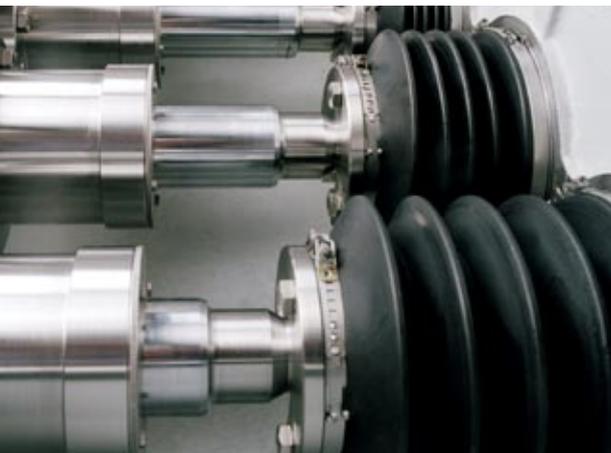


Processing solutions for guaranteed plant performance



The full advantage of technological leadership

In a world of rapid change in everything from food safety legislation to consumer trends, it is becoming increasingly difficult for food processors to find the internal resources needed to stay on top of it all. Over many decades, Tetra Pak has achieved unequalled worldwide experience and expertise in food and processing technology. By placing this leading knowledge at the disposal of our customers, Tetra Pak can serve as a valuable resource to food processors everywhere.

Can't anybody claim this? Of course. That's why mere words are not enough. That's why we protect what we deliver with a performance guarantee. That's what our company motto – "Protects what's good" – is all about. That's why an investment in a plant or line or piece of equipment from Tetra Pak is a safe bet, one that enables the customer to become more competitive and profitable. And it starts with understanding.

To understand the business needs of our customers, we need to understand the surrounding environment, the market trends and the specific situation of each customer, now and in the future. We start with the production concepts which meet production needs that are relevant for each food category. Then

we adapt the design to the customer's specific performance requirements to achieve predefined guaranteed performance.

"Each solution we offer has built-in application expertise, taking full advantage of Tetra Pak's technological leadership," says Lars Eyrich, Director of Processes & Tools at Tetra Pak Processing Systems. "The production concepts are developed as a way to leverage our unequalled knowledge and experience for the benefit of our customers. Our objective is to deliver production solutions and services for chosen food categories with guaranteed performance in the shortest possible time. That's why we have developed production concepts and a business approach."

The business approach – step by step

Tetra Pak's way of working from the perspective of customer needs consists of four steps:

- 1. Understand** the customer's business case and production needs in order to define the performance requirements.
- 2. Create** a production solution to meet those requirements. During this phase, numerous parameters are taken into account, e.g. production time scheduling, product loss calculations and cost considerations. Other issues that need to be considered are food safety, food quality, operational efficiency and costs,

supply capability, level of automation, environment as well as health and safety. These parameters need to be defined not only for today's production, but for future developments.

- 3. Convey** a production solution with guaranteed plant performance. A more detailed design, including contractual terms and conditions, is presented to the customer.
- 4. Deliver!** Tetra Pak delivers production solutions and services with guaranteed performance, in the shortest possible time, to enable customers to become more competitive in their markets.

Delivering guaranteed performance

The implementation phase includes everything from detailed engineering documentation, through procurement and shipment to installation, commissioning and validation of the agreed plant performance.

"The scope of the project management we can provide begins with the raw material and utilities, moves on to processing and packaging and, if the customer requires, also comprises distribution," Lars Eyrich concludes.

For further information, please contact Lars Eyrich at +46 46 36 10 00

"Our objective is to deliver production solutions and services for chosen food categories with guaranteed performance in the shortest possible time"



The business approach – step by step



In control at all times

Consumers all over the world are increasingly concerned with health and food safety. Food alarms have made more and more people concerned about what they eat and drink, where it comes from and how it is produced. Every threat to consumer health is a threat to the food processing business. How to meet this challenge?

