



FOCUS

Gaskets



Our Premium Quality

A superior quality range, guaranteed by direct control of the entire process.

Design and production are supervised by the Group's engineers, in compliance with the original equipment specifications. Subsequently, each component undergoes end-of-line validation testing by the Quality team, with the aim of offering a product that always stands out for its quality, reliability, and durability.



Design



Fleet Coverage



Testing



After-Sales Support

What are they and what are they used for?

Gaskets and seals are sealing components designed to **prevent the leakage or unwanted passage** of fluids, gases or air between two mating mechanical components.





In the automotive sector, they play a fundamental role by ensuring:

Engine oil sealing

Exhaust gas sealing

Fuel sealing

Coolant sealing

Intake or compressed air sealing

Maintenance of the correct pressure in various systems

Main Functions

1 Preventing Leaks

Examples

- **Oil sump gasket:** prevents engine oil leakage.
- **Thermostat gasket:** prevents coolant leaks.
- **Oil cooler gasket:** prevents oil and coolant from mixing.

2 Maintaining the correct pressure

Examples:

- Turbocharger gaskets
- Intake manifold gaskets
- EGR gaskets

If the seal is not perfect, the engine may lose performance, fuel consumption may increase and the engine warning light may come on.

3 Isolating different circuits

The cylinder head gasket is the most important example because it separates:

- The combustion chambers
- The oil circuit
- The coolant circuit

When it becomes damaged, symptoms may include white exhaust smoke, overheating, loss of compression and oil/coolant contamination.

4 Reducing noise and emissions

Gaskets fitted to the following components:

- Exhaust manifolds
- EGR systems
- Turbochargers

Prevent exhaust gas leaks, helping to keep emissions low and reduce hissing or blowing noises.

Types of Gaskets and Seals in the M&D Group Range

Oil Cooler Gasket

Function

Ensures a seal between the oil cooler and the engine, or between the oil cooler and the oil filter housing, preventing lubricant leaks and contamination between engine oil and coolant. It contributes to proper oil cooling and protects the engine against wear and overheating.



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Hoffer Products **016878**



Applications

- Oil-to-water heat exchanger
- Engine oil cooler
- Oil filter housing
- Engine lubrication circuit

Materials

- NBR (nitrile rubber), resistant to oils
- FKM (Viton®), for high-temperature applications
- High-chemical-resistance elastomers
- Elastomer-coated steel for more demanding applications

Types

- Flat rubber or elastomer gaskets
- Multilayer shaped gaskets
- Sealing O-rings
- Oil cooler gasket kits

Failure symptoms

- Engine oil leaks
- Signs of oil/coolant emulsion
- Oil in the coolant expansion tank
- Coolant in the engine oil
- Engine overheating
- Low oil pressure
- Oil pressure warning light illuminated
- Engine temperature warning light illuminated
- Cooling circuit contamination
- Potential damage to bearings and lubricated components

Diesel Injector Seal

Function

Ensures a seal between the injector and the cylinder head, preventing combustion gases from escaping and ensuring that the injector is correctly positioned in the combustion chamber. It also helps maintain pressure and injection system efficiency.



Meat&Doria **981077**
Hoffer Products **981077**

Applications

- Common Rail diesel engines
- Unit injector diesel engines
- Injector-to-cylinder-head connection
- Injector seats

Types

- Copper sealing washers
- Steel heat-resistant gaskets
- Elastomer sealing rings (O-rings)
- Injector installation kits



Materials

- High-temperature-resistant annealed copper
- Treated steel
- Elastomers resistant to fuel and high temperatures

EGR Valve Gasket

Function

Ensures a seal between the EGR valve, intake manifold, exhaust manifold or EGR cooler, preventing recirculated exhaust gases from escaping. It helps maintain the correct EGR gas flow and reduce engine pollutant emissions.

Types

- Multilayer steel (MLS) gaskets
- Stainless steel gaskets
- High-temperature graphite gaskets
- Shaped gaskets for EGR modules
- EGR-to-exhaust manifold connections

Materials

- High-temperature-resistant stainless steel
- Multilayer steel (MLS)
- Graphite-based materials
- Anti-corrosion coatings
- High-temperature elastomers for specific applications

Failure symptoms

- Blow-by at the injector base
- Hissing or puffing noises
- Carbon deposits around the injector
- Exhaust gas smell in the engine compartment
- Loss of compression
- Reduced engine performance
- Increased fuel consumption
- Difficulty starting the engine



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Hoffer Products **016130**

Applications

- Pneumatic and electric EGR valves
- EGR modules
- EGR coolers
- EGR-to-intake manifold connections
- EGR-to-exhaust manifold connections

Failure symptoms

- Exhaust gas leaks
- Blowing noises around the EGR system
- Exhaust gas smell in the engine compartment
- Increased fuel consumption
- Increased pollutant emissions
- Irregular EGR system operation
- Possible soot deposits around the EGR valve
- Failure to pass emissions tests
- Engine warning light illuminated
- Reduced engine performance

Cylinder Head Gasket

Function

Ensures a seal between the engine block and the cylinder head, simultaneously sealing the combustion chambers, oil passages and coolant circuits. It is one of the engine's most critical components and is essential for maintaining proper compression, lubrication and cooling.

