Bulk Material Handling & Process Solutions

NITE PROCESS

NTE Process

Who we are

NTE Process is the **single source provider** specialized in all stages of design, supply and innovation for all industrial sectors, delivering the most advanced process technology solutions for Industry 4.0.
Innovative, patented and sustainable technologies: from pneumatic conveying for the handling of powders and granules to the best process solutions such as pneumatic mixing, solid-liquid mixing, atomization, drying, grinding, packaging, filtration and control of harmful emissions.

HEADQUARTERS

NTE Process, Milan, Italy
NTE Process Brasile, Sao Paulo, Brazil
NTE Process India, Mumbai, India
NOL-TEC Chile/Latam, Santiago, Chile

PARTNER

Ohkawara Kakohki, Japan
Okawara Manufacturing, Japan

SALES OFFICE

Barcelona, Spain
Istanbul, Turkey
Jindřichův Hradec, Czech Republic
Lyon, France
Minneapolis, USA

Mission e Vision

Mission

We want to be a reliable and punctual partner, providing quality services with excellent scientific expertise according to the principles: "SERVICE, QUALITY & COMPETENCE".
We want to actively participate in the growth of the best companies right from the project "concept" phase, acting as an industrial solution provider.
We want to deliver unique process solutions starting from the excellence of "Made in Italy" through strategic alliances and international partnerships.

Vision

Being a "Pioneer" company, creating unique and innovative solutions for machines and industrial processes, through constant R&D and patent creation.
We want the adoption of our ideas and solutions to have a positive impact on the Planet, helping our partners to produce in a more sustainable way.

Our values

Courage	*Correctness*	*Creativity*	*Perseverance*
Resilience	*Collaboration*	*Passion*	*Madness*
Honesty	*Fidelity*	*Trust*	*Loyalty*

+ 80 PEOPLE	~ 50% GRADUATES	+5000m² OFFICES/WORKSHOP	+6000 SYSTEMS	8 PATENTS

History

It was the year **1994** when the founders of the company, Albino Novelli and his son Fabio, decided to put their engineering and business management experiences to good use by founding a commercial enterprise that specializes in industrial automation and plant engineering.

In **1998**, they established Nol-Tec Europe in a joint venture with Nol-Tec System Inc., an American company that deals with the design and construction of integrated bulk material handling and process automation systems in various industrial sectors.

2003 saw the birth of the Pilot Plant in Pessano con Bornago (MI): from this moment onwards, customers had the opportunity to test NTE Process technologies in person and obtain relevant information for the design of their solutions. This marked the beginning of what, twenty years later, would become the NTE Scientific Hub, the company's Research and Development department.

In **2004**, Roberta Novelli, Fabio's sister, joined the company as CFO and Head of Human Resources.

In **2012**, the company embarked on a strategy of building turnkey plants around the world, which also took it to South America, where Nol-Tec Chile was founded. Today, it is the hub for the LATAM market, based in Santiago, Chile.

Since **2016**, the company has established itself with the NTE Process brand precisely to communicate to the market the expansion and consolidation of its business to process solutions (atomisation, drying, etc.). In this phase, the company best expresses the original idea of the founders of creating a highly innovative reality: thanks to the design of many patents and the success of the proposed solutions, it comes into contact and becomes a technological partner of companies of global importance.

In **2021**, the company changed its name and capital structure, consolidating its distinctive identity at an international level: NTE Process is no longer just a commercial brand, but officially takes on the name NTE Process Srl.

In **2022**, the company opened two more offices: NTE Process India in Mumbai and NTE Process Industrial Brasil in São Paulo.

During these years of growth, the company has undergone a transformation from a family-run business to a managerially-run organisation. Today, operational management is ensured by a governance structure whose main function is to implement and control company processes. This management approach has contributed to the company winning Deloitte's "Italia Best Managed Companies" award for several consecutive years.

Fabio Novelli, President & CEO
Roberta Novelli , CFO e Head of HR
Albino Novelli, Vice President

Tailor-made
packing solutions

Patented system for
dense phase conveying

NTE Process Workshop in
Pessano con Bornago (Italy)

Sustainability

Process solutions and Industry 4.0 play a crucial role in sustainable and digital transition paths, as they support a variety of industrial sectors in improving process efficiency and reducing the use of natural resources.

