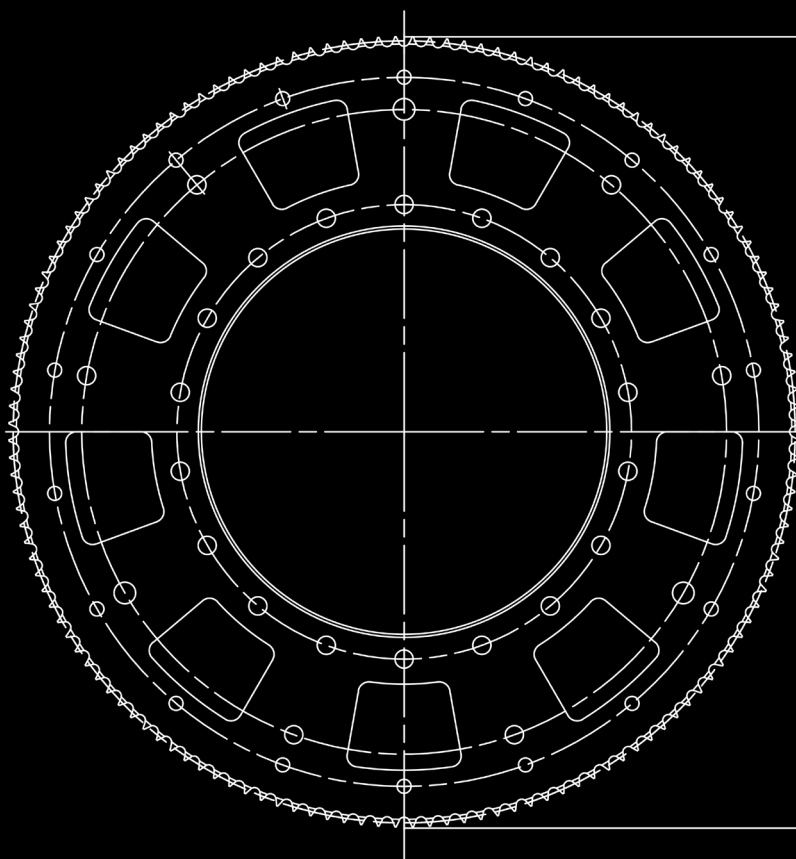




# SPECIAL COMPONENTS DIVISION







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## A MANUFACTURING STORY THAT BEGAN IN 1952

### OUR ORIGINS

In **1952**, in the industrial heart of Northern Italy, Chiaravalli began its journey as a **manufacturer of open power transmission** components. From the very first gear produced, the company was driven by a clear vision: to build mechanical excellence through precision, discipline and a deep respect for engineering.

What started as a manufacturing initiative soon became a long-standing industrial tradition. In the **workshops of Premezzo**, gears were not simply produced—they were shaped by experience, technical rigor and a constant pursuit of improvement. Over the decades, this production culture evolved, strengthened by continuous investment in machinery, metrology, processes and above all, people.

Chiaravalli's identity was born in production halls, in the sound of machines at work, in the careful control of tolerances and finishes. The company developed its expertise step by step, expanding its capabilities while remaining faithful to its **manufacturing roots**.

Generation after generation, the Group has preserved and enhanced this heritage, transforming craftsmanship precision into structured industrial know-how. Today, more than seventy years later, that original production spirit remains intact—stronger, more advanced and supported by modern technology, but guided by the same **commitment to mechanical excellence**.

The story of Chiaravalli is, above all, the story of a manufacturer that built its credibility through competence, reliability and consistency over time.



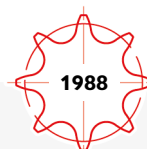
#### FIP IS BORN

Fabbrica Ingranaggi Premezzo is born in Cavarina, a small town perched on the first slopes of the Varese Alps. Since then Cavarina and the neighboring towns will always remain as a strategic production center of the Chiaravalli family.



#### FROM SRL TO SPA

The objectives of the founding members have changed but Silvio Chiaravalli's ambitions are still intact. Silvio Chiaravalli founded the Ingranaggi Chiaravalli srl which quickly grows in business becoming an SPA company.



#### A GREAT MOURNING

The founder of Chiaravalli, the soul who has so far guided the society dies. The young son Mario and his younger daughter Anna assume the reins of the company, supported by their mother, Mrs. Carla who assumes the presidency of the Society.



# CHIARAVALLI GROUP TODAY

## ITALIAN HEART, GLOBAL MACHINERY

Today, Chiaravalli Group is a structured and internationally recognized industrial organization active in the sectors of power transmission, food industry, and motorcycle components.

With more than 70 years of manufacturing experience, a consolidated production footprint and a commercial presence in over 25 countries, the Group combines **industrial scale with technical specialization**. Its facilities extend over approximately 100,000 square meters, supported by a team of more than **370 professionals**, operating across manufacturing, engineering, quality, commercial divisions and operation functions.

The Group's activities are organized into dedicated business units, each focused on specific market segments while sharing a common industrial backbone. This integrated structure allows Chiaravalli to manage complex supply chains, maintain high production flexibility and respond effectively to evolving market demands.

