TRAINING SERVICES
for processing

Competence development to boost your business
Tetra Pak® Training Services give your people knowledge and inspiration to be the best at what they do, improving operational performance and increasing employee engagement, to drive sustainable growth of your business.

**Always close to you, tailored to your needs**
Our comprehensive training offer is available to customers worldwide, on the job or in Tetra Pak facilities. Investing in training is simply a wise choice. The decisions made by competent employees don’t just secure a profitable operation today – they also lay the groundwork for a brighter tomorrow.

**Key benefits**
- Increased workforce competence, safety and motivation
- Safeguarded product quality
- Ensured food safety
- Optimised operational cost
- Improved reliability and production efficiency
- Fulfilled sustainable performance targets
Tetra Pak® Services cover every aspect of your food production, from daily routines to business insights. Our tailored service solutions improve performance, optimise costs and ensure food safety throughout the lifecycle of your operation. With Tetra Pak as your partner, you get the people, portfolio and presence to achieve your performance goals.

Find out more about Tetra Pak® Services at tetrapak.com/services.
Our professional operator training gives your workforce the skills they need to safely and efficiently operate your processing equipment.

All operation training courses will help your operators to perform their regular duties according to the operation manual including checks and daily/weekly care.

Subjects covered will include how the equipment functions and knowledge of how to operate it.

These training courses always include safety and hygiene guidelines focusing on food safety and personnel safety. They include extensive hands-on training and are delivered by experienced trainers.

**Key benefits**
- Increased product safety and consistent product quality
- Reduced waste and increased line efficiency
- Cost-efficient production at targeted equipment performance levels
- Minimized frequency and duration of production interruptions
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Course objectives
This training is designed to give the participants operational skills for their regular duties and tasks as a Tetra Albatch operator. The training is task based around the operating manual. The objectives are to train the participants to carry out all operation steps according to the Operation Manual (OM) including daily care and cleaning. This training will also prepare the participants for other training courses, for example Tetra Pak CIP Unit training.

On completion of this training the participant will understand:
- The main components in the Tetra Albatch and their location and terminology
- The importance of safety precautions
- The process steps of producing a product with Tetra Albatch

The participant will individually be able to:
- Locate the main components in the Tetra Albatch
- Understand the purpose of various functions in the food processor
- Start and operate the tank according to the Operation Manual (OM)
- Understand the function of push buttons on the HMI (Human Machine Interface)
- Understand the different alarm signals
- Know the importance of filling in the production protocol
- Use and understand manual(s) and documentation

Course contents
- Operating the module according to the OM
- How to read and use manual(s) and documentation
- Module components and functions
- Daily and weekly care
- Safety precautions
- Learning evaluation

Key benefits
- Increased productivity and performance
- Increased product safety and quality
- Reduced waste and increased line efficiency
- Minimized frequency and duration of production interruptions

Target group
Operators and maintenance personnel

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 4 hours

Location & language
At your site. Available in English.

Duration
Total training time: 1.5 days
Hands-on training time: 4 hours

* Time for taking out of production and preparing for production not included.
Course objectives
This training is designed to give the participants the knowledge of how to operate Tetra Alblend (in-line blender). The objectives are to provide operator training containing knowledge and terminology for the equipment and how to run it according to the Operation Manual (OM). This training will also prepare the participants for training courses regarding basic food technology as well as other units.

On completion of this training the participant will understand:
- The main components in the unit and their location and terminology
- The importance of safety precautions
- The process of producing product in this equipment

The participant will individually be able to:
- Locate the main components of the in-line blender
- Understand the purpose of the various steps when operating the in-line blender
- Start and operate the equipment according to the OM
- Understand the function of the push buttons on the HMI (Human Machine Interface)
- Understand the different alarm signals
- Know the importance of the filling in the production protocol
- Use and understand manual(s) and documentation

Course contents
- Operating the module according to the OM
- How to read and use manual(s) and documentation
- Module components and functions
- Daily and weekly care
- Safety precautions
- Learning evaluation

Key benefits
- Increased productivity and performance
- Increased product safety and quality
- Reduced waste and increased line efficiency
- Minimized frequency and duration of production interruptions

Target group
Operators and maintenance personnel

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 8 hours

Location & language
At your site. Available in English.

