

A photograph of a large industrial facility, likely a pharmaceutical or chemical plant. It features several tall, cylindrical stainless steel storage tanks. A complex network of pipes, valves, and metal walkways with railings is visible, connecting different levels of the structure. The background shows a dark, industrial interior with concrete walls and ceiling.

DISCOVER J-TEC MATERIAL HANDLING



OUR PEOPLE MAKE THE DIFFERENCE

J-TEC MATERIAL HANDLING

ABOUT J-TEC MATERIAL HANDLING

Established in 1970 and incorporated by Katoen Natie in 1999, J-Tec has been a leading EPC provider of automated material handling systems and process engineering solutions for over five decades. With a rich history of experience and a global footprint, we have evolved into a trusted partner for clients in the food and chemical industries worldwide.

What sets us apart is our commitment to a personalised approach for each project. At J-Tec, we pride ourselves on being supplier-independent, allowing us to deliver tailor-made solutions for every unique challenge. Our philosophy rejects the one-size-fits-all model; instead, we engage with you, leveraging our in-house expertise and tools to craft a bespoke solution for your specific project. More than just your supplier, J-Tec is your partner during the entire process. From conceptual design to detailed engineering, procurement and manufacturing, through to installation and commissioning, we stand by your side. Should you require it, we also provide comprehensive training and maintenance support.

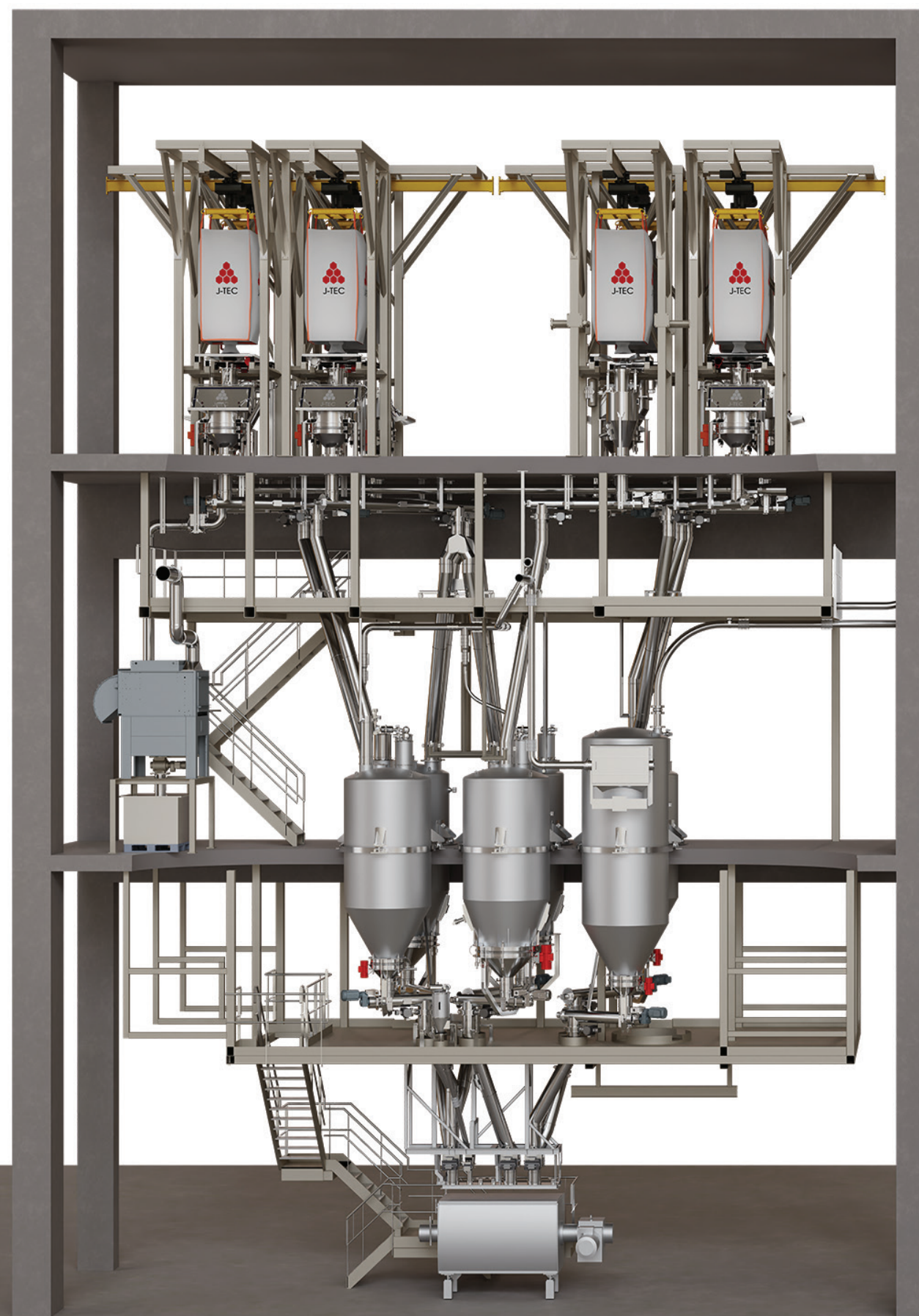
Experience the difference with J-Tec—a partner committed to your project's success!