At the core of the Group lies a **strong manufacturing identity**. More than 200 advanced machines, in-house metrology laboratories equipped with ZEISS measuring systems, **certified quality** management systems (ISO 9001, IATF 16949, ISO 14001), and continuous investment in process innovation ensure full control over production performance.

By combining in-house manufacturing excellence with a qualified global network of partners, Chiaravalli Group delivers both standard components and fully engineered solutions, maintaining consistent quality across different production levels.

The **Special Components Division** is the natural evolution of this industrial platform-leveraging decades of manufacturing expertise to offer **tailored mechanical solutions** for the most demanding applications.



### SWIRLING GROWTH OF CHIARAVALLI

New sectors are identified, new factories and business divisions are created: food and motorcycle sector are included in the strategy of Chiaravalli.



### CHIARAVALLI GROUP COMES TO LIFE

World economy crosses a profound economic crisis in 2008 and Chiaravalli Spa to grow must rethink its self with promptness. A corporate renovation plan is designed and built: the Galaxy of the Societies Chiaravalli is harmoniously reorganized into CHIARAVALLI GROUP.



### THE THIRD GENERATION

With a strong operational role, Andrea, son of Mario Chiaravalli, begins the path of the third generation within the company. To goal is clear: make a family business a modern and proactive key player of the market.



# THE SPECIAL COMPONENTS DIVISION

## THREE TIERS, ONE PARTNER

The Special Components Division represents the natural evolution of Chiaravalli Group's manufacturing heritage. Its mission is to centralize and integrate all **expertise related to custom and engineered mechanical components**, combining technical know-how, production capabilities and supply chain management within a single structured division.

The Special Components Division operates as a technical partner: each project is approached through a consultative process that begins with the analysis of the application, continues with engineering evaluation and feasibility assessment, and culminates in a **tailored production strategy** aligned with performance, timing and cost objectives.

This structured approach allows the Division to **transform complexity into controlled industrial solutions**. Whether the requirement involves precision gears, shafts, mechanical assemblies or fully customized transmission components, the focus remains on delivering reliability, repeatability and long-term performance.

At the core of the Division lies a **three-tier production model**, designed to ensure maximum flexibility and complete market coverage. This tiered structure enables the Group to respond to every level of technical and economic requirement.

**125**

Specialized operators

**+200**

Machine tools

**+1mln**

Parts/year manufactured in Premezzo

**+50K**

Sqm of productive areas

**8**

ZEISS machines for quality control



1. Helical internal knife-cut tooting is a prime example of precision machining, where special processes shape materials with exceptional accuracy.



### MADE IN PREMEZZO

Made in Premezzo represents the highest level of in-house manufacturing control.

Production is carried out within **Chiaravalli's own facilities**, supported by certified quality systems, advanced machining technologies and in-house metrology laboratories.

This level is dedicated to projects requiring full technical supervision, strict tolerances, rapid interaction between engineering and production teams, and maximum process traceability. It embodies **Italian manufacturing excellence**, combining precision, reliability and industrial consistency.

### MADE IN ITALY

Made in Italy extends the Group's capabilities through a **qualified and structured network** of selected Italian partners.

These long-standing collaborations allow access to specialized processes and complementary manufacturing technologies, while maintaining alignment with Chiaravalli's technical and quality standards. This tier ensures **flexibility and versatility in volumes**, making it possible to manage complex or diversified production needs with efficiency, while preserving industrial coherence and control.

### MADE IN FAR-EAST

Made in Far-East is built on consolidated strategic partnerships developed over many years.

These collaborations provide **competitive sourcing solutions** supported by defined technical specifications, controlled quality procedures and continuous supervision by the Group.

This production level allows **cost optimization** for suitable projects, while maintaining reliability and adherence to Chiaravalli's engineering and quality benchmarks.



# MADE IN PREMEZZO

## IN-HOUSE MANUFACTURING EXCELLENCE

Made in Premezzo represents the **highest level** of Chiaravalli's production capability and the purest expression of its manufacturing identity.

