



TENOVA **Company Profile**

Who We Are

Tenova, a Techint Group company, is your worldwide partner for sustainable, innovative and reliable solutions in the metals and - through the well-known TAKRAF and DELKOR brands – in the mining industries.

Building upon decades of experience, we work alongside our client-partners to design and develop innovative technologies and services that improve their business today and into the future. We develop solutions that help metals and mining companies reduce costs, save energy, limit environmental impact and improve working conditions for their employees.

We are a company with a strong industrial background, and sharing the long-standing principles of an industrial group, we can better understand the needs of our international partners. We are more than 2,200 forward-thinkers, men and women who take a proactive approach to problem solving in every business area in which we operate, and are continuously seeking new, cost- and energy-efficient ways to resolve the problems our clients are facing.

Together, the people of Tenova share a strong sense of passion for what our company does. By channeling this passion through professional expertise, we are able to anticipate trends and transformations within the industry, helping our clients identify and take advantage of new opportunities the moment they present themselves.

We have earned our position as one of the industry's most trusted leaders by relying on a distinctive business approach that supports every project we undertake. This approach can be summed up in four key pillars: Sustainability, Innovation, Reliability, and Safety. We believe in on-the-job passion, and actively seek out professionals who truly love what we do. Their contributions to our business have helped make Tenova the industry-leading company it is today, and their passion is the driver behind our business approach.

Tenova. Sustainable solutions for metals and mining.

Our Commitment

Around the world Tenova professionals place their skills at the service of their clients. Their eye is always on the long term, with a view to building strong, long-lasting relationships that benefit both partners over time. Four core pillars have inspired Tenova's business approach since its establishment:

Sustainability

Tenova's approach to sustainability is based on the concepts of resource efficiency, recovery and circularity, resulting in innovative, reliable and environmentally-friendly technologies. Tenova carefully analyses its clients' industrial processes in order to identify solutions that will reduce air and environmental impact while saving money, limiting raw material waste and improving facility efficiency. Tenova's aim is to always be its clients' first choice by offering a portfolio of green tech and hydrogen-ready solutions that accelerate the decarbonization of the metals industry enabling the largest reduction of carbon dioxide emissions.

Innovation

Tenova believes that innovation must improve production quality for its clients no matter what area of business they work in, increasing profits and upgrading performance by providing new, more effective methods to get the job done. Tenova develops solutions that consume less energy, produce less raw material waste, reduce costs pollution and CO2 emissions, and increase overall facility efficiency. It focuses on increasing the level of automation and digitalization in its clients' facilities, leveraging "information age" technology to help its clients perform more effectively in the 21st century.

Reliability

Companies choose Tenova because they are looking for a reliable partner; a company that will work well, and well into the future. Whether installing a roll grinder or retrofitting a steelmaking facility, Tenova professionals become personally invested in each project they undertake, designing and implementing custom-tailored solutions that work quickly, efficiently and stand the test of time. Their passion for technology translates into reliable solutions.

Safety

There can be no business success without on-the-job safety, so Tenova ensures that every solution, every technology designed and implemented makes the surrounding workplace safer. Whether designing automated process solutions to reduce the number of operators on the floor, incorporating avant-garde mechatronics, or designing control systems to identify and circumvent danger, Tenova produces solutions clients can rely on.

Our Business Areas

Metals Industry

Working both upstream and downstream, Tenova strives to innovate continuously for its clients in the metals industries, focusing on quality, energy savings and reducing pollution and CO² emissions. Its goal is to favor robust, sustainable development. To accomplish this, Tenova leverages a network of synergistic companies in order to provide clients with a fully integrated range of high quality products, technologies and services in particular in the field of metal making, hot formed, cold rolling and processing.

Metal Making

Tenova is the leader in the field of metal-making solutions. As a pioneer in the field of Direct Reduction (DR) technologies, it provides leading-edge solutions for plant sizes, ranging from 200,000 tons per year Micro Modules to 2.5 million tons per year single modules; moreover, its DR technology allows customers to use up to 100% hydrogen as reducing agent, cutting CO² emissions drastically. The group offers also a full range of cutting-edge technologies for Electric Arc Furnace and Secondary Steelmaking, including environmental solutions for fume treatment and energy recovery. Tenova is leading as well in the design and supply of high capacity AC and DC furnaces and complete smelting plants for production of ferroalloys, base metals, slag cleaning and refining.