PROCESS ENGINEERING

Welcome to the forefront of innovation in material handling and process engineering! Our cutting-edge automated solutions cater to industry leaders in both the chemical and food sectors, spanning the globe. At J-Tec Material Handling, we specialise in the end-to-end delivery of state-of-the-art processing systems designed for powders, pellets, and liquids.

Our comprehensive services cover the entire spectrum — from design to supply, construction, and ongoing maintenance. Whether you're seeking a singular process line or envisioning a complete turnkey installation, we're here to turn your vision into reality.



INDUSTRIES

At J-Tec Material Handling, we strategically focus on niche markets to ensure closer customer proximity and optimal service delivery. This deliberate approach unlocks a myriad of benefits, including heightened expertise, enhanced problem-solving capabilities tailored to your unique needs, and a profound understanding of your specific requirements.



Elevate your market standing by embracing high-value, custom-engineered solutions designed and constructed to perfection. If your industry isn't explicitly mentioned, we invite you to reach out and explore the possibilities with us. Your unique challenges are our inspiration, and together, we can redefine excellence in your sector.



FOOD INGREDIENTS

The excellence of your final products, whether they be wholesome and reliable baby food or the most indulgent cookies, snacks, and confections, is intricately tied to the purity of the ingredients employed. At J-Tec, we acknowledge the significance of ingredient quality.

In our relentless pursuit of creating installations dedicated to producing these superior ingredients, we seamlessly integrate our expertise in designing and constructing process installations for leading A-brand producers in the food industry with our profound comprehension of handling a diverse array of products. This includes lactose, starches, yeast, flavors, sugar, spices, flours, oils, fats and more.

Our track record speaks volumes, reflecting extensive experience in delivering top-tier process installations throughout the entire food production chain. Rely on J-Tec as your trusted partner in ensuring the impeccable quality of your ingredients, and by extension, your final products.

SNACKS & BAKED FOODS

Producing the finest quality snacks, whether they take the form of biscuits, crisps, cereal, pizza, or bread, begins with the artistry of preparing the perfect dough. Each snack becomes a distinct culinary creation through the addition of creams, flavourings, seasonings, or the indulgence of a chocolate coating.

Our seasoned engineers specialise in creating innovative concepts for the automated handling of key processes: storage, sieving, dosing, and blending of both dry and wet ingredients. Flour, starch, sugar, salt, yeast, oils, and fats are meticulously orchestrated to create dough and creams in a streamlined and sanitary manner. This approach not only ensures efficiency but also aligns with the most demanding hygiene and food safety standards, setting the foundation for the exceptional quality of the snacks we help produce.