NTE Process is at the centre of the industrial machinery supply chain, which is increasingly diversified and internationalised.

Similarly to the entire supply chain, NTE Process is interested in raising customer expectations, as far as the environmental and social sustainability profiles of the activities and the effectiveness of governance models are concerned. In turn, as a customer itself, the company is called upon to carefully monitor the sustainability of its supply chain.

In 2024, the company also obtained the **ELITE Sustainability Certificate**, which recognises the adoption of advanced ESG practices by Italian SMEs. This achievement comes alongside the confirmation of the EcoVadis Gold Medal, received for the second consecutive year, which places NTE Process among the top 5% of companies assessed internationally.

The publication of a **voluntary Sustainability Report** allows NTE Process to give full visibility to its sustainability policies and actions and to monitor its performance over time.

Thanks to the activities carried out in recent years, NTE Process contributes to the achievement of the **Sustainable Development Goals** (SDGs) defined by the UN in its 2030 Agenda for Sustainable Development.

SUSTAINABILITY IS A JOURNEY NOT A DESTINATION

Sustainability is not just a goal but a responsibility that drives NTE Process every day. As an SME in the engineering sector, the Company recognizes that the environmental impact is an integral part of its operations. That's why NTE Process decided to take concrete actions monitoring Scope 1 and 2 Emissions and offsetting CO_2 emissions by purchasing certified carbon credits, financing strategic projects in India.

ISO Certifications

NTE Process is a partner that pays close attention to market needs, changes in the socio-economic landscape, and the quality and sustainability of its customers' products.

UNI EN ISO 9001:2015

Since 1999, NTE Process' Quality Management System complies with the standard requirements defined by the International Organization for Standardization.
NTE Process is inspired every day by the values and principles of quality management:
These are the reasons why the "Service, Quality & Competence" logo was created, containing the three milestones that characterize the NTE Process solutions. The company is committed to research, new patents and continuous evolution, not only to always satisfy the needs of its customers, but also to provide added value that makes NTE Process unique in its kind.

UNI EN ISO 45001:2018

In 2021, the transition to the new standard for the Health and Safety Management System (ISO 45001) was completed and the measures to ensure safe production continuity for all workers were integrated.

UNI EN ISO 14001:2015

In 2023, by obtaining ISO 14001 certification for its Environmental Management System, NTE Process has further integrated its single management system for quality, environment and safety by improving the implementation of the company's existing systems and processes.

ISO 9001:2015 since 1999

ISO 45001:2018 since 2021

ISO 14001:2015 since 2023

Research and Development

Global patents and certifications have been obtained thanks to NTE Process' ongoing commitment to technological innovation and significant investment in Research & Development.

The company's goal is to be a **pioneer in innovation**, adopting a proactive approach that not only responds to and satisfies customer requests, but also aspires to anticipate them.

The synthesis of so much study and analysis has resulted in the **NTE Scientific Hub** - home to the NTE Process Research & Development Department - a centre of technological innovation that is unique in Italy and among the most comprehensive in Europe and worldwide in terms of the range of technologies available.

It employs talented individuals to develop technologies and patents that improve the environmental impact of its customers' production processes.

Approximately 1000m^2 of space houses a **Research and Innovation Centre** equipped with a **laboratory** and a **1:1 scale pilot plant**.

Here, all customer requests and requirements are engineered to create real simulations, scientific tests (basic fluidity, aeration, consolidation, etc.) and full-scale tests (technologies like atomization, drying, solid-liquid mixing, parallel processing, pneumatic transport, etc.).

The
NTE Lab

PREDICTIVE ANALYSIS

At NTE Lab the following analysis can be carried out:

- Calculation of all the rheological properties of powders
- Morphological analysis
- Particle Size
- Powder Moisture Content
- Material Density Calculation
- Flow Angle Calculation
- Angle of Repose Calculation
- Fluidization tests

NTE Scientific Hub has 4 test areas, depending on the type of process to be tested, and a laboratory:

AREA 1 – POWDERS / GRANULES
AREA 2 – LIQUIDS / POWDERS / GRANULES
AREA 3 – POWDERS / GRANULES
AREA 4 – SPECIAL PROJECTS.