Failure symptoms

- Engine overheating
- Abnormally high coolant consumption
- White exhaust smoke
- Oil in the coolant
- Coolant in the engine oil
- Loss of compression
- Difficulty starting the engine
- Reduced performance
- Increased pollutant emissions

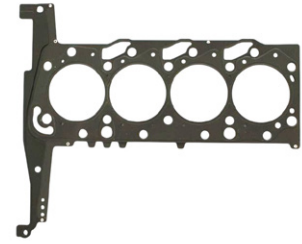
Materials

- Multilayer steel (MLS)
- Reinforced graphite
- High-temperature-resistant elastomers
- Special steels with anti-wear coatings

Thermostat Gasket

Function

Ensures a seal between the thermostat and the engine, or between the thermostat and its housing, preventing coolant leaks. It contributes to the correct operation of the cooling system by maintaining the engine's optimum operating temperature.



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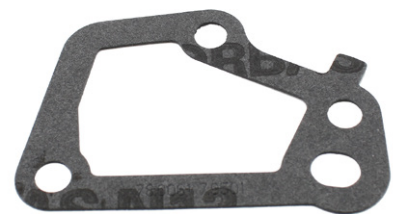
Meat&Doria **016318**
Hoffer Products **016318**

Applications

- Between the cylinder head and engine block
- Petrol engines
- Diesel engines
- Naturally aspirated and turbocharged engines

Types

- MLS (Multi-Layer Steel) gaskets
- Graphite gaskets
- Elastomer gaskets
- Reinforced metal gaskets
- Cylinder head gaskets with calibrated thicknesses



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Types

- Flat rubber gaskets
- Sealing O-rings
- Shaped elastomer gaskets
- Gaskets integrated into the thermostat
- Thermostat installation kits

Materials

- NBR rubber resistant to coolants
- High-temperature-resistant EPDM
- Elastomers resistant to glycol and coolant additives
- Silicone for high-temperature applications

Valve Cover Gasket

Function

Ensures a seal between the valve cover and the cylinder head, preventing engine oil from leaking. It also protects valve train components, such as camshafts, tappets and rocker arms, from external contamination and helps maintain the correct pressure in the crankcase ventilation system.

Types

- Shaped rubber gaskets
- Silicone gaskets
- High-temperature elastomer gaskets
- Valve cover gasket kits
- Gaskets with integrated spark plug well seals

Applications

- Engine thermostat assembly
- Thermostat housing
- Cooling circuit
- Engine-to-thermostat connections

Failure symptoms

- Coolant leaks
- Traces of coolant around the thermostat
- Engine overheating
- Unstable engine temperature
- Falling coolant level
- Engine temperature warning light illuminated
- Inefficient cabin heating
- Corrosion or deposits around the sealing area



Meat&Doria **01705**
Hoffer Products **01705**

Applications

- Valve cover
- Engine cylinder head cover
- Cylinder head
- Positive crankcase ventilation (PCV) systems
- Petrol and diesel engines

Materials

- NBR rubber, resistant to oils
- High-temperature silicone
- FKM (Viton®)
- Elastomers with high thermal and chemical resistance

Failure symptoms

- Oil leaks from the upper part of the engine
- Oil traces along the cylinder head
- Burning oil smell in the engine compartment
- Oil in the spark plug wells
- Contamination of ignition coils and electrical connectors
- Smoke from the engine compartment caused by oil reaching hot components
- Dirt and oily residue accumulating on the engine
- Possible misfires due to spark plug contamination

Exhaust Manifold Gasket

Function

Ensures a seal between the exhaust manifold and the cylinder head, or between the exhaust manifold and the turbocharger, preventing exhaust gases from escaping. It helps maintain the correct exhaust back-pressure, turbocharger efficiency and compliance with emissions limits.