INFANT NUTRITION

When it comes to powder handling for baby and infant formula production, adhering to the most stringent food safety and quality standards is non-negotiable. Handling such delicate products prioritises food safety, but preserving the nutritional value of the product is equally indispensable. Ensuring correct nutrition during the first three years of life is crucial for lifelong health. Infants require vital nutrients to foster healthy growth and development. At J-Tec, we empower you to achieve these objectives through our validated process solutions for baby formula production. Our dedicated engineers specialise in designing and constructing validated process solutions for ingredient manipulation, precise dosing, thorough blending, meticulous sieving, and reliable sampling. They do so with unwavering commitment to cleanliness to prevent any form of contamination. This is the daily mission of our team when it comes to Infant Nutrition.

PVC PROCESSING

When delving into the intricacies of PVC dry blends preparation and the production of LVT or plastisol, the key consideration for batching systems lies in their demand for flexibility. Navigating the dynamic landscape of the consumer market for PVC-based products requires manufacturers to showcase a heightened level of adaptability. This adaptability extends to the swift adjustments needed in both engineering and production processes.

Drawing on our extensive expertise in the design and construction of plastisol, WPC, and LVT installations worldwide, J-Tec guarantees a cutting-edge, dependable, and enduring solution for processing raw materials, additives, and regrinds. This commitment is instrumental in achieving the desired blend homogeneity, ensuring that manufacturers are well-equipped to meet the evolving demands of the industry.

J-Tec excels in providing state-of-the-art technology that optimises every stage of the production process. Our commitment to research and development ensures that our solutions incorporate the latest advancements, enhancing the overall performance and sustainability of PVC processing operations. Whether it's streamlining material handling, improving blending techniques, or implementing cutting-edge automation, J-Tec's dedication to innovation positions manufacturers at the forefront of the industry. By fostering a culture of continuous improvement, we empower our clients to not only meet but exceed the evolving standards of quality and efficiency in the competitive landscape of PVC processing.

PLASTIC COMPOUNDING

For plastics production companies, the primary expectation revolves around maintaining a consistently high quality of customised grades. The selection of appropriate engineering solutions for polyolefin compounds is essential in meeting this expectation. This requirement not only shapes but fundamentally defines the framework of contemporary designs for new compounding plants.

J-Tec's plastic compounding solutions stand out for their simplicity in design while being distinguished by flexibility, reliability, and exceptional performance accuracy. Tailored to cater to a diverse range of polyolefin compounds, including PP, PA, PC, PPS, SMA, PMMA, and more, our solutions operate independently of OEM manufacturers. This unique feature provides J-Tec with the flexibility to choose any preferred brand and type of extruder and pelletizer, seamlessly integrating all components into the plant control system.

Beyond merely designing process equipment and polyolefin compounds, J-Tec stands as your steadfast partner in the construction of turnkey, greenfield compounding plants. This holistic approach ensures that every facet of the compounding process is meticulously addressed, reinforcing our commitment to delivering comprehensive and innovative solutions in the realm of plastic compounding.



TECHNOLOGIES

Techniques can vary according to industry, product characteristics, and so on. Our engineers are trained and experienced to fulfill any of your requirements. Your product expertise combined with our know-how in technology guarantees the leanest and most efficient product handling during every stage of the production process.

Reception, storage & conditioning

Quality control is becoming more and more crucial for the production facilities. Techniques include sieving, magnet traps, metal detection, etc, along with validation by sampling the inbound and outbound products.

Product loss is reduced by optimising the way of storage (silos, containers, tanks etc.), avoiding product degradation during storage by controlling the atmospheric conditions around the product (drying, heating, cooling etc.) and defining the optimal extraction system.

Developing devices for filling bags, (F)IBC, octabins, bulk trucks, and so on, with a high capacity and minimum of dust or waste creation requires proven technologies and a lot of experience.

The conceptual and detailed design of reception, storage and conditioning varies according to industry, products, capacity, and so on. Our engineers are experienced in the requirements for each industry and product, so we guarantee lean but efficient reception, storage and conditioning of the controlled and sampled products in the installations we design.

