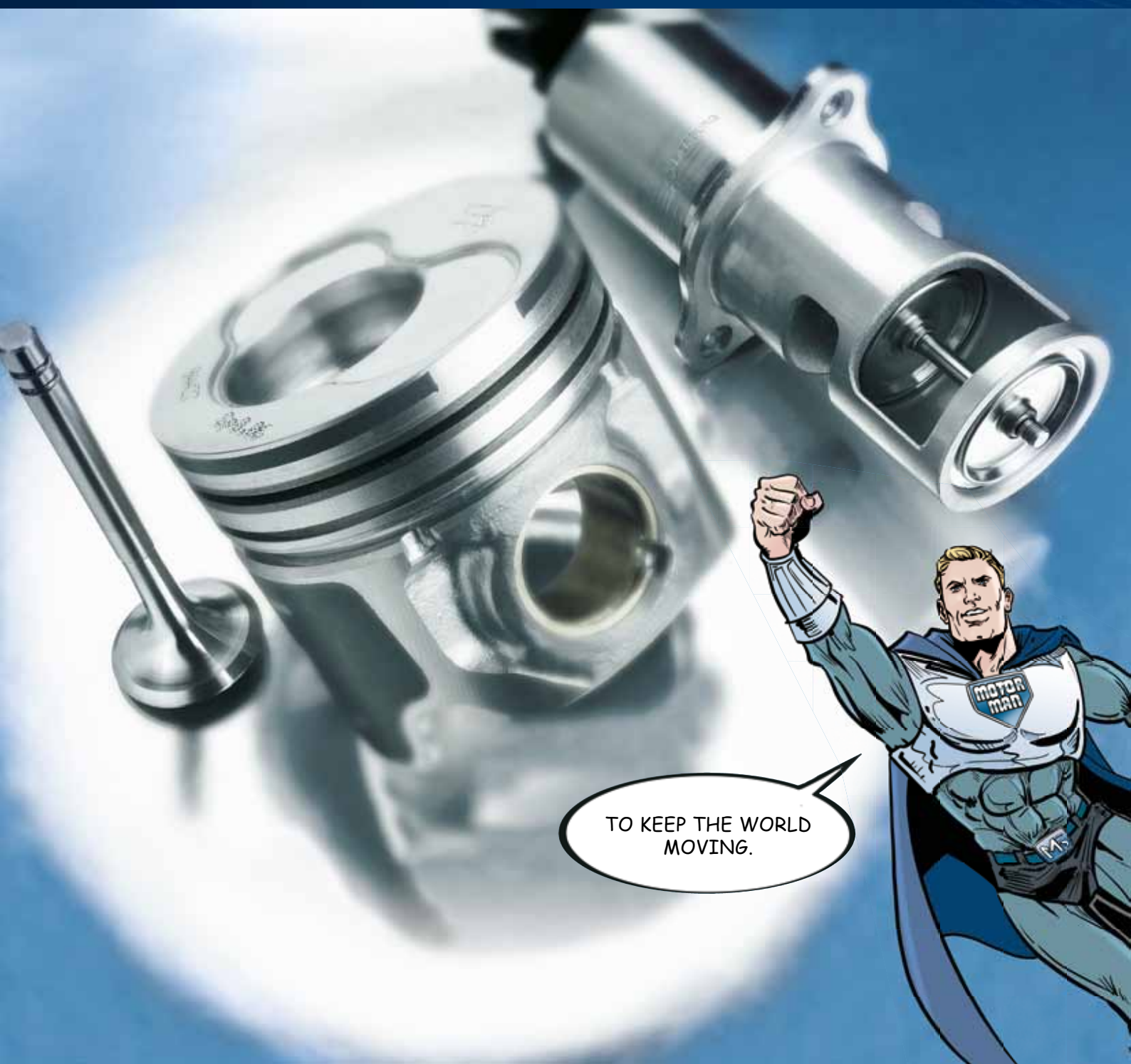




KOLBENSCHMIDT – PIERBURG – TRW ENGINE COMPONENTS

# Original-Spare-Parts



TO KEEP THE WORLD  
MOVING.