As a result, it is possible to determine performance in advance and scale the results, including: mixing, dissolution and dosing capacity, product degradation, air consumption, as well as atomization, drying and concentration efficiency. The right process and design are defined and calibrated based on specific customer requirements. At this stage, the Research and Development Team prepares detailed reports that provide the most relevant information for predictive performance analysis and preliminary system design.

NTE SCIENTIFIC HUB where innovation meets process

Technologies & Sectors

Technologies

NTE Process is **specialist in bulk material handling and industrial process solutions** compatible with the European digital transition plan for Industry 4.0.
Thanks to the use of patents and the experience of the best technology partners on the international market, NTE Process provides a path of innovation and development tailored to every need.

Pneumatic Conveying

DENSE PHASE WITH AIR ASSIST® (pressure or vacuum)

Patented solution - called **ECO DENSE-TRONIC®** - which minimizes air consumption with significant energy savings, through the use of **Artificial Intelligence Air Assist® M533** technology, strategically positioned along the conveying line into which air is injected at controlled pressure and volume. Particularly suitable for preserving fragile products, minimizing the segregation of mixed products and protecting lines from abrasive products.

DILUITE PHASE (pressure or vacuum)

Dilute phase pneumatic conveying is by far the most widely used technology for conveying powders and granules in industrial plants.
Suitable for products that are not very abrasive, non-friable and have a low specific weight, this technology is absolutely not suitable for conveying mixed products.

Mixing and Dosing

AIR MIXING

Performed by innovative mixers that utilizes air pulses, have no mechanical parts in contact with the product and allow for the conditioning of temperature and humidity, coloring and fragrance during mixing through the addition of powders and liquids.

BLENDER M244
Air mixing and liquid injection

ECO DENSE-TRONIC ®
Dense phase pneumatic conveying system with patented technology

- RATE +20%
- AIR SAVING UP TO 70%
- EFFICIENCY +40%

PATENTED TECHNOLOGY

DOSING AND WEIGHING

Over the years, NTE Process has developed specific knowledge relating to dosing and weighing processes applied to numerous industrial sectors, improving their performance in terms of **accuracy and consistency**.

WONDERBATCH®

In-line formulation technology that allows dosing from bins (IBC) or directly from big bags, with a significant reduction in cleaning and product changeover times, combined with the possibility of mixing the batch directly in the mobile container.
The system is based on the Wonderbatch® Station M510-513 and guarantees maximum flexibility to the batch processing flow according to production needs and avoids the risk of contamination, optimizes space and increases production.
In particular, the use of the cone valve M501 guarantees the effective unloading of raw materials and the loading of bagging machines without segregation in the case of mixed products.

Milling

Dry grinding, micronization and dosing solutions for various industrial sectors that use different technologies (mills, JetMills, dynamic classifiers) to achieve controlled particle sizes and high performance with lower energy consumption. Cryogenic grinding systems for heat-sensitive materials using liquid nitrogen.

Air Pollution Control

Filtration combined with emissions control. NTE Process uses a **dry sorbent injection system** (DSI) to reduce acidic, sulfurous, mercury, and dioxin emissions, offering a simple and effective solution that, thanks to special Injection Lances, cuts sorbent consumption by up to 50%.

Parallel Processing

Patented technology for decoupling batching, mixing, and packing processes, designed to maximize plant flexibility. Particularly suitable for small tailor-made productions based on the Wonderbatch® system.
The reduction of contamination allows for easy and quick recipe changes, while parallel processing increases productivity by up to 300%.

Spray Drying

Technology that enables the atomization of slurry with varying powder concentrations and viscosities, producing **engineered powders with highly precise particle sizes** thanks to the use of patented atomizing nozzles.

Drying and Concentration

NTE Process drying and concentration technologies combine quality, safety, and environmental responsibility with the goal of preserving the organoleptic properties of products, supporting the development of new raw materials used in a wide range of drying processes such as enrichment, sterilization, and granulation.

Packing

Automatic and semi-automatic packing solutions for big bags, bags, pouches, bottles, and cans. The M502 Big Bag Filling Station ensures precise and safe filling even for hazardous materials. For bags ranging from 50 g to 25 kg, the screw technology is ideal for fine powders, offering high versatility and easy cleaning. Suitable for various industries, it is also available in ATEX versions.

Big Bag Unloading

Modular and customizable solutions for unloading bags and big bags, ensuring safety, ergonomics, and dust-free operation thanks to integrated filtration systems. All solutions are available in stainless steel or carbon steel, and can be supplied in ATEX, GMP, FDA, and OEB versions.