Conveying

A production process is made up of different steps, most of which are physically separate from each other. The intermediate products have to be transferred with minimum degradation. We have vast experience in common solutions such as mechanical transport (screws, vibratory trays, conveyor belts, AGVs etc.) as well as pneumatic transport for solids and pumps for liquids.

In fact J-Tec is a technology leader in this field, with well-equipped test facilities and capabilities in over/under-pressure systems, both in dense and in dilute phase.

Dosing & weighing

Continuous or batch, volumetric or gravimetric, loss-in-weight or gain-in-weight ... accurate dosing for recipe preparation or control weighing for stock management all require different weighing systems.

J-Tec is able to guarantee optimal design of the weighing and dosing concept, thanks to its specific expertise in dosing and weighing and its test facilities for trials with liquids or solids.under-pressure systems, both in dense and in dilute phase.

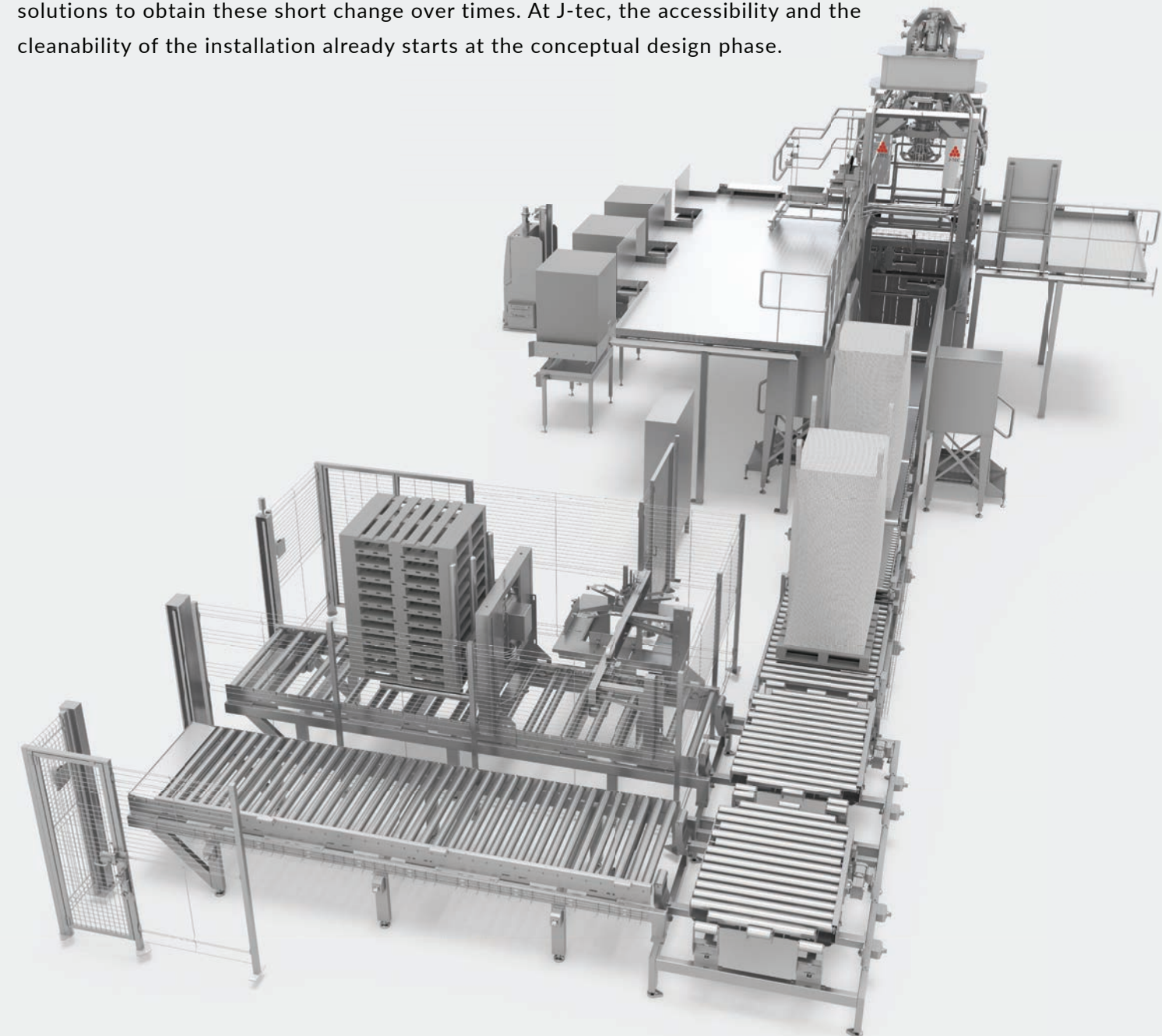
Mixing & blending

Blending (powders with powders) and mixing (liquids with powders, liquids with liquids) is a frequent activity in the solid and liquid business.

The batch size, the cleanability of the mixer, the energy needed to create a homogeneous mix, continuous or batch ... these and other parameters determine which mixer best suits a particular application. We select the right blender or mixer based on your product expertise and our know-how in the existing technologies, tested in our lab, to guarantee the best solution.

Cleaning

Both the chemical as the food industry are confronted with higher demand for flexibility and shorter change over times. A well-selected cleaning methodology like dry cleaning, washing in place (WIP) or cleaning in place (CIP) has a huge impact on the operation costs (OPEX). With all of J-Tec's experiences in building installations and analysing the operational costs of these installations, our solutions are interwoven with creative solutions to obtain these short change over times. At J-tec, the accessibility and the cleanability of the installation already starts at the conceptual design phase.





OUR SERVICES

J-Tec is your process engineering partner throughout the complete project: starting from the conceptual design, on through detailed process and concept engineering, procurement and manufacturing, up until installation and commissioning, even training and maintenance if required. Every project is different. Our highly qualified, experienced in-house engineers support you during every project stage, anywhere in the world.