## Three renowned premium brands

Engine parts that meet the highest standards for quality, functionality and performance – this is the promise of three renowned premium brands, KOLBENSCHMIDT, PIERBURG and TRW Engine Components. And of Motorman, too. Just drop by your local specialist retailer for spare parts of certified quality. For your repair shop – and for your customers.





### **High-tech products**

Engine parts from KOLBENSCHMIDT, PIERBURG and TRW Engine Components are only available from qualified specialist retailers. At our stockists around the world, you will find an extensive product range for passenger cars and commercial vehicles, as well as for off-highway applications such as stationary engines, construction machinery and machines for agriculture and forestry. Our product range is consistently extended and improved in line with state-of-the-art technology and to meet the requirements of the market.

### **Premium quality**

Products from KOLBENSCHMIDT, PIERBURG and TRW Engine Components rank top of the international markets thanks to their superior quality and excellent cost-benefit ratio. This means you can ensure high-quality work at your repair shop – and your customers' satisfaction.



### **Kolbenschmidt Pierburg AG**

MS Motor Service International GmbH supplies specialist retailers with our products. It is the aftermarket company of Kolbenschmidt Pierburg AG, the renowned supplier to the international automotive industry. Under this umbrella structure, innovative engine components and system solutions are developed which comply with the highest requirements and quality standards. The spectrum ranges from oil, water and vacuum pumps to pistons, engine blocks and engine bearings.





# The KOLBENSCHMIDT product range



## Pistons

Products from our KOLBENSCHMIDT piston range are reliable and durable. They extend your mileage with ease and are available ready to install assembled with their accessory piston rings, piston pins and piston pin retainers.



## Cylinder liners and kit sets

Our cylinder liners are optimally adapted to pistons and piston rings and are the ideal solution for low wear, a long service life and good heat dissipation. An original KOLBENSCHMIDT kit set contains the piston, the piston rings, the piston pin, the piston pin retainers and cylinder liners as well as any necessary seals.



## Piston ring sets

KS piston ring sets play an important role wherever engine reconditioning is involved. We offer sets for the widest range of requirements: From ring type and ring designation, through surface coating and material to packing unit.



## Engine bearings

A high level of technical production know-how as well as the use of optimally adapted material is of vital importance in order to meet the extreme stresses on bearing units of the moving engine parts (e. g. crankshaft, connecting rod, tappet and camshaft). These complex requirements are met by the various KS engine bearing types.



## Cylinder heads

The upper engine has become ever more important in engine reconditioning. Cylinder heads thus complement the KS product range.



## Filters

Whether oil, air or fuel filters are involved, or cabin filters as a standard variant or with activated carbon or automatic transmission oil filters: We have the ideal product at the ready. The stringent quality requirements of KOLBENSCHMIDT guarantee a consistently high quality level.



### Water pumps

Water pumps made by KOLBENSCHMIDT are extremely reliable and absolutely first-class. Only when quality and performance add up can the water pump cope with its important task of cooling the engine. And this throughout a long service life.



### Oil pumps

The wide KS oil pump range has been dimensioned primarily for European vehicle applications. It ranges from the conventional pump with aluminium housing to the cast steel version for heavy-duty requirements. Depending on the application, place of installation and delivery rate, oil pumps in accordance with a variety of pumping principles are on offer.



### Camshafts

The camshaft is the main component of the complex valve train system. Its task is to open and close the valves. KS camshafts meet all quality-related requirements to ensure the reliable and proper function once installed.

# The PIERBURG product range



## Fuel supply

As a leading provider, PIERBURG supplies a comprehensive and requirement-orientated product range: From fuel pumps, fuel delivery modules and system-pressure regulators through non-return valves and regeneration valves, to canister purge shut-off valves. PIERBURG fuel pumps excel as a result of their highly developed technology, optimum pumping characteristics when hot, and their low noise level.



