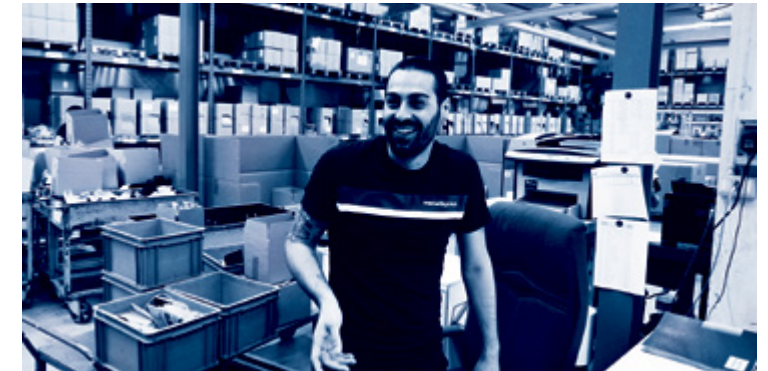


CORPORATE PRESENTATION



metelligroup
AUTOMOTIVE PASSION

CORPORATE PRESENTATION



WELCOME TO THE SOURCE OF MORE THAN 13,000 PARTS AND ENDLESS AUTOMOTIVE PASSION

You probably know we are an Italian manufacturer, and that we supply car manufacturers, OEM and the aftermarket. What you might not know is how we like to be in the driving seat when it comes to automotive parts. We don't just make them, we invest heavily in them. We invest in their quality; their design; their performance and reliability. And then we provide the worldwide service and distribution you need to make your business work.

So welcome to Metelli Group, a manufacturer that takes your passion seriously.

metelligroup
AUTOMOTIVE PASSION

FROM ENGINEERING WORKSHOP TO INDUSTRY LEADER IN 50 YEARS

Just over half a century ago Luigi Metelli opened a mechanical engineering workshop. Yet unlike other Italian part makers, he didn't stop at quality. He learned about the problems his customers would soon face – and started developing the solutions. In this way the company continued to grow, making water pumps and parts for brakes, transmissions and engines.

Today we manufacture and export a much wider range of automotive parts – under six different product brands – Metelli, GRAF, CIFAM, KWP, Trusting & Fri.Tech. Within each brand there is a wealth of specialist know-how, and added versatility for meeting the demands of a global market.

We continue to invest in new parts, introducing approximately 150 new references each year, and the advanced production processes needed to manufacture them. And we're not about to stop investing any time soon.



THE PEOPLE WHO KEEP OUR ENGINES RUNNING



As a privately owned group of companies, we dare to say that our workforce is our single most important asset. Of course, they have the competence and know-how to develop, manufacture and distribute the parts our reputation is built on. But more than this, they bring together the personal values that have enabled our group to go from strength to strength. These values can be found in plenty among our 650 employees – a fact that would make our founder most proud if he were alive today.

Take, for example, the good sense found on each of the factory floors. Or the meticulous attention to detail that has become second nature throughout each phase of manufacturing. You can see our values in the relationships too – between our dedicated area sales managers and leading auto groups around the world. Look into our R&D department and you will find curious minds, constantly in search of improvement. And from business strategy to safety, quality and customer service – you will find transparency and sound judgement. All this, drives Metelli Group swiftly forward.



MEETING THE NEEDS OF MULTIPLE MARKETS WITH SIX PRODUCT BRANDS

From the automotive-industry highway of northern Italy, Metelli Group has reached out into the world under several different flags. But the six logos below are more than labels, each one has its own story – a journey in time and expertise. You'll find several of the brands produce some of the same parts – the Metelli brand in particular, which is an umbrella for all of our products. GRAF and KWP are synonymous with water pumps, while CIFAM was destined to make hydraulic parts for brakes and clutches, and both Trusting and Fri.Tech. are famous for their high performance brake shoes and brake pads.

Every product manufactured by the Metelli Group is made to match or improve on its predecessor. This policy allows us to back our entire range with the same high level of support, guarantees and logistical networks. And no matter which of our brands you choose, the products are prepared and packed in our purpose-designed boxes to meet the demands of the people who will use them.

metelli

GRAF

cifam

TRUSTING

fri.tech.

