



LORANDI®

BULK MATERIALS TECHNOLOGY





*Doing business is a fantastic
adventure that encounters reality
every day, but this is what
nurtures the passion and values
of those involved.*

Stefano Lorandi



A STORY SPANNING 70 GLORIOUS YEARS

Giuseppe Lorandi was born in 1923 and developed a keen interest in engineering as a boy, tackling **repairs on farming machinery** and helping his parents in their agriculture business.

After the war in 1946, Giuseppe and his brother decided to rent a small storeroom and borrowed a few tools and equipment to start a business repairing farm machinery.

They stopped working with farm machinery in 1948 and, with larger premises and 5 workers, they started to convert the Dodge HGVs left behind by the Americans during the war into lorries to load and unload sand in quarries. Clearly this was of considerable use in an Italy that was undergoing so much reconstruction.

In 1950 the brothers realised they were made for different things.

Giuseppe left the business to go out on his own, and went back to his former passion - the world of farming. He started by repairing farming machinery and constructing iron wheels for tractors in a small workshop that was also home, but this didn't deter **his wife Linda**, who always encouraged him to keep working for himself no matter the sacrifice required.

Indeed as well as bringing up two children in the house-cum-workshop, she would make up bundles of wood she gathered in the fields and sell them as firewood, just to earn a bit extra.

In 1952 he set up the company Lorandi Giuseppe & C., repairing and building farming machinery, and focused on designing and constructing a tractor-mounted drag **harrow**, for which he obtained a **patent**.

He purchased land in 1955, which the family still owns, and in two years built a house and separate workshop.

In 1957 Giuseppe had an idea - construct a machine to **spread manure in the fields**. Muck-spreading was of vital importance in farming, but in the 1950s nobody wanted to do this unpleasant task any longer.

After numerous attempts, he constructed the first muck spreader. It was presented for the first time at the agricultural trade fair in Verona in 1957 and was a resounding success, with **20 units sold against 7 estimated**.

In 1958 the same machine was presented in Verona,

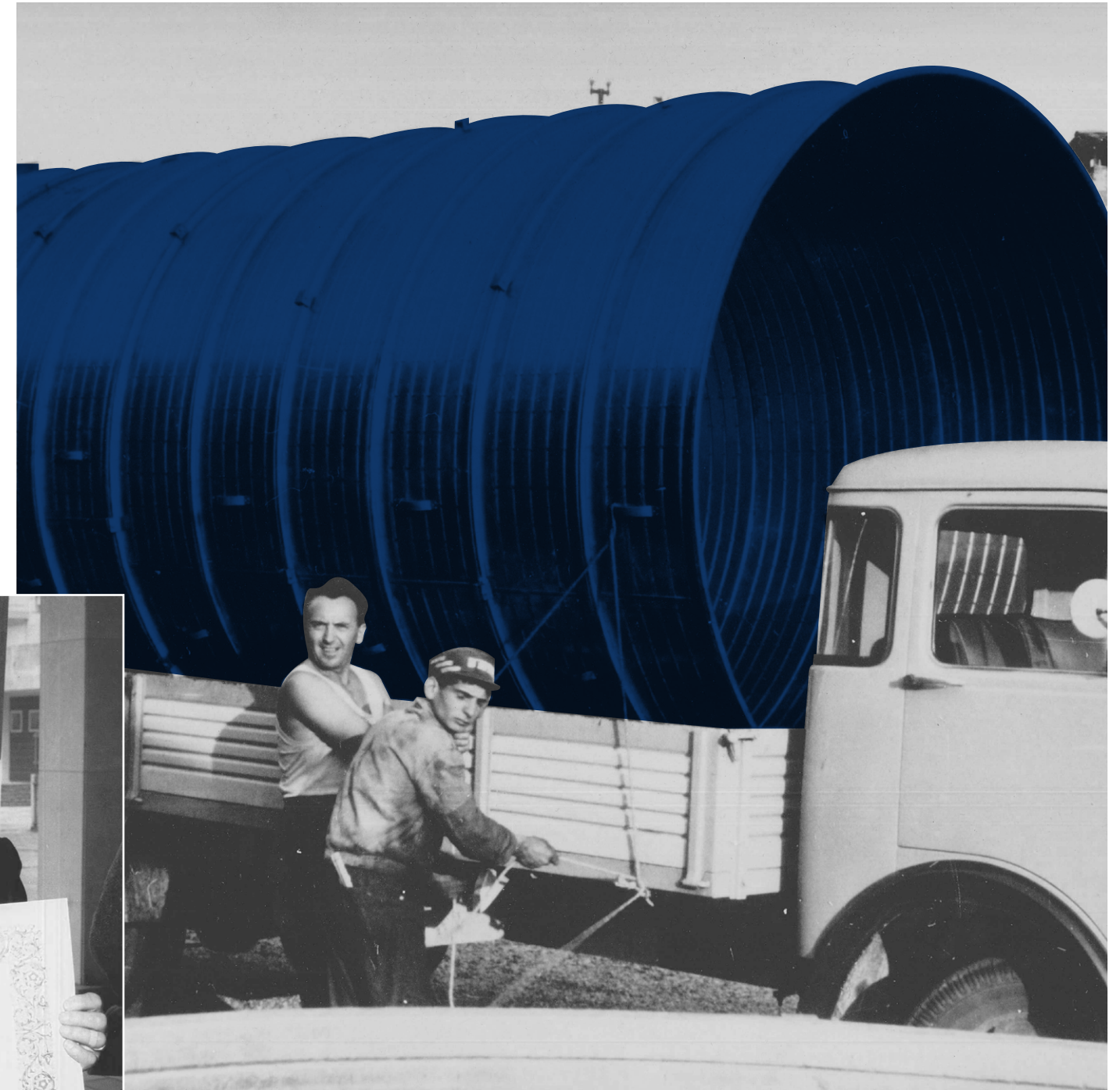
but a roller platform had been created to simulate the motion of the machinery in the field, so people could get a better idea of how it actually worked, making it more appealing. **He was sure there'd be a repeat of the previous year with the sale of 20 units, but in actual fact 80 were ordered.**

