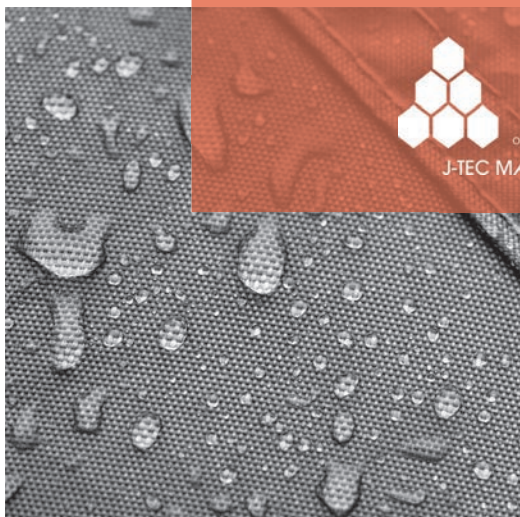




J-TEC

PVC PROCESSING



OUR PEOPLE MAKE THE DIFFERENCE

J-TEC MATERIAL HANDLING



ABOUT J-TEC

Are you seeking to strengthen your market position in PVC production and processing with high-value and tailor-made engineering solutions? J-Tec Material Handling focuses on niche markets, allowing us to truly understand our PVC customers and provide them with optimal solutions and services throughout the entire PVC processing process. This strategic approach yields numerous benefits, including heightened expertise, improved problem-solving capacities, and a deeper understanding of our PVC customers' evolving needs.

WHAT WE OFFER

J-Tec specialises in delivering top-tier material handling and process engineering solutions to key players in the global PVC production and processing industries. Our expertise includes design, supply, construction, and maintenance of processing systems tailored for PVC powders, pellets, and liquids. Whether it's a single process line or a turn-key installation, we provide solutions that meet the diverse needs of our clients worldwide.

PERSONALISED APPROACH

Our unique strength lies in the personalised approach we bring to each PVC project. We understand that there is no one-size-fits-all solution. Instead, we actively engage with our clients, leveraging our in-house knowledge, expertise, and tools to craft bespoke solutions for every PVC processing project.

J-Tec remains a dedicated partner throughout the entire process, from conceptual design to detailed engineering, procurement, manufacturing, installation, commissioning, and, if needed, ongoing training and maintenance.

SUPPLIER-INDEPENDENT

Choosing J-Tec as your partner offers a distinct advantage – we are completely supplier-independent. Recognising that each PVC project demands a custom approach, we carefully select vendors based on the specific requirements of our clients. This ensures that we can guarantee the best solution for your tailor-made PVC installation.

J-TEC IS PART OF KATOEN NATIE

Katoen Natie develops tailor-made logistic and engineering solutions for its customers' products. The combination of engineering, technology, logistics and semi-industrial activities result in strong concepts each time. J-Tec Material Handling is one of Katoen Natie's independent business units.

TURN-KEY PROJECT ENGINEERING CAPABILITIES

Katoen Natie has the experience and staff to offer you the best complete concepts. In cooperation with the business unit "Supply Chain Engineering", we are able to build entire green field projects.



EXPLORE THE FUTURE OF PVC PROCESSING WITH J-TEC

In the realm of PVC processing, encompassing both rigid and flexible variants, J-Tec stands as a pioneer in providing comprehensive solutions for dry blend and paste production. The compounds are used for: Cable, LVT, WPC, SPC, general building products, etc. production, whereas the plastisol paste is used for technical textile, cushion vinyl, artificial leather, etc.

Adapting to the ever-changing landscape of the consumer market for PVC-based products demands manufacturers to be nimble in modifying both engineering and production aspects of their plants. J-Tec, with its proven track record, assures this essential flexibility.

With a vast global experience, J-Tec excels in designing and constructing cutting-edge installations. Our solutions are not just reliable and long-lasting but represent a state-of-the-art approach to processing raw materials, additives, and regrinds into homogeneous blends. Trust J-Tec to empower your operations and meet the demands of the dynamic PVC market, spanning both rigid and flexible applications.

ADVANCING PVC PROCESSING TECHNOLOGY

Navigating the dynamic realm of PVC production, J-Tec integrates client expertise with technological advancements to ensure the seamless handling of products. Commencing each project with an in-depth understanding of customer processes, we tailor the design for an economically efficient plant.

RECEIVING & STORAGE

Boost your PVC processing and production efficiency with J-Tec's cutting-edge solutions for handling raw materials. Our expertise spans from receiving raw materials to the production line, ensuring precise care for PVC powders, additives, fillers, pigments, and more. Whether incoming products arrive in bags, big bags, octabins, trucks, or railcars, our solutions ensure accurate measurement, careful handling, and a dependable starting point for your PVC production process.

