



BE- YOND MO- TION

BEYOND MOTION

OUR VISION

**Always ahead.
Moving the world forward hand
in hand with our customers.
This is our vision.**

Developing next generation high performance ball screws by delivering all inclusive technology products is our mission.

We are **IPIRANGA**
Welcome to *Beyond Motion*

Tackling motion challenges since 1967.

We are one of the first companies in the world **specialized in the manufacture of high- performance ball screws.**

Being pioners has been possible thanks to our close relationship with the machine tool industry and sector-leading companies from our very beginnings to the present day.

Our headquarters are located in the province of Gipuzkoa - Basque Country - northern Spain, historically a machine tool industry reference region.



IPIRANGA HEADQUARTERS
Polígono Industrial Erratzu
Parcela G3. Pabellón 221 - Apdo.65
E-20130 Urnieta. Gipuzkoa
SPAIN



We are high performance ball screw manufacturers and much more.

Today, with more than half a century of motion technologies and innovation knowledge, we accompany our customers in the most demanding industries delivering value-added solutions.

Yes, we are high performance ball screw manufacturers. And we are much more. Engineering, design, development, manufacturing, quality guarantee & assurance and after sales service add up to a comprehensive range of value added assistance for our customers.

These facts place us
beyond motion.



More than
20.000
projects
developed since 1967



Product development
with more than
1.400
customers



Ipiranga ball screws
working worldwide in
40
countries



More than
50
applications
covered



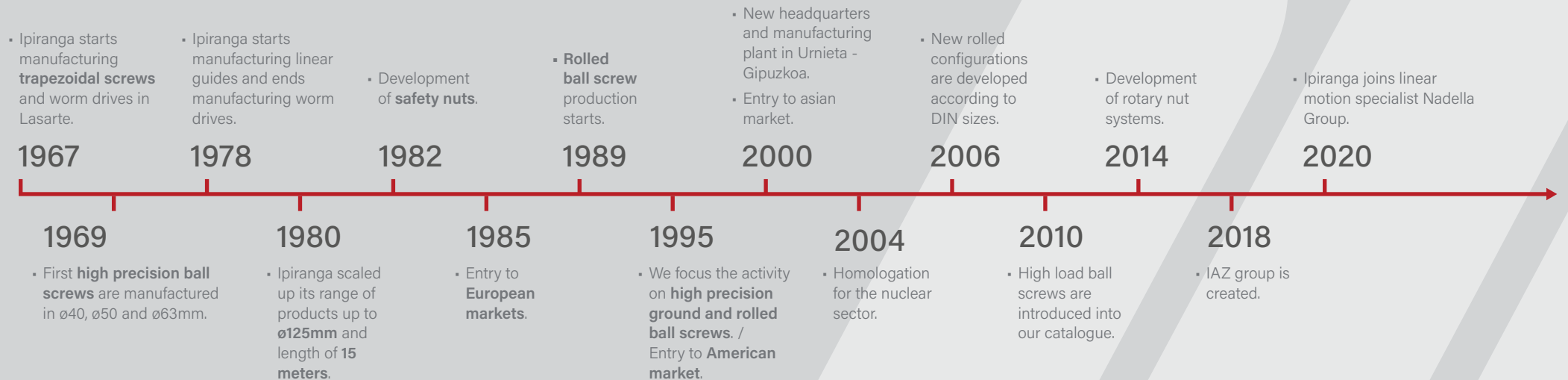
400
specialty
product developments
per year

Answering to motion challenges since 1967.

The most demanding industries have always been our playground. Our goal? Delivering value-added & turnkey solutions that meet any requirement.

As we never rest on past success, when necessary, we engineer turnkey configurations that meet our customers' needs.

We deliver solutions.





**Enabling future motion solutions
with industry-specific motion
technologies.**



Delivering highest performance ball screws for the most demanding applications.

PERFORMING MOTION SOLUTIONS SINCE 1967.

