

A close-up, low-angle shot of a metal gear with a blue background. The gear is the central focus, showing its teeth and the inner bore. The lighting is dramatic, with strong highlights and deep shadows, emphasizing the metallic texture and the precision of the gear's design. The background is a solid, deep blue, which makes the silver metal of the gear stand out.

Mechanical Transmissions on Demand

GROUP
special
ingranaggi

A solid and flexible company



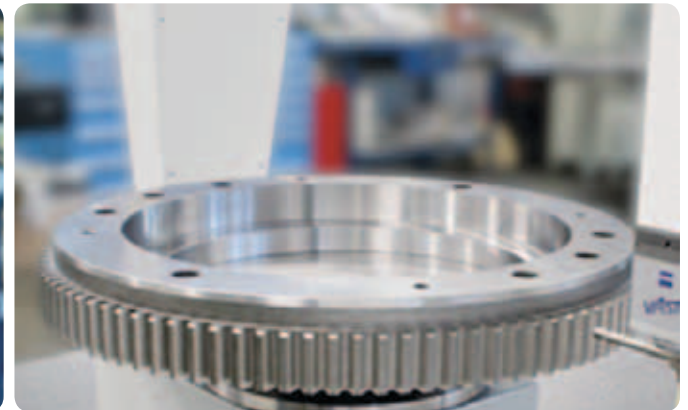
Since 1999 we are the recognised leaders in the manufacture and sale of components for mechanical transmissions on demand. Through our Sales, Production and Logistics Departments, we machine, manufacture and import an extensive range of transmission components on demand, including gears, pulleys, chain sprockets, bevel gears, racks and slewing bearings in any material, which undergo heat and surface treatments based on customer specifications.

Rigorous management of the production and machining phases – monitored by an integrated management system – coupled with the skilled expertise of our production department and stringent checks throughout all phases of the operating cycle guarantee precise, reliable products for industrial and artisan applications in the agricultural, textile, mechanical, manufacturing, food packaging, and marble, wood and glass machinery sectors.

Our company's success stems from its flexible approach and ability to evolve in extremely dynamic markets.

The quality and service guaranteed to our customers are the core values defining the entire company activity.





A professional approach at your service

The experience acquired in the construction of mechanical transmissions makes us specialists in the manufacture of gears, toothed bars and pulleys, chain sprockets, bevel gears and racks.

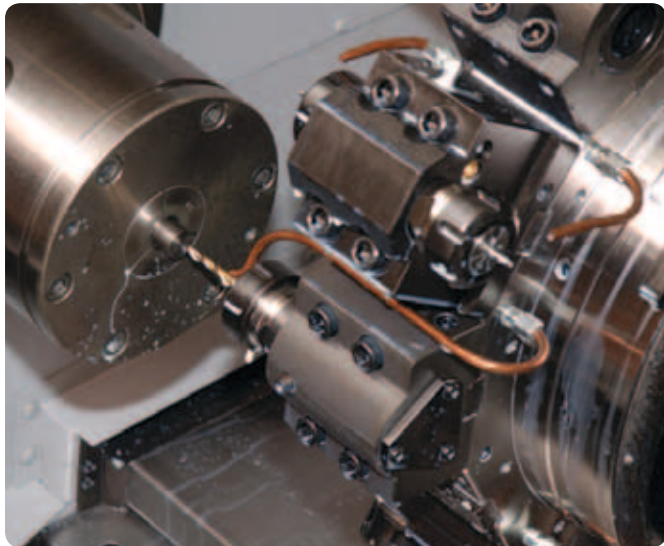
The products we manufacture on demand boast extremely high quality standards and can be manufactured in any material, including carbon steel, hardened steel, plastic, stainless steel, aluminium, brass and bronze.

The company is equipped with technologically advanced machines used for teeth-cutting, broaching, turning and milling of parts based on customer specifications. With our recognised versatility in satisfying the most diverse requirements of industrial production cycles, we guarantee quick delivery times for both large production batches or small quantities – including samples.

Three solutions with a common feature: guaranteed quality

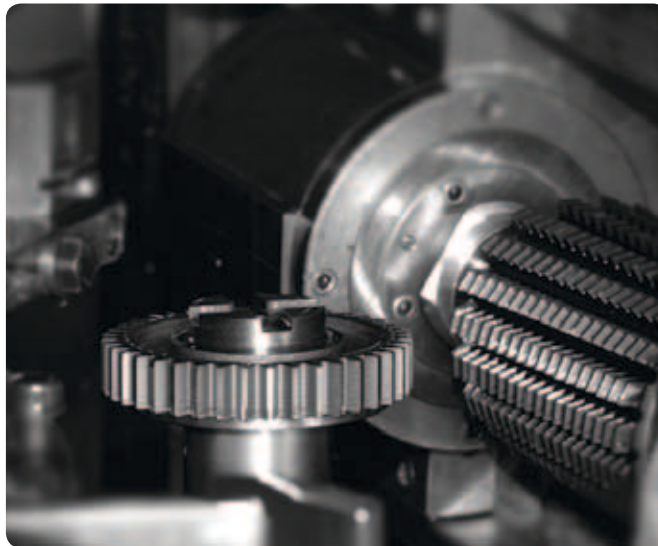
① Machining and treatments

Our company optimises machining and heat and surface treatments of commercial transmission components, thanks to the turning, milling and broaching department and a well-equipped warehouse. We guarantee prompt deliveries, in conformity to the agreed price and quality standards.



② Production

Thanks to our production department, the manufacture of toothed wheels, chain sprockets, pulleys and mechanical transmissions offers a flexible and safe solution to the demand for non-standard transmission components supplied in any material and size.