Muck spreaders weren't the only product available, there were still the standard harrows, carts for transporting grain, and carts for transporting food from storerooms to troughs to complete the product range. Through continually attending the Verona fair and other fairs in Italy, he met a successful businessman who made raffia sacks for holding animal feed. These containers had stability issues, as they were 3 metres in diameter, approximately 7 in height and had no supporting frame, so they often tipped over onto tractors or farmers. This businessman became a good friend, and suggested constructing **metal silos**. It was **1960** and the company Lorandi st

arted producing its first **silos in sheet metal**. **Son Luciano** also joined the company, and brought excellent business skills. With considerable effort they bought special machines to produce circular sheets and edging machinery. In addition to silos, **100% stainless steel tanks for wine and oil were also produced**. In 1970 production was complete with mixers for agricultural products, **animal feed mills** for the animal husbandry industry, and various types of **auger**.



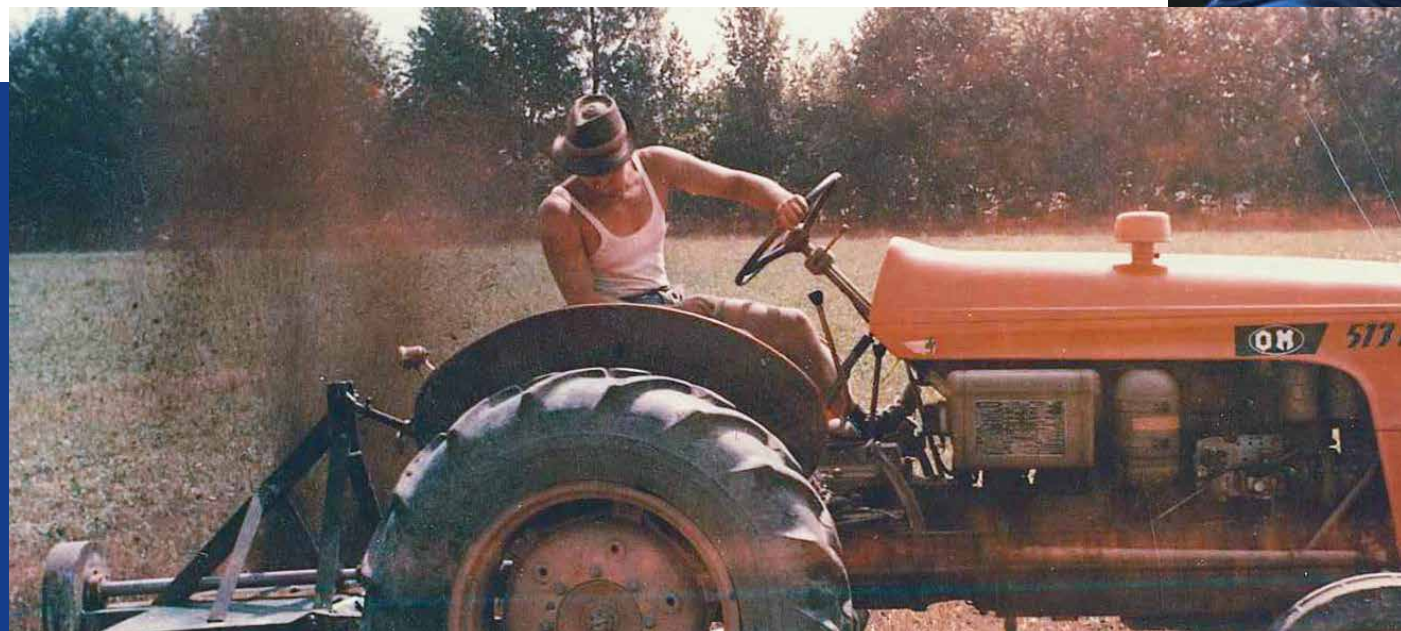
Along with the augers, Luciano started successfully producing and selling pneumatic transport systems i.e. transport for agricultural products with systems that propel containers through networks of tubes by positive pressure air. The activities involving silos, augers, pneumatic transport systems and animal feed mills took the place of farming machinery, which was no longer produced.