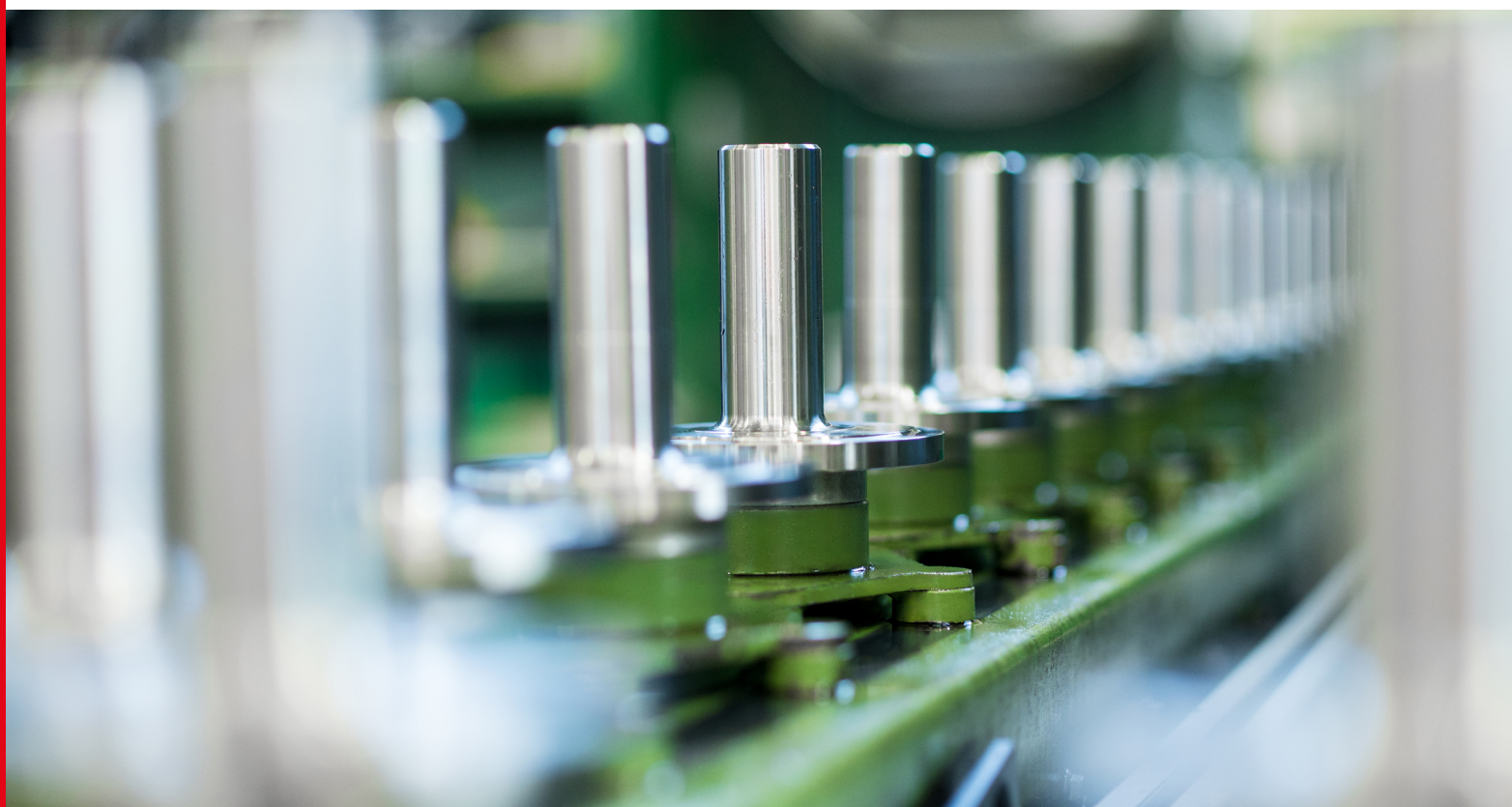
Fully developed within the Group's own facilities, this production tier is dedicated to complex, **high-precision transmission components** for demanding industrial applications. It combines advanced machining technologies, certified quality systems and a strong manufacturing culture built over decades of experience.

Engineering and production operate in close integration, ensuring that each project is developed through technical analysis, feasibility evaluation and structured process planning. The result is consistent control over performance, precision and reliability. From material selection to final inspection, every phase is managed within a coordinated and certified environment, guaranteeing full traceability, repeatability and long-term durability.

More than a manufacturing level, **Made in Premezzo represents a consultative approach**, where technical and commercial teams work together to support customers with flexibility and application-driven solutions. It is the top tier of the Special Components Division - where manufacturing expertise and engineering excellence converge to deliver **complete mechanical solutions**.

## ENGINEERING & PROGRAMMING, FROM CONCEPT TO PRODUCTION

- Application-driven engineering starting from feasibility analysis and technical requirements.
- Advanced design tools, including CAD/CAM and Keysoft software for gear design.
- Integrated programming ensuring alignment between engineering and manufacturing.
- Rapid prototyping and pilot batches for validation before serial production.
- Technical consulting on materials, treatments and tolerance optimization.





# MADE IN PREMEZZO

## QUALITY CONTROL, PRECISION VERIFIED. RELIABILITY GUARANTEED

**Quality control** at Chiaravalli is not a final inspection step-it is an **integrated process** embedded throughout the entire production cycle. Within the Special Components Division, quality assurance begins at the engineering stage and continues through material selection, machining, finishing and final validation. Every phase is monitored under certified management systems, ensuring full traceability, repeatability and compliance with international standards, including **ISO 9001, IATF 16949 and ISO 14001**.

