





Process solutions for the chemical industry





J-Tec Material Handling designs, supplies, builds and maintains processing systems for powders, pellets and liquids. From single process lines to complete turnkey installations, our material handling and process engineering solutions are provided to leading players in the

chemical and food industries all over the world.

Do you want to strengthen your market position with high-value and tailor-made engineering solutions?

J-Tec focuses on niche markets so we really understand our customers, and provide them the most optimal solutions and services throughout the complete process. This strategy provides many benefits, such as a higher level of expertise, improved and tailored problem solving capacities and a better understanding of our customers' needs.







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 nearly 50 years of collaboration with the chemical industry.

It is our goal to design and build the safest and most efficient solutions, enabling our customers to thrive.

Plastic Compounding

The prime expectation of engineering plastics processing companies is a consistent high quality of customized grades. This requirement dictates the basics of a modern design for new compounding plants.

Simple in design but flexible, reliable and highly accurate in performance: these are the key characteristics of J-Tec's Plastic Compounding solutions for polyolefin compounds such as PP, PA, PC, PPS, SMA, PMMA etc.

Since it is fully independent of OEM manufacturers, J-Tec can select any brand and type of key process equipment (f.e. extruder, pelletizer, mixer, feeder, ...) you might prefer, and fully integrate all components in a tailor-made plant control system.

In addition to designing and building the process equipment, J-Tec is a leading global partner for the construction of entire turnkey, greenfield compounding plants.



PVC Processing

When it comes to PVC dry blend preparation, LVT or plastisol production, the main thing these batching systems require is flexibility.

To keep up with the fast-changing consumer market for PVC-based products, manufacturers must be equally nimble to modify their plants, both in engineering and in production terms. J-Tec assures this capability.

Our vast experience in designing and building plastisol, WPC and LVT installations worldwide ensures a state-of-the-art, reliable and long-lasting solution for processing your raw materials, additives and regrinds to homogeneous blends.





Technologies

Techniques vary according to industry, product characteristics, applications, ... Our customers' product expertise combined with J-Tec's knowhow in material handling and process solutions guarantees the leanest and most efficient product handling during every stage of the production process.

Reception, Storage & Conditioning

As quality control is becoming even more crucial for production facilities, we include techniques such as sieving, magnet traps, and metal separation along with validation by sampling the inbound and outbound products. Product loss is reduced by:

- Optimizing storage solutions (silos, containers, tanks)
- Avoiding product degradation during storage by controlling the products' ambient conditions (drying, heating, cooling)
- Defining the optimal extraction system

Furthermore, J-Tec develops systems for filling bags, (F)IBC, octabins, or bulk trucks with a high capacity and minimum of dust and waste creation.



Cleaning

Both the chemical and food industry are confronted with higher demand for flexibility and shorter change over times.

Our experience in building installations and analyzing the operational costs allows us to create the most optimal solution. Accessibility and cleanability of installations are elements we already take into account during the conceptual design phase. This to achieve an efficient way of changing over between product runs.

For a wide range in cleanability needs J-Tec creates the optimal balance between the initial investment and the total operational costs.





Conveying

A production process consists of different steps, most of which are physically separated from each other. Consequently, intermediate products need to be transported with minimum degradation. J-Tec has vast experience in common solutions such as mechanical transports (screws, vibratory trays, conveyor belts, AGVs, etc.) and pneumatic transport for solids.

J-Tec has a well-equipped test center at its headquarters, with capabilities for over- and under pressure systems, both in dense and dilute phase for various distances.



Dosing & Weighing

Continuous or batch, volumetric or gravimetric, loss-inweight 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.



Mixing & Blending

Blending powders with powders and mixing liquids with powders, or liquids with liquids is a frequent activity in the processing industry.

Batch time, fast change-over, energy needed to create a homogeneous mix, continuous or batch blending are a few of the parameters that determine which mixer best suits a particular application. We select the right blender or mixer based on your product expertise and our knowhow.





Worldwide presence and references

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