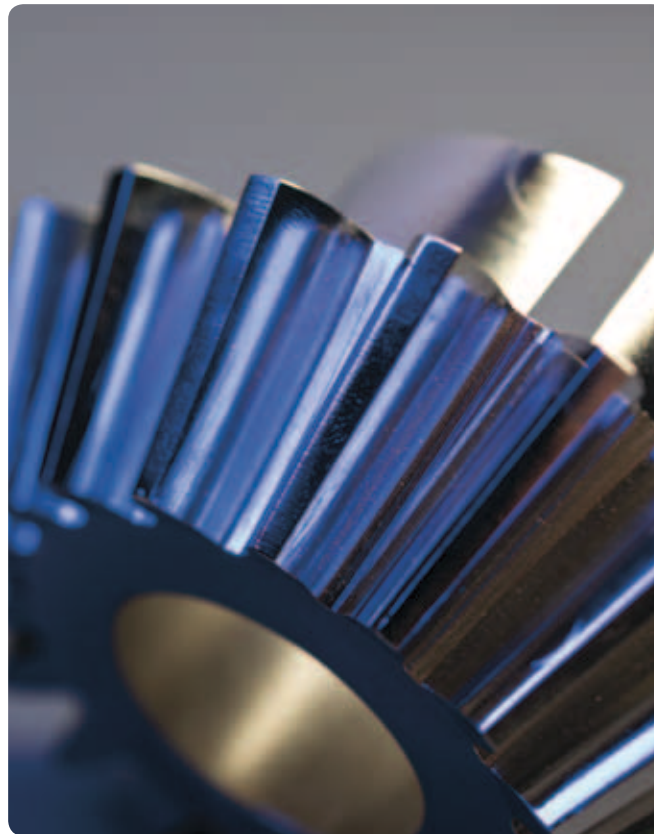
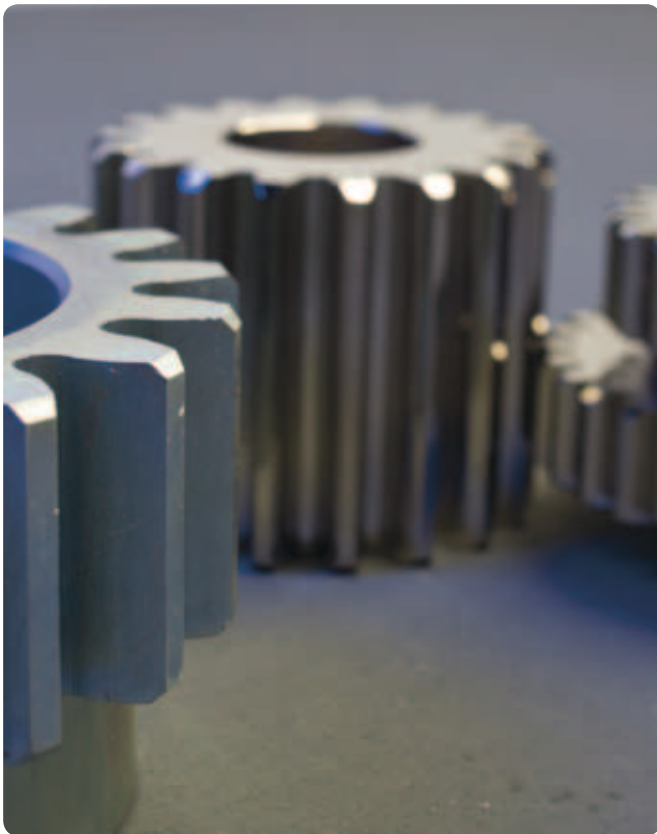
③ Importing

We manage all product importing phases for on-demand mechanical transmissions, including logistics, import-export documentation and delivery to the end customer. Moreover, we guarantee quality and international certifications, monitored by our in-house quality system.



A complete range of products

Gears	6	Racks	15
Timing pulleys	7	Chains	16
Sprockets and plate wheels	8	Chain guide rails	17
Bevel gears	9	V-belt pulleys	18
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Gears

We customise and manufacture – based on your specifications – small quantities or large batches of spur and helical cylindrical gears with modules M 0.5 to M 30 and up to 3,000 mm diameter, made of steel, cast iron, stainless steel, nylon, aluminium, bronze and hardened steel with custom heat and surface treatments.

Features

- Flexible and reliable production for any application or requirement
- Cost-convenient, thanks to production cycles managed entirely in-house
- High performances guaranteed by heat treatments

Available solutions



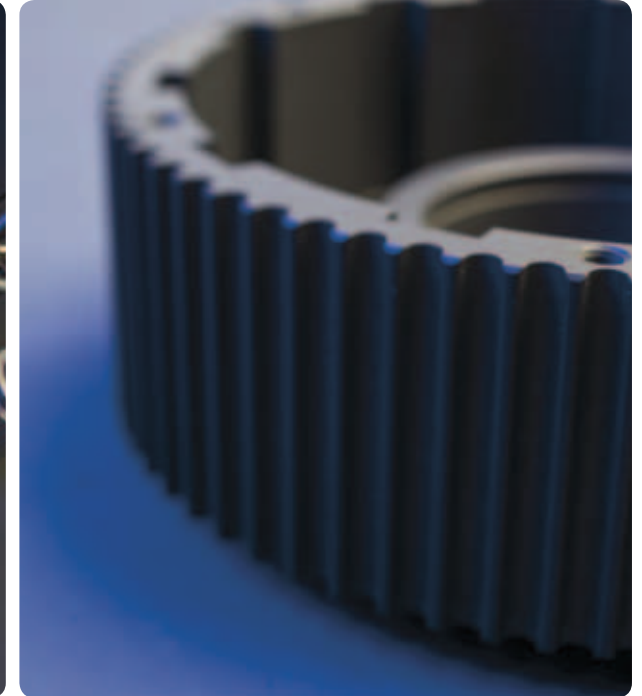
Timing pulleys

We manufacture and machine timing pulleys and bars for metric pitch timing belts, aluminium timing pulleys, positive-drive timing pulleys and HTD pulleys. The pulleys can be configured for taper bushes or locking assembly bores. All the products can be made of special materials and custom-made, with heat and surface treatments based on customer specifications.

Features

- Metric timing pulleys with tooth profiles up to AT20
- Zero-backlash tooth profile available
- Non-standard flanges can be manufactured and assembled

Available solutions



Sprockets and plate wheels

We manufacture and machine sprockets and plate wheels for simplex, duplex, triplex and quadruple custom chains, with pitch from 6" to 3" and up to 3,000 mm diameter, conforming to DIN and ASA specifications, in addition to hardened sprockets, nylon sprockets, tapered bush sprockets, steel and cast iron plate wheels for conveyor chains, chain tensioner sprockets with bearing, hubs for taper bushes and demountable hubs. All the items can be manufactured with custom materials and heat and surface treatments.

Features

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- Cost-convenient, thanks to production cycles managed entirely in-house
- High performances guaranteed by heat treatments

Available solutions



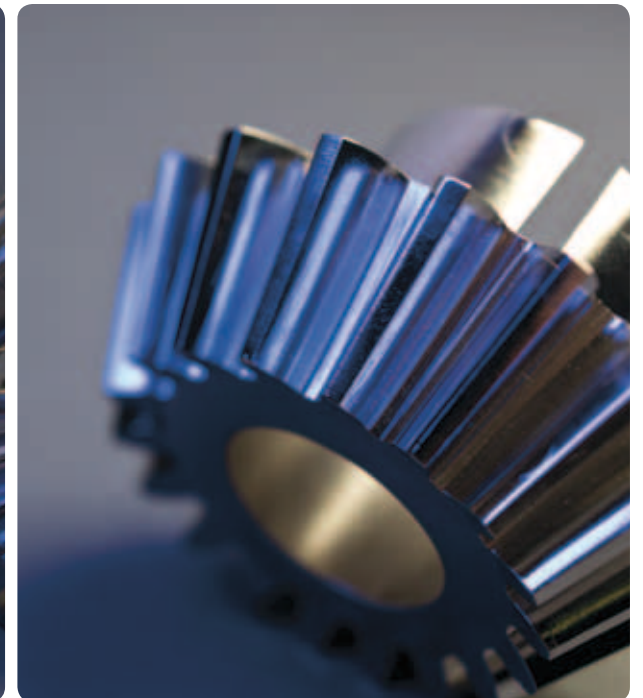
Bevel gears

We supply straight and spiral bevel gears with modules ranging from M 1 to M 6 and ratio 1:1 to 1:4.
All bevel gears can be manufactured in any custom material and treated according to customer specifications.