KWP



AN ENTIRE RANGE OF PARTS IN JUST FOUR PRODUCT FAMILIES

Here is the secret to searching and finding what you need in no time at all. Our product family icons work as search categories, helping you to navigate your way to the relevant information about every single part – no matter which of our brands it falls under.

Naturally, our products meet the relevant safety regulations such as ECE R90, and they comply with ISO 9001, ISO/TS 16949, ISO 18001 and ISO 14001. We monitor and test the safety, quality and reliability of every part we manufacture – and even the very few pieces in our range that we don't. This means you, and your customers, can trust in every part that comes from us.



Transmission Parts



Engine Parts



Brake Parts



Water Pumps



USING INNOVATION TO MAKE TRACKS OF OUR OWN

Six percent of the Metelli Group turnover goes straight back into R&D and new technologies. This investment has two major rewards. First of all, we see it as a way to create value for our growing customer base. Secondly, we see it as a way to innovate our way to the forefront of our industry. A case in point is HybriX® – one of the latest innovations from our vigorous investment program.

HybriX® is the brand name for a patented new technology for brake pads. Designed and developed by our engineers at Fri.Tech., its unique compound marks a turning point in brake pad history. To begin with, it's copper-free and meets the most stringent environmental demands in America. But unlike other copper-free compounds, HybriX® is a hybrid of over 30 materials – ceramic, semimetallic and organic. The result is better braking performance all round. For the driver it means quiet and smooth pedal action with exceptional stopping power. And for people and nature it means less harmful pollution.

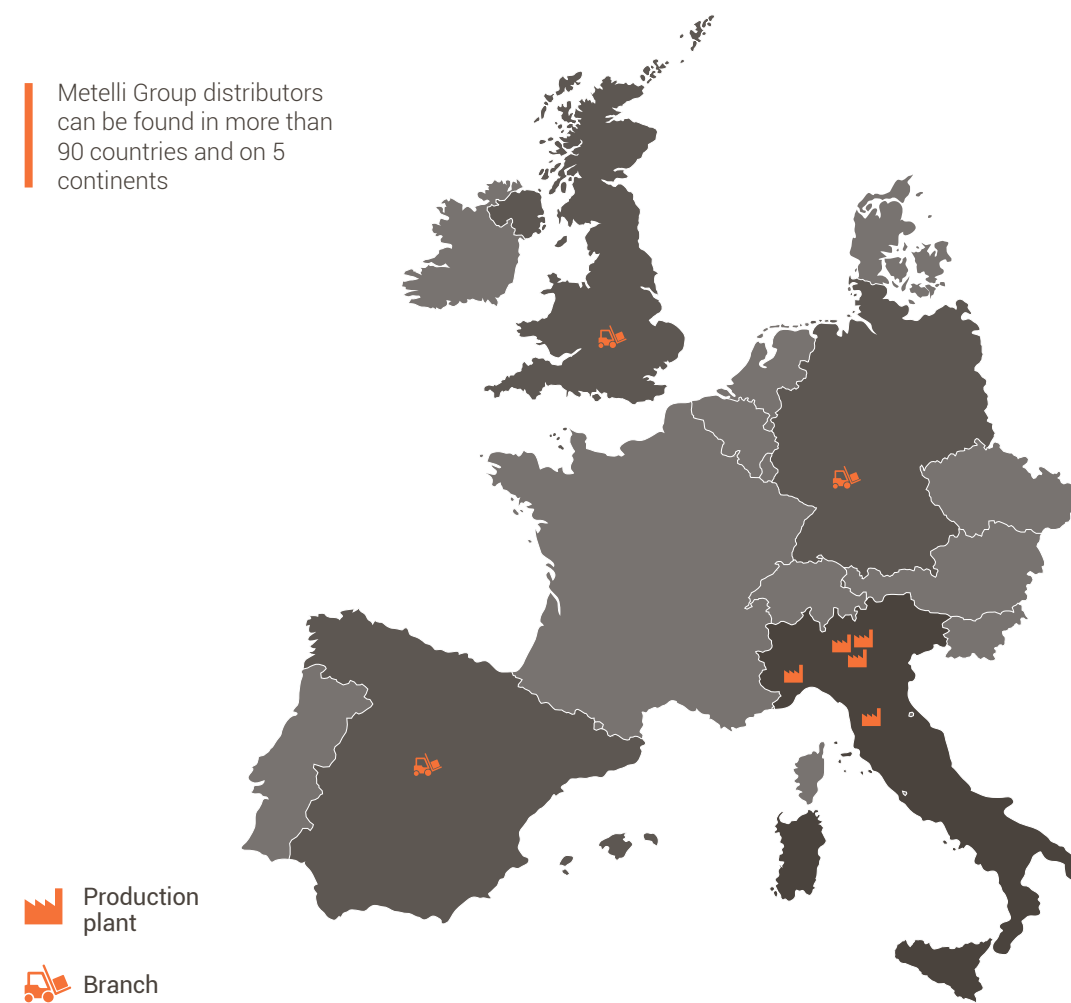
Besides brake pads, another recent example of our patented technology is switchable water pumps.



