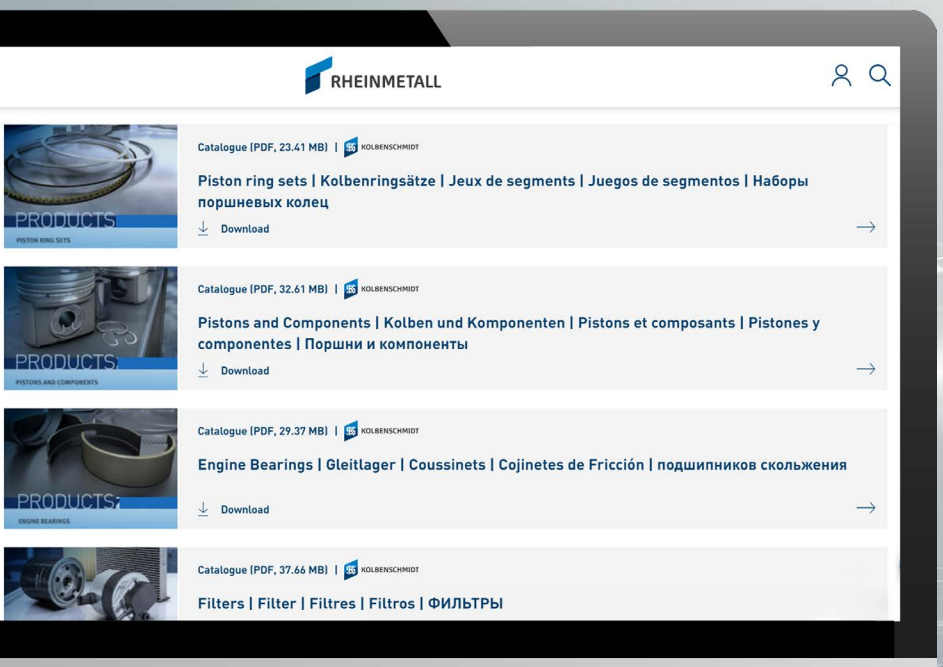
KOLBENSCHMIDT –
THE BRAND FOR ALL ASPECTS RELATED TO THE ENGINE

TAKING RESPONSIBILITY IN A CHANGING WORLD

RHEINMETALL

KOLBENSCHMIDT



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KOLBENSCHMIDT – THE BRAND FOR ENGINES.

The Kolbenschmidt brand stands for over 100 years of experience in the production of pistons. With its products for petrol and diesel engines in the passenger and utility vehicle sectors, the company is undisputedly one of the world's leading manufacturers.

The formula for success
As an internationally operating company, Kolbenschmidt makes optimal use of the synergy effects of its product ranges.
All know-how from local developments in the development centres and production facilities in Europe, North and South America and Asia is available as part of this. Increasing power density as well as further reductions in consumption and emission control are among the driving factors in the development of new piston concepts for the Kolbenschmidt brand. Aftermarket customers value this and repay Motorservice with trust in the form of long-term partnerships.

Strong partners
We, MS Motorservice International GmbH, are the only supplier in the world to apply this immense know-how in the independent aftermarket. Thanks to close cooperation, we will also be able to offer our customers new products from the company's OE division in addition to the current product range of Kolbenschmidt products in the future. Our Kolbenschmidt brand range will therefore continue to grow. When it comes to availability and delivery times, our customers also benefit from the long-standing and close relationships with Kolbenschmidt.

ALUMINIUM AND STEEL PISTONS –
QUALITY THAT LASTS

As one of the vehicle industry's leading development partners for pistons and piston systems, Kolbenschmidt has continually pushed the boundaries of performance for these components. For example, steel pistons can only be produced using numerous patented technologies. Motorservice applies this know-how of a premium manufacturer in the global aftermarket.

The product range

- Aluminium pistons
- Articulated pistons
- Steel pistons
- Compressor pistons

PISTON RINGS –
LOW FRICTION FOR EFFICIENT ENGINES

Motorservice supplies the corresponding piston rings in sets for one piston. These piston rings, optimally coordinated by experts, guarantee good running-in properties, minimal wear and low oil consumption values. This is ensured by applying elaborate coatings on sliding lands or sliding surfaces. The use of surface coatings is therefore widespread in piston rings.

Motorservice supplies a needs-based and extensive product range with over 1,900 different ring sets for more than 12,000 engine applications and 50,000 vehicle applications.

CYLINDER LINERS –
DURABILITY FOR MANY THOUSANDS OF KILOMETRES

Motorservice's extensive product range includes wet and dry cylinder liners, as well as air cooled cylinders and cylinders for compressors. The gasket assortments supplied for wet cylinder liners complete the scope of supply.

The product range

- Wet cylinder liners
- Dry cylinder liners
- Air cooled cylinders
- Oversized liners
- Cylinder liner castings

Motorservice has a wide product range with over 630 cylinder liners – for more than 8,000 engine applications and 33,000 vehicle applications.

ENGINE BEARINGS –
MINIMAL FRICTION, INNOVATIVE COATINGS

Engine bearings from Kolbenschmidt ensure less friction and more dynamics with optimal sliding materials and perfect geometry. They are an important component for combustion engines. The complex requirements and high loads facing the bearing points of moving engine parts require the use of materials carefully tailored to the respective application.