## Air supply

PIERBURG manufactures weight-reduced intake manifolds as well as intake manifold modules and intake manifolds with EGR, made of aluminium or magnesium. Perfected engineering solutions ensure optimum performance, driving comfort and the right torque at low fuel consumption. At the same time, PIERBURG is one of the major suppliers of throttle bodies, regulating throttles and intake modules.



## Exhaust gas recirculation systems

Thanks to PIERBURG EGR systems, up to 50 % of the pollutants in exhaust gases are made harmless prior to reaching the catalytic converter. The components (EGR valves, air mass sensors, electropneumatic valves) are monitored to a large extent by the OBD system. This means that every malfunction entails an inevitable repair.



## Secondary-air systems

Thanks to secondary-air systems, pollutants in exhaust gases are made harmless prior to reaching the catalytic converter. The components of secondary-air systems (secondary-air valves, pumps and electric valves) are at present also monitored by OBD system to a large extent. Consequently, PIERBURG products provide huge potential for free trade and repair shops where the emission control sector is concerned.



## Electric valves

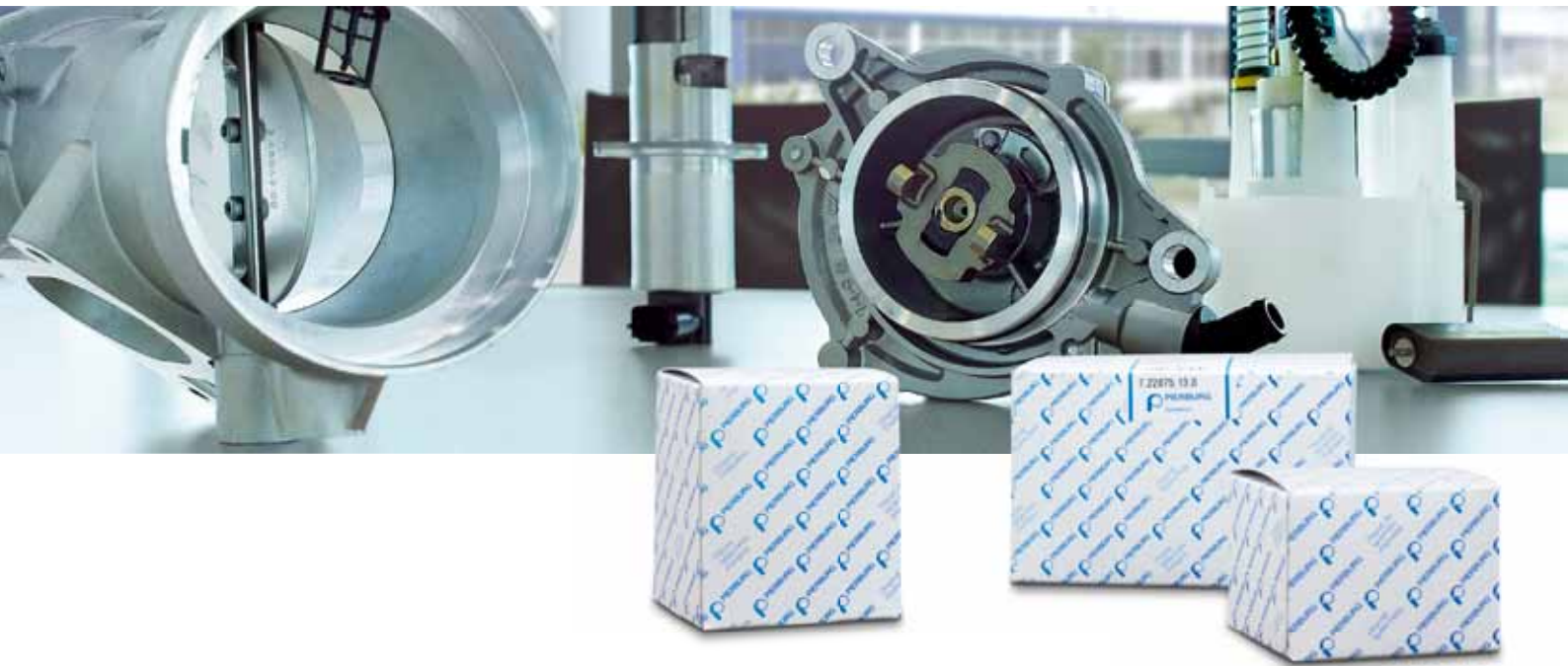
Our electric valves are used for switching and controlling intake manifolds, secondary air systems, exhaust gas flaps, air conditioning units as well as for operating convenience and safety functions. Electropneumatic valves are small, inconspicuous and hardly detectable in the engine compartment. But they are powerful, indispensable helpers in the vehicle.