Luciano set up his own company in 1977, working alongside Lorandi Giuseppe with a different focus - **Giuseppe** mainly built **silos and tanks** and **Luciano focused on pneumatic transport, mixers and handling** loose, dry materials.

These separate yet combined operations continued as Lorando Silos until **1983**, when the two businesses merged **into one and became Lorandi Luciano**.

The 1980s saw a gradual move away from farming, with all focus shifting to plastics and food for human consumption, with the construction of silos and plants for plastic granules and powder, and foodstuffs such as sugar, semolina, coffee and powdered milk.







ABOUT US

The Lorandi name has been synonymous with **versatility and innovation since 1946**. These characteristics have enabled the company to provide a **prompt, highly-tailored service with industrial-level capability**. As a result, our customers can trust us to increase the efficiency of their production.

Advising, planning, building and supporting - Lorandi provides a complete service that continues after final testing, with **full support** throughout the World, and continual remote system and equipment monitoring. Furthermore, with a network of expert representatives, we can guarantee the support required to manage any

situation promptly with the right person nearby.

We have **6 cutting-edge, operational facilities** that are open for visits - **2 production facilities** in Italy, **1 business and technological centre** in Spain, managed by an experienced team, **1 production facility** for **LOCKED Silos System®** overlapping ring silos in India, **1 commercial branch** with a finished products warehouse and showroom in the United States, and **1 product warehouse** in Germany.

We can provide support for customers with spare parts, assistance and expertise in different countries and languages.