Features

- Gleason spiral bevel gears also available
- Broaching and heat treatments can be made on products
- Plastic bevel gears can be manufactured, even from dies

Available solutions



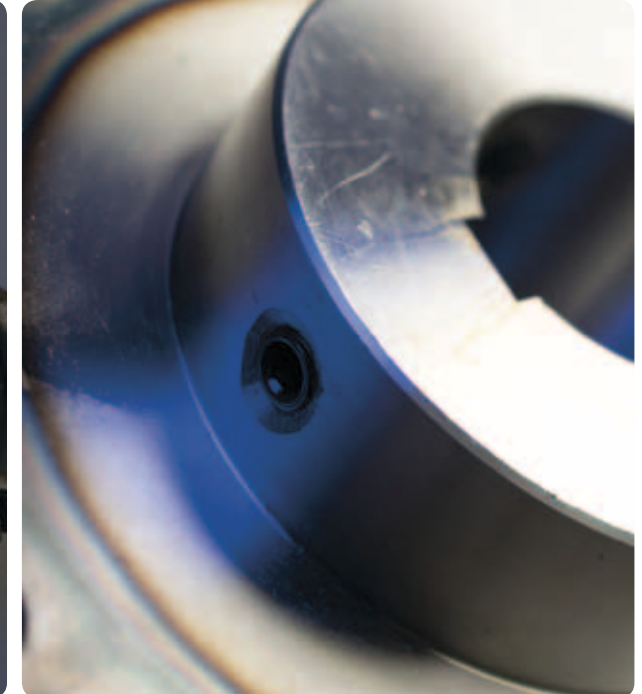
"System" sprockets

All "SYSTEM" SPROCKETS have teeth subjected to induction hardening. This treatment doubles the sprocket's working life, thus improving the efficiency of the entire transmission. The sprockets are configured with finished bore, keyway, set-screw holes. Thanks to the extensive range, the customer can use the products instantly, without having to wait for any additional operations.

Features

- Sprocket working life doubled
- Extensive range of products in stock
- Configured with finished bore, keyway and set-screw holes

Available solutions



Home & Building automation

The experience acquired in recent years, through collaboration with leading companies in the home & building automation sector, has enabled us to expand our production range by customising products to on-going innovation requirements demanded by the market.

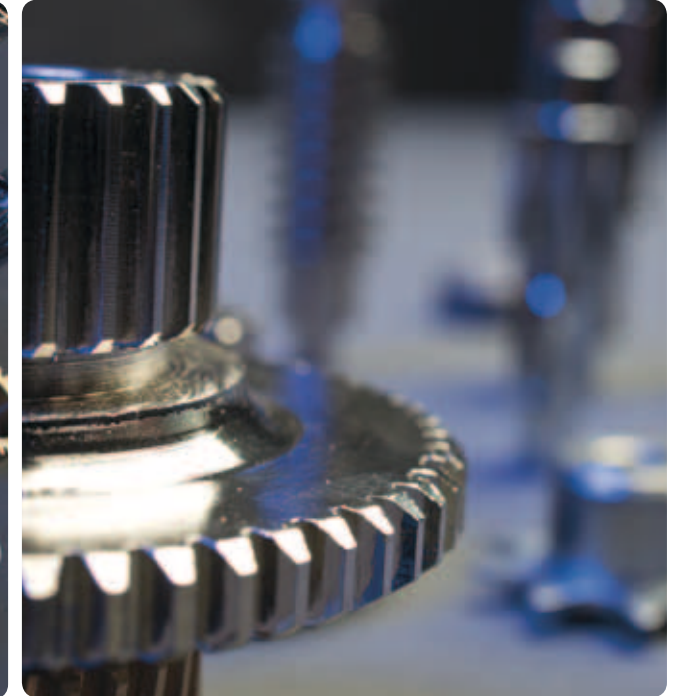
We possess the necessary know-how for manufacturing and importing transmission components relevant to products of this sector, such as tilt doors, buried automations, barrier gates, sliding gates, etc.

The finished products are of guaranteed high-quality and competitiveness.

Features

- **Manufactured in Italy for flexible production and prompt delivery**
- **Possibility of manufacturing gears in any material**
- **Management of import phases to guarantee competitive, high-quality products**
- **Possibility of managing warehouse stock**