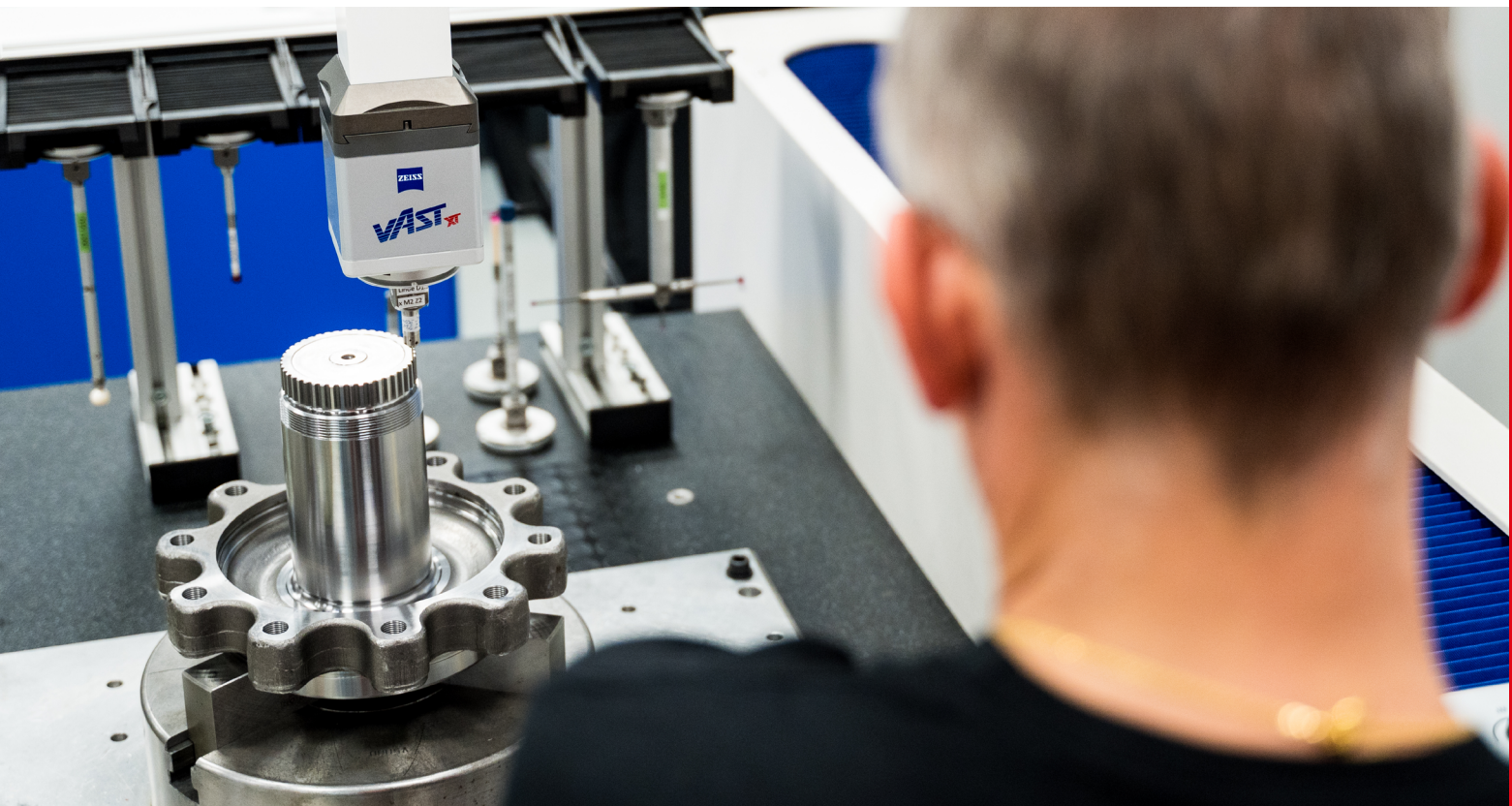
The Premezzo facility is equipped with **dedicated metrology laboratories** and advanced measuring technologies, including ZEISS coordinate measuring systems. These allow dimensional verification down to micron-level precision and guarantee strict control of complex geometries, gear profiles, concentricity and parallelism requirements. Inspection activities are supported by structured procedures, calibrated instruments and qualified personnel. First article inspections, in-process checks and final validations are carried out according to defined **quality plans tailored to each project**.

Beyond dimensional accuracy, the Quality Team ensures documentation control, certification management and alignment with customer-specific requirements. The objective is not only to verify conformity, but to prevent deviations through continuous monitoring and process optimization.

By combining advanced metrology, certified systems and a proactive quality culture, the Special Components Division ensures that **every component delivered reflects Chiaravalli's commitment** to precision, reliability and long-term performance.

ZEISS CONTROL LAB	NUMBER OF MACHINES	DETAILS
ZEISS - 3D	8	Max: 1200 X 1800 X 800
Gleason tester	5	Diameter max: 400mm
Profilometer	5	
Hommel - optical shaft measuring technology	3	Maximum length: 1000 mm

- Our laboratory performs both destructive and non-destructive testing (e.g. magnaflux equipment.)





## MECHANICAL PROCESSING

### MACHINE PARK DEDICATED TO SPECIAL COMPONENTS PRODUCTION

The machine park dedicated to the Special Components Division represents a key asset in Chiaravalli's manufacturing capability. Equipped with advanced technologies and **continuously upgraded systems**, it ensures precision, reliability and production efficiency. A wide range of machining processes is managed internally, allowing full control over quality and performance.

The integration of modern equipment with consolidated know-how enables the handling of complex and high-precision components. This structured production environment supports both flexibility and consistency across different industrial applications.