Additionally, J-Tec is able to offer various solutions for plasticisers and other liquids, delivered in barrels, IBCs, trucks, or rail tankers, can be stored in tanks and heated if necessary. Tailor your storage solutions with J-Tec's precision-engineered configurations, customised to match the unique characteristics of each raw material. Minimise product loss by implementing raw material discharge and dedusting solutions. Define the optimal extraction system to further enhance dosing efficiency within your PVC process.





RAIL CAR UNLOADING

Efficient unloading of rail cars is vital to ensure smooth supply chain operations and minimise transportation costs. J-Tec specialises in the unloading of PVC resin from rail cars through a high-capacity pull/push system. The PVC is drawn into a central pull/push receiving station equipped with a filter, employing under pressure.

In the subsequent step, the powder is conveyed into an overpressure conveying system connected to the silos. This solution enables the transportation of resin to a silo battery located at a considerable distance from the rail spur.

On the other hand, filler is delivered in PD railcars, which are large, low-pressure vessels on rails. Using a PD blower, we pressurise the vessel and convey the material out. A specially designed pressure-regulated valve ensures an optimal air/product mix, allowing us to convey the filler at high capacities to the silos.

Efficient rail car unloading is not just a matter of convenience but a critical component of maintaining competitive advantage in today's market. J-Tec's expertise in PVC resin unloading ensures not only seamless operations but also cost-effectiveness throughout the supply chain. By leveraging innovative technologies and precision engineering, J-Tec continues to deliver reliable solutions for rail car unloading, setting new standards for efficiency and performance in the industry.

CONVEYING, DOSING & WEIGHING

The development of our conveying solution is precisely tailored to meet your specific project requirements, incorporating factors such as the number of departure and arrival points, the unique characteristics of the conveyed product, and the exact quantities of individual components in the process. This methodology guarantees the identification of the most efficient conveying system, tailored to meet the unique requirements of each production configuration.

In the realm of dosing and weighing, precision and consistency is key, regardless of whether it's a batch or continuous process. Our strength lies in crafting optimal concepts that cater to the unique demands of handling both liquids and solids. In addition, to fulfill client objectives and enable the handling of products according to their specifications, process guarantees are an integral part of our standard deliverables. These guarantees empower clients to realise their goals with assurance.

Our clients rely on J-Tec for conveying, precision dosing and weighing solutions, which serve as the cornerstone for accurate recipe preparation and the streamlining of production processes. The intricately crafted design not only guarantees the present flexibility for our customers but also positions them strategically to effectively meet the evolving demands of the future.





LIQUIDS

Each manufacturing process necessitates specific plasticisers and dedicated liquid additives. Different final products, markets, and regions call for unique plasticisers, spanning non-bio-based to bio-based varieties. Plasticisers may have varying roles, with some prominently used in sectors like cable and cushion vinyl, while others serve as minor components. J-Tec draws from diverse technological approaches to address these distinct needs.

At J-Tec, we have the capability to accurately dose both small and large liquid components. For processes that involve pre-heating, J-Tec developed a system to precisely pre-heat the required batch to the optimal temperature preventing any risk of overheating valuable liquids. This system also ensures a careful and controlled approach to handle liquid components, contributing to the overall efficiency of the production process.

Moreover, our state-of-the-art liquid dosing systems ensures not only precision but also flexibility in accommodating varying batch sizes and compositions. This adaptability allows us to meet the specific requirements of each client while maintaining consistent quality across all production runs.





MIXING TECHNOLOGIES

J-Tec has considerable know-how when it comes to heating/cooling mixing. We are skilled in delivering process installations for the creation of dry blends with homogeneous and uniform characteristics. Furthermore, the integration of plasticisers at specific temperatures and the introduction of titanium dioxide powders, additives, and stabilisers into your heating and/or cooling mixing process are integral aspects of our expertise.

We also possess significant expertise in the field of paste mixing. Our proficiency lies in providing process installations for producing pastes with consistent and uniform characteristics. Key elements include the controlled feeding of powders into the mixer and the utilisation of vacuum pumps to eliminate air from the paste mix. Following the paste mixer, we have the capability to incorporate inline pigments with elevated viscosity and introduce catalysers into the paste, resulting in the formulation of the final mix. As an additional feature, our process includes inline filtration of the paste with an automatic cleaning mechanism for the filter unit, ensuring a seamless and efficient production workflow.

Every project has its own unique demands, and we are determined to provide you with the best suitable process solutions.

