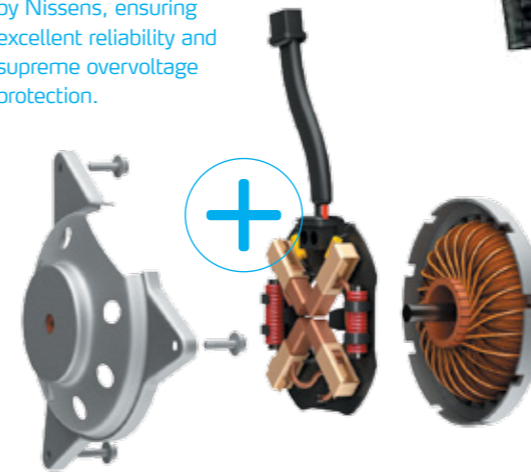
Improved Resistance to Mechanical Damage and Wear

Material fully matching OE requirements. Only high-quality plastics, no recycled plastic mixtures.

PROGRAM FOR
CARS
VANS

Trouble-Free Operation

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



Corrosion Protection

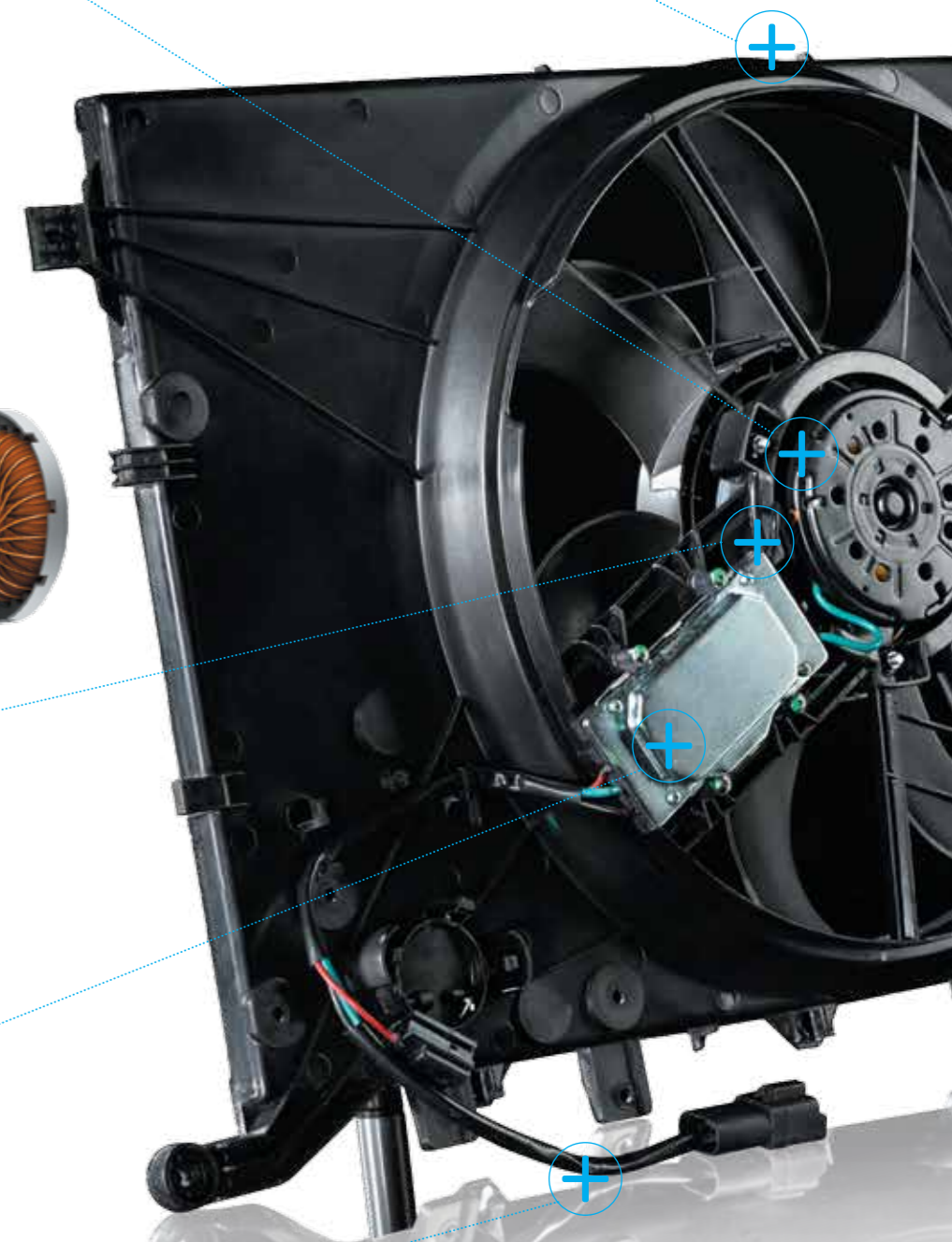
Special, anti-corrosive treatment of the motor cover according to the strict REACH regulation to avoid any electromagnetic disturbance to other electronic elements.