Hot Formed

With an unmatched reputation backed by the experience of hundreds of reference plants, Tenova is a leading global supplier of hot formed solutions. A product portfolio that spans from roll grinders for flat product rolling mills to the greatest variety of industrial furnaces for different fields of application: reheating for long and flat products; heat treatment for pipes, plates and forgings; specialty furnaces for calcining and carbon making. All using the latest and most advanced combustion systems based on our own burners technology, which maximizes energy saving and emissions reduction.

Cold Rolling

The group offers a wide range of services including manufacturing, revamping and servicing for the cold rolling mill sector, supplying skin pass and temper mills, vertical stack mills and cluster mills, mill control systems, a full range of advanced automation technology and applications such as thickness gauges for tight tolerance production. As a complete, experienced partner, Tenova is also a worldwide leader in the design and supply of roll grinders and roll shop equipment that guarantee the highest standards in terms of material quality, thickness tolerance and flatness.

Processing

Building upon its position as a world leader in this sector, Tenova guarantees a broad range of state-of-the-art processing solutions, with the design, supply and commission of processing lines for carbon, stainless and silicon steel strips, hydrogen bell-type annealing plants, heat treatment for wire, rods, tubes and bars, hot-dip galvanizing of components.

Aluminum

From twin-chamber melting furnaces to advanced processing technologies and high quality roll grinders, the group supplies its clients with cutting-edge solutions for a range of aluminum needs. Tenova is the leading supplier for aluminum treatment lines for the automotive industries, with several processing lines successfully in operation for most major aluminum producers. Confirming its commitment to sustainability, Tenova is a valuable partner providing the best engineering solutions for aluminum melting and recycling.

Port Equipment

Under the brand Tenova Material Handling, the company supplies standard and tailor made material handling equipment, with particular focus on the loading & unloading of marine terminals.

Hydrometallurgy

Tenova Advanced Technologies (TAT) is Tenova's respected global brand for hydrometallurgical processing, in which it is a specialist, in particular for lithium and phosphate processing and solvent extraction.

Service and Components

Leveraging the skills and capabilities of its expert staff, Tenova custom-tailors a broad range of retrofits, modernizations, services and spare parts directly in-house for its clients, making sure mature equipment not only continues to function, but performs to the utmost of its capabilities into the future as well. Tenova is also highly experienced in providing training and technological assistance to its customers, with a focus on quality, safety and sustainable development.

Over the past years, Tenova has focused especially on two topics that represent key objectives for the steel makers to play in the current market scenario: innovation and sustainability. In order to achieve successful results and reap all the benefits of digital technologies, steel makers need to establish close partnerships with enablers that have the adequate level of know-how and experience.

This is the reason why Tenova has been investing in new business models based on digital competences and open innovation. In particular, the company has put a lot of effort in developing new solutions based on the enabling technologies of Industry 4.0, with focus on Predictive Maintenance, Plant Optimization and Remote Assistance. The ultimate goal is to optimize the production process, reduce costs, improve quality and increase production volumes. In recent years, the technology portfolio has been enriched with modular and scalable digital packages fully customizable based on customers' needs.

The protection of the environment is another crucial challenge of the next decades for the metals industry, and Tenova holds a strong market position thanks to its innovative green technologies, ranging from hydrometallurgical processes for the metals extraction to DRI plants and electric arc furnaces, passing through flameless and regenerative burners minimizing NOx emissions and melting furnaces for the recycling of aluminum. Along the process of energy transition, the company's mission is to be the reliable partner to approach the decarbonization of metals production, making possible to replace fossil fuels with hydrogen in burners, DRI plants and EAFs. Tenova has always invested in green technologies with the aim to allow its clients to minimize their environmental footprint without compromising their efficiency and operational excellence.



Mining Industry

TAKRAF Group is part of Tenova. Through its established and well-known brands, TAKRAF and DELKOR, the Group provides innovative technological solutions to the mining and associated industries. In particular, TAKRAF is recognized as the world's leading technology brand when it comes to handling high capacity run-of-mine and bulk material handling. Its portfolio ranges from overburden removal, to raw material extraction, comminution, conveying, loading/unloading, processing, homogenizing, blending, storage and final loading for onward shipment. The DELKOR brand focuses on liquid/solid separation and beneficiation with thousands of successful installations worldwide. In line with the Group's commitment to environmental sustainability, DELKOR's dewatering equipment is specifically designed for the needs of the mining industry..

Our People

Our company headquarters – the Tenova Campus – are located in Castellanza (Italy), and include collaboration areas, a training center, sports facilities and green zones designed to leverage skill-sharing, knowledge and resources among all our employees. People are the single greatest factor in our success. The more than 2,200 Tenova professionals working around the globe may come from different cultural backgrounds and have accumulated diverse work experiences, but they all share one decisive characteristic: a passion for technology united with skill at managing complex projects. They are men and women dedicated to developing new, state-of-the-art solutions for our clients, pushing the envelope of what is possible and making Tenova an industry leader. Their passion is our promise: no matter what problems your company faces in mining or metals, our people will rise to the challenge with enthusiasm and a love for crafting superior technological solutions.