Duration
Total training time: 3 days
Hands-on training time: 8 hours

* Time for taking out of production and preparing for production not included.
**Tetra Albrigx™**

**Course objectives**
This training is designed to give the participants the knowledge of how to operate Tetra Albrigx (continuous sugar-dissolving unit). The objectives are to provide operator training containing knowledge and terminology for the equipment and how to run it according to the Operation Manual (OM). This training will also prepare the participants for training courses regarding basic food technology as well as other units.

On completion of this training the participant will understand:
- The main components in the unit and their location and terminology
- The importance of safety precautions
- The process of sugar dissolving

The participant will individually be able to:
- Locate the main components of the continuous sugar-dissolving unit
- Understand the purpose of the various steps when operating the unit
- Start and operate the unit according to the OM
- Understand the function of the push buttons on the HMI (Human Machine Interface)
- Understand the different alarm signals
- Know the importance of the filling in the production protocol
- Use and understand manual(s) and documentation

**Course contents**
- Operating the module according to the OM
- How to read and use manual(s) and documentation
- Module components and functions
- Daily and weekly care
- Safety precautions
- Learning evaluation

**Target group**
Operators and maintenance personnel

**Recommendations**
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 8 hours

**Location & language**
At your site. Available in English.

**Duration**
Total training time: 3 days
Hands-on training time: 8 hours

* Time for taking out of production and preparing for production not included.
Course objectives
This training is designed to give the participants the knowledge of how to operate Tetra Alsafe (aseptic tank) with a specific number of options. The objectives are to provide operator training containing knowledge and terminology for aseptic tank.

On completion of this training the participant will understand:
- The main components in the aseptic line and their location and terminology
- The importance of safety precautions
- The process of producing an aseptic product

The participant will individually be able to:
- Locate the main components in the aseptic tank module
- Understand the purpose of various steps in the aseptic tank module
- Start and operate the tank according to the Operation Manual (OM)
- Understand the function of push buttons on the HMI (Human Machine Interface)
- Understand the different alarm signals
- Know the importance of filling in the production protocol
- Use and understand manual(s) and documentation

Course contents
- Operating the module according to the OM
- How to read and use manual(s) and documentation
- Module components and functions
- Daily and weekly care
- Safety precautions
- Learning evaluation

Key benefits
- Increased productivity and performance
- Increased product safety and quality
- Reduced waste and increased line efficiency
- Minimized frequency and duration of production interruptions

Target group
Operators and maintenance personnel

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 4 hours

Location & language
At your site. Available in English.

Duration
Total training time: 1.5 days
Hands-on training time: 4 hours

* Time for taking out of production and preparing for production not included.
Course objectives
This training is designed to give the participants operational skills for their regular duties and tasks as operators. The training is task based around the operating manual. The objectives are to train the participants to carry out all operation steps according to the Operation Manual (OM) including daily care and cleaning. As this is task based learning there will be a focus on safety, hygiene and handling of the container and hose.

On completion of this training the participant will understand:
- The importance of safety precautions
- The importance of maintaining high hygiene
- The function of the Tetra FlexDos unit

The participant will individually be able to:
- Locate the main groups of the Tetra FlexDos unit
- Understand the use of the HMI (Human Machine Interface) control panel
- Read and react to alarms
- Prepare and start up
- Start and run the unit according to best practice in manual
- Operate the Tetra FlexDos unit to make aseptic dosing into product
- Perform daily care
- Use and understand manual(s) and documentation

Course contents
- Hygiene
- Preparation
- Operation of unit according to the OM
- How to read and use manual(s) and documentation
- Daily care
- Safety precautions
- Learning evaluation

Key benefits
- Increased productivity and performance
- Increased product safety and quality
- Reduced waste and increased line efficiency
- Minimized frequency and duration of production interruptions

Target group
Operators and maintenance personnel

Recommendations
- 5 to 8 participants
- We recommend that the participants have attended a filling machine operator training.
- Access to processing equipment for hands-on training*: 6 hours

Location & language
At your site. Available in English.