Working conditions, value added manufacturing processes and optimal core technologies are key areas to achieve **outstanding motion solutions**. Our engineering, design, development, manufacturing skilled & multidisciplinary workforce is fully **committed to continuous improvement** in all three key areas.

OUR COMMITMENT TO OUR CUSTOMERS.

Our commitment goes further than our commercial interests and guides us to transform the world hand in hand with our clients. This is possible thanks to our **Motion Fit Solutions methodology**. Including a comprehensive range of **value added processes and services** for our customers.

**Motion Fit
Solutions
FIT**



FRAMEWORKS

Next generation performance.



INNOVATION

Manufacturing engineering expertise.



TECHNOLOGY

All-inclusive- tec ball screws.



FRAMEWORKS.

Next generation performance.

We welcome motion challenges.

A black and white, close-up photograph of a ball screw. The image shows a series of dark, spherical balls arranged in a repeating pattern, receding into the distance. The lighting creates highlights and shadows on the balls, emphasizing their texture and arrangement.

Deep knowledge of both ball screw operating conditions and application environment are critical to meet high performance requirements. Our ball screws help to meet **next generation performance** through simulations, tribology and materials. Motion Fit Frameworks focus on **specific working conditions** to achieve **highest performance** and **lowest maintenance** results on every single ball screw.

Multiple working conditions & tough environments matter to us.

MotionFit

PROTECT

Ball screws working in **tough environments** require an extra protection of materials and components to prevent rust, wear, corrosion, or complex shapes protection. Specific rust prevention and coatings, specialty materials and component heat treatment or protective surface treatments are needed.

MotionFit

TEMP

Operating temperature prevention and reduction. Optimal configuration for the application avoids high environmental temperatures and thermal expansion of a ball screw.

MotionFit

LOW NOISE

Certain applications require **operating silence** of ball screw assembly. An optimal configuration of return systems, backlash and materials guarantees a low noise result in the application.

Extra performance and equipment always at hand.

MotionFit

ROTATING

When the operational speeds and lengths of the ball screw does not allow high Rpm, the Rotary Nuts of Ipiranga satisfy the feed rates making the nut turning and getting the screw static.

MotionFit

SAFETY

Safety requirements are becoming more important in human and industrial cargo applications. Implementing Ipiranga embedded or integrated Safety nuts guarantee the load will be transferred from the ball nut to the safety nut in the event of failure of the system.

MotionFit

COOLING

When a heating is produced in the ball screw assembly, the accuracy and the life time of the ball screws are affected due to the deformations. Keeping an equilibrate temperature of the ball screw assembly we reduce such risks.



INNOVATION.

Manufacturing & engineering expertise.

We answer to motion challenges.



Steady improvements continue with ball screw technology. Each of our products is the result of research and development. Thanks to our closest collaboration with our clients we own proven **manufacturing & engineering expertise**. Motion fit Innovation focuses on **value-added manufacturing processes** to accomplish **longest service lifetime and lowest long term cost** guaranteed by acceptance tests and certified after control protocols.

MotionFit **TAILORED
ENGINEERING**

A trend that continues is the adoption of ball screws into ***new applications***. Ipiranga tailored engineering reaches ball screw configurations that satisfy customers' performance requirements.

MotionFit **CUSTOM
MANUFACTURING**

Developments in manufacturing, coatings and materials have improved ball screw performance so that the most recent generation ball screws have greater capabilities. Ipiranga in-house production facilities grant customized ***IT1, IT3 & IT5*** Ground high performance ball s screws and ***IT5 & IT7 rolled***.

MotionFit **DESIGN
ECO**

Hydraulic systems are being replaced by electromechanics in different fields of application. Along with greener lubricants and materials and more compact ball screw designs ***energy efficiency and service life*** are major design demands. Ipiranga ball screws guarantee highest energy saving and longest service life.



TECHNOLOGY.

All-inclusive-tec ball screws.

We perform motion solutions.