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.

Trouble-Free Installation

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



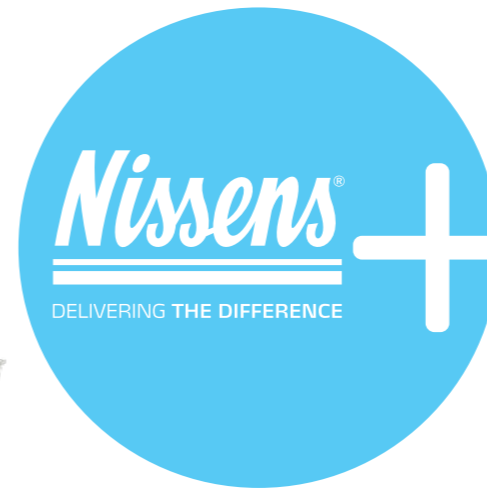
Fan Clutch

EC fan engagement

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.



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

Extended Durability

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

Smooth Speed Transition

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

Bolts for fan blade installation always included!

Precise Operation

Individually-tested electromagnet, manufactured by use of advanced, fully-automated technology. Fine-tuned precision rotor with heavy-duty alloy.

Trouble-free Operation

Well-protected wires and connections.

OE Matching Quality

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

Reliability & Performance

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.

Competitive Range

Nissens' program for fan clutches covers the most popular European truck applications, +60 items covering +280 OE numbers.

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.

Oil Cooler

Engine and transmission oil cooling

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 to 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.



i 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.

OE Matching Quality

All Nissens' oil coolers are designed and manufactured specifically for the aftermarket, while still maintaining full accordance to the OE requirements. 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.

Reliability & Performance

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 optimises logistics costs and protects the environment.

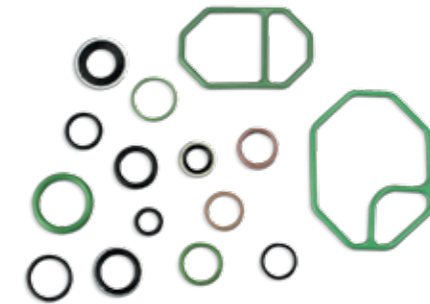
Competitive Range

The range consists of 185 complete parts covering more than 750 OE numbers and 3,500 car makes and models. Furthermore, Nissens offers a standard HP/NO oil cooler range of 100 part numbers.



Easy Installation with First Fit

+45 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

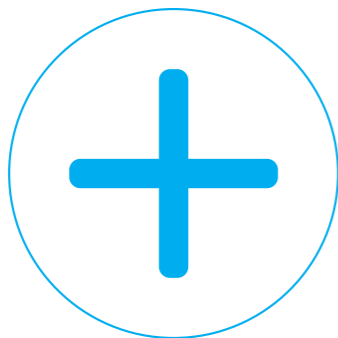
Thermal expansion tested to perform during fluctuations of temperatures, ranging from 10 to 90 °C.

PROGRAM FOR
CARS
VANS
TRUCKS



Excellent Product Concept

Real benefits for all players of
the Independent Aftermarket



We offer an effective and easy business concept that meets the most advanced standards and demands of the IAM

Full
Conformity
With

- OEM standards
- REACH regulations
- MVBEB Block Exemption Regulation (European GVO)
- RTR Right to Repair
- ISO9001/TS16949
- ISO 14001
- CLEPA & FIGIEFA



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

Tailor-made logistical solutions, including supply-chain cost and time optimization. We always offer a highly flexible delivery - orders ranging from one item to entire containers and stock management support to ensure high stock rates at season peaks.



Excellent Packaging System

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

- Solid cardboard boxes
- Environmental friendly cardboard materials
- Elegant and unified design across all categories
- Easy and unified product identification label system
- Protective inserts and profiles whenever needed
- Desiccant bags, protecting the electrical components against moisture
- Tight sealings, preventing impurities from entering the components
- Whenever applicable, user installation and warranty guide included in the product box



Technical Knowledge & Support Available

Nissens Training Concept enables you and your customers to benefit from Nissens' technical expertise within automotive thermal systems. Nissens' dedicated trainers are qualified to conduct technical training sessions for you to understand the system and all technical aspects of its operation. Furthermore, technical support and technical marketing materials are available to our customers worldwide.

Today, the Training Concept consists of the following elements:

- Technical training academy, covering most relevant topics within system components, operation, troubleshooting as well as consumables, service and maintenance
- Personal technical support and warranty assessment (available on selected markets)
- Technical marketing materials for workshops (installation guides, posters etc.)



Nissens

DELIVERING THE DIFFERENCE