70 years
of experience

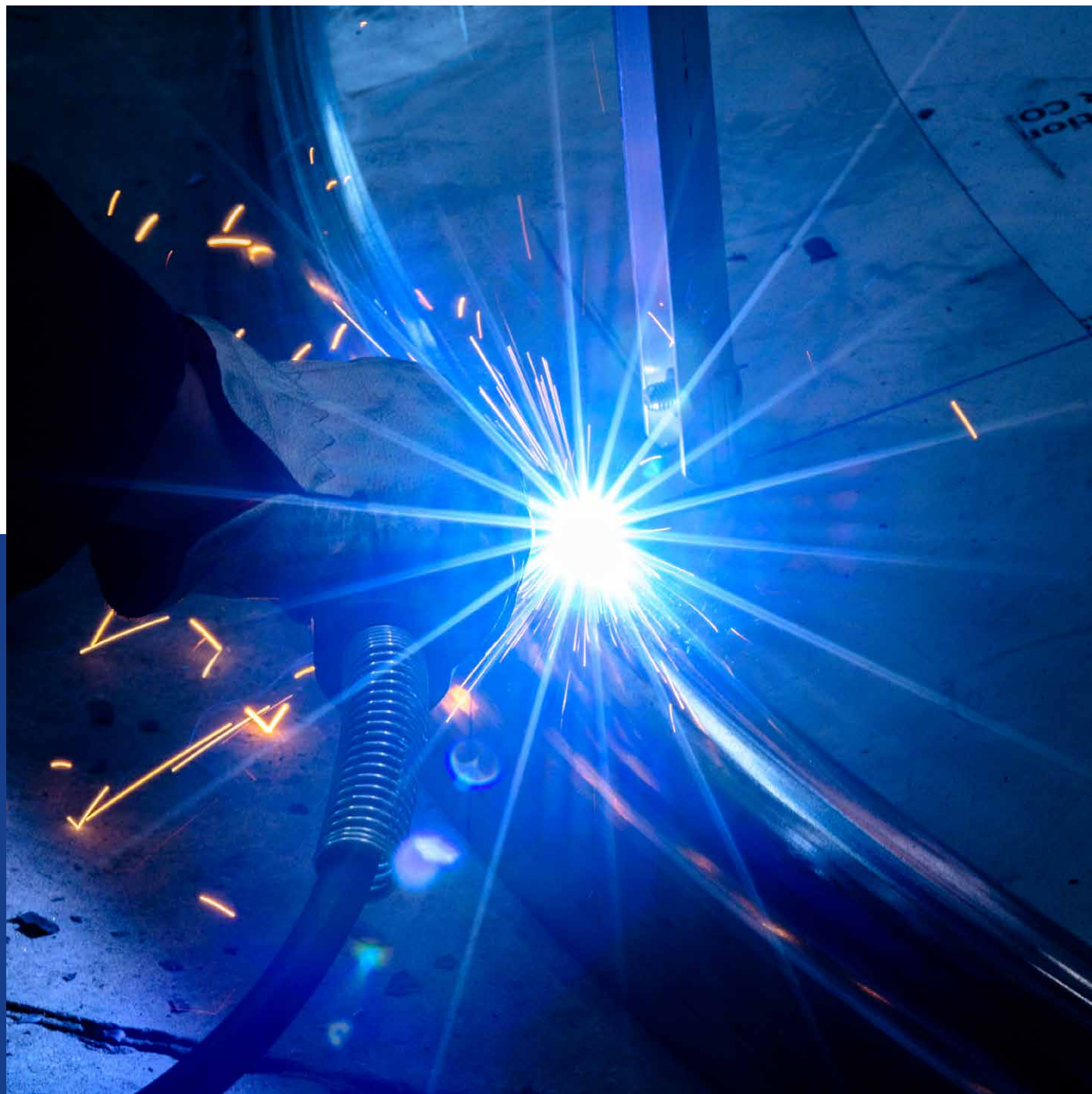
5200
customers

10,000 Km
of pipes

More than 5640
silos produced

314,000 Kg
of steel annually





Lorandi Silos are the result of **years of passion and experimentation**. They have a unique, patented structure, and are produced with automated techniques and high-tech calendering and welding processes.