AUTOMATION

Crucial logistic decisions hinge on an efficient process control system, influencing timely raw material ordering and batch tracing. At J-Tec, our team of engineers provides end-to-end solutions, from concept to execution and startup.

Our in-house engineers specialise in electrical engineering, automation, and control system architecture for new or existing installations. With a wealth of knowledge in specific PVC equipment like high shear mixers, feeders, and compounders, we seamlessly integrate them into a central control system.

Recognising the impact of minor deviations in product composition, J-Tec implements cutting-edge tracking and batch logging technologies. If needed, we can implement RFIDs, barcodes, scanners, and more, to track every component in mixtures, ensuring consistent and high-quality end products.

Flexibility is key. Our open-source control systems empower customers to adapt coding post-installation, accommodating changes in process set-ups. Trust J-Tec for advanced control solutions that enhance the precision and adaptability of your PVC operations.





MOUNTING & CONSTRUCTION

In the process of constructing an installation, unwavering adherence to plans and schedules is key. At J-Tec, we pride ourselves on upholding the highest industry standards, underscored by our certifications, including Lloyd's SHE (Safety, Health & Environment) and Safety Checklist for Contractors (SCC), ISO 9001, and ISO 45001. These certifications serve as a testament to our unwavering commitment to quality and safety, ensuring that every project we undertake is executed with precision and excellence. Our SCC certificate registration number is 650830.

COMMISSIONING & START-UP

J-Tec's dedicated team of skilled engineers takes charge of the commissioning phase, guaranteeing the precise implementation of the installation within the specified timeframe. We extend our services to include comprehensive operator training, tailoring our approach to provide more in-depth training when necessary. Furthermore, our commitment to excellence is demonstrated through thorough preparation of the installation, meticulous fine-tuning, and optimisation of your process. This holistic approach contributes significantly to achieving a seamless and successful startup, ensuring that our clients experience operational efficiency from the very beginning of their facility's lifecycle.

TURNKEY GREENFIELD PROJECT EXECUTIONS

Benefit from our dedicated in-house design department equipped with the essential skills and facilities to create entire process plants. Collaborating with the business unit 'Supply Chain Engineering' of our mother company Katoen Natie, we possess the capability to construct complete greenfield projects.

Greenfield projects encompass comprehensive management of various aspects, including civil works, utilities, infrastructure development, the establishment of rail spurs, and the optimisation of logistics flow. Additionally, we have the capability to facilitate permitting processes, ensuring a seamless and well-coordinated implementation.



J-TEC'S TEST FACILITIES

J-Tec's state-of-the-art test facilities stand as a testament to our commitment to innovation, offering a comprehensive array of research possibilities tailored to meet the unique needs of your product. These cutting-edge facilities serve as more than just a testing ground; they are a dynamic platform designed to simulate real-life scenarios. This simulation ensures that the development of new installations and processes aligns seamlessly with your strategic plans, providing you with the confidence that your envisioned outcomes will be achieved.

Within our Research and Development (R&D) facility, nestled in the heart of our headquarters in Kapellen, Belgium, our unwavering commitment is palpable as we strive to achieve the optimal handling of your product, leaving no stone unturned to guarantee that your investment yields maximum returns. At J-Tec, we take pride in the meticulous testing and exploration of possibilities conducted within our facility. It is our firm belief that this approach not only contributes to the success of your projects but also enhances their overall efficiency. By choosing J-Tec, you're not just investing in a service; you're engaging in a partnership that prioritises innovation, precision, and the fulfillment of your unique project objectives.



CHEMICALS

In the exciting world of chemical production and processing, safe and reliable manufacturing is paramount.

Basic requirements include a conceptual design with a healthy OPEX/CAPEX balance, taking various factors into account such as ergonomics, ATEX/NFPA regulations and accurate sizing and the selection of the most suitable components.

J-TEC's extensive knowledge of the industry requirements, product characteristics and material handling solutions is based on over 50 years of collaboration and experience with the chemical industry.



ATEX



NFPA®

WWW.J-TEC.COM

INFO@J-TEC.COM



J-Tec Material Handling HQ

Lieven Gevaertstraat 11
B-2950 Kapellen
Belgium
+32 3 660 51 11

Gomez Madrid Soluciones Industriales

Av. Jaume I, 39
46450 Benifaió, Valencia
Spain
+34 961 78 17 75

J-Tec Material Handling USA

10925 SH 225
La Porte, TX77571,
USA
+1 281 470 5488

J-Tec Material Handling Asia

22 Phangmuang Chapoh 3-1 Road Tambol
Huaypong, Amphur Muang, Rayong 21150
Thailand
+66(0) 38 643 211