Available solutions



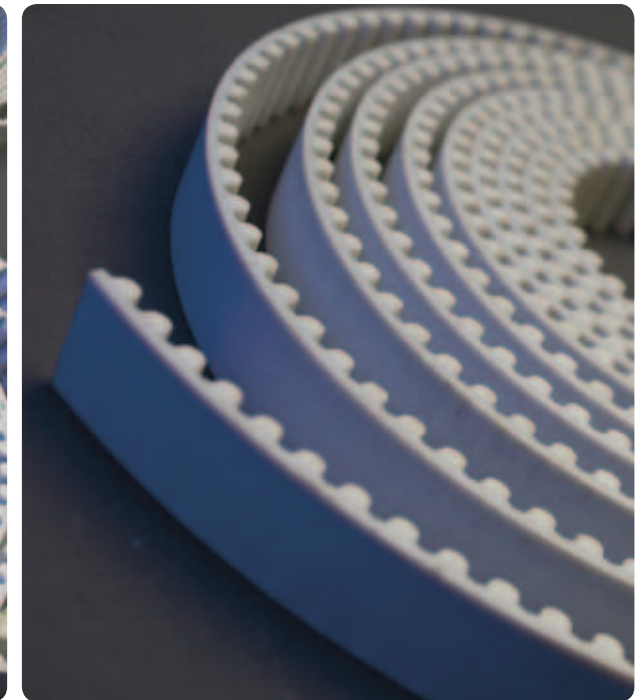
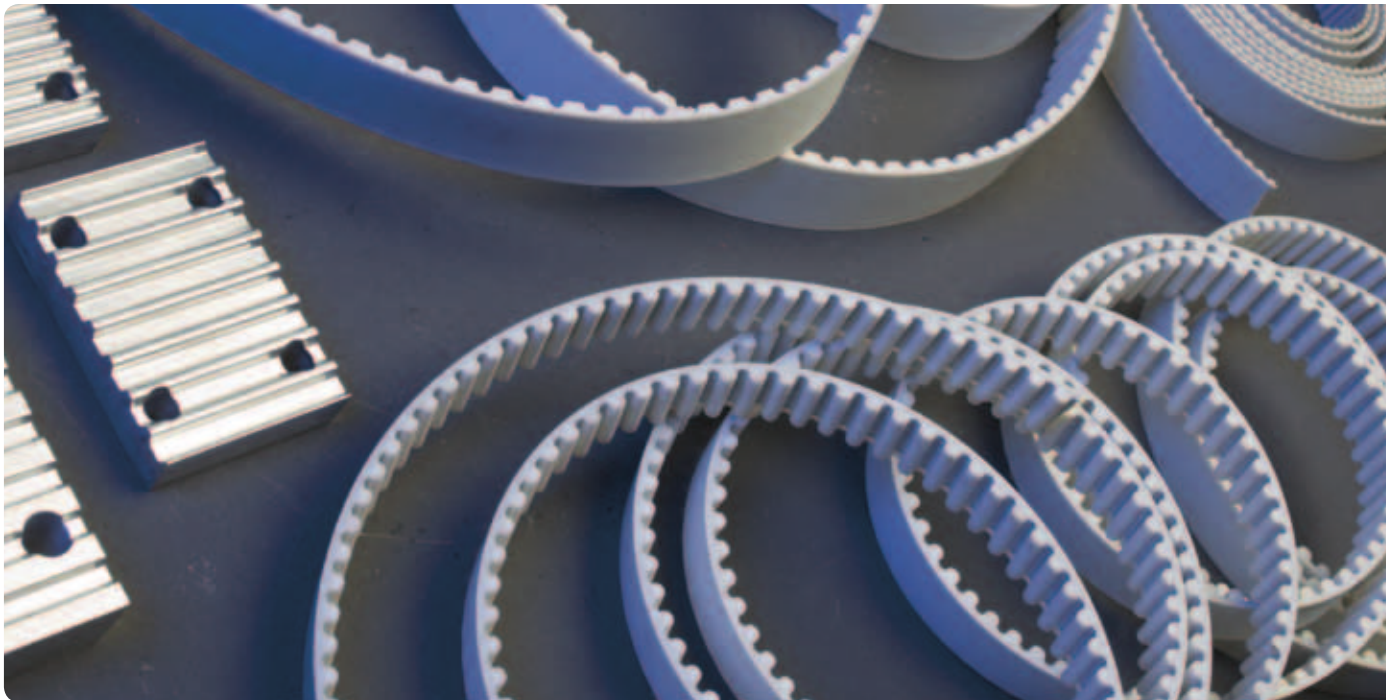
Open length timing belts

We supply polyurethane open length timing belts with stainless steel cables available with metric, HTD and positive pitch. Moreover, we can face the belt teeth and back with various materials (PAZ, PAR, etc.) and supply custom-made aluminium locking plates.

Features

- Welded or flex endless belts available
- Facing in various materials on demand
- Custom locking plates

Available solutions



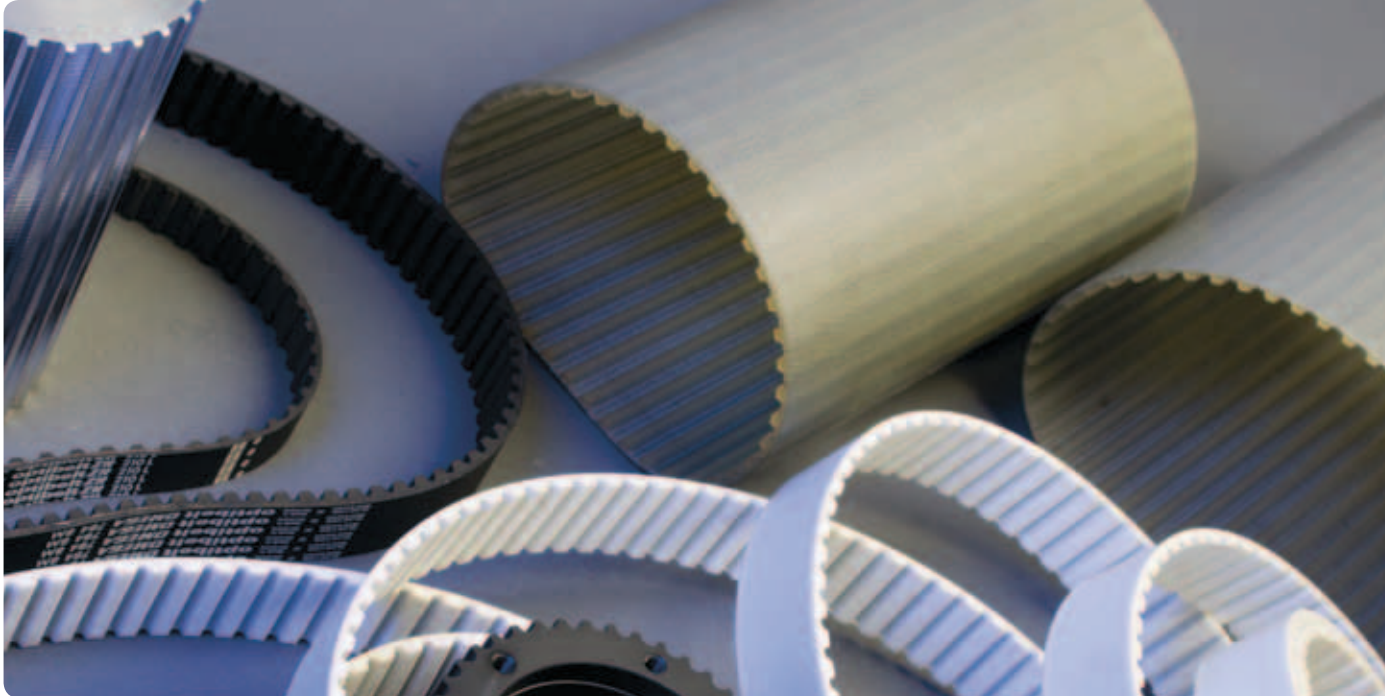
Belts and sleeves

We supply polyurethane belts and sleeves with metric pitch, positive-drive and HTD neoprene belts and sleeves, positive-drive and metric open length belts, and aluminium locking plates.