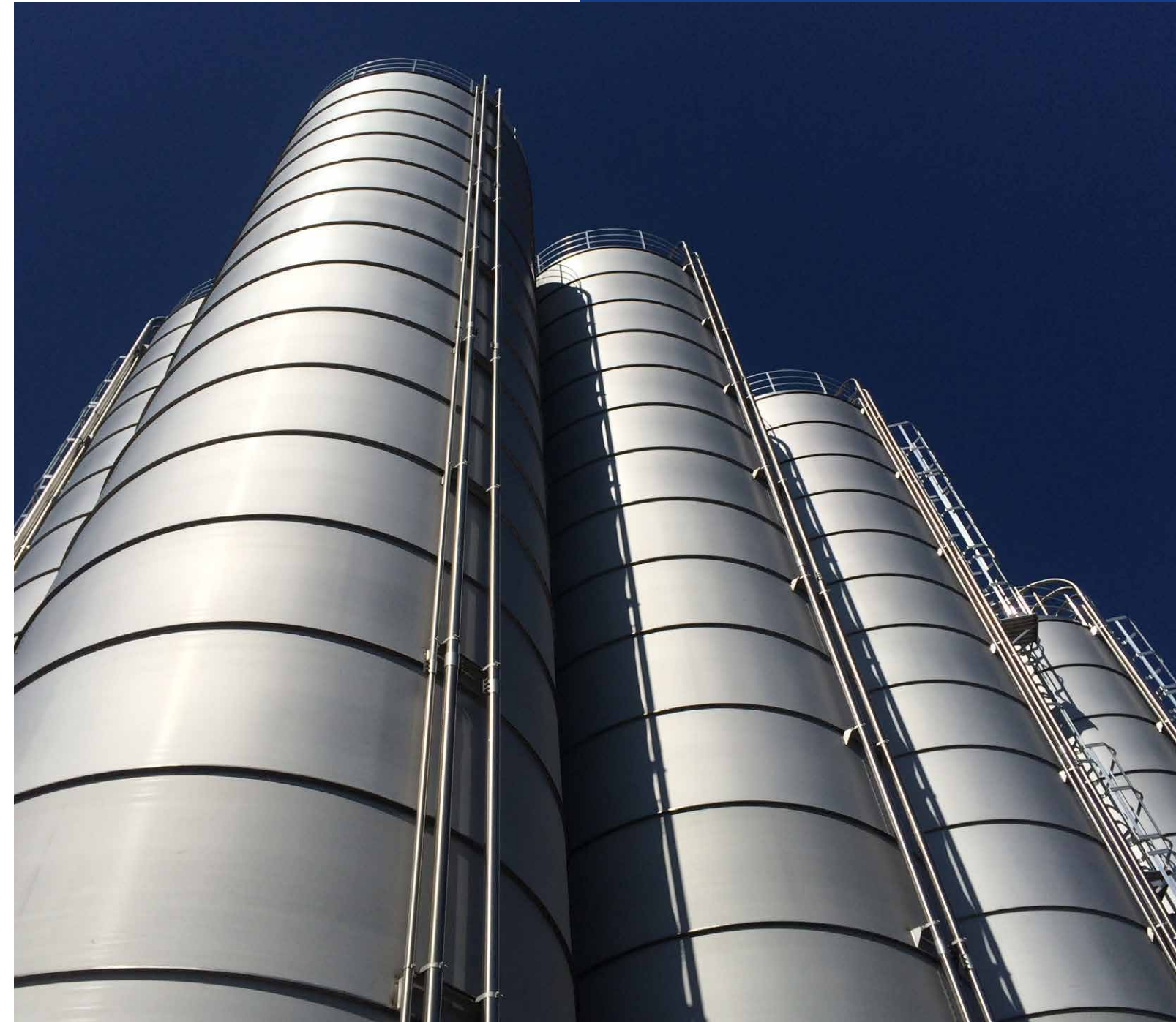
WHY CHOOSE A LORANDI SILO?

- Our silos are produced using robots with **certified** welding processes and **high quality**, thanks to a tested industrial process. The single unit model produced in Italy has a patented cover based on a convex shape that ensures maximum **robustness** for walkways, and **increased strength** in the event of sudden internal pressure changes.
- For the overlapping ring models we have the **patented LOCKED Silos System®**, making transport and assembly easy in remote places all over the world, and guaranteeing the complete safety of silage.
- Silos are assembled by Lorandi personnel using tested, cutting-edge **and certified company equipment**.
- Every silo is monitored on request with a **PLC DriveSilos®** system, which sends diagnostics to our **service and support centre** which can be contacted via a freephone number.
- A wide range of materials can be used to construct silos, such as **Stainless Steel, Aluminium, Magnelis® steel, Galvanised Steel and HT Polyester Fabric**. Various **diameters** and a monolithic or modular silos structure are available, thanks to our patented **LOCKED Silos System®** edging technology.
- We have a **loadbearing structure** protected by **two industrial patents** with **4 or 6 legs** for positioning silos on weighing cells, which has a unique shape for robustness and versatility and is endorsed for wind and seismic forces.
- Another **patented system to cool the silo** externally in the event of a nearby fire enhances the range of options available.
- For particular materials that need to be contained in dehumidified environments, we have a circuit that puts dried, filtered air into the silo to **keep internal humidity stable**.



