

**Total control
– top performance**

Tetra PlantMaster™



The key role of automation

Today's production of foods and beverages tends to be quite a complex enterprise, requiring detailed planning all the way from reception of raw materials to processing, packaging and distribution of the finished products. It's a value chain that requires constant monitoring to ensure rigorous food safety, consistent quality, high throughput and minimized operating cost. So what's the key to achieving top performance amid all this complexity? The answer can be surprisingly simple: with automation.

Taking control

Automation is about control – of your product recipes and all of the parameters they entail, of the utilization of your production time to minimize bottlenecks and downtime, as well as of the efficient use of resources that will enable you to achieve consistent product quality with a minimum of waste.

This requires eliminating human error by eliminating the need for manual control of all of the steps and processes that can more accurately be achieved through automation.

Control is thus also about cutting costs, about solutions that give more than they cost – including a maximum of return on your investment.

Focus on food

Tetra Pak's focus is on food processing and packaging, or – as expressed in our corporate vision – “we commit to making food safe and available, everywhere.” Automation plays a key role in this, but not automation in general. Tetra Pak has some 40 years' experience of automation solutions, solutions that are dedicated to the food and beverage industry. They are tailored to give you full control of your processing, packaging and plant logistics.

Our solutions help assure maximum efficiency and minimal waste, which helps to save the environment while cutting your costs. All while enabling optimum product quality and full traceability.

As intelligence is embedded in our equipment and production solutions, you can:

- integrate your entire line into a network
- integrate with your existing enterprise resource planning (ERP) systems
- achieve exceptional performance planning and repeatability, as well as life-cycle management
- achieve the greatest efficiency at the lowest cost – all with uncompromising food safety.



Tetra PlantMaster – for smart food production

Tetra Pak's continuously developing family of open, scalable automation solutions for the food and beverage industry – Tetra PlantMaster – are customized to match your needs and optimize your production. Tetra PlantMaster can enable you to achieve total control of a process, or a complete line, or an entire processing and packaging plant. It is probably the best automation system for food production and packaging available today – and it is prepared for the future. This means it can grow and change with you. In short, Tetra PlantMaster enables you to maximize and grow the value of your investment.

Well-proven

Tetra PlantMaster was first developed some 15 years ago, to enable smarter food and beverage production and increase overall equipment efficiency. By providing simple solutions to increasingly complex production set-ups, Tetra PlantMaster quickly came to be appreciated as the obvious choice for efficient performance and integration.

Today Tetra PlantMaster has an installed base at hundreds of food and beverage production facilities throughout the world. And it now covers both processing and packaging lines, as well as comprehensive logistics solutions. That's total control – and that means top performance!

Open and scalable

Tetra PlantMaster automation solutions are open systems based on recognized international standards and commercially available products. They're designed to integrate, communicate with and optimize your food and beverage processing and packaging solutions. And they can be configured to give you single-source, plant-wide control.

They are also scalable. Thanks to the modular design, your particular solution can be customized to give you only the functionalities you need. But if your needs change, you can easily add others later on.

And with Tetra PlantMaster, you can also increase the scope of your control, enabling you to harmonize automated components into complete lines and entire plants with outstanding efficiency, full traceability and full compliance with your local regulations.

A dynamic solution

Tetra PlantMaster is not a fixed solution. We are constantly developing new and innovative functionalities – and improving existing ones – and will continue to do so.

The value of this is that you can continuously improve your production while adding on and upgrading your Tetra PlantMaster at any time. You retain full and easy control of your performance even when your production grows and becomes more complex. This means great flexibility and future-proof economy.

High usability

Tetra PlantMaster automation solutions are surprisingly simple to use. Both operators and others (e.g. your quality assurance people) have easy access from their normal workplaces. All interfaces, dashboard and reports can be customized to your specific needs. And we offer effective training of your staff.

For every need

Tetra PlantMaster automation solutions are available for a wide range of food and beverage applications:

- Dairy products
- Juices and other beverages
- Powders
- Cheese
- Ice cream
- Other foods



“Tetra PlantMaster offers smart, customized automation solutions that enable you to optimize the efficiency of your operations and give you full control.”