PRODUCTION CAPACITY	NUMBER OF MACHINES	DIMENSIONS			
		DIAMETER		LENGTH	
		Min (mm)	Max (mm)	Min (mm)	Max (mm)
Bevel Gear Cutting Machine	19	-	320	-	-
Broaching Machine (DIN-UNI-ASAE...)	4	-	80	-	150
CNC Milling Machine (3/4/5/6 Axes)	36	-	1200	-	4000
Deburring Machine (Gratomat)	3	-	-	-	-
Gear Grinding Machine	1	-	300	-	500
Gear Hobbing Machine	13	-	1000	-	800
Grinding Machine	9	-	200	-	1000
Internal Helical Gear Shaping Machine	2	-	500	-	700
Laser cut machine	2	-	-	-	-
Sandblasting Equipment	1	-	-	-	-
Gear Shaping Machine (Slotting)	5	-	200/400	-	450/700
Horizontal Turning Machine	48	-	650	-	3000
Vertical Turning Machine	18	-	1000	-	700
Mechanical Components Washing System	2	-	-	-	-





## MADE IN ITALY

### FLEXIBLE MANUFACTURING BY CHIARAVALLI CERTIFIED NETWORK

Made in Italy represents the extension of Chiaravalli's manufacturing capabilities through a structured and **qualified network of selected Italian partners**.

This production tier is designed to complement in-house manufacturing by integrating specialized processes, additional capacity and specific industrial competencies that enhance the overall flexibility of the Group.

**All activities are centrally managed and coordinated by Chiaravalli**, ensuring full alignment with technical specifications, quality standards and project requirements. From supplier selection to process definition and final validation, every phase is controlled to guarantee consistency, reliability and industrial coherence.

The Made in Italy network enables the efficient management of diversified production needs, supporting **both medium and complex projects** through a scalable and responsive supply chain. It allows the Group to optimize lead times, balance workloads and provide continuity across different manufacturing scenarios.

More than a sourcing model, it represents an **integrated production system** - where external capabilities are structured, monitored and aligned with Chiaravalli's engineering and quality approach.

Positioned between in-house production and global sourcing, Made in Italy ensures a balance of **flexibility**, control and performance, delivering reliable mechanical solutions fully consistent with the standards of the Special Components Division.