“Our motto – ‘Protects what’s good’ – reflects our view on food safety,” says Stefan Åkesson, Food & Product Safety specialist at Tetra Pak Processing Systems. “Food safety means being in control at all times, so it’s an integrated part of our production concepts and the way we think about food processing and packaging. Ultimately, it’s about making it possible for our customers to be in total control of their production.”

Hygienic design and assessment

The foundation of food safety is hygiene, and it starts with hygienic design, on the drawing board. It means assuring that everything that will ever come in contact with food – from components right down to connections, welds etc. – is of approved material.

It also means assuring that service media (e.g. water, steam and air) supplies

are designed with proper hygienic zoning barriers, and that the automation level enables tracking throughout the production process.

Tetra Pak employs hygienic risk assessment of machines and process lines during the development and engineering phases. This method analyses and evaluates hazards in order to be able to reduce or eliminate hygienic risks, such as microbiological causes, chemical causes and foreign bodies arising from machinery or other sources, enabling us to verify the process systems we deliver.

Food safety management

Managing food safety issues comes down to knowledge: about food technology and about food processing. To secure Tetra Pak’s food safety focus, a core team with three clear areas of responsibility has been set up:

- to monitor new regulatory requirements related to food safety
- to identify issues of significance to Tetra Pak’s customers
- to inform about and coordinate food safety activities.

To make it easier for our customers to comply with increasingly stringent norms, Tetra Pak participates in inter-

national standardisation work (ISO, EN, 3A-SSI, etc) and has developed the Tetra Pak Corporate Standard, a tool to coordinate and implement international food safety standards.

Leveraging the benefits

“Continuous development projects give us both deeper and broader knowledge about food safety issues,” Stefan Åkesson explains, “ranging all the way from food processing, through filling and packaging, which is unequalled in the food industry.

“Food safety charts, traceability modules, performance and quality analyses are examples of different tools that support our customers in their efforts to comply with food safety regulations and consumer demands.

“In fact, one meaning of the Tetra Pak vision – “We commit to making food safe and available, everywhere” – is that we enable our customers to benefit from our unequalled knowledge, our experience and our solutions so that they can protect their business.”

For further information, please contact Stefan Åkesson at +46 46 36 10 00

The Tetra Pak vision

“We commit to making food safe and available, everywhere”

Traceability as a driving force

“Tetra Pak Processing Systems offers traceability from reception to distribution, bringing processing and packaging together.”

Recalls within the food industry usually involve vast sums of money and generate a great deal of bad will. Numerous food scandals during the last few years have shaken the food industry and made traceability a key factor in being able to deliver safe food.

But the value of traceability goes beyond the need for compliance with more stringent hygiene and food-handling regulations. There is also the drive for more efficient production and more consistent product quality. Moreover, tough competition is speeding up the chase to cut costs and improve the bottom line, calling for systems that optimise production and resources by pinpointing bottlenecks and improving throughput.

How to achieve this? Modern food production increasingly relies on automated processing systems for running plants and for controlling every step of production from intake to distribution. The overall aim is to enable the customer to track any product batch through the product chain.

Crucial on many levels

“Our new plant traceability tool – Production Tracking – gives a holistic view of

the entire production chain, from intake and processing, to filling and packaging, and all the way to shipping,” says Mikael Samuelsson, Marketing Manager of Tetra Pak Processing Systems. “Every single step is traceable – and our solutions even work in existing systems.”

The benefits are considerable, both in terms of food safety and process optimisation. “For every food product, the entire processing history can be pinpointed, right down to the origin of materials and parts used in the equipment, and all the way to the distribution and location of the product after delivery,” notes Mikael Samuelsson, “Our customers can rest easy, knowing that they have the complete control of their plants, production, safety and performance.”

Integrated solutions

Production Tracking is an integrated part of Tetra PlantMaster™, for both new and existing plants. The Production Tracking tool provides complete traceability through structured data acquisition, where the acquired data on both suppliers and customers is accessible and searchable, both backwards and forwards.