Duration
Total training time: 1 day
Hands-on training time: 6 hours

* Time for taking out of production and preparing for production not included.
Tetra Pak® Aseptic Dosing unit E

Course objectives
This training is designed to give the participants operational skills for their regular duties and tasks as operators of the dosing unit (formerly known as Tetra Aldose). The training is task based around the operating manual. The objectives are to train the participants to carry out all operation steps according to the Operation Manual (OM) including daily care and cleaning. As this is task based learning there will be a focus on safety, hygiene and handling of the dosing unit.

On completion of this training the participant will understand:
- The importance of safety precautions
- The importance of maintaining high hygiene
- The function of the dosing unit

The participant will individually be able to:
- Locate the main groups of the unit
- Understand the use of the HMI (Human Machine Interface) control panel
- Read and react to alarms
- Prepare and start up
- Start and run the unit according to best practice in manual
- Operate the dosing unit to make aseptic dosing into product
- Perform daily care
- Use and understand manual(s) and documentation

Course contents
- Hygiene
- Preparation
- Operation of unit according to the OM
- How to read and use manual(s) and documentation
- Daily care
- Safety precautions
- Learning evaluation

Key benefits
- Increased productivity and performance
- Increased product safety and quality
- Reduced waste and increased line efficiency
- Minimized frequency and duration of production interruptions

Target group
Operators and maintenance personnel

Recommendations
- 5 to 8 participants
- We recommend that the participants have attended a filling machine operator training.
- Access to processing equipment for hands-on training*: 7 hours

Location & language
At your site. Available in English.

Duration
Total training time: 3 days
Hands-on training time: 7 hours

* Time for taking out of production and preparing for production not included.
Tetra Pak® Automatic Stick

Course objectives
This training is designed to give participants a technical and operational understanding of the automatic stick inserter including both the automatic stick single and multi. The training includes both theoretical and practical knowledge on the operation of the equipment.

On completion of this training the participant will understand:
- Working principles
- Technical construction of the main components
- Operational control
- Principle of maintenance
- Automation and electrical introduction
- Basic troubleshooting

The participant will individually be able to:
- Identify and technically describe the main components
- Understand input qualities and process parameters to ensure optimal production
- Operate and adjust the equipment
- Use and understand manual(s) and documentation

Course contents
- Working principles of main components
- Technical construction of main components
- How to read and use manual(s) and documentation
- Safety precautions
- Learning evaluation

Key benefits
- Increased competence and knowledge level
- Increased employee commitment and engagement
- Increased equipment performance
- Ensured consistent desired product quality
- Reduced waste and increased line efficiency

Target group
Operators and maintenance personnel

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 1 to 2 hours

Location & language
At your site at our Technical Training Centre Denmark. Available in English.

Duration
Total training time: 0.5 day
Hands-on training time: 1 to 2 hours

* Time for taking out of production and preparing for production not included.
Tetra Pak® Blockformer system

Course objectives
This training is designed to provide participants with the theoretical knowledge and practical operational skills required to carry out regular duties and tasks for the blockforming solution according to the Operation Manual (OM).

On completion of this training the participant will understand:
- Working principles of the system
- Functions of the system and how to operate it
- The methods of the CIP (Cleaning In Place) and production program
- The importance of safety precautions

The participant will individually be able to:
- Influence and operate the system
- Understand the function of the selections on the HMI (Human Machine Interface)
- Understand how to use parameter settings to optimize performance
- Use and understand the manual(s) and documentation

Course contents
- Functional parts and essential components
- Product flow and product processing
- Operating principles
- Out of Control Action Plans
- Performance improvement
- Safety precautions
- Learning evaluation

Key benefits
- Increased productivity and performance
- Less disruptions and lower impact at disruptions

Target group
Operators and maintenance personnel

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 4 hours

Location & language
At your site. Available in English.