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Types

- Multilayer steel (MLS) gaskets
- Stainless steel gaskets
- High-temperature graphite gaskets
- Metal-core reinforced gaskets
- Exhaust manifold installation kits

Applications

- Cylinder head-to-exhaust manifold connection
- Exhaust manifold-to-turbocharger connection
- Petrol and diesel engine exhaust systems
- Naturally aspirated and turbocharged vehicles

Materials

- High-temperature-resistant stainless steel
- Multilayer steel (MLS)
- Expanded graphite
- High-temperature-resistant composite materials
- Anti-corrosion coatings

Failure symptoms

- Blowing noises around the manifold
- Soot marks at mating surfaces
- Exhaust gas smell in the engine compartment
- Reduced engine performance
- Reduced turbocharger efficiency
- Increased fuel consumption
- Increased pollutant emissions
- Engine warning light illuminated
- Possible abnormal readings from the lambda sensors

A/C Compressor Sealing Ring

Function

Ensures an airtight seal in the air-conditioning circuit at the A/C compressor connections, preventing refrigerant gas and system lubricating oil from escaping. It is essential for maintaining the efficiency and performance of the air-conditioning system.



Meat&Doria **016471**
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Types

- Special refrigerant-resistant rubber O-rings
- Sealing rings for fittings
- Compressor shaft seals
- Seals for high- and low-pressure connections

Applications

- Air-conditioning compressor
- Discharge and suction connections
- Refrigerant pipe connections
- Compressor lubrication circuit
- A/C systems using R134a and R1234yf refrigerants



Materials

- HNBR (Hydrogenated Nitrile Butadiene Rubber)
- FKM/Viton®, resistant to refrigerants and oils
- Elastomers with high chemical and thermal resistance
- Materials specifically compatible with R134a and R1234yf

EGR Pipe Gasket

Function

Ensures a seal between the EGR pipe, EGR valve, EGR cooler, or intake and exhaust manifolds, preventing recirculated exhaust gases from escaping. It contributes to the correct operation of the EGR system and to reducing nitrogen oxide (NOx) emissions.

Types

- Multilayer steel (MLS) gaskets
- Stainless steel gaskets
- High-temperature graphite gaskets
- Shaped gaskets for EGR pipes
- EGR pipe gasket kits

Applications

- EGR connecting pipes
- EGR tubing
- EGR coolers
- EGR valve-to-intake manifold connection
- EGR valve-to-exhaust manifold connection
- Diesel and petrol engines equipped with an EGR system

Failure symptoms

- Refrigerant leaks
- Reduced cooling performance
- Inefficient or non-operational air conditioning
- Oil traces on compressor fittings
- Frequent compressor activation
- Unusual A/C system noise



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Failure symptoms

- Exhaust gas leaks from EGR connections
- Blowing or hissing noises
- Exhaust gas smell in the engine compartment
- Soot deposits at mating surfaces
- Reduced engine performance
- Increased fuel consumption
- Increased pollutant emissions
- Irregular EGR system operation
- Engine warning light illuminated
- Failure to pass emissions inspections



Materials

- High-temperature-resistant stainless steel
- Multilayer steel (MLS)
- Graphite-based materials
- Anti-corrosion coatings
- Materials highly resistant to exhaust gases and soot

Oil Sump Gasket

Function

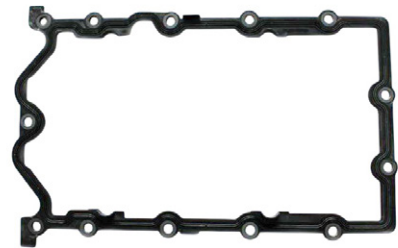
Ensures a seal between the oil sump and the engine block, preventing lubricating oil from leaking. It helps maintain the correct lubrication level and protects the engine from external contamination.

Types

- Shaped rubber gaskets
- Cork-rubber gaskets
- Silicone gaskets
- Coated metal gaskets
- RTV liquid sealants (OE applications)
- Oil sump gasket kits

Materials

- NBR rubber, resistant to mineral and synthetic oils
- High-temperature silicone
- Reinforced composite cork
- FKM (Viton®)
- Elastomer-coated steel
- Composite materials resistant to oil and vibration



Meat&Doria **016295**
Hoffer Products **016295**

Applications

- Engine oil sump
- Engine block
- Lubrication circuit
- Petrol and diesel engines

Failure symptoms

- Oil leaks from the lower part of the engine
- Oil stains beneath the vehicle
- Oil contamination on the sump and underbody
- Falling engine oil level
- Oil level or oil pressure warning light illuminated
- Hot oil smell while driving
- Risk of insufficient engine lubrication
- Possible damage to bearings, crankshaft and turbocharger in the event of a severe leak

Timing Cover Gasket

Function

Ensures a seal between the timing cover and the engine, preventing engine oil leaks and protecting timing components from external contamination. It helps preserve the correct operation of the timing belt or chain and its associated drive components.