State-of-the-art technologies add a plus in efficiency, safety and sustainability. As a strategic partner to leading manufacturers in demanding industries, developing **all-inclusive-tec ball screws** is extremely important. Motion Fit technology focuses on the implementation of **optimal core technologies** into specific screw - nut - balls configurations to reach **maximum efficiency** and **minimum downtime** outcomes in all our products.

MotionFit

ACCURACY

Applications that demand accuracy in both positioning and changing of direction. The accuracy of these applications is obtained through the deviation of the lead as well as the rigidity made possible by the preload.

IT1-IT3-IT5 compliant technology.

MotionFit

SPEED

High speed requirements are reachable by a high DN. This is due to optimal returns systems and the type of balls.

Up to 225,000 DN compliant technology.

MotionFit

LOADS

Applications with both high working load capacity and extreme working conditions requirements need specific high dynamics configurations.

Up to 1800 kN dynamic load technology.

MotionFit

ROLLED

All-inclusive-technology that combines positioning accuracy up to IT5; high loads up to 130 kN dynamic load; DN up to 150,000; multiple starts and leads.

MotionFit

TRANSPORT

All-inclusive-technology that combines positioning accuracy up to IT5; high loads up to 1800 kN dynamic load and DN up to 225,000.

HIGH PERFORMANCE BALL SCREWS

Ipiranga ball screw allows the transformation of the rotary motion into linear motion and vice versa, providing highest precision, highest thrust loads and a longer lifetime.

We are IPIRANGA
Count on our advice.

Ipiranga product segmentation meets three main market needs.

In all cases, the wide range of **self-developed nuts** make the difference. Together we will develop the perfect ball screw.

POSITIONING ACCURACY

Highest precision requirements compliant.

All-inclusive-technology

- Accuracy
- Speed

Product range

- From 16mm to 160mm diameters
- From 5mm to 100mm pitches
- Lengths up to 20 meters
- IT1, IT3 & IT5 compliant

Manufacturing processes available DIN 69051 compliant

- Ground

Double nut configuration / Preloaded single nut configuration

- Safety nut
- Rotary nut
- Cooling nut

OPERATING LOADS

Highest dynamics for heavy load ratings.

All-inclusive-technology

- Load

Product range

- From 32mm to 160mm diameters
- From 10mm to 30mm leads
- Lengths up to 20 meters
- IT5, IT7

Manufacturing processes available DIN 69051 compliant

- Ground
- Rolled

Single nut configuration / high load

- Safety nut
- Cooling nut

TRANSPORT MOTION

Longest distances traveled.

All-inclusive-technology

- Accuracy
- Load

Preloaded range

- From 16mm to 160mm diameters
- From 5mm to 100mm leads
- Lengths up to 20 meters
- IT5, IT7

Manufacturing processes available according to DIN 69051

- Ground
- Rolled

Single nut configuration

- Safety nut
- Cooling nut
- Rotary nut

INDUSTRIES WE SERVE

Trusted partner worldwide.

The world's infrastructure industries rely on Ipiranga to solve their most complex motion challenges. We provide a range of ball screw solutions for a variety of industries including machine tools, general industries and energy.

Unlimited movement performance

We deliver more than tailored ball screws; we help our customers increase plant uptime, enhance operational efficiency, and improve plant safety so they can **optimize production** and **reduce costs**.

Ipiranga is **unique in the motion industry** because of our deep application expertise in a variety of industries. We understand the challenges customers' face. Our application knowledge and technical expertise enable us to design **reliable ball screws and linear motion equipment** customers can trust even in the most aggressive environments.

We help our clients in the development of high-performance machine tools.

Ipiranga high performance ball screws are suitable for **high speed** requirements, **high load** ratings and **higher positioning accuracy** demands.

IPIRANGA - STATE OF THE ART TECHNOLOGY.