Duration
Total training time: 2 days
Hands-on training time: 2 to 4 hours

* Time for taking out of production and preparing for production not included.
Tetra Pak® Casomatic system MC: Level 1

Course objectives
This training is designed to provide participants with the theoretical knowledge and practical operational skills required to carry out regular duties and tasks according to the Operation Manual (OM). It gives participants a good understanding of the working principles and the Human Machine Interface (HMI) of the Tetra Pak Casomatic system MC (multicolumn continuous whey drainage and cheese shaping system).

On completion of this training the participant will understand:
- How to evaluate functionality of the system
- Basic functionality principles and main components
- The methods of the CIP (Cleaning In Place) and production program

The participant will individually be able to:
- Influence and operate the system
- Understand and use manuals and documentation
- Operate the system and adjust production when needed
- Understand the importance of safety precautions
- Understand and use the functions of the HMI

Course contents
- Basic principles of cheese making
- Main functionality of the system and its main components
- CIP and production functions
- Operations from HMI
- Safety precautions
- Learning evaluation

Key benefits
- Increased productivity and performance
- Increased product quality
- Less disruptions and lower impact at disruptions

Target group
Operators and maintenance personnel

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 4 hours

Location & language
At your site. Available in English.

Duration
Total training time: 3 days
Hands-on training time: 2 hours

* Time for taking out of production and preparing for production not included.
Tetra Pak® Casomatic system MC: Level 2

Course objectives
This training is designed to provide participants with in-depth understanding of the functionality and performance of the Tetra Pak Casomatic system MC (multicolumn continuous whey drainage and cheese shaping system). It gives the theoretical knowledge required to evaluate proper functionality of the system, how to regain normal situation at abnormal functionality and ways to increase system performance.

On completion of this training the participant will understand:
- Key functions of the system, in depth
- How to evaluate functionality of the system
- What counter actions are possible to do when functionality is abnormal
- The effect of key parameters and ways to improve performance

The participant will individually be able to:
- Influence and operate the machine
- Understand and use manuals and documentation
- React on the most common abnormal system situations
- Understand how to use parameter settings to optimize performance

Course contents
- Out of Control Action Plans
- Performance improvement
- Parameters
- Safety precautions
- Learning evaluation

Target group
Operators, shift leaders and supervisors

Recommendations
- 5 to 8 participants
- Course “Tetra Pak® Casomatic system MC: Level 1” (CTO_16510)

Location & language
At your site. Available in English.

Duration
Total training time: 2 days

Key benefits
- Increased productivity and performance
- Increased product quality
- Less disruptions and lower impact at disruptions
Course objectives
This training is designed to provide participants with the theoretical knowledge and practical operational skills required to carry out regular duties and tasks according to the Operation Manual (OM). It gives participants a good understanding of the working principles and the Human Machine Interface (HMI) of the Tetra Pak Casomatic system SC (single column continuous whey drainage and cheese shaping system).

On completion of this training the participant will understand:
- How to evaluate functionality of the system
- Basic functionality principles and main components
- The methods of the CIP (Cleaning In Place) and production program

The participant will individually be able to:
- Influence and operate the system
- Understand and use manuals and documentation
- Operate the system and adjust production when needed
- Understand the importance of safety precautions
- Understand and use the functions of the HMI

Course content
- Basic principles of cheese making
- Main functionality of the system and its main components
- CIP and production functions
- Operations from HMI
- Safety precautions
- Learning evaluation

Target group
Operators and maintenance personnel

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 4 hours

Location & language
At your site. Available in English.

Duration
Total training time: 2 days
Hands-on training time: 4 hours

* Time for taking out of production and preparing for production not included.
Tetra Pak® Casomatic system SC: Level 2

Course objectives
This training is designed to provide participants with in-depth understanding of the functionality and performance of the Tetra Pak Casomatic system SC (single column continuous whey drainage and cheese shaping system). It gives the theoretical knowledge required to evaluate proper functionality of the system, how to regain normal situation at abnormal functionality and ways to increase system performance.