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Meat&Doria **017030**
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Materials

- Oil-resistant NBR rubber
- FKM/Viton® for high-temperature applications
- Reinforced technical paper
- High-performance elastomers
- Moulded silicone gaskets

Failure symptoms

- Oil leaks around the timing system
- Oil traces on the timing cover
- Timing belt contaminated with oil
- Unusual timing system noise
- Risk of premature timing belt deterioration
- Dirt or contaminants inside the timing cover

Applications

- Timing cover
- Engines with belt-driven timing systems
- Engines with chain-driven timing systems
- Front and side timing covers
- Crankshaft and camshaft passage areas

Compressor Gasket

Function

Ensures a seal between the various components of the air-conditioning compressor and between the compressor and the refrigerant circuit pipes. It prevents refrigerant gas and lubricating oil from escaping, ensuring the correct operation of the air-conditioning system.



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Hoffer Products **016466**



Types

- Compressor housing gaskets
- Refrigerant fitting gaskets
- Compressor head gaskets
- Sealing O-rings
- Compressor shaft seals

Materiali

- HNBR (Hydrogenated Nitrile Butadiene Rubber)
- FKM/Viton® with high chemical resistance
- Elastomers compatible with refrigerants and PAG oils
- Materials specifically designed for R134a and R1234yf systems

Applications

- Air-conditioning compressor
- Compressor housing
- Discharge and suction fittings
- Refrigerant pipe connections
- Circuits using R134a and R1234yf refrigerants

Failure symptoms

- Refrigerant leaks
- Reduced or no cooling
- Oil traces on fittings or the compressor
- Frequent compressor activation
- Unusual A/C system noise
- Low pressure in the air-conditioning circuit
- Persistent window fogging

Intake Manifold Gasket

Function

Ensures a seal between the intake manifold and the cylinder head, preventing unmetered air from entering the system. It contributes to proper cylinder filling, maintenance of the correct air-fuel mixture and engine efficiency.



Meat&Doria **016165**
Hoffer Products **016165**

Types

- Shaped rubber gaskets
- Multilayer elastomer gaskets
- Rubber-metal composite gaskets
- Reinforced synthetic material gaskets
- Intake manifold gasket kits

Applications

- Intake manifold
- Engine cylinder head
- Naturally aspirated and turbocharged petrol engines
- Diesel engines
- Variable-geometry intake manifold systems

Materials

- NBR rubber
- EPDM
- High-temperature silicone
- Elastomers resistant to oils and fuel vapours
- Elastomer-coated steel
- Reinforced composite materials

Failure symptoms

- Rough idle
- Hesitation during acceleration
- Reduced engine performance
- Increased fuel consumption
- Difficulty starting the engine
- Intake noises or whistling from the engine compartment
- Engine warning light illuminated
- Incorrect air-fuel mixture
- Pressure loss in forced-induction systems
- High pollutant emissions

Turbocharger Charge-Air Gasket

Function

Ensures a seal at the connections between the turbocharger, intercooler, intake manifold and compressed-air pipes, preventing pressure losses in the boost system. It helps maintain turbocharger efficiency, engine performance and the correct air-fuel ratio.



Meat&Doria **016472**
Hoffer Products **016472**

Failure symptoms

- Loss of turbo boost pressure
- Reduced engine performance
- Lack of power during acceleration
- Increased fuel consumption
- Whistling or hissing under boost
- Irregular power delivery
- Engine warning light illuminated
- Oil traces at pipe connections
- Limp mode in more severe cases
- High pollutant emissions

Applications

- Turbocharger-to-intercooler air pipes
- Intercooler-to-intake manifold pipes
- Compressed-air ducts
- Petrol and diesel turbocharging systems
- Turbocharged engines

Materials

- NBR (nitrile rubber)
- High-resistance EPDM
- High-temperature silicone
- FKM (Viton®)
- Elastomers resistant to oil, pressure and temperature fluctuations

Engine Block Gasket

Function

Ensures a seal between the engine block components and its lower sections, preventing oil leaks, coolant leaks and compression losses. It is used during complete engine overhauls to restore proper sealing between mating mechanical components.