HIGH-SPEED REQUIREMENTS

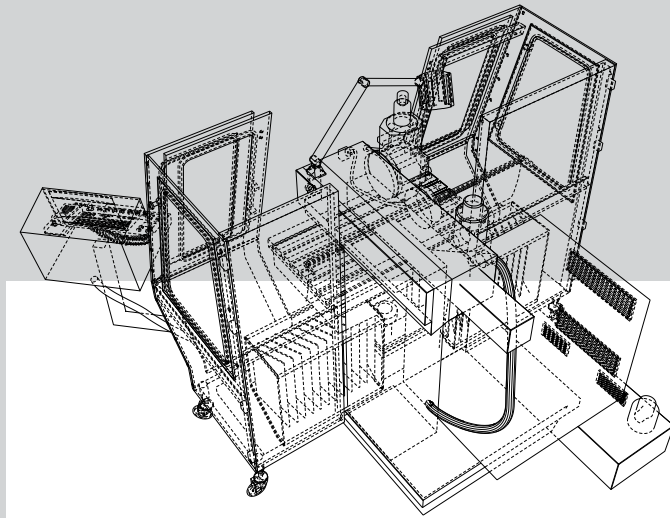
Reduction of time processes with high feed rates, tool changing's and ultra fast machining.

HIGH LOAD REQUIREMENTS

Reduction of time processes with high machining power.

HIGHER POSITIONING ACCURACY

Because of the high rigidity we achieve high repeatability and accuracy machining with high performance.



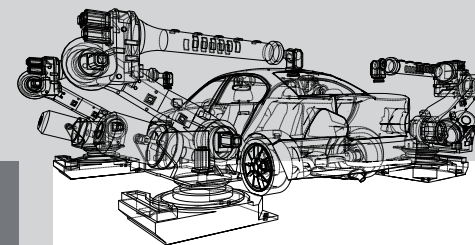
MACHINE TOOL

APPLICATION AREAS:

- Vertical lathes
- Horizontal lathes
- Milling machines
- Grinding machines
- Boring machines
- Machining centers

We provide the optimal solution whatever the application.

Ipiranga has a global portfolio of solutions and technical expertise capable of tackling the stringent and often unique requirements found in the aeronautics and aerospace, automatism, automotive, railways, injectors and presses, boarding bridges and elevators, public work, actuators and other general industries.



IPIRANGA - IMMEASURABLE VERSATILITY.



HIGH EFFICIENCY

Great functioning performance with the minimum energy cost.

DEMANDING DUTY CYCLES

High product flexibility to adjust to the more diverse duty cycles of the industry.

HIGH ACCURACY

Quality precision for the highest demand and reliability applications.

HEAVY LOADS

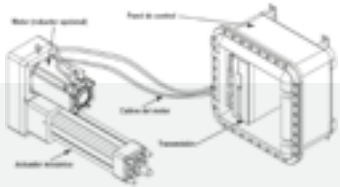
Replacement from hydraulic to electromechanical systems.

GENERAL INDUSTRY

APPLICATION AREAS

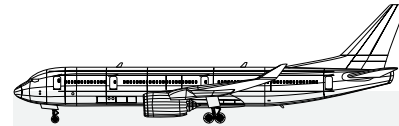
GENERAL INDUSTRY

APPLICATION AREAS



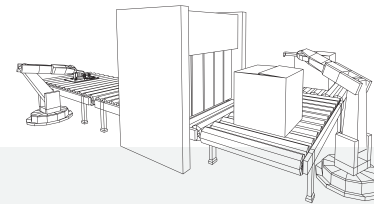
Actuators :

- Automotive and transportation.
- Defense.
- Handling.
- Food.
- Packaging.
- Simulators.
- Industrial Agriculture.



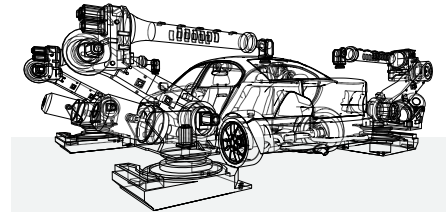
Aeronautics and aerospace:

- Manufacture of components.
- Assembly applications.