## Vacuum pumps

Vacuum pumps generate a vacuum that is required, for instance, for brake boosters, for operating pneumatic actuators and valves and for a series of comfort features. Vacuum pumps are safety-relevant components, meaning that proper functioning is of top priority. PIERBURG is one of the leading European manufacturers of mechanical and electric vacuum pumps.





I STAND  
SHOULDER TO SHOULDER  
WITH REPAIR SHOPS ALL  
OVER THE WORLD.



#### Universal products

Our electronic water circulating pumps are extreme quiet and are used in water-controlled heaters, auxiliary heating systems, and independent car heaters. In addition to lambda probes, our product portfolio also includes a number of universal zirconium types as well as a few special probes. These universal types allow for a very high vehicle coverage.



#### Tools and testing instruments

PIERBURG offers a comprehensive range of tools and testing instruments: From pressure/vacuum hand pumps to fitting tools, fuel pump testers and fuel pressure testers, and even special tools, special bits, and air mass sensor test cables.

# The TRW product range



## Valves

Valves are components that are subjected to extreme thermal and mechanical stressing. Thanks to the strength and shape of the valve head and to the relevant material selection, TRW valves meet these high requirements. For more than 90 years, TRW EngineComponents have been producing valves and valve train components for car manufacturers all over the world. At the same time, TRW is a global leader in developing and manufacturing engine valves and valve train components as well as complete valve control systems.



## Valve guides

The valve guide takes up the lateral forces acting on the valve stem and centres the valve on its valve seat insert. In addition, it dissipates part of the enormous heat from the valve head over the valve stem to the cylinder head. Due to these extreme stresses, especially the material is a decisive factor for the product quality. Grey cast iron and brass materials with carefully chosen alloy components have been well proven in practice.



## Valve seat inserts

Valve seat inserts together with the valves seal the combustion chamber of the cylinder head. To be able to conform to the increasing high thermal and mechanical stresses on the seat inserts in the combustion chamber, we offer sintered valve seat inserts made of two different material combinations that cover the entire range of applications on future engines.



## Valve cotters

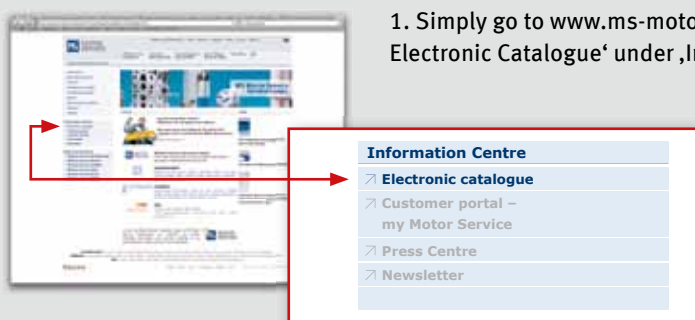
TRW valve cotters are standardised, limiting the model diversity. At the same time, the precise punching method ensures a consistently high quality, making interchangeability unproblematic. Always take care: Whenever valves are replaced, it is essential for new cotters to be fitted as well.