It is a solution for processing and packaging lines based on open industry

standards that break through all the barriers to good communication within a food processing plant.

It shows the entire production in a traceability tree, where every batch can be traced through a tracking report.

The endless possibilities of automation

“Our tool is designed to communicate with the customer’s existing systems as well,” adds Mikael Samuelsson. “Information from existing business or other automation systems can be accessed and linked together as elements of product/batch identity in a database. This offers endless possibilities to reveal information on production conditions to suppliers and customers.

“Traceability, in a nutshell, means protecting what’s good by collecting relevant information, making it visible and using it to improve and optimise the operational processes in a food processing plant.”

For further information, please contact Mikael Samuelsson at +46 46 36 10 00

Meeting every life-cycle challenge

These are challenging times for the food and beverage industry. Globalisation has intensified competition in many markets. Rising productivity demands are leaving little room for downtime. As a result, it is becoming essential for food processors to be able to rely fully on their equipment – throughout its entire life-cycle.

A helping hand

The starting point for Tetra Pak is an unmatched portfolio of equipment and components designed and built for long, trouble-free operation and easy maintenance. This is backed not only by a performance guarantee, but by a long-term service commitment that focuses on preventive maintenance.

“With our full spectrum of services and training programmes, all collected under our Tetra PlantCare™ tool, we can help ensure that our customers’ equipment, as well as the people who operate and maintain it, work the way the customer wants them to,” says Magnus Hellblom, Director of Technical Sales and Service at Tetra Pak Processing Systems.

Tetra Pak Technical Service is a truly global organisation with a strong local presence. There are more than 600 food processing experts at work in just about

every country in the world, speaking the language of the customer.

With today’s communication possibilities, the expertise needed is always just around the corner. And it’s a two-way street. With Tetra Pak’s focus on preventive maintenance, service intervals can be planned to suit the customer’s production schedules and nearly eliminate unscheduled stops.

Expertise at large

Customers seldom realise that Tetra Pak is such a large player. They experience a local provider, just a phone call away, speaking their own language, enabling them to keep their production going.

Magnus Hellblom continues: “Not all of us are highly knowledgeable and experienced engineers. Just most of us. In fact, we offer every skill necessary to help our customers thrive – from engineering know-how to maintenance, training and replacement strategies. We even have financial expertise that lets our customers explore the impact of different capital investments.”

The bottom line... the technical evidence

Tetra Pak helps food production companies achieve real economies by maximising the availability and performance of

their equipment through preventive maintenance, by improving the quality of finished products and by boosting employee productivity through professional training.

“Even apparently minor improvements – in staff productivity, for instance – can have a positive and long-lasting impact on profitability. The same goes for improvements in equipment performance and product quality,” Magnus Hellblom explains. It is easy to calculate how much a programme of customised technical services can save for a food production plant, and thereby improve the bottom line of the company.

The service scope

Technical Service at Tetra Pak excels at life-cycle partnership for every stage of a food processing operation: from training, maintenance all the way to the operational fine-tuning needed to keep the operation running at maximum profitability. Tetra Pak provides services tailored to the customer’s needs, to maintain and improve the food processing operation. The goal is simple: to enable customers to improve the productivity of their business.

For further information, please contact Magnus Hellblom at +46 46 36 10 00

“Innovative production and automation solutions have a large impact on cost-efficiency and performance, and enable a food producer to reduce product losses, energy consumption and water consumption.”

The benefits of sound environmental performance

In a growing number of countries, environmental concerns have resulted in much more stringent – and costly – legislation and standards. Some companies see this as a burden. At Tetra Pak, we focus on a life-cycle view that aims to provide sustainable solutions to help reduce the environmental impact of food processing plants, while at the same time improving overall economy.

“People often associate environmental impact with energy savings, emission control and waste management, but the largest impact on the environment in a food processing plant is actually product loss,” says Kerstin Gustafsson, Environmental Coordinator of Tetra Pak Processing Systems. “We need to think outside the plant or production line. A food product carries ‘environmental baggage’ that is full before the raw material ever enters the plant. A lot has gone into producing it and bringing it into the plant, so any product loss is costly, both in terms of environment and money.”