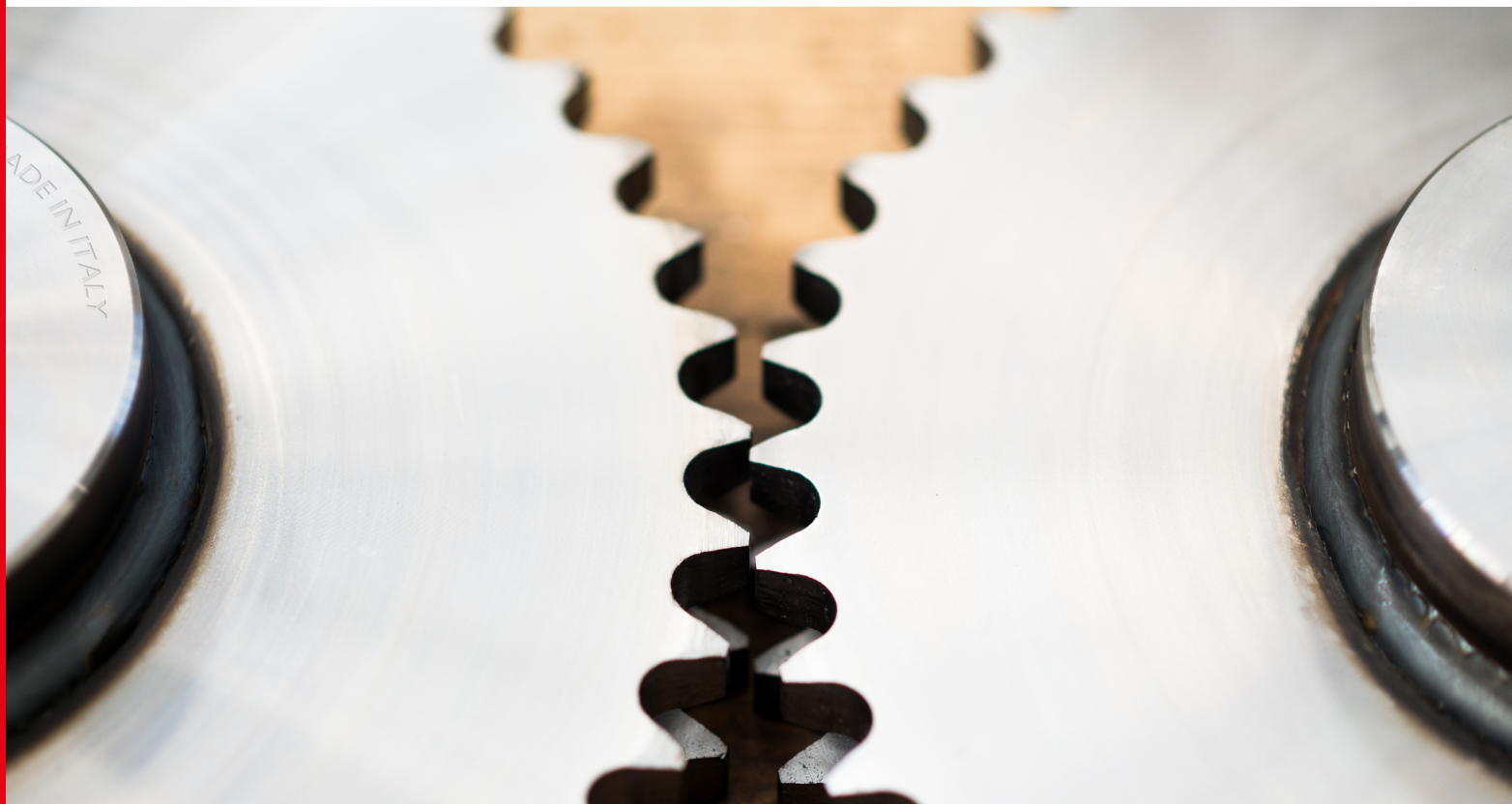
QUALIFIED PARTNER NETWORK



SPECIALIZED PROCESSES



SCALABLE PRODUCTION





## MADE IN FAR-EAST

### COMPETITIVE SOURCING POWERED BY CHIARAVALLI

Made in Far-East represents the **most competitive tier** within Chiaravalli's production model, specifically designed to deliver cost-effective solutions for projects where economic efficiency and scalability are key drivers.

Built on long-standing and carefully selected strategic partnerships, this production level enables optimized sourcing conditions while maintaining full alignment with the technical and quality standards defined by the Group.

Chiaravalli operates as a **certified CBAM importer**, ensuring compliance, reliability and structured management of international sourcing activities. All processes are centrally coordinated, from supplier qualification and technical definition to quality control and final validation.

The strength of this model lies in the combination of **competitive pricing and centralized control**. Through a consolidated supply chain and established relationships, Chiaravalli ensures consistency, continuity and performance across large-scale productions.

Made in Far-East allows the efficient management of **high-volume and cost-sensitive applications**, offering a scalable and economically optimized solution within a controlled industrial framework.

Fully integrated within the Special Components Division, this tier extends Chiaravalli's offering while preserving a unified technical, qualitative and organizational approach.



COST OPTIMIZATION



CONTROLLED SUPPLY CHAIN



GLOBAL SOURCING





# ADVANCED & INTEGRATED SUPPLY CHAIN

## A STRATEGIC PRODUCTION FRAMEWORK

The strength of the Special Components Division goes beyond manufacturing. It lies in the ability to coordinate a structured, reliable and **fully integrated supply chain** capable of supporting complex industrial projects with consistency and control.

Chiaravalli has developed an advanced supply model that combines in-house production with a qualified network of selected partners, creating a flexible industrial system able to respond to a wide range of technical and production requirements. External processes and complementary manufacturing activities are not managed as isolated operations, but as part of a **single, coordinated production flow**.

This approach allows the Group to extend its manufacturing capacity while maintaining full alignment with technical specifications, quality standards and delivery expectations. Every phase - from sourcing and subcontracted operations to process monitoring and final validation - is centrally managed to ensure **continuity, traceability and reliability**.

The result is a supply chain designed not only to support production, but to strengthen it: an integrated network that improves responsiveness, optimizes workloads and enables Chiaravalli to deliver complete mechanical solutions with greater flexibility and industrial coherence.

More than a procurement model, it is a **strategic production system** built to transform complexity into controlled execution.





# KANBAN & PROXIMITY SUPPLY SOLUTIONS

## LEAN SUPPLY, ALIGNED WITH PRODUCTION NEEDS

Chiaravalli's Special Components Division supports customers not only through manufacturing, but also through **supply models** designed to improve continuity, responsiveness and inventory efficiency.

**Kanban and proximity supply solutions** are developed to align component availability with actual production demand, reducing unnecessary stock while ensuring reliable replenishment. These systems are particularly valuable for customers operating with recurring consumption patterns, scheduled production flows or the need for greater planning stability.

Through a structured and centralized approach, Chiaravalli manages supply programs **tailored** to specific project requirements, coordinating timing, stock levels and replenishment logic according **to the customer's operational needs**.