HybriX®

Where to find Metelli Group in Europe

Metelli Group distributors can be found in more than 90 countries and on 5 continents





PRODUCT OVERVIEW



metelligroup
AUTOMOTIVE PASSION

REAL PARTS FROM A REAL MANUFACTURER

You might not know it, but there is one thing that sets our product apart from all the others. Every single part manufactured by the Metelli Group was conceived with one and the same objective – to match or improve on the OEM part it was designed to replace. And how do we go about that?

We begin by analysing each OEM part. While reverse engineering the part, we carry out our own metallurgic analysis – often enabling us to offer a better material or compound. Once we have recreated the design with 3D CAD systems, our R&D team are able to suggest further improvements. Like our quality standards, you'll find we use the same software, machine tools and robotic assembly lines as the major automakers.

Of course, our parts comply with the same quality and safety standards as the originals. And like OEM parts, once ours have been tested in computer simulation, we test them in real life (in the plant and on the road). Then we prepare and pack them to meet your specific demands – in our purpose-designed packaging.

This is how we match or improve on every automotive part we set out to replace. You might even say this is what makes our parts more real than their predecessors.

Welcome to the real automotive parts of the Metelli Group.

WATER PUMPS



WATER PUMPS



As European leaders for aftermarket (and as original equipment suppliers), our water pumps are hard to beat. In fact, we often improve on the standards of other original products, and we have even developed our own patented products. Today we cover the entire European, American and Asian car parc, with approximately 1,000 items.

In almost all cases the body is an aluminium alloy, in some cases cast iron. Bearings can be ball-ball or roller-ball according to their type of use. Impellers come in sheet metal or stainless steel, brass, cast-iron, or the most modern techno-polymers. Mechanical seals are produced with advanced materials such as silicon carbide. Pulleys are sintered, sheet metal or cast iron – in shapes that withstand high belt tensions.

TIMING BELT KIT WITH WATER PUMPS



Including timing belt, water pump and tensioners, this kit makes life easier for the mechanic to identify the components needed for a replacement. Just one kit code is necessary for all three parts.

TRANSMISSION PARTS



CONSTANT VELOCITY JOINTS



Our wheel-side and gear-side constant velocity joints come with the relevant sealing system boot, clamps, bolts, nuts, seeger, locking rings, and grease. Our steel outer race, cage and inner race are manufactured and treated for maximum resistance to wear. We grind them to tolerances of hundredths of a millimetre so that together with high precision balls they guarantee regular and lasting performance. Most articles have an ABS ring made in a sintered material or forged steel.

DRIVESHAFTS



Our range of ready-to-use driveshafts covers the aftermarket demands of the entire European car parc (including those of our OE customers). The components – wheel side joint, gear side joint, shaft and seal systems – are all already assembled. This means they're quick and easy to install.

BOOT KIT



The kit consists of boot, clamps, bolts, nuts, seeger, locking rings and grease. We use two different materials for the boots – mostly rubber as it's easiest to install and most reliable over time, but also thermoplastic, which is more resistant to wear and corrosion from aggressive agents.