The product range

- Main and conrod bearing shells
- Flanged bearings and thrust washers
- Bearing bushes for camshafts
- Conrod bushes

Kolbenschmidt engine bearings are available in many oversized variants. Motorservice has a broad European and Asian product range for more than 13,800 engine applications and 50,000 vehicle applications.

CONNECTING RODS –
DURABLE FORCE TRANSMITTERS

The high strain on the connecting rod due to tensile, compressive and torsional forces requires connecting rod designs with high strength and low weight. With Motorservice's high-quality product range, you are always on the safe side.

Connecting rods connect the crankshaft to the pistons and thus transfer the gas and inertial forces to the crankpins of the crankshaft. Connecting rods are forged from steel, using alloyed or quenched and tempered steel depending on the strain.

The product range

- Connecting rods for passenger cars

CAMSHAFTS –
WEAR-RESISTANT FOR A LONG ENGINE LIFE

In order to cope with high bending and torsional stresses over a long period of time, the camshafts from our product range offer high strength values.

The product range
- Overhead camshafts
- Composite camshafts
- Bottom-mounted camshafts

As the most important control element in the valve train, the camshaft decisively determines the timing and volume of charge exchange processes in the cylinder – essential parameters for engine concentricity and power delivery. It is driven by the drive pulley through the crankshaft and controls the engine's valve train. It ensures that the intake and exhaust valves open and close at the pre-determined time. The opening period, valve stroke and motion during opening and closing are determined by the shape of the cam.

Our product range comprises approximately 300 shafts with around 20 new developments per year.

CYLINDER HEADS –
COMPLETED AS REQUIRED

Motorservice offers cylinder heads for passenger cars. The cylinder heads are also available with pre-assembled valves and valve-springs to suit your needs and for ease of repair.

The product range
- Multiple cylinder heads

The broad product portfolio of cylinder heads is suitable for over 370 engine applications and over 1,600 vehicle applications.

Depending on the type of repair, the cylinder heads are available with:
- Seating rings and valve guides
- Assembled valves and valve-springs
- Assembled camshafts (ready to install)

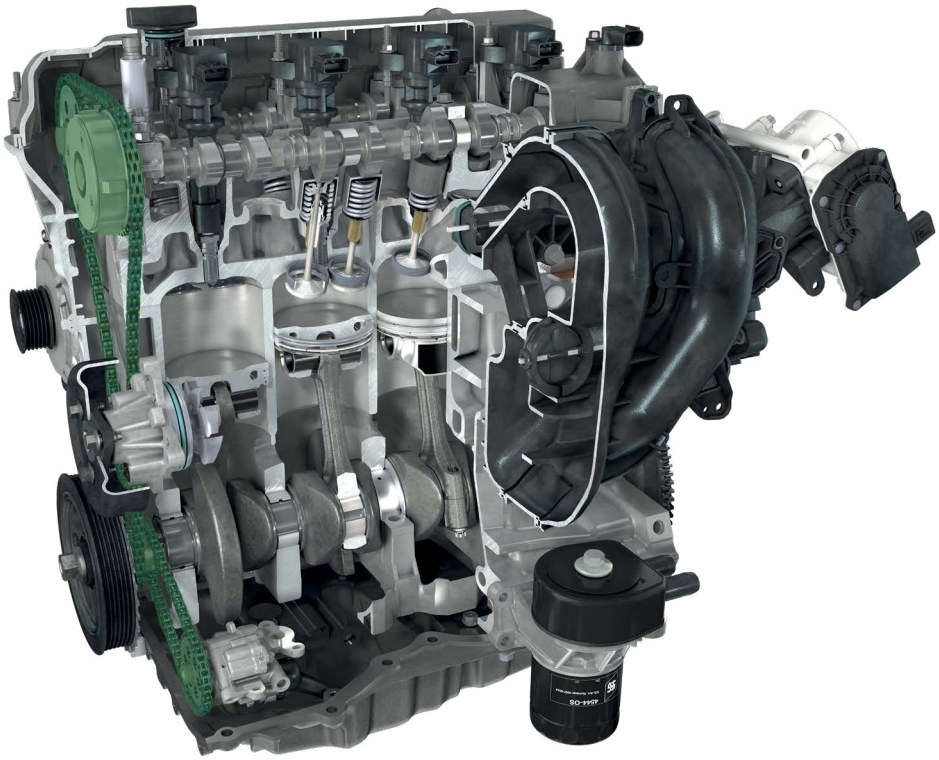
TIMING CHAIN KITS –
PRECISION AND STABILITY FOR SAFETY AND PERFORMANCE

In about one-third of all passenger car engines, the camshafts are driven by timing chains. Malfunctions in the engine's timing drive usually lead to costly repairs, so it pays to opt for quality here as well.

Timing chain kits consist of:

- Timing chains
- Tensioner blades, sliding and guide rails
- Sprockets (crankshaft and camshaft gears)
- Chain tensioners
- Camshaft adjusters
- Gaskets

When reconditioning the chain drive and at the prescribed change intervals, all components affected by wear and the associated gaskets should always be replaced. The corresponding kits are put together by Motorservice for specific engines.



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