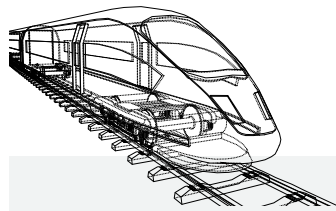
Automatism:

- Food.
- Handling.
- Manufacturing.
- Packaging
- Pick & place



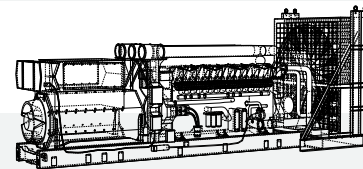
Automotive:

- Manufacture of components.
- Manufacturing chains.
- Assembly chains.
- Presses.
- Molded.



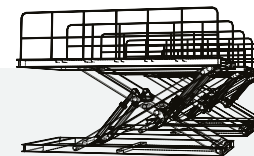
Railways:

- Manufacture of components.
- Assembly lines.



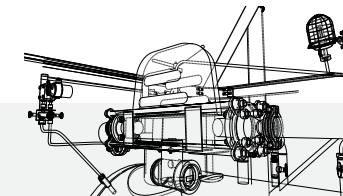
Injection molding and presses:

- Plastic Injection.
- Presses.



boarding bridges and elevators:

- Boat gangways.
- Aircraft catwalks.
- Goods elevators.
- People lifts.



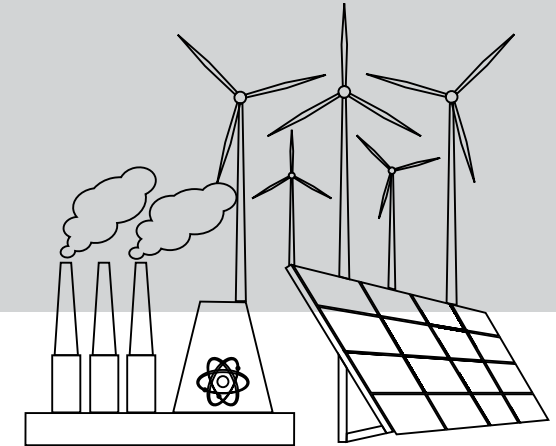
Public work:

- Shock absorber for bridges.
- Decks.
- Machinery for building material.

Other applications: Doors and windows. Medical. River gates and dams. Stages for theaters. Special machinery. Manufacturing tools.

We provide solutions for the most demanding working conditions wherever energy is produced.

Rapid load variations; frequent stops and starts; high temperatures and pressures are common in the energy industry. Ipiranga develops motion solutions that overcome these challenges while adhering to the most stringent quality and safety standards.



IPIRANGA - CONTINUOUS IMPROVEMENT.



RELIABILITY, MATERIALS, COATINGS

The energy industry requires special materials for aggressive environments applications. Our coatings and materials satisfy those needs of protection keeping the highest reliability.

QUALITY STANDARDS & TESTING

Due to the high safety requirements, IPIRANGA provide the highest quality and manufacturing processes along with the most demanding tests and trials of the market.

CERTIFICATIONS

The certification of the product is the base of the energy industry. IPIRANGA is endorsed as high quality supplier.

POWER INDUSTRY

APPLICATION AREAS:

- Nuclear.
- Wind.
- Solar.

TOWARDS FUTURE

Challenges to come.

To be successful we must accept all challenges that come our way.

Best-in-class manufacturing capabilities that ensure we achieve truly high performing results.

Our core business is providing high performance motion solutions, products and services. But motion means something more at Ipiranga. It captures the spirit and actions of our customers worldwide, and conveys our joint efforts to move forward with advances in technology and ground-breaking industry applications.



MACHINING

Most advanced technologies for soft machining, rolling and grinding.



INSPECTION

Quality guarantee and assurance in every step of the manufacturing process.