Types

- Engine block gaskets
- Engine block side cover gaskets
- Crankshaft support gaskets
- O-rings and sealing rings
- Engine block gasket kits
- Engine block mating gaskets

Materials

- Oil-resistant NBR rubber
- FKM (Viton®)
- High-temperature silicone
- Reinforced technical paper
- High-strength composite materials
- Elastomer-coated steel

Types

- Sealing O-rings
- Shaped elastomer gaskets
- Sealing rings for quick-connect fittings
- Gaskets for compressed-air hoses
- Boost system gasket kits



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Meat&Doria **016309**
Hoffer Products **016309**

Applications

- Engine block
- Engine crankcase
- Engine block side covers and supports
- Lower crankcase
- Petrol and diesel engines
- Complete engine overhauls

Failure symptoms

- Engine oil leaks
- Coolant leaks
- Seepage around the engine block
- Falling oil or coolant levels
- Fluid cross-contamination
- Dirt and oily residue accumulating on the engine
- Reduced engine reliability
- Possible mechanical damage due to insufficient lubrication



Turbocharger Compressor Inlet Gasket

Function

Ensures a seal between the turbocharger and the components connected to its intake (compressor) side, preventing compressed-air leaks and ensuring the correct airflow to the engine. It helps maintain boost pressure and turbocharger system efficiency.



Meat&Doria **016458**
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Types

- Sealing O-rings
- Shaped elastomer gaskets
- Rubber-metal composite gaskets
- Sealing rings for turbocharger fittings
- Turbocharger gasket kits

Failure symptoms

- Loss of boost pressure
- Reduced engine performance
- Slow or irregular acceleration
- Whistling or hissing from the turbocharger
- Increased fuel consumption
- Excessive exhaust smoke
- Engine warning light illuminated
- Limp mode
- Oil seepage around connection points
- Failure to reach the required boost pressure

Applications

- Turbocharger-to-intake manifold connection
- Turbocharger-to-compressed-air duct connection
- Diesel turbocharging systems
- Petrol turbocharging systems
- Turbocharger-to-intercooler air circuit

Materials

- NBR (nitrile rubber)
- FKM (Viton®)
- High-temperature silicone
- Elastomers resistant to oil and pressure
- Reinforced composite materials



Carburettor Gasket

Function

Ensures a seal between the carburettor and the intake manifold, preventing unwanted air leaks that could alter the correct air-fuel mixture. It also provides thermal insulation between the engine and the carburettor, improving operating stability.



Meat&Doria **0103**
Hoffer Products **0103**

Types

- Flat technical-paper gaskets
- Composite fibre gaskets
- Heat-insulating gaskets
- Carburettor gasket kits
- Carburettor float bowl cover gaskets

Applications

- Carburettor
- Intake manifold
- Carburettor thermal spacers
- Carburetted petrol engines
- Classic and vintage vehicles

Materials

- Treated technical paper
- Reinforced fibre resistant to fuels
- Heat-insulating composite materials
- Elastomers resistant to petrol and additives

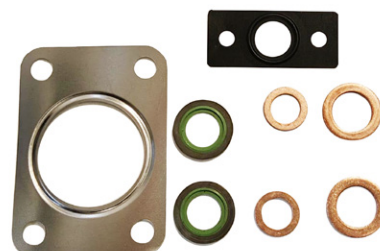
Failure symptoms

- Rough idle
- Difficulty starting the engine
- Hesitation or flat spots during acceleration
- Increased fuel consumption
- Loss of power
- Air leaks into the intake manifold
- Fuel seepage or leaks
- Unstable engine operation

Turbocharger Gasket

Function

Ensures a seal between the turbocharger and its connected components, preventing exhaust gas leaks and boost pressure losses. It contributes to correct turbocharger operation, engine efficiency and compliance with emissions regulations.



Meat&Doria **60710**
Hoffer Products **60710**



Failure symptoms

- Loss of boost pressure
- Reduced engine performance
- Slow or irregular acceleration
- Whistling or hissing around the turbocharger
- Exhaust gas leaks
- Soot marks at mating surfaces
- Increased fuel consumption
- Excessive exhaust smoke
- Engine warning light illuminated
- Engine entering limp mode

Materials

- High-temperature-resistant stainless steel
- Multilayer steel (MLS)
- High-temperature graphite
- FKM (Viton®) for oil and coolant circuits
- Elastomers resistant to high temperatures and chemicals

Applications

- Exhaust manifold-to-turbocharger connection
- Turbocharger-to-downpipe connection
- Turbocharger-to-intake manifold connection
- Turbocharger lubrication and cooling circuits
- Turbocharged diesel and petrol engines

Types

- Manifold-to-turbocharger gaskets
- Turbocharger-to-exhaust gaskets
- Multilayer steel (MLS) gaskets
- Stainless steel gaskets
- O-rings for turbocharger oil and coolant circuits
- Turbocharger gasket kits

Vacuum Pump Gasket

Function

Ensures a seal between the vacuum pump and the engine, or between the pump's internal components, preventing oil leaks and vacuum losses. It contributes to the correct operation of vacuum-operated systems, such as the brake booster, turbocharger actuators and EGR system.