ENGINE PARTS



VALVE GUIDES IN VARIOUS MATERIALS



We make intake and exhaust valve guides using ferrous or non-ferrous metals. The cast iron (ferrous) is more resistant to wear, while copper based alloys (non ferrous) provide optimal heat conductivity. Then we make valve guides in sintered steel. With selflubricating properties and greater resistance to high temperatures, these are ideal for aspirated and turbocharged engines with very high performance.

VALVE SEATS



Our ferrous valve seats are made with temperature resistant steel and special cast iron. Then, for greater heat conduction, we make sintered valve seats using metals and carbides with high mechanical and thermal properties.

VALVE SHIMS & ADJUSTING PADS



Made with case-hardening steel, the accuracy of our valve shims is measured in hundredths of a millimetre. This enables them to meet the small tolerances demanded. In fact, the increments of sizes are just five hundredths of a millimetre.

BRAKE PARTS



BRAKE DISCS

With approximately 1,400 items, our range covers the entire European, American and Asian car parc. The brake discs are made in cast iron with varying percentages of carbon according to the performance needed by the vehicle. We have solid discs and selfventilated discs, and a wide range of coated brake discs to keep them looking good. To coat the brake discs we use ALUTHERM® 80 or DSP® paint. The first leads to a lower environmental impact compared to solvent-based paints – and higher corrosion resistance. The DSP® paint makes the disc ready to use, so there's no need to degrease them before mounting. And every one is ECE R90 certified.

BRAKE PADS



Depending on the specifications, our brake pads are made with compounds of different composite materials. We are currently launching our very own compound, Hybrix® – a new and patented technology which sets a new benchmark in the field. Brake pads made with the Hybrix® compound have an unmatched combination of performance and comfort. Of course, they're certified according to ECE R90, and as an added bonus they're copper-free.

BRAKE DRUMS



Like our discs, our brake drums are manufactured in machined cast iron. Accurate workmanship of all the elements ensures perfect coupling between the drum and the shoes – and excellent braking performance.



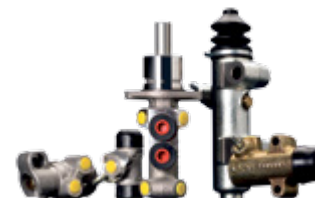
BRAKE SHOES

Our constantly updated range of brake shoe products consists of more than 700 items – and like all our safety-critical parts, every one is certified ECE R 90. Every brake shoe is made with meticulous attention to detail from high quality raw materials.



PRE-MOUNTED BRAKE KITS

With more than 430 brake kits, we have the most extensive range on the market. With all the components pre-mounted, our brake kit allows you to replace every component which can become worn – making assembly easier, faster and safer. Also, to make life quicker and easier when ordering, we have pre-mounted (self adjusting) Brake Shoe Kits, Reduced Fast Kits (without cylinders), and Repair Kits with wheel cylinders.



HYDRAULIC BRAKE & CLUTCH PARTS

Apart from a full range for aftermarket, we supply original equipment braking systems and brake parts for other brake manufacturers. This includes wheel cylinders, brake master cylinders, pressure regulating valves, slave and master cylinders for clutches and more. All these are produced in different quality materials including cast iron, aluminium and plastic.

■ For detailed information on more than 13,000 parts from the Metelli Group, please visit our website.

WATER PUMPS

WATER PUMPS



As European leaders for aftermarket (and as original equipment suppliers), our water pumps are hard to beat. In fact, we often improve on the standards of other original products, and we have even developed our own patented products. Today we cover the entire European, American and Asian car parc, with approximately 1,000 items.

In almost all cases the body is an aluminium alloy, in some cases cast iron. Bearings can be ball-ball or roller-ball according to their type of use. Impellers come in sheet metal or stainless steel, brass, cast-iron, or the most modern techno-polymers. Mechanical seals are produced with advanced materials such as silicon carbide. Pulleys are sintered, sheet metal or cast iron – in shapes that withstand high belt tensions.