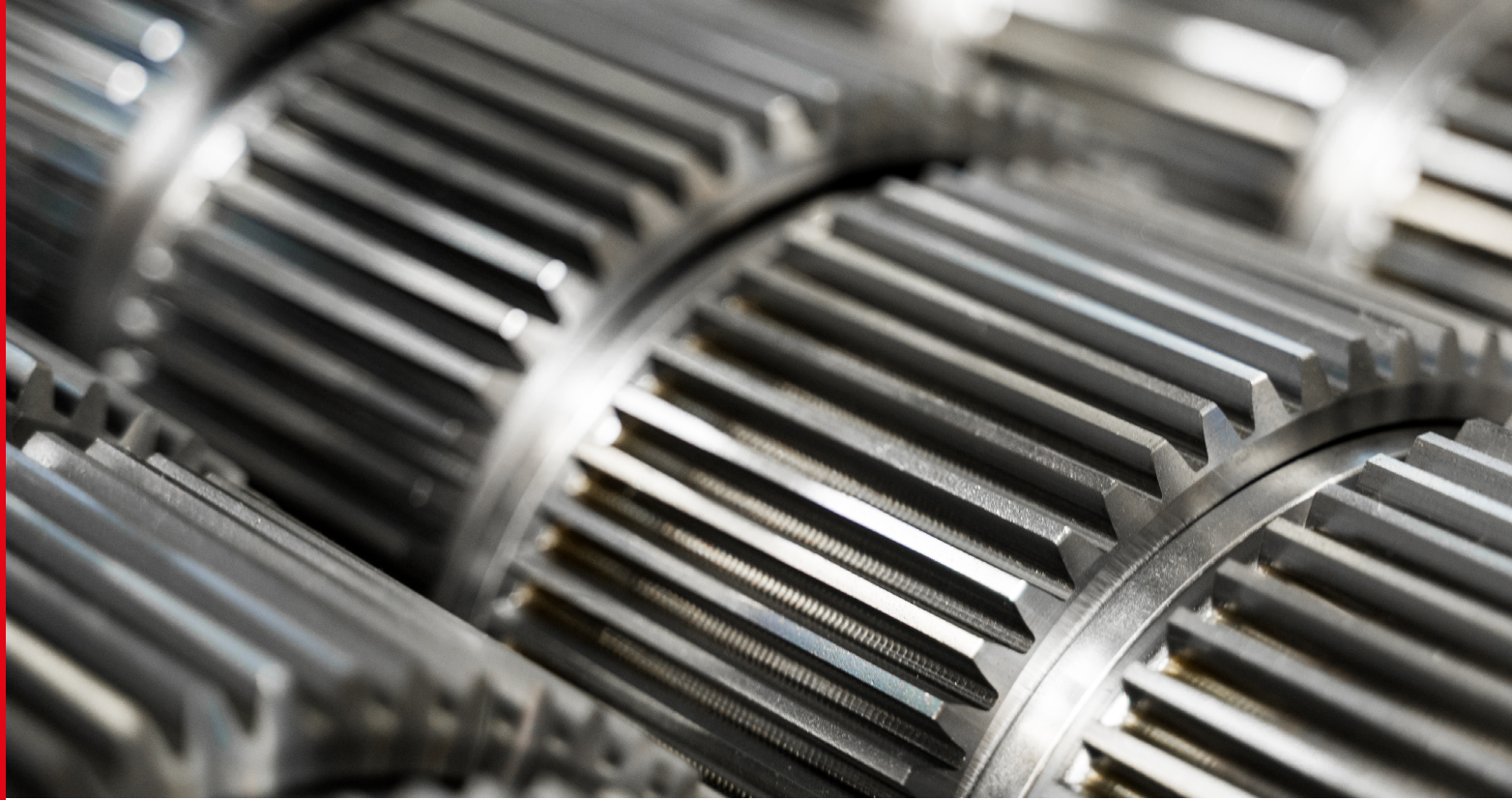
For Italian production, Kanban solutions are supported by close coordination with in-house manufacturing and qualified local partners, enabling flexible replenishment cycles, short communication loops and high responsiveness. This model is ideal for applications requiring continuity of supply with strong control over quality and lead times.

For Far-East production, proximity supply solutions allow Chiaravalli to combine the competitiveness of global sourcing with the reliability of structured stock management. Materials and components can be planned, sourced and positioned in advance according to forecast demand, reducing supply risk and ensuring smoother availability for cost-sensitive or higher-volume programs.

In both cases, the objective is the same: to **transform supply into a controlled and value-added process**, where production planning, logistics and inventory management work together to support the customer's operations.

More than a delivery model, Kanban & Proximity Supply Solutions represent a strategic service that strengthens the industrial partnership between Chiaravalli and its customers.





# COMPETITIVE ADVANTAGE

## MULTIDISCIPLINARY EXPERTISE

One of the main strengths of the Special Components Division lies in its multidisciplinary approach. Each project benefits from the combined expertise of engineering, production, quality, supply chain and commercial teams working in coordination toward a common objective.

This **integrated know-how** allows Chiaravalli to manage a wide variety of components, applications and industrial requirements with a broader perspective. Materials, geometries, processes, tolerances and functional constraints are evaluated as part of a complete system, not as isolated variables. The result is a more effective development process and a stronger ability to deliver solutions that are technically sound, industrially feasible and aligned with the real demands of the application.



## 2. Geared parts



### ENGINEERING

From concept to production, every project starts with technical analysis.

Advanced tools and expertise ensure precise and reliable design. Engineering bridges application needs with industrial feasibility.

### STRUCTURE

An integrated organization that connects engineering, production, supply chain and sales.

Centralized control ensures consistency, quality and process alignment. A coordinated structure supports efficiency across all project phases.

### SOLUTIONS

Every component is developed around specific application requirements.

Flexible production models adapt to complexity, volume and cost targets. The result is a complete solution, not just a single product.



## COMPETITIVE ADVANTAGE

### FAST & FLEXIBLE ENGINEERING

Speed and flexibility are essential when dealing with special components. The Special Components Division is structured to provide **fast technical feedback and a responsive engineering approach**, even for complex or urgent requests.

Thanks to the close integration between technical and commercial functions, Chiaravalli is able to **evaluate special projects quickly** and, when required, provide quotations within 48 hours. This responsiveness does not simply shorten lead times - it improves decision-making, accelerates project development and allows customers to move forward with greater confidence. Flexibility is not limited to design adaptation, but extends to the entire process of feasibility analysis, technical optimization and production planning.