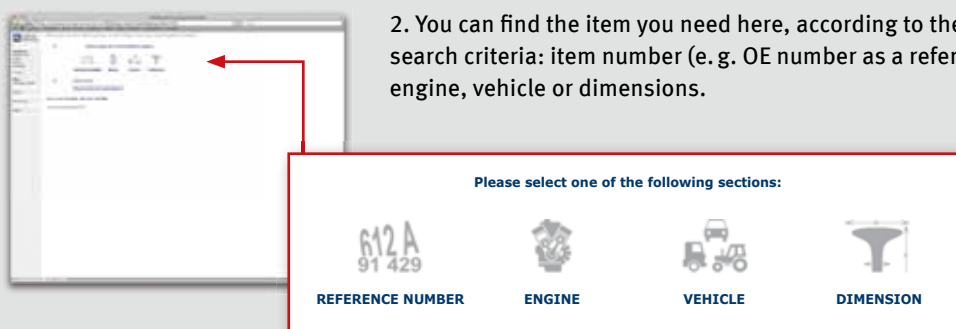
# The right spare part

Avoid incorrect orders: the electronic catalogue from Motor Service helps you to find the engine components you need. Diverse search options by vehicle, engine, reference number, dimensions, etc. make it easy for you to find products and give you a detailed overview of our range. Your specialist retailer will take your order for your chosen spare parts.

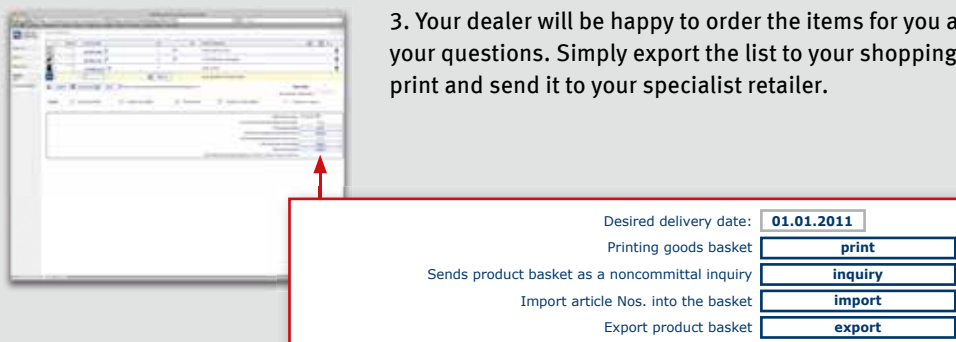
1. Simply go to [www.ms-motor-service.com](http://www.ms-motor-service.com) and click, 'Electronic Catalogue' under 'Information Centre'.



2. You can find the item you need here, according to the various search criteria: item number (e. g. OE number as a reference number), engine, vehicle or dimensions.



3. Your dealer will be happy to order the items for you and to answer your questions. Simply export the list to your shopping cart, save or print and send it to your specialist retailer.





## The Service plus

As a premium manufacturer, we set great store by quality. This applies to all our products – and our service too. That is why we supply you with extensive, technical know-how and offer special training courses. Because we want one thing above all – satisfied customers.





### Product information

You can find out all about our products at [www.ms-motor-service.com](http://www.ms-motor-service.com) – easily downloadable in PDF format: service information brochures with technical details and product information brochures with general details, such as new releases. Our electronic catalogue gives you an overview of our entire product range. And if anything is still unclear, please contact your specialist retailer, who will be happy to help you.



### Training programme

Our training courses and seminars keep motor mechanics and engineers constantly up to date. As a partner of eXponentia, we also offer an extensive training programme at a high level, and technical advice on the use of our products. If you have any questions, please contact your specialist retailer.



### “Right to Repair”

Vehicles are increasingly becoming “computers on wheels”, making maintenance more and more complicated. This is why we support the “Right to Repair” campaign – for fair and comprehensive access to technical information, multi-brand scan tools, testing instruments, spare parts and training courses.



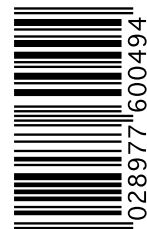
### Motorman

Motorman is fighting for the highest product quality on behalf of KOLBENSCHMIDT, PIERBURG and TRW Engine Components. Wherever he goes, he works for the good of all engines and provides you with our certified engine parts. There's more from Motorman – e.g. comics and screensavers – at [www.ms-motor-service.com](http://www.ms-motor-service.com). Or ask your specialist retailer.



Dealer's address

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