Our Global Footprint

Our corporate headquarters are in Castellanza (Italy), while Leipzig (Germany) is the primary technology hub for the TAKRAF Group. We have steadily expanded our presence around the world, building a network of companies and services that can support our clients when, where and how they require. Today, we can boast local presence in 19 countries, including regional offices in China, India, South Africa, Latin and North America, and Australia. At a granular level, a network of local subsidiaries provides specific services and technologies across every major continent on the planet.

Employees

A total of 2,200 ca. at December 31st, 2021				
Europe & CIS	Middle, Far East and Oceania	Americas	Africa	China
47%	25%	16%	6%	6%

Backlog of Orders

795 Millions of Euro at December 31st, 2021				
Europe & CIS	Americas	Middle, Far East and Oceania	China	Africa
32%	24%	22%	18%	4%

Our Brands



Our History

Our history is a tale of growth and success driven by our passion for technology, our commitment to serving our clients and a prudent eye for expansion opportunities in our reference markets. Key milestones include:

1945 – Techint is founded to provide engineering services to steel industries in Italy and Latin America.

1954 – The first steel tube production plants open in Argentina and Mexico, where they continue to operate successfully today.

1969 – A flat steel cold-rolling facility is built in Ensenada, Argentina, which is meant to be the first step of a planned, fully integrated operation.

1988 – Techint begins to expand, acquiring industry-leading roll grinder, rubber & plastic, long rolling mills manufacturer Pomini.

1994 – Expansion continues with the acquisition of Intersteel Technology and its leading-edge “Consteel[®]” technology.

1996 – Techint acquires part of Italimpianti and incorporates the subsidiary Tagliaferri, a well-known electric furnace company.

1997 – Techint Technologies is established, reflecting our emphasis on identifying, developing and implementing technological solutions for our clients.

2000 – Köster and EMCI technologies are acquired in order to enhance the group’s offerings for electric furnaces.

2005 – Techint Technologies acquires the Goodfellow Efsop[®] process control system for EAF, and sets up HYL Technologies, a world leader in gas-based direct reduction plants.

2006 - The group acquires LOI Thermprocess, an industrial furnace specialist, merging it with Italimpianti. Pyromet, South Africa’s foremost specialist in smelting furnaces and plants, and Key Solutions, a global leader in acid regeneration plants, join the group.

2007 – Having accumulated decades of experience providing innovative solutions to the iron and steel industries, the company rebrands to reflect its new strong, independent market identity: Tenova is born. The company acquires TAKRAF, a global leader in open pit mining technology and material handling systems, expanding into the mining sector.

2008 – Core Furnace Systems, a leader on the North American market for industrial furnaces and electric smelting/refining furnaces joins Tenova.

2009 – Tenova's acquisition strategy continues with the entry of Multiform, Indian supplier specialized in cold rolling mills and strip processing lines, and I2S, an American company specialist in cold rolling mills.

2010 – Tenova acquires Tenova Re Energy in Germany, a company specializing in heat recovery and industrial furnace energy efficiency.

2011 – Tenova expands into three new markets, establishing Tenova Vietnam, Pomini Tenova Sweden and Tenova TAKRAF (Thailand). The group also acquires Nova Analytical Systems, a Canadian specialist in extractive-gas analyzers, and TAKRAF starts to develop crushers.

2012 – Tenova strengthens its position and further broadened its portfolio of products in the mining industry by acquiring the Delkor Group and Bateman Advanced Technologies in Israel (today Tenova Advanced Technologies).

2013 – In July 2013, with the acquisition of Technometal GmbH, a German company based in Duisburg, Tenova strengthens its position further as a recognized player in secondary metallurgy.

2014 – Tenova slows its growth strategy through acquisitions and dedicated in these years more effort to the integration of its various companies.

2016 – Tenova further develops its activities in the Mining and Minerals industry by focusing on the equipment and process technology sector through TAKRAF and DELKOR. At the same time Tenova enters a deep transformation of the Metals division to enhance commercial effectiveness and operational efficiency.

2020 – Tenova reorganizes itself in terms of governance to steady around the two businesses in which the company operates – metals and mining – so as to better focus on each's specific priorities, market approach and global presence. TAKRAF and DELKOR are the two well-known brands in which the group operates in the mining field, while Tenova remains the leading brand in the steel and metals business.