### SALES AND TECHNICAL STRUCTURE

A further competitive advantage lies in the direct connection between Chiaravalli's sales structure and its technical organization. Key Account Managers, Product Sales Managers and specialized commercial teams operate in close contact with engineering and operations, ensuring **continuity between the customer's request and the internal development process**.

This structure allows projects to be managed more effectively from the earliest stages, reducing communication gaps and improving the alignment between technical expectations, commercial priorities and production capabilities. It creates a more **consultative relationship**, where support is based not only on product knowledge, but on a full understanding of the industrial context behind each request.

### TIERED INDUSTRIAL OFFER

The Special Components Division is built on a **three-tier production model** designed to cover a wide range of industrial needs with consistency and control. Made in Premezzo, Made in Italy and Made in Far-East are not alternative sourcing options, but integrated levels within a **single industrial strategy**.

This tiered offering allows Chiaravalli to select the most effective solution according to the specific requirements of each project - balancing precision, flexibility, lead time and competitiveness. It ensures broader coverage of market needs while maintaining a unified technical and quality approach. This is what gives the Division a distinctive competitive edge: the ability to offer not just special components, but the right industrial model behind them.

A complete set of technical, commercial and supply chain specialists that with a **consultative approach** will support you in picking the best option to maximize your returns.



# QUALITY, CERTIFICATIONS & SUSTAINABILITY

## OUR OPERATIONAL FRAMEWORK

Quality at Chiaravalli is the result of a structured **industrial culture** built on control, responsibility and continuous improvement. Within the Special Components Division, quality is not limited to product conformity, but extends to the entire system of processes, resources and decisions that support manufacturing performance.

This approach is grounded in certified management systems that ensure consistency, traceability and compliance with international standards. Chiaravalli operates according to **ISO 9001, IATF 16949 and ISO 14001**, reflecting a commitment to quality management, process discipline and environmental responsibility across all phases of production.

Continuous investment is a key driver of this model. The Group regularly upgrades its machine park, inspection technologies and production systems in order to **maintain high industrial standards** and respond to increasingly demanding technical requirements. Innovation is not treated as an isolated initiative, but as an ongoing process that strengthens precision, efficiency and manufacturing reliability over time.

This same principle applies to sustainability. **Chiaravalli's environmental commitment** is based on a responsible approach to resource management, process optimization and impact reduction. The objective is to improve industrial performance while minimizing waste, controlling consumption and promoting a more efficient use of materials and energy.

By combining certified systems, technological development and environmental awareness, Chiaravalli reinforces the industrial foundations of the Special Components Division and ensures a manufacturing model built for **long-term reliability**.



## CERTIFICATIONS

Scan the Qr Code and check all our certifications



# SECTOR

## INDUSTRIES

The Special Components Division operates across a **wide range of industrial sectors**, supporting diverse applications with tailored mechanical solutions.

Its **multidisciplinary expertise** allows the management of different technical requirements, materials and performance standards. From heavy-duty applications to precision systems, each project is developed with a strong focus on reliability and functionality. The ability to adapt to different industries reflects the flexibility and depth of Chiaravalli's industrial approach. This **cross-sector experience** strengthens the capability to respond effectively to complex and evolving market needs.



AEROSPACE



MATERIAL HANDLING



AGRICULTURE



METALLURGICAL INDUSTRY



AUTOMATION &amp; MOTION SYSTEMS



MINING



AUTOMOTIVE



OFF-HIGHWAY DRIVE



DEFENSE



PACKAGING



ENERGY AND OIL &amp; GAS



TEXTILE



INDUSTRIAL MACHINERY



TRANSPORT





# PORTFOLIO



AGRICULTURE  
*Conical toothing*



AGRICULTURE  
*Turning - Milling*



AUTOMOTIVE  
*Helical gearing*



AUTOMOTIVE  
*Toothing - Broaching*



AUTOMOTIVE  
*Internal helical gearing*



AUTOMOTIVE  
*Turning - Drilling - Grinding of diameters*



EARTH MOVING  
*Internal and external helical gear cutting*



EARTH MOVING  
*Turning and Drilling on casting fusion*



EARTH MOVING  
*Turning - Toothing*



# PORTFOLIO



**ENERGY**  
*Turning - Tothing*



**HYDRAULICS**  
*Cast iron casting - Turning - Drilling -  
Internal gear cutting*



**HYDRAULICS**  
*Tothing - Grinding*



**INDUSTRIAL**  
*Broaching - Slotting*



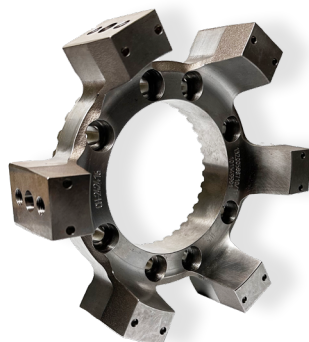
**INDUSTRIAL**  
*Part machined with turning and drilling*



**INDUSTRIAL**  
*Processing - Assembly*



**INDUSTRIAL**  
*Turning - Milling - Drilling*



**TRAIN**  
*Turning - Drilling - Gear cutting, - Milling*



**TEXTILE**  
*Turning and Gear cutting*



# CONTACT



Scan the QR code to discover our solution and contact us for further information.









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