Meat&Doria **91257**
Hoffer Products **91257**



Types

- Vacuum pump-to-engine block gaskets
- Sealing O-rings
- Vacuum pump cover gaskets
- Vacuum line fitting gaskets
- Vacuum pump repair kits
- Pump housing gaskets

Materials

- Oil-resistant NBR rubber
- FKM (Viton®)
- High-temperature-resistant elastomers
- Reinforced technical paper
- Elastomer-coated steel
- Composite materials resistant to oil and vacuum

Diesel Fuel Pump Gasket

Function

Ensures a seal between the components of the diesel fuel supply pump or injection pump, preventing fuel leaks and air ingress into the circuit. It helps maintain the correct operating pressure and fuel system efficiency.

Types

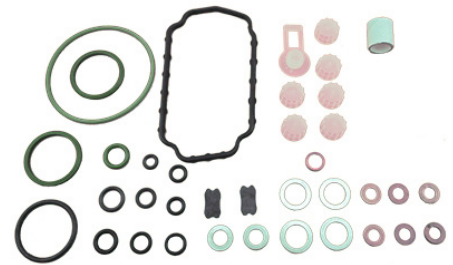
- Pump cover gaskets
- Pump housing gaskets
- Fuel sealing O-rings
- Fitting sealing washers
- Pump shaft seals
- Diesel pump gasket kits

Applications

- Mechanical vacuum pumps
- Electric vacuum pumps
- Vacuum pump-to-engine block connection
- Vacuum circuits
- Diesel engines
- Petrol engines with a dedicated vacuum pump

Failure symptoms

- Oil leaks from the vacuum pump
- Brake pedal harder than normal
- Reduced braking assistance
- Insufficient vacuum in the circuit
- Hissing or suction noises
- Turbocharger actuator malfunction
- Irregular EGR system operation
- Engine warning light illuminated
- Reduced engine performance
- Limp mode on some vehicles



Meat&Doria **98013**
Hoffer Products **98013**

Applications

- Diesel injection pumps
- Common Rail high-pressure pumps
- Rotary pumps
- Fuel transfer pumps
- Pump covers and flanges
- Fuel fittings



Materials

- NBR (nitrile rubber resistant to fuels)
- FKM/Viton® with high chemical and thermal resistance
- Elastomers compatible with diesel and biodiesel
- Treated technical paper
- Composite materials designed for high-pressure sealing

Failure symptoms

- Diesel fuel leaks
- Fuel in the engine compartment
- Difficulty starting the engine
- Air entering the fuel circuit
- Irregular engine operation
- Pressure drops in the fuel supply system
- Increased fuel consumption
- Reduced performance
- Fault codes relating to fuel pressure

Fuel Pump Basket Seal

Function

Ensures a seal between the fuel pump module (basket) and the fuel tank, preventing fuel from escaping and air, water or contaminants from entering the fuel system. It helps maintain the correct fuel pressure and vehicle safety.



Meat&Doria **GSK20**
Hoffer Products **GSK20**

Types

- Fuel pump flange gaskets
- Tank sealing O-rings
- Sealing rings for fuel modules
- Shaped elastomer gaskets
- Fuel pump basket gasket kits

Applications

- In-tank fuel pump modules
- Petrol pump baskets
- Diesel pump baskets
- Fuel supply assemblies
- Fuel pump-to-tank flange
- Fuel level sensors integrated into the module

Materials

- NBR rubber resistant to petrol and diesel
- FKM (Viton®)
- Elastomers compatible with biofuels and ethanol
- Materials with high chemical and thermal resistance

Failure symptoms

- Fuel smell inside or outside the vehicle
- Petrol or diesel leaks from the top of the fuel tank
- Fuel traces around the pump flange
- Air entering the fuel supply circuit
- Difficulty starting the engine
- Irregular engine operation
- Pressure drops in the fuel system
- Engine warning light illuminated
- Increased evaporative emissions
- Possible water or contaminant ingress into the tank

Hydraulic Power Steering Seal Kit

Function

Ensures hydraulic sealing of the components in the hydraulic power steering system, preventing fluid leaks and maintaining the correct operating pressure. It helps restore system efficiency and reliability during maintenance or overhaul work.



Meat&Doria **37108**
Hoffer Products **37108**

Types

- Sealing O-rings
- Pump shaft oil seals
- Flat gaskets
- Sealing washers
- PTFE support rings
- High-pressure fitting seals

Applications

- Power steering pumps
- Hydraulic steering gearboxes
- Steering racks
- Hydraulic fittings and pipes
- Power steering fluid reservoirs
- Power-assisted steering systems

Failure symptoms

- Power steering fluid leaks
- Frequent drops in fluid level
- Heavy steering or reduced assistance
- Power steering pump noise
- Vibrations while steering
- Oil on the steering gearbox or pump
- Irregular steering assistance

Materials

- NBR (nitrile rubber resistant to hydraulic oils)
- FKM/Viton® for high-temperature applications
- PTFE (Teflon®) for high-pressure applications
- High-chemical-resistance elastomers
- Coated steel for sealing rings

Variable Valve Timing (VVT) Solenoid Gasket

Function

Ensures a seal between the variable valve timing control valve (VVT solenoid) and the cylinder head, preventing oil leaks and ensuring correct control of variable valve timing. It helps maintain the oil pressure required for VVT system operation.