Choose your level of functionality

Each Tetra PlantMaster automation solution is customized from a whole palette of food-focused functionalities designed to support your daily operations and enable efficient performance and uncompromising food safety. You can choose your level of automation in terms of functionalities covering a growing number of main areas:

Food safety and quality

- Tracking and traceability
- Consistency of operating procedures and recipes
- Reduced waste and recalls
- Compliance with norms
- Prevention of operator error
- Repeatability

Operational performance and planning

- Fewer man-hours required
- Lower consumption of utilities
- Less waste and off-spec product
- Less material waste
- Less downtime
- Fewer bottlenecks
- Lower maintenance costs thanks to timely service

Environmental performance

- Reduced water consumption
- Reduced energy consumption
- Reduced product loss and waste
- Intelligent data collection and performance follow-up
- Measure and validate environmental load

Life-cycle management

- Fewer maintenance stops
- Improved equipment availability
- Real-time monitoring
- Possibility for remote service

In designing the various functionalities of Tetra PlantMaster, our aim is to deliver performance where it matters to you.

Quality assurance and control

To assure optimum production and quality procedures, Tetra PlantMaster helps you analyse parameters relating to ingredients, recipes, processing and packaging, enabling you to repeat your best setup on a specific product and make future improvements. All parameters can be stored in and analysed from a database. Active alarms in the process enable immediate correction of any deviations. You can cut your costs while ensuring the reputation of your brand.

Full traceability

From your incoming raw materials, through every processing step, to solutions for secure identification of every package, tray and pallet all the way home to the kitchen table, Tetra PlantMaster puts you in full control with integrated solutions that enable historical analysis and reporting. Moreover, interlocks in the system help to prevent operator error.

The right fit

There is no reason to pay for more functionality than you need. Together with you, we study your situation and create a solution to give you the right fit – the maximum benefit at the lowest investment cost. And your investment will be future-proof, because upgrades are easy if your needs change.



Choose your level of integration

With Tetra PlantMaster, you can not only choose your level of automation, you can also choose how extensively you want to apply it in your operations – from a limited part to a complete line, to your entire plant. Tetra PlantMaster utilizes the intelligence embedded in our key components and enables you to run your entire plant from a single control room and even connect to your ERP (enterprise resource planning) system to get the very most out of your operation – and achieve significant cost reductions.

Materials handling

All incoming materials are registered in Tetra PlantMaster to enable future traceability as well as resource planning.

Processing

All key components from Tetra Pak (separators, homogenizers, pasteurizers, equipment for blending and dosing etc) have embedded intelligence that makes integration easy – smart machines working in a smart network for maximum efficiency, accuracy and safety. The scalable design also makes future extensions easy.