SPECIALTIES

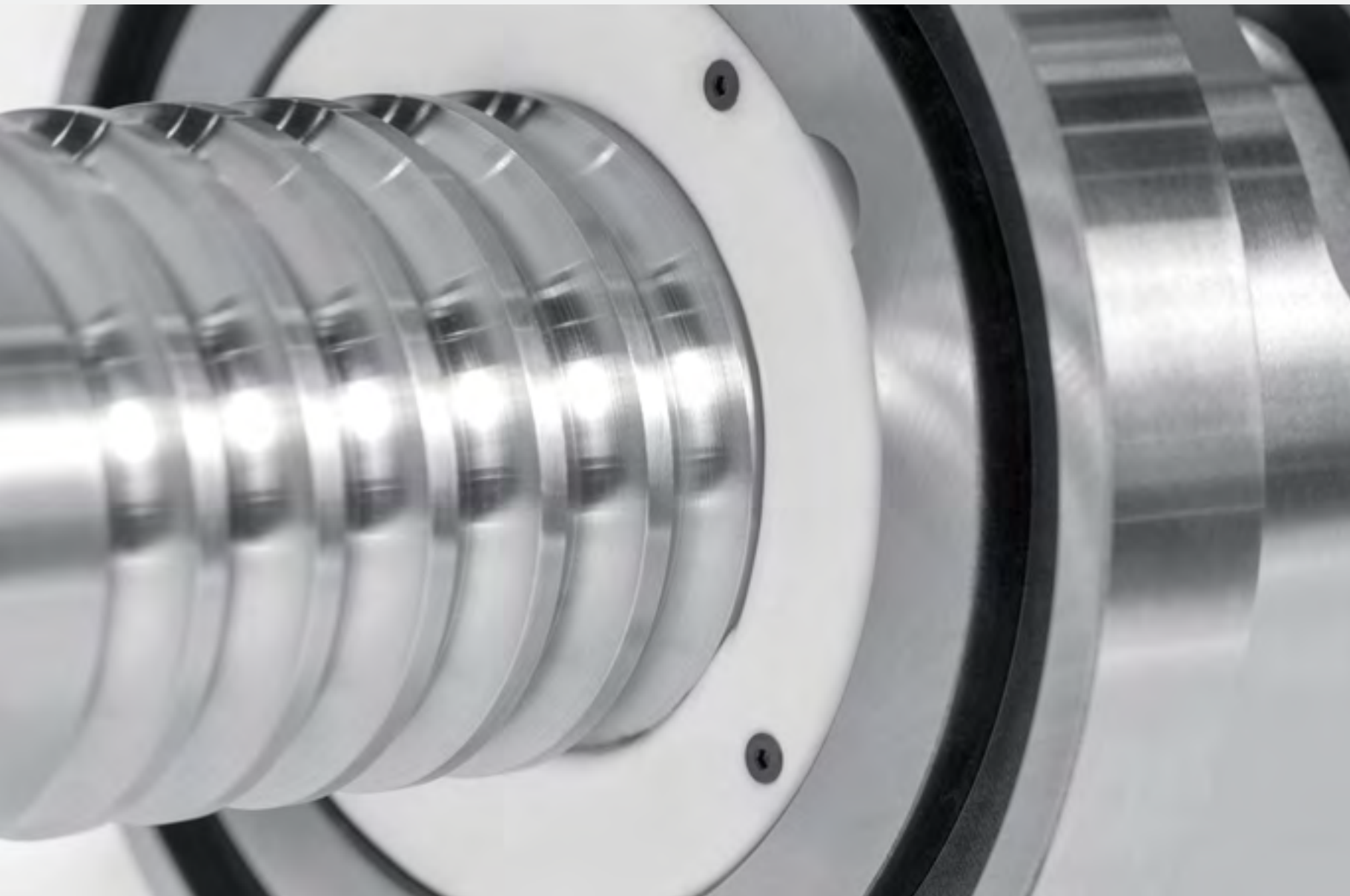
Special coatings and testing processes done by our professionals or on behalf of third parties.

We value our people.

Together, we create extraordinary motion solutions to make the world better for everyone. This is our purpose. The reason why we come to work. The reason why we are a skilled and multidisciplinary workforce. The reason why we reach excellence on an everyday basis. And we are always meeting our purpose:

outstanding performance.





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