Closed Loop Spray Dryer

Complete Logistic Centre

Slurry Mixing

High-speed, in-line solid–liquid mixing based on an ejector that creating vacuum to instantly draw in and disperse powders into liquids, preventing agglomeration. It ensures consistent homogeneity, process efficiency, and cost reduction. Versatile and suitable for a wide range of chemical, food, and environmental products, it can be integrated into existing plants and managed remotely.

Fields of application

NTE Process is a leading company in the design and manufacture of pneumatic conveying systems, powder and granule handling, and, in general, complete plants that include the most advanced process solutions for industry.

Operating with different types of products, it is able to transfer its best practices from one sector to another and combine its experience and proven expertise to guarantee innovation and efficiency for all its customers.

Light Duty

- *ANIMAL FEED*
- *FOOD*
- *CHEMICAL*
- *NUTRACEUTICAL*
- *PHARMACEUTICAL*
- *PLASTIC*

Complete system for Storage, Dosing, Material Handling and Packing

Typical Configuration of a Wonderbatch® System

NTE Process supplies **complete solutions for the chemical industry** which are characterized by **extreme delicacy in the handling of easily degradable materials**, as well as patented, versatile and economical technologies also for the formulation of recipes and the loading of reactors with and without the presence of solvents.
The high quality standards of the products are preserved thanks to high containment solutions that guarantee protection from toxic, explosive and carcinogenic materials.

The technologies provided are made in full compliance with the Atex Regulations and thanks to the in-depth knowledge of the use of inert gases (Nitrogen and/or CO_2) for the most innovative applications.

CHEMICAL INDUSTRY

- calcium carbonate
- calcium hydroxide
- calcium oxide
- cellulose
- detergents and soaps
- fertilizers
- glass microspheres
- pigments
- polymers
- resins and glues
- sodium carbonate
- starches
- thickeners
- titanium dioxide
- toner
- urea

Heavy Duty

- BATTERY
- BUILDING PRODUCTS
- CERAMIC
- ENERGY
- ENVIRONMENT
- FOUNDRY - STEEL
- GLASS
- MINING
- PETROCHEMICAL
- RUBBER - TIRE

BLENDER TRANSPORTER
Ceramic batch and frits production

BLENDER TRANSPORTER M214

NTE Process can also combine the **Blender M244 with the Transporter M201**, to make the Blender Transporter M214, to blend homogeneous batches and transfer them, via dense phase pneumatic conveying, to the final destination, such as packaging and storage silo systems, thus reducing segregation.

Turn-key Solutions for tire production

COMPLETE PLANT FOR PRODUCING ION-CELLS BATTERIES
Unique solution for processing cathode and anode formulas that have overcome the main challenges involved in processing these materials. Solutions for pilot plants, customer qualification plant and Gigafactory are available for producing cells.

BATTERY INDUSTRY

Services & After Sales

Consultancy and Design

NTE Process studies the customer's needs to create **reliable and precise systems**.

Thanks to the technological expertise and knowledge of the process, the company provides **specific and personalized technological consultancy**, to be effective for the unique characteristics of the products to handle. The approach is to provide a "turnkey" solution.

A unique Solution Provider, at customer's disposal from the design or check-up of existing plants, to delivery and installation all over the world, up to commissioning and start-up.

Customer Care

The NTE Process Customer Care Department has the primary objective of **monitoring customer satisfaction through continual support** during all phases of the order and, subsequently, assisting them in the maintenance, management and control of the spare parts necessary for correct functioning of the plant.

The **predictive maintenance and remote assistance packages** allow you to reduce downtime of the plants and improve mean time to repair through the optimization of the spare parts stock. The remote connection can allow third party monitoring by NTE Process and assistance services based on 24/7 contracts and hot lines.

The NTE Process Customer Care Team is **a single point of reference** that guarantees the reliability and security of a **customized, time bound and proactive solution**.

Automation and Control

The NTE Process Automation Department provides customers with a **wide range of solutions** for managing any type of production process:

- Full automation engineering, which includes electrical and control panel design;
- Software and functioning specifications;
- HMI, process flow charts and predictive maintenance systems;
- Manuals for operators;
- Training and assistance for the customers production team.