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Meat&Doria **016439**
Hoffer Products **016439**

Types

- Sealing O-rings
- Moulded elastomer gaskets
- Gaskets integrated into the VVT solenoid
- VVT valve gasket kits

Failure symptoms

- Oil leaks around the VVT valve
- Engine warning light illuminated
- Fault codes relating to camshaft timing
- Reduced performance
- Rough idle
- Increased fuel consumption
- Difficulty starting the engine
- Noise from the timing system
- Irregular VVT system operation

Applications

- Variable valve timing (VVT) valve
- Camshaft control solenoid
- Engine cylinder head
- Variable valve timing systems
- Petrol and diesel engines equipped with VVT technology

Materials

- NBR (oil-resistant nitrile rubber)
- FKM/Viton® with high thermal resistance
- High-performance elastomers
- Materials resistant to engine oil additives

Common Fault Codes Associated with Failure to Replace Worn Gaskets

Intake Manifold Gaskets

Possible faults

- Unmetered air ingress
- Vacuum leaks
- Incorrect air-fuel mixture

Common fault codes

- **P0171**: Lean mixture (Bank 1)
- **P0174**: Lean mixture (Bank 2)
- **P0106**: MAP sensor fault
- **P2279**: Intake air leak
- **P0507**: High idle speed

EGR Valve Gaskets

Possible faults

- Exhaust gas leaks
- EGR flow irregularities

Common fault codes

- **P0400**: EGR system fault
- **P0401**: Insufficient EGR flow
- **P0402**: Excessive EGR flow
- **P0404**: EGR performance fault
- **P0405**: EGR position signal low

Cylinder Head Gaskets

Possible faults

- Loss of compression
- Oil/coolant contamination
- Engine overheating

Common fault codes

- **P0300**: Multiple/random misfires
- **P0301-P0312**: Cylinder-specific misfire
- **P0217**: Engine overheating
- **P0117**: Coolant temperature signal low
- **P0118**: Coolant temperature signal high

Valve Cover Gaskets

Possible faults

- Oil leaks
- Ignition coils and spark plugs contaminated with oil

Common fault codes

- **P0300-P0312**: Engine misfires
- **P0351-P0362**: Ignition coil circuit faults

Turbocharger Gaskets

Possible faults

- Boost pressure leaks
- Exhaust gas leaks

Common fault codes

- **P0234**: Turbo overboost
- **P0299**: Turbo underboost
- **P2263**: Turbo system performance fault
- **P2563**: Turbo actuator position fault

Charge-Air Pipe Gaskets

Possible faults

- Compressed-air leaks between the turbo-charger and intercooler

Common fault codes

- **P0299**: Turbo underboost
- **P0101**: MAF sensor range/performance fault
- **P2279**: Intake air leak





Vacuum Pump Gaskets

Possible faults

- Vacuum leaks

Common fault codes

- **P1479**: Brake vacuum fault (many VAG models)
- **P0243**: Turbo control solenoid fault
- **P2563**: Turbo variable geometry actuator fault
- **P0400-P0404**: EGR flow/control faults

Fuel Pump Basket Seals

Possible faults

- Fuel vapour leaks
- Air entering the system

Common fault codes

- **P0440**: EVAP system fault
- **P0442**: Small EVAP leak
- **P0455**: Large EVAP leak
- **P0456**: Very small EVAP leak
- **P0460**: Fuel level sensor fault

Thermostat Gaskets

Possible faults

- Coolant leaks
- Inefficient cooling

Common fault codes

- **P0125**: Coolant temperature too low for fuel control
- **P0128**: Coolant below thermostat regulation temperature
- **P0217**: Engine overheating
- **P2181**: Cooling system performance fault

Unit Injector Seals

Possible faults

- Compression loss
- Fuel leaks

Common fault codes

- **P0201-P0208**: Injector circuit fault
- **P0261-P0296**: Cylinder contribution fault
- **P0300-P0312**: Engine misfires
- **P2146-P2149**: Injector group circuit fault

Oil Cooler Gaskets

Possible faults

- Oil leaks
- Oil/coolant mixing

Common fault codes

- **P0217**: Engine overheating
- **P0117**: Coolant temperature signal low
- **P0118**: Coolant temperature signal high
- **P2181**: Cooling system performance fault