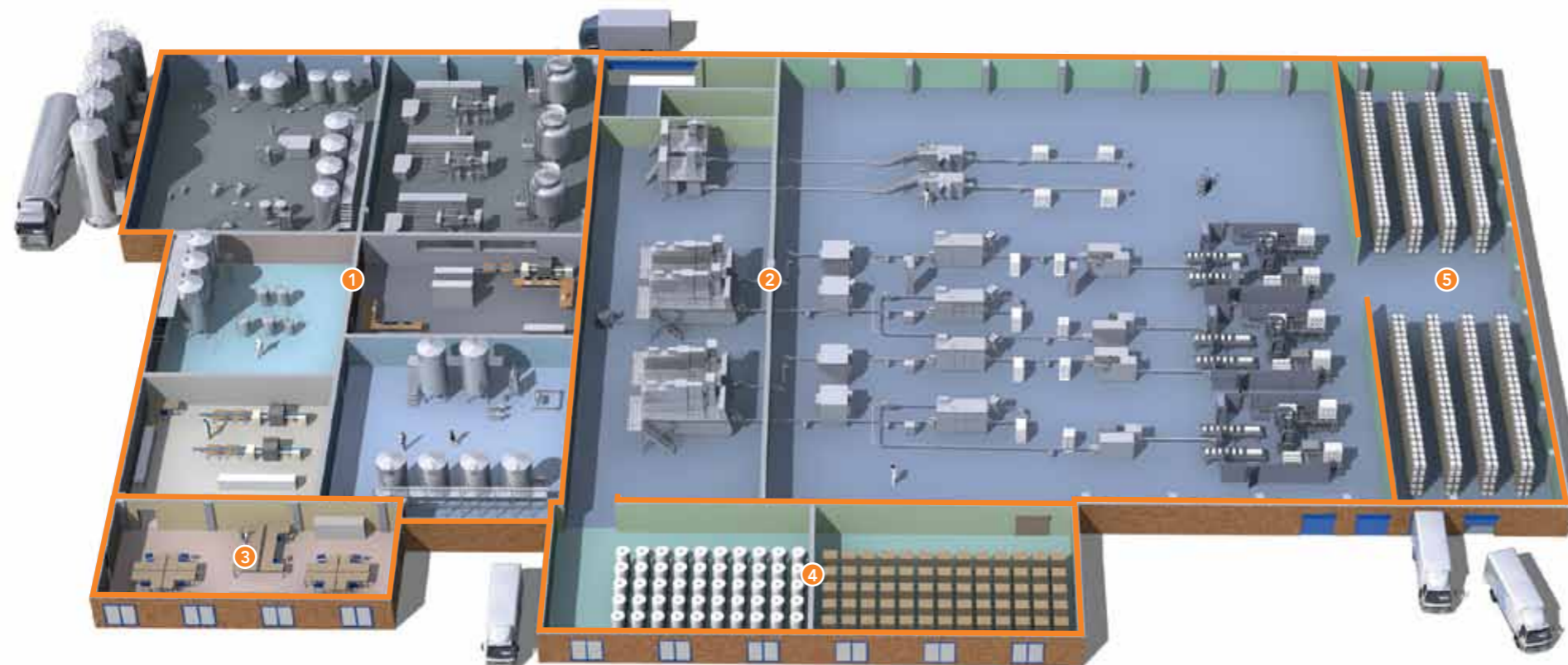
Tetra PlantMaster also measures, monitors and logs process parameters such as temperature, time, flow rate etc, to assure safe and accurate processing, and to enable future traceability.

Packaging

Tetra PlantMaster enables you to integrate and control the entire packaging area, as it links directly to the PLMS Centre (packaging line monitoring system) – a powerful, easy-to-use data management system for monitoring the performance of Tetra Pak filling machines and packaging lines. It also links to our new, extended iLineXT solutions for our packaging lines, including:

- automated logistics solutions and warehouse manager
- palletizing solutions and pallet-wrapping solutions
- marking solutions.

The result is increased overall equipment effectiveness (OEE) thanks to increased line utilization, minimized downtime, faster change-overs between different product formats and pallet configurations, as well as lower costs for packaging material and product waste.



**Full control of all operations
in your entire plant? Yes!**

- 1 Processing
- 2 Packaging
- 3 ERP system
- 4 Raw material
- 5 Finished goods



“A clear understanding of your needs enables us to customize an automation solution that will give you a great return on your investment.”

Smart, integrated food and beverage solutions

Tetra Pak is perhaps the world's most experienced supplier of complete, innovative, state-of-the-art processing and packaging solutions for the food and beverage industry. Our expertise in engineering as well as in food technology is widely acknowledged. And with Tetra PlantMaster, we add the opportunity to make those solutions smart as well.

It starts with understanding

Everything we offer starts with listening to you and understanding your needs, your circumstances and what you want to achieve, whether simple or sophisticated, ambient or chilled.

Enabling guaranteed performance

When we supply you an automated solution, we know that you will have control of your operating parameters. We also know that you will get the desired results. This enables us to offer you specific performance guarantees that are validated on specific parameters. And we honour what we guarantee.

Service solutions

Tetra Pak offers both on-site services and remote support, including 24/7 access to our global network of experts. All services are customized to your specific needs. We also offer a full range of upgrade services.

A sound investment

The point of every investment is to spend money to make even more money. With Tetra PlantMaster automation solutions, your production equipment becomes more intelligent, more efficient and safer.

This gives you:

- Better efficiency and usability
- Consistent product quality with assured food safety
- Improved environmental performance
- Lower overall operational and life-cycle cost

In short, a sound investment.