Features

- Extensive selection of sizes and widths
- Non-standard widths cut from sleeves
- Full-length sleeves available

Available solutions



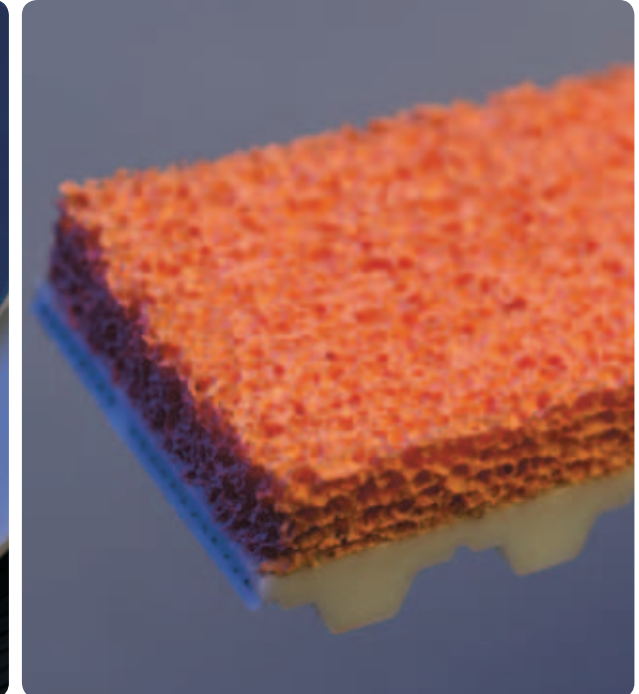
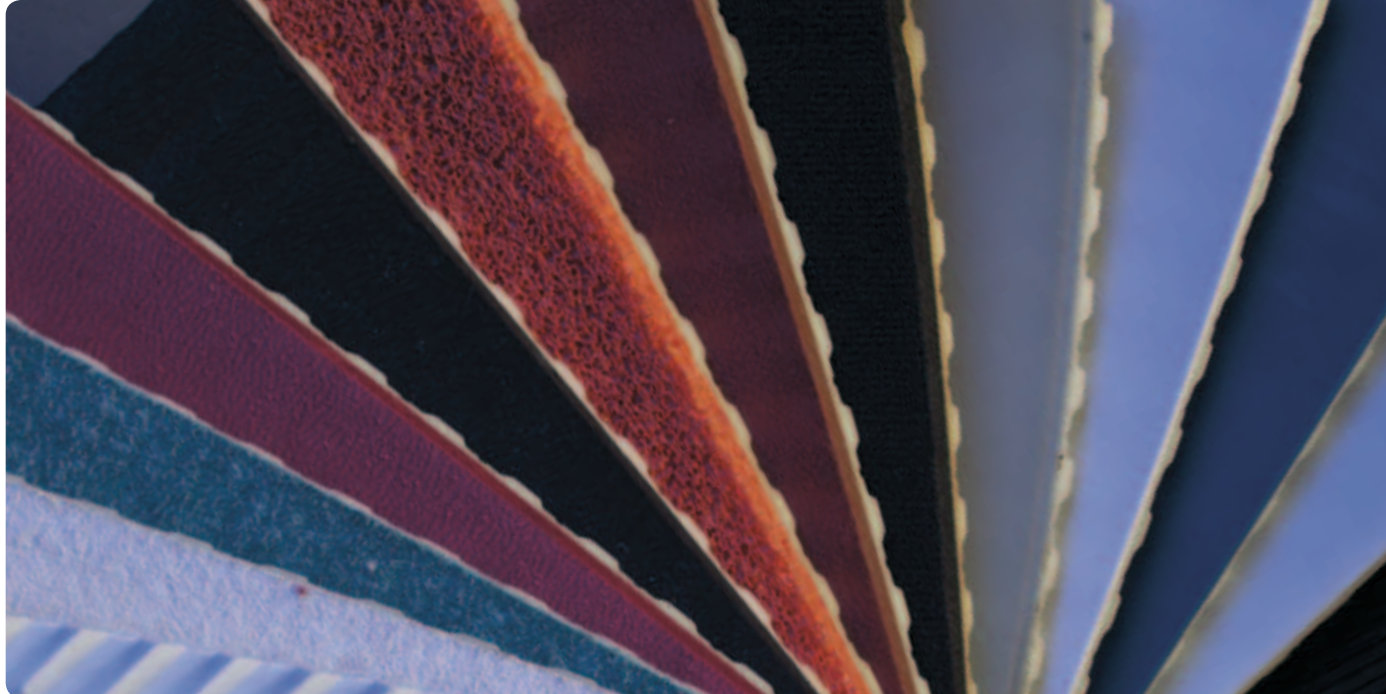
Special belts

We manufacture special and custom-made belts with polyurethane or aluminium cleats and various types of milling, boring and coating solutions, both on the teeth and on the belt surface. The side edges and backs of belts can be ground on request.

Features

- Application of cleats of various shapes and materials
- Edge and surface grinding on request
- Optional milling and boring

Available solutions



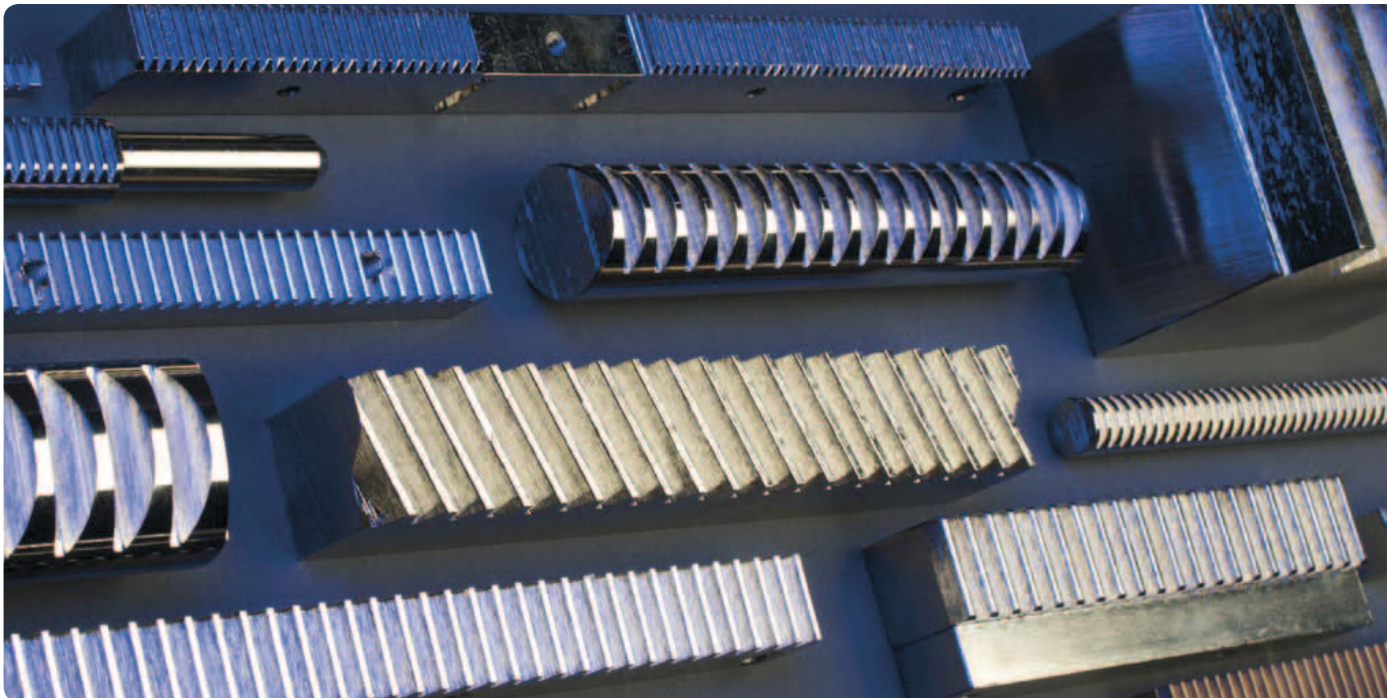
Racks

We guarantee machining and manufacturing of straight and helical racks with modules M 0.5 to M 30, even ground, and length between 250 mm and 4,000 mm, made of steel, 39NiCrMo3 and stainless steel, in addition to our standard range of nylon PA6+30% GF racks with steel core, module size from M 0.5 to M 4 and length between 250 mm and 1,000 mm.