WITH OUR SILOS YOU CAN

- **Optimise** space and warehouses.
- **Accelerate** the transfer of raw materials.
- **Automate** raw material loading, unloading and distribution phases.
- **Reduce** fire risk.
- **Eliminate** the loss of material on the ground, avoiding accidents.
- **Eliminate** waste disposal and the time material remains in sacks.
- **Have strict control** of the raw materials warehouse.
- **Improve** company logistics.
- **Eliminate** the possibility of sacks ripping in yards and the risk of contamination and accidents.
- **Eliminate** issues due to atmospheric agents (UV rays, ice, radiation etc.).
- **Eliminate** thefts of raw materials.
- **Improve** contractual opportunities with suppliers of raw materials.
- **Increase** storage for large volumes.
- **Increase** company standing.
- **Improve** efficiency in purchasing and planning departments, thanks to Industry 4.0 software that enables data to be shared between silos and company management systems.
- **Eliminate** forklifts battery recharging and maintenance operations.
- **Improve** the work environment by centralising the handling of powder collection.
- **Adopt** a closed circuit from the silos unloading system to production machinery, to eliminate contaminants and human error.
- **Invest** in a product that holds its value over time and hardly deteriorates.







NOT JUST SILOS...

We decided to capitalise on the experience initiated by Lorandi in 1989 in the field of **transport and centralised vacuum dosing of plastic granules and powder**. Since 1989 we have been meeting the requirements of companies through **scientific research and development**, solving typical issues where standardisation inextricably combines with the ability to adapt to the unexpected situations that are typical of industrial manufacturing operating at full capacity. Our results, and a range of products designed for companies that believe in **quality and versatility**, drive the desire to optimise the centralised transport branch, which aims to consolidate our market presence with a highly-qualified team.

The **key strength** that makes us different is **our ability to be exclusive and customise**. We create systems calibrated perfectly to the requirements of each individual customer, abandoning the current very common drive for standardisation.



In the 1970s Lorandi started **manufacturing pipes and bends** for low-pressure pneumatic transport, with systems that propel containers through networks of tubes by air through the Venturi effect.

This is now a very comprehensive side of the business, and provides **a wide range of easily-fitted accessories** thanks to a round edge which is connected with a convenient joint ring to another round edge, making pipelines easy to assemble and dismantle.

These components can be used for **pneumatic transport systems for handling plastics, grain, foodstuffs, coffee and animal feed**.



The **environment** has always been important to Lorandi, and the company works daily to secure a future in which **industry operators are increasingly aware** of environmental protection policies, and encourage companies to adopt production processes that recycle material to reduce waste. Since the end of the 1970s we have been designing **air separators** that operate in relation to **specific weight difference between raw material and waste**.

The range is now complete with rotating machinery that separates plastic by size difference. We **produce special silos** for the recycling sector, as waste material is very difficult to manage within containers due to loading/unloading issues. **Consequently we must build with specific focus on the type of product to be managed**.



Our product offering is complete with **vertical and horizontal mixers**.

Our mixers have been optimally designed for use with plastics, have numerous **optional extras**, very robust **safety systems**, and have been made with varnished steel and stainless steel. Also available is an exclusive, patented model consisting of a mixer that can be fully dismantled to facilitate transport in shipping containers.







PTF FILTERS

PTF Filters S.L.U. is a leading company in the Iberian market in the **design, implementation and installation of powder extraction and filtration systems** in the plastics, food and farming industries.

Set up in 1985 as Proyecto Técnico de Filtración, the company was taken over by Lorandi in 2018 and became PTF FILTERS S.L.U. This enabled us to acquire significant knowledge in the field of industrial filtration, among others. PTF FILTERS is involved in the management of paper and linear plastic waste during extrusion and conversion machine operations.

Furthermore, the aim of entering the Iberian market is to consolidate the **Lorandi and Plamatic customer base in Spain and Portugal**, guaranteeing a quicker and more efficient service with PTF Filters as a technical and logistics reference point.







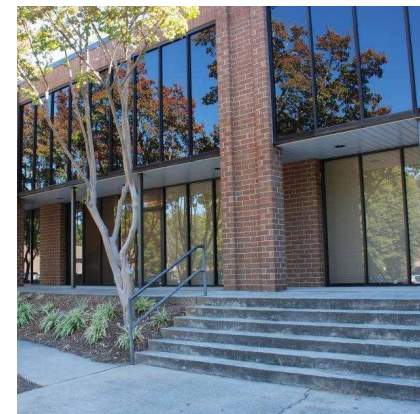
The first production site in **Italy**



The new production site (4000 m2) for **LOCKED Silos System®** overlapping ring silos in **India** | **Coming soon on January 2020**



The second production site in **Italy**



The commercial branch with product warehouse and showroom in the **USA**



The business and technological centre in **Spain**



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