Related Products

● Coming Soon

Oil Cooler Gasket

01621 | Oil cooler gasket kit

95050 | Oil cooler

EGR Valve Gasket

01631 | EGR valve gasket

88125 | EGR valve

Thermostat Gasket

01657 | Thermostat gasket

92194 | Coolant thermostat

Exhaust Manifold Gasket

016459 | Exhaust manifold gasket

89848 | Intake manifold module

Variable Valve Timing Valves

● **016439** | Timing cover

91572 | Oil pressure control valve

EGR Pipe Gasket

016146 | EGR pipe gasket

88685 | EGR pipe

Timing Cover Gasket

● **016273** | Timing cover gasket

Charge-Air Pipe Gasket

016480 | Charge-air pipe gasket

Turbocharger Gasket

016458 | Turbocharger inlet gasket

Intake Manifold Gasket

01643 | Intake manifold gasket

89613 | Intake manifold module

Cylinder Head Gasket

● **016316** | Valve cover gasket

Valve Cover Gasket

● **016860** | Valve cover gasket

Engine Gasket

● **016339** | Engine gaskets kit

A/C Compressor Sealing Ring

016460 | Compressor gasket

● **K11400A** | A/C Compressor

Oil Sump Gasket

● **016292** | Oil sump gasket

Intake Manifold Gasket

016143 | Intake manifold gasket

89261 | Intake manifold module

Engine Block Gasket

● **016137** | Engine block ventilation gasket

Carburettor Gasket

01552 | Thermal insulator

W554 | Carburettor repair kit





Turbocharger Gasket

60861 | Turbocharger installation kit
65443 | Turbocharger

Vacuum Pump Gasket

91114 | Vacuum pump repair kit
91018 | Vacuum pump

Diesel Injector Gasket

981077 | Diesel injector seal
74149R | Diesel injector

Fuel Pump Basket Seal

GSK04 | Fuel tank connection
76462 | Fuel supply system

Hydraulic Power Steering Seal Kit

37010 | Power steering pump seal kit
93016 | Hydraulic power steering pump

Did You Know?

Gaskets and seals help maintain the correct pressure in intake, boost and lubrication circuits, contributing to **optimised performance, fuel consumption and emissions**. Each application requires specific materials, such as NBR rubber, FKM (Viton®), silicone, multilayer steel, graphite or technical composites. The materials are selected according to the temperature, pressure and fluids to which they will be exposed.

An effective gasket reduces oil, fuel and gas leaks, helping to **limit the vehicle's environmental impact** and extend component service life.

Many fault codes can be caused by defective sealing: engine warning lights and faults relating to EGR, turbochargers, the air-fuel mixture or intake pressure may simply result from a deteriorated gasket or incorrect installation.

Whenever turbochargers, EGR valves, thermostats, fuel pumps or valve covers are replaced, installing new gaskets is always recommended to ensure the system is properly sealed.

Even the best gasket can lose its effectiveness if the mating surfaces are not perfectly clean, if the incorrect tightening torque is applied or if the gasket is reused after disassembly.

Our Production Testing

Leak Test

Verifies the gasket's ability to prevent liquid or gas leakage under specified pressure conditions.

Thermal Resistance Test

The gasket is subjected to high- and low-temperature cycles to verify that it retains its elasticity, shape and sealing performance.



Chemical Compatibility Test

Evaluates resistance to engine oil, fuel, urea solution, coolant, hydraulic fluids and other chemicals found in vehicles.

Pressure Resistance Test

Particularly important for cylinder head, turbocharger and EGR gaskets and fuel system seals, which operate under high-pressure conditions.

Vibration Test

Reproduces the vibrations generated by the engine and the vehicle while driving to verify the gasket's stability and sealing effectiveness.

Cold Resistance Test

Verifies that the gasket does not lose elasticity or develop cracks at very low temperatures.

Installation and Removal Test

Checks that the gasket can be installed correctly and provides optimum sealing performance in service.

Compression and Elastic Recovery Test

Measures how much the gasket deforms under load and its ability to return to its original dimensions once the load is removed.

Mechanical Fatigue Test

Simulates thousands of operating cycles to verify service life and resistance to vibration and repeated mechanical stress.

Accelerated Ageing Test

Exposes the material to heat, humidity, ozone and UV radiation to simulate years of use over a shorter period.

Dimensional Inspection

Precision instruments are used to verify that thicknesses, diameters and tolerances comply with OEM specifications.

NVH Test (Noise, Vibration and Harshness)

Evaluates the gasket's ability to help reduce noise and vibration transmitted by vehicle components.