Features

- Production of any precision rack, even ground
- Heat and surface treatments on demand for enhanced features
- Non-standard lengths available for any application

Available solutions



Chains

We supply European and ASA standard series transmission roller chains, stainless steel simplex, duplex and triplex chains, hollow pin chains, protruding pin chains with extended pitch, chains with standardised and non-standardised attachments, even with alternating pitch, and Fleyer chains.

Furthermore, we supply pre-run-in, selected and coupled step chains, with splicing on request and attachments made to customer specifications.

Features

- Any type of chain available
- Custom splicing on request
- Supply of custom attachments and bits

Available solutions



Polyethylene chain guide rails

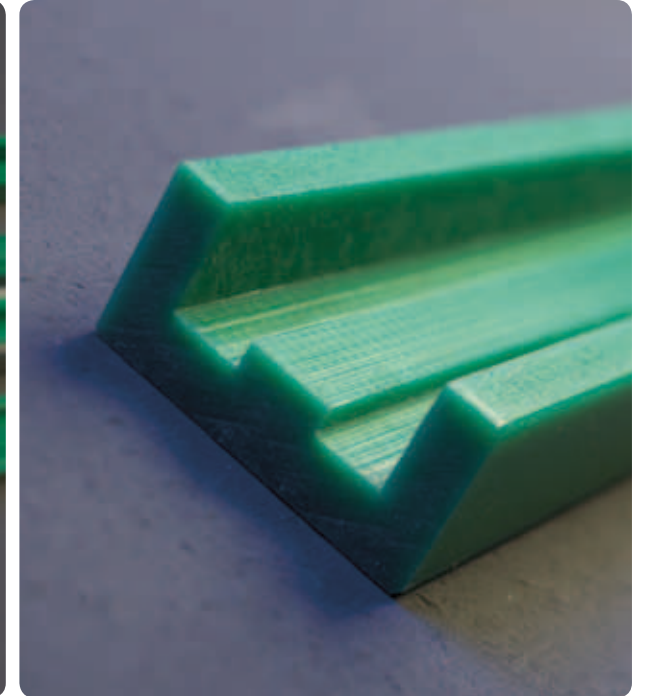
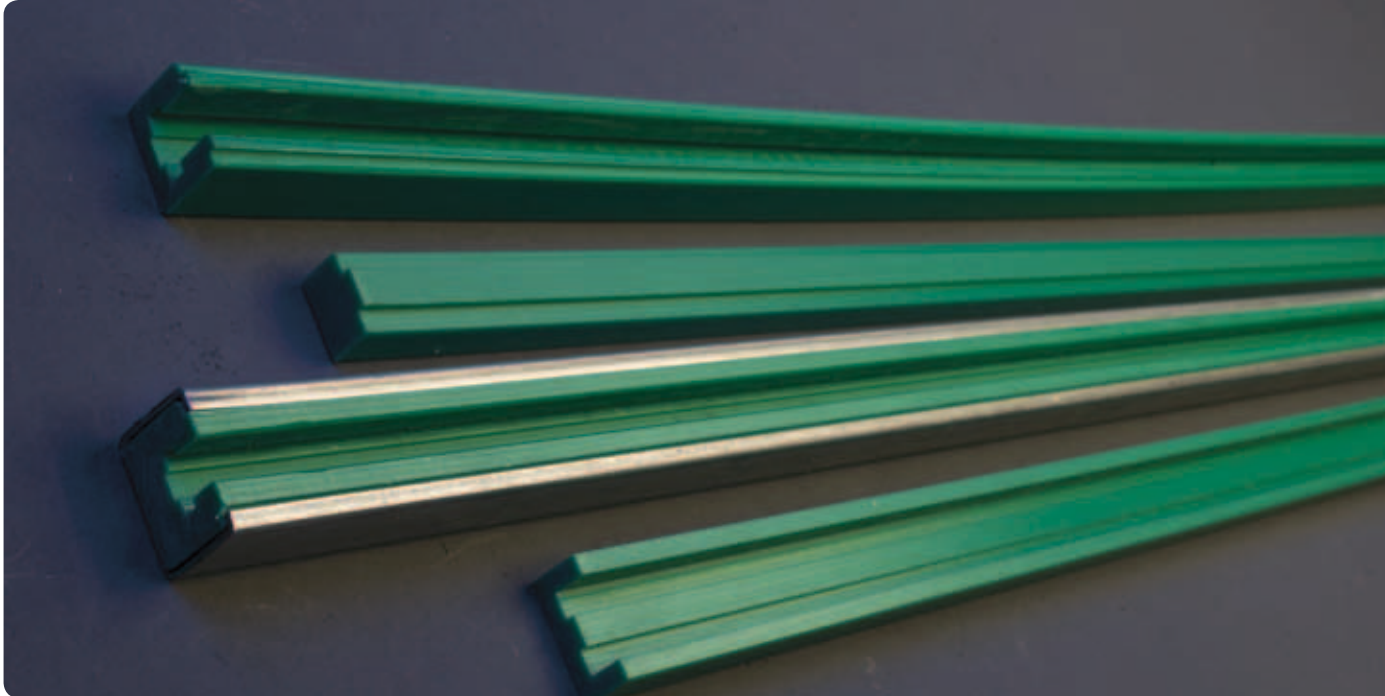
We have an extensive variety of standard chain guide rails and belt guide rails in stock, including the relevant metal profiles made of galvanised steel or Grade 304 steel.

In addition, on request we can manufacture special and custom profiles made of various PEDH materials or other plastic materials such as PET, POM and PTFE. We can also provide alternative technical solutions based on customer specifications.