NTE Process creates intuitive and functional video guides. Clear operation standards allow the customers associates to **manage the system with limited training time**.

The solutions are open and programming is simple, immediate, and tailored to the specific applications required by the customer. The code is documented and described in order to give maintenance personnel a system that is easy to manage and monitor.

After-sales assistance is provided all over the world thanks to a wide range of remote tools, using the web, GSM, UMTS, and the traditional telephone network supported with a 24/7 assistance service.

Thanks to a team of qualified technicians, NTE Process provides a site survey service on existing systems, monitoring and scheduled or extraordinary maintenance, essential for guaranteeing correct and optimal functioning over time, as well as the quality of performance and the reliability of the systems.

NTE Process is a reliable partner that guarantees the efficiency of industrial plants, minimizes downtimes and takes care of installation and commissioning worldwide.

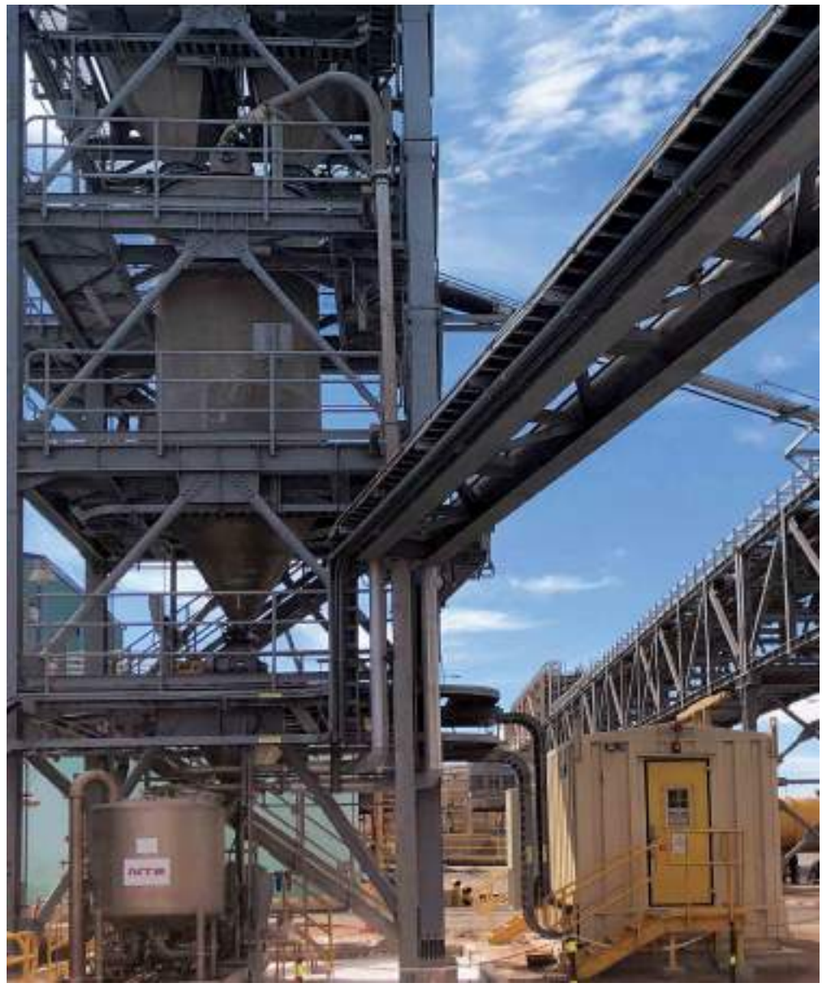
Customized Solutions
Qualified Assistance
Global Presence
Local Support

Turn-key Solutions

NTE Process supports its customers all over the world, providing constant, qualified support thanks to a solid, widespread presence in the main international markets. This proximity allows us to always be at our partners' side, providing timely, tailor-made solutions, regardless of the continent in which they operate.

Industrial plants are an essential pillar for innovation and technological growth on a global scale. In this context, customers — and their plants — are of primary strategic importance to NTE Process, to which it is fully committed and constantly attentive.

The Company's goal is to exceed expectations, not only through technical excellence and the reliability of the solutions, but also through a forward-looking vision based on collaboration, mutual trust and a service that goes beyond the simple concept of supply.



Processing and product handling technology for heavy duty industries

Conveying Ideas,
Inspiring Solutions,
Building Success!

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