Design for the environment

Environmental legislation is placing growing demands on food producers to use the best available technology

to limit emissions and to reduce the consumption of energy and fresh water. But such legislation seldom mentions product loss.

Developing environmentally compatible products and processes while maintaining or improving cost, performance and quality is a challenge that requires technological know-how and innovative thinking. Tetra Pak works with continuous improvement to make sound environmental performance profitable. In other words, we strive to enable customers to maximise performance and economy, while minimising cost and environmental impact.

Automation for environment

Innovative production and automation solutions have a major impact on production costs and enable a food producer to reduce product loss while cutting water and energy consumption.

Production batch execution and planning, identifying bottlenecks and improving throughput are areas where the Tetra PlantMaster™ automation solution has proven its value. We also offer a built-in reporting system that not only monitors and reports performance parameters, but can monitor environmental parameters, e.g. energy and water consumption – and product loss.

Moreover, our vast range of proven technologies and innovations can be customised to effectively meet specific customer needs.

A win-win proposition

Ultimately, everyone benefits from minimising environmental impact. By using smart solutions that consider environmental aspects every step of the way, while linking sound environmental performance with overall cost-efficiency, Tetra Pak enables customers to reduce operating costs, downtime and CIP costs, making environmental responsibility a winning proposition – every step of the way.

For further information, please contact Kerstin Gustafsson at +46 46 36 10 00

Meeting customer needs with category specialists

Consumers are increasingly choosy about what they eat and drink – not only in terms of food quality and safety, but also in terms of the tremendous growth in variety and international trends.

This diversity accentuates the need for specialists. Cheese processing is quite different from ice-cream making, just as dairy processing can be worlds apart from the production of prepared foods. Although the food processing industry may have many common denominators, customers in each food category often have extremely different needs and requirements.

In other words, a food processing solution needs to be adapted to the nature of the specific food; it has to be good for the product, the production and the producer.

“The food category approach in Tetra Pak centres on bringing the needs of the customers into focus,” says Paul Greatrex, Vice President Marketing of Tetra Pak Processing Systems. “It influences how we approach our customers as well as how we design and develop equipment, lines and entire plants. By understanding each customer’s needs, we can leverage our experience and knowledge to create customised plant and line solutions based

on modules, components and automation, that will enable our customers to achieve great value.”

Designing for the customer

Tetra Pak has predefined production concepts that form the base for how to design a production unit for a specific need within each food category. This, combined with our knowledge of the entire value chain for each food category, enables us to quickly customise solutions for specific application needs. Each solution is based on giving the customer the possibility to take full advantage of Tetra Pak’s technological leadership.

“In each category, we identify the key performance requirements that are important for our customers,” Paul Greatrex continues. “This drives the solutions we create, and gives us precision in the way we focus on our customers and food categories. We strive to understand the true business needs of our customers, now and in the future, so we can best enable them to succeed.”

Building expertise

Working from a food category perspective also means that individuals working for Tetra Pak attain specialist competence in their specific area – within a line, for each module and each component; with

more focused knowledge, experience and innovative ability. This can enable customers to achieve something new, something better, something of greater value, which can enhance their competitiveness.

“Our mission is to become the preferred supplier of production solutions and services for our customers. To succeed, we need to understand customer needs and create solutions that deliver outstanding value,” says Paul Wirtz, one of the Category Directors for Tetra Pak Processing Systems. “It is also a prerequisite that we have deep food category knowledge. To build and retain this knowledge, we organise around and work with food categories.”

Tetra Pak offers a full spectrum of processing solutions and services that can enable the customer to thrive in today’s tough business environment. From intake to distribution, there is a Tetra Pak solution – backed by a unique performance guarantee.

“Everything we do is based on helping our customers be more competitive and profitable,” Paul Greatrex concludes.

For further information, please contact Paul Greatrex or Paul Wirtz at +46 46 36 10 00