Features

- Guide rails for any type of chain or belt
- Special or custom profiles available
- Extensive selection in stock

Available solutions



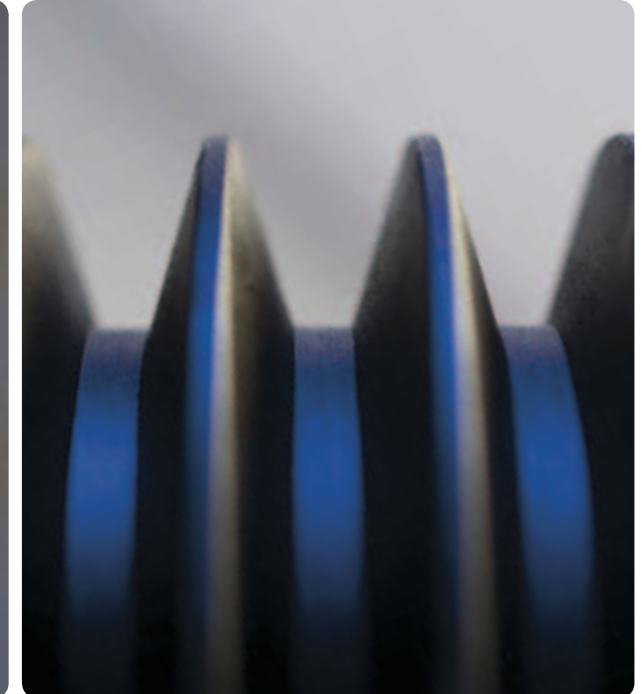
V-belt pulleys

We commercialise and machine trapezoidal V-belt pulleys conforming to current regulations, made of GG 20 cast iron with protective phosphating treatment. We manufacture statically balanced standard pulleys for peripheral speeds of up to 25 m/sec, or – on request – pulleys with dynamic balancing for higher speeds. All the pulleys can be configured for taper bushes or locking assembly bores.

Features

- Extensive range of standard pulleys in stock
- Custom pulleys made to customer specifications
- Static and dynamic balancing
- Configured for taper bushes

Available solutions



Flexible and toothed couplings

We manufacture and commercialise torsionally flexible couplings, zero-backlash flexible couplings, toothed couplings, Grade 303 stainless steel flexible couplings with polyamide ferrules and zero-backlash couplings. We machine aluminium and steel couplings and have an extensive range of polyurethane star wheels with 80 to 98 Shore.

Features

- Production of normal and zero-backlash flexible couplings
- Machining
- Certified materials (steel, aluminium, cast iron)
- Treatment based on specifications

Available solutions



Slewing bearings

We boast many years of experience and expertise in importing from China all types of slewing bearings (external toothed and internal toothed, motorised and untoothed slewing bearings).

The versions we provide have a maximum diameter of 5,000 mm and include cross roller slewing rings, single or double row ball slewing rings and roller / ball combination slewing rings.

We offer high value-added ball or roller sprockets for heavy-duty applications in sectors where motion is transmitted through an integrated system.

Besides mere commercialisation, our focus involves stringent quality criteria applied to each order phase: offer, logistics, transport, packaging and shipment.

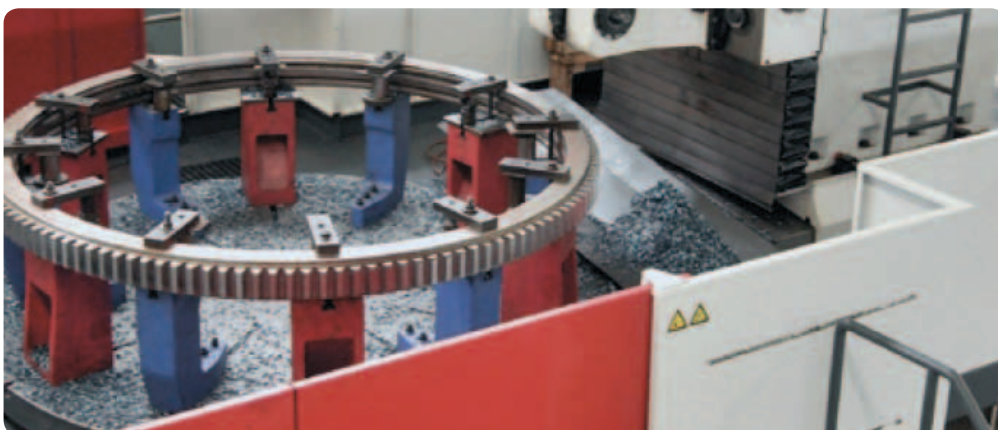
Quality control is a crucial aspect and starts with chemical analysis of the raw material, followed by dimensional and functional tests of the slewing bearing and checks on the production line throughout every operating phase. Each slewing bearing is accompanied by a quality certificate, a certificate of materials origin and an operating and maintenance manual.



Features

- Prompt delivery
- Dimensional and quality control of the slewing bearing
- Quality certificate and origin of materials certificate even for precision toothed slewing bearings
- Operating and maintenance manual
- Bearings with rings with full or profiled cross-section

Available solutions



Bushes

We supply taper bushes and adaptors for conical bushes, each with a wide selection of bore diameters and various types of keys, conforming to DIN and UNI specifications. Easy to mount, they are able to eliminate clearances between the shaft and bore.

Features

- Reduced costs due to easy assembly and dismantling
- Standard product in stock
- Extensive selection of models and dimensions

Available solutions



Locking assemblies

We guarantee locking assemblies, pulley locking assemblies and frictional locking assemblies that eliminate any type of clearance between the shaft and transmission component, and ensure high precision for the keyed part without any need for tight tolerances on worked parts.

The various locking assemblies – available in the metric or inch series – allow for fixing gears, pulleys, chain sprockets, etc. to the shaft using thrust cones working jointly.

Features

- Metric or inch series locking assemblies
- Straightforward assembly
- Clearances eliminated between shaft and transmission components

Available solutions



The solutions

① Machining and treatments

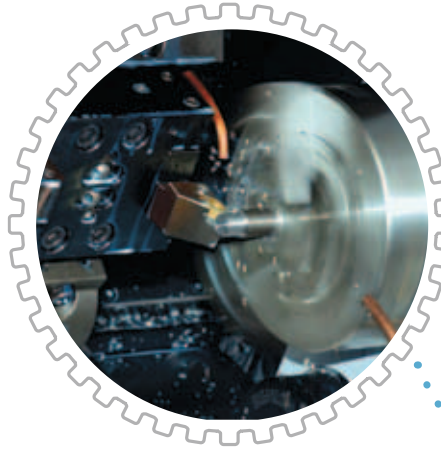
Phases of the process



PHASE 1

Offers and bill of materials development

We process any request for custom machining of gears. Thanks to our technical and commercial departments, we produce product drawings and bills of materials capable of optimising work cycles, thus guaranteeing the most competitive price.



PHASE 2

Machining based on specifications

Transmission components are machined and treated starting from existing standard products – such as timing pulleys, gears, chain sprockets, hubs, racks, belts, chains and transmission couplings – to obtain high-quality products precisely conforming to customer specifications.



PHASE 3

Heat and surface treatments

We subject parts to heat treatments (induction hardening, cementing, hardening and tempering, carbonitriding) and surface treatments (chemical and galvanic nickel-plating, galvanisation, burnishing, chrome-plating), with excellent results in terms of application and resistance to both wear and corrosion.



PHASE 4

Delivery and quotations

Thanks to our rigorous organisation of the gear machining and treatment phases, we effectively reduce the delivery times and management costs, guaranteeing competitive quotations on all products.