Project Management & Engineering

We ensure the most efficient and flexible project management in our field of expertise, drawing on a range of well-established procedures and engineering practices, combined with direct and straightforward communication to transform optimal designs into installations aligned with performance expectations.

Design

Our design department takes care of the basic set-up of the installation in the budget phase, accurate design in the order phase and detailed design in the implementation phase. The 3D setup can be translated into a Virtual Reality environment so that the concept can be reviewed and validated at an early stage of the project.

Process Automation

J-Tec's software engineers bring your installations to life with in-house developed control systems. We can integrate complete automation solutions, as well as adapt or upgrade existing applications. For easy adaptability, even after commissioning, we apply open systems.

Onsite Services

We ensure accurate assembling of all components under strict supervision, led by our experienced SCC-trained construction engineers. A team of automation and service engineers ensures the equipment is commissioned correctly within the required deadline. The same team provides on-the-job training where needed.

Competence Centre

J-Tec guarantees a state-of-the-art installation, by gathering and distributing all information about standards, guidelines and regulations, as well as the latest technologies and feedback from projects. Updates, modifications and other data are managed using J-Tec's Wiki-pages and can be distributed to your team.

Customer Care

Our Customer Care division ensures your peace of mind, wherever your plant is located. The partnership with our customers doesn't end after commissioning. We provide after-sales support to guarantee the production continuity of your installation. We take care of separate orders, spare parts, inspection, maintenance, training, process and concept engineering, technical support and repairs, with customer-oriented technical support.



J-TEC TEST CENTRE

Efficient project execution relies on the essential process of commissioning and testing. J-Tec's brand new, cutting-edge test centre ensures our clients peace of mind by facilitating a seamless project start-up. This is achieved through a comprehensive analysis of product characteristics and the execution of preliminary trials including dosing, pneumatic transport, mixing, sieving, and more.

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