TIMING BELT KIT WITH WATER PUMP

Including timing belt, water pump and tensioners, this kit makes life easier for the mechanic to identify the components needed for a replacement. Just one kit code is necessary for all three parts. In keeping with the quality and the constantly high standards attained, Metelli brand timing belt kits with water pump are guaranteed by the Metelli Group for 5 years.



TRANSMISSION PARTS



CONSTANT VELOCITY JOINTS

Our wheel-side and gear-side constant velocity joints come with the relevant sealing system boot, clamps, bolts, nuts, seeger, locking rings, and grease. Our steel outer race, cage and inner race are manufactured and treated for maximum resistance to wear.

We grind them to tolerances of hundredths of a millimetre so that together with high precision balls they guarantee regular and lasting performance. Most articles have an ABS ring made in a sintered material or forged steel.



DRIVESHAFTS

Our range of ready-to-use driveshafts covers the aftermarket demands of the entire European car parc (including those of our OE customers).

The components – wheel side joint, gear side joint, shaft and seal systems – are all already assembled. This means they're quick and easy to install.



BOOT KIT

The kit consists of boot, clamps, bolts, nuts, seeger, locking rings and grease.

We use two different materials for the boots – mostly rubber as it's easiest to install and most reliable over time, but also thermoplastic, which is more resistant to wear and corrosion from aggressive agents.



BRAKE PARTS



BRAKE DISCS & BRAKE PADS

The brake discs are made in cast iron with various percentage of carbon based on the performance required by the intended applications and are divided into two categories: full discs and self-ventilating discs. A wide range of coated brake discs DSP® (Disc Surface Protection) is also available, the main advantage of which is to maintain the aesthetic characteristics unchanged over time and make the product ready for use.

Depending on the specifications, our brake pads are made with compounds of different composite materials. We are currently launching our very own compound, **HybriX®** – a new technology which sets a new benchmark in the field. Brake pads made with the **HybriX®** compound have an unmatched combination of performance and comfort. Of course, they're certified according to ECE R90, and as an added bonus they're copper-free.



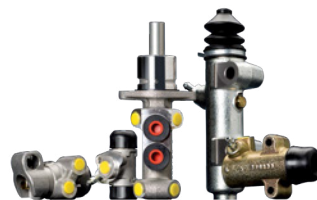
BRAKE DRUMS, SHOES & RAPIDKIT

The brake drums, as the discs, are made of machined cast iron, the geometry is apparently different, but the devices are the same. The brake shoes are manufactured using high quality raw materials and many of which are also certified ECE R90. The rapidkit is made up by: brake shoes with preassembled device to recover brake play, wheel cylinders and range of accessories. The rapidkit allows the replacement of all the components at risk of wear, providing easier, faster and safer assembly.



BRAKE & CLUTCH HYDRAULICS

Products for which Metelli is a leading manufacturer in Europe: a significant part of the production is used to supply original equipment and the main manufacturers of braking systems, there is also a full range aimed at the aftermarket. Wheel cylinders and brake master cylinders, pressure regulating valves, slave cylinders and clutch master cylinders are mainly made of cast iron and aluminium using high-technology and highly automated processing machinery, assembly and testing equipment; all products are tested at 100%.



ENGINE PARTS



VALVE GUIDES

We make intake and exhaust valve guides using ferrous or non-ferrous metals. The cast iron (ferrous) is more resistant to wear, while copper based alloys (non ferrous) provide optimal heat conductivity.

Then we make valve guides in sintered steel. With self-lubricating properties and greater resistance to high temperatures, these are ideal for aspirated and turbocharged engines with very high performance.



VALVE SEATS

Our ferrous valve seats are made with temperature resistant steel and special cast iron. Then, for greater heat conduction, we make sintered valve seats using metals and carbides with high mechanical and thermal properties.



VALVE SHIMS & ADJUSTING PADS

Made with case-hardening steel, the accuracy of our valve shims is measured in hundredths of a millimetre.

This enables them to meet the small tolerances demanded. In fact, the increments of sizes are just five hundredths of a millimetre.



Looking for replacement brake parts? Visit our website.