The solutions

② Production

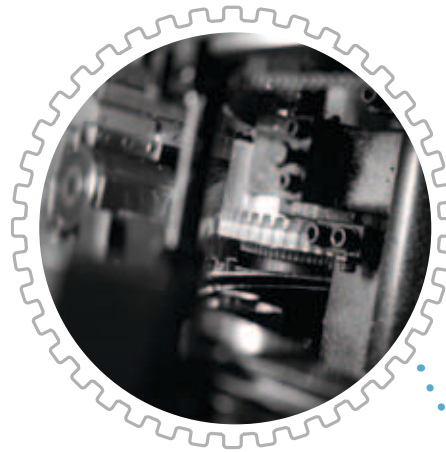
Phases of the process



PHASE 1

Quality of the materials

In manufacturing our transmission components, such as toothed wheels, sprockets, pulleys, bevel gears and racks, we place great emphasis on the choice of raw materials. Furthermore, we are able to offer solutions in all materials, such as carbon steel, stainless steel, hardened steel, nylon, aluminium, brass and bronze. All the materials can be accompanied by a certificate for each production batch.



PHASE 2

Production of standard and special transmissions

We specialise in the production of gears and teeth-cutting of sprockets and pulleys, adopting a versatile approach to manufacturing both standard and custom products. Thanks to an advanced production department and new-generation machines, we are able to cut teeth – through manual or automatic loading systems – of sprockets, pulleys and gears, with modules ranging from M 0.4 to M 12 and diameter between 10 mm and 450 mm.



PHASE 3

Flow control

The rationalisation of the single phases of the production cycle of sprockets, gears, pulleys, bevel gears and racks, coupled with the expertise of our technicians aided by the management system, enable us to monitor each machining phase and thus guarantee timely, reliable solutions and delivery times.



PHASE 4

Quantities

Our flexible approach enables us to satisfy the demands of small customers or large international companies, as we can manufacture single pieces or large batches of all our mechanical transmissions.

The solutions

③ Importing

Phases of the process



PHASE 1

Order management

We have extensive experience in importing slewing bearings, gears and toothed wheels from China. In addition we manage all the international import-export documentation and guarantee prompt delivery.



PHASE 2

Quality control in China

We import top-grade finished products that have passed stringent on-site checks complying with international reliability and precision parameters.



PHASE 3

Logistics management and transport

Besides importing special gears and toothed wheels, we also manage transport and customs clearance operations up to final delivery to the customer. Every stage of the journey is monitored, so customers receive precise answers on the date of goods arrival.



PHASE 4

Quality control upon arrival and packaging

Our extensive experience acquired in importing special gears and toothed wheels enables us to offer certified quality for our products, which are subjected to an additional check prior to their use. Moreover, we re-package, identify and label the products according to any customised request.

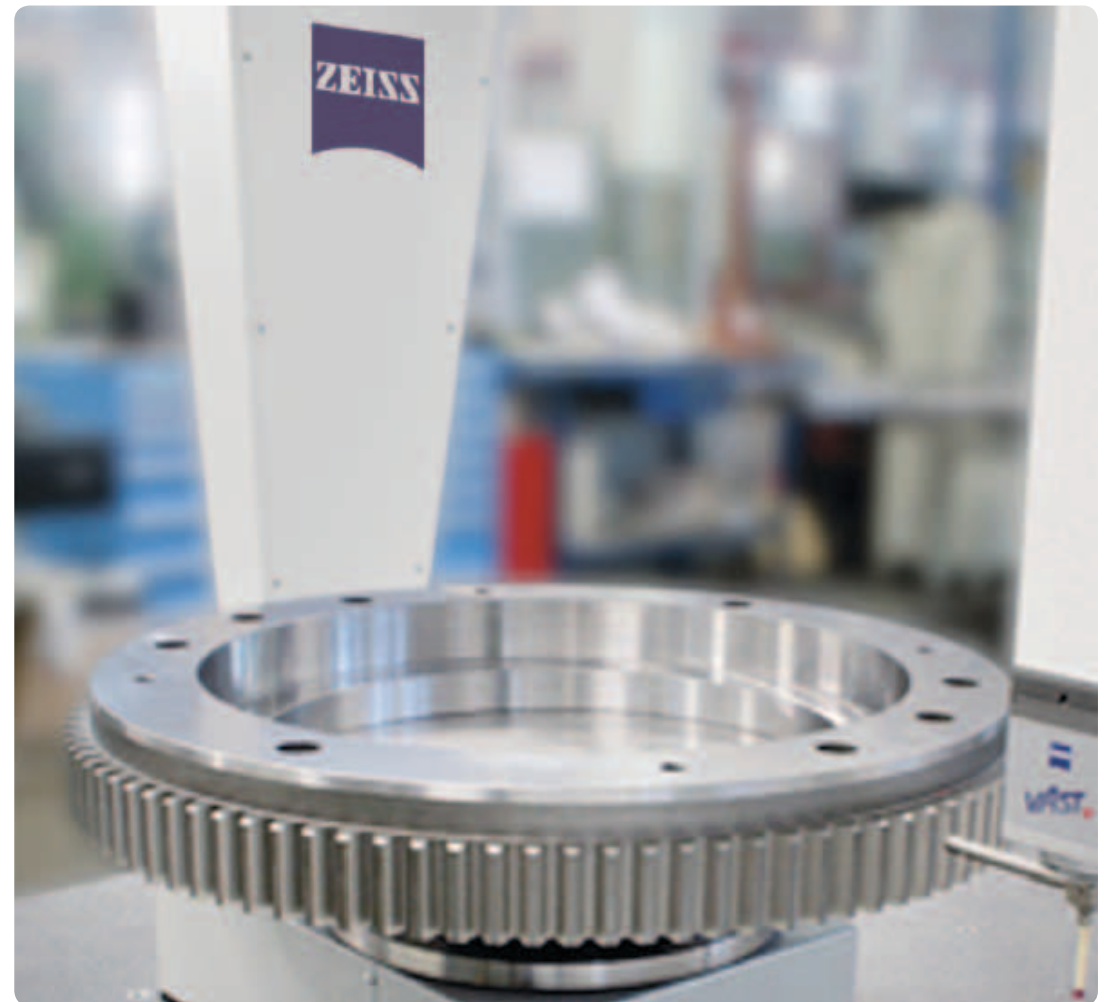
Quality

Quality control on gears is carried out by our technical and testing departments, using the most technologically advanced mechanical and digital instruments.

Furthermore, we undertake rigorous quality controls on raw materials and finished products throughout the entire production cycle, including heat and dimensional treatments.

By rationalising the cycles, we are able to monitor all our production and machining processes, as well as the importing phase. In this way, we can guarantee the utmost compliance with the most stringent quality standards.

Indeed, the quality certification of gears concerns the chemical features of the raw materials and the dimensional and functional properties of each product.



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