On completion of this training the participant will understand:
- Key functions of the system, in depth
- How to evaluate functionality of the system
- What counter actions are possible to do when functionality is abnormal
- The effect of key parameters and ways to improve performance

The participant will individually be able to:
- Influence and operate the system
- Understand and use manuals and documentation
- React on the most common abnormal system situations
- Understand how to use parameter settings to optimize performance

Course contents
- Out of Control Action Plans
- Performance improvement
- Parameters
- Safety precautions
- Learning evaluation

Key benefits
- Increased productivity and performance
- Increased product quality
- Less disruptions and lower impact at disruptions

Target group
Operators, shift leaders and supervisors

Recommendations
- 5 to 8 participants
- Course “Tetra Pak® Casomatic system SC: Level 1” (CTO_16511)

Location & language
At your site. Available in English.

Duration
Total training time: 2 days
Course objectives
This training is designed to provide participants with the theoretical knowledge and practical operational skills required to carry out regular duties and tasks according to the Operation Manual (OM). It gives participants a good understanding of the working principles and the Human Machine Interface (HMI).

On completion of this training the participant will understand:
- Functionality principles and main components of the machine
- How to evaluate functionality of the machine and optimise its performance
- The methods of the CIP (Cleaning In Place) and production program
- The importance of safety precautions

The participant will individually be able to:
- Influence and operate the machine
- Understand and use manuals and documentation
- React on the most common abnormal machine situations
- Understand and use the functions of HMI

Course contents
- Cheese technology and draining, acidification and salting process
- Functionality and key parts
- CIP general method
- Production
- Machine functionality advanced
- Out of Control Action Plans
- Performance Improvement
- Safety precautions
- Learning evaluation

Key benefits
- Optimized machine performance
- Minimized frequency and duration of production interruptions

Target group
Operators and maintenance personnel

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 3 hours

Location & language
At your site. Available in English.

Duration
Total training time: 2 days
Hands-on training time: 3 hours

* Time for taking out of production and preparing for production not included.
Tetra Pak® Cheese Vat OST

Course objectives
This training is designed to provide participants with the theoretical knowledge and practical operational skills required to carry out regular duties and tasks according to the Operation Manual (OM). It gives participants a good understanding of the working principles and the Human Machine Interface (HMI).

On completion of this training the participant will understand:
- Functionality principles and main components of the vat
- How to evaluate functionality of the machine and improve its performance
- The methods of the CIP (Cleaning In Place) and production program
- The importance of safety precautions

The participant will individually be able to:
- Influence and operate the vat
- Understand and use manuals and documentation
- React on the most common abnormal machine situations
- Understand and use the functions of HMI

Course contents
- Cheese technology and curd making process
- Functionality and key parts
- CIP general method
- Production
- Vat functionality advanced (e.g. mixing in rennet, order of ingredient addition, coagulation, cutting sequence, stirring sequence)
- Out of Control Action Plans
- Performance improvement
- Safety precautions
- Learning evaluation

Key benefits
- Increased productivity and performance
- Increased product quality
- Less disruptions and lower impact at disruptions

Target group
Operators and maintenance personnel

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 3 hours

Location & language
At your site. Available in English.

Duration
Total training time: 2 days
Hands-on training time: 3 hours

* Time for taking out of production and preparing for production not included.
Tetra Pak® CIP Unit

Course objectives
This training is designed to give the participants an introduction to the Tetra Pak CIP Unit (formerly known as Tetra Alcip) with a specific number of options. The objectives are to provide operator training containing knowledge and terminology for the CIP (Cleaning In Place) system. This training will also prepare the participants for more advanced training courses.

On completion of this training the participant will understand:
- The main components in the cleaning line and their location and terminology
- The importance of safety precautions
- The process of producing a cleaning sequence

The participant will individually be able to:
- Start and operate the CIP Unit according to the Operation Manual (OM)
- Locate the main components in the CIP Unit
- Understand the purpose of various steps when operating the CIP Unit
- Understand the function of push buttons on the HMI (Human Machine Interface)
- Understand the different alarm signals
- Use and understand manual(s) and documentation

Course contents
- Operating the module according to the OM
- How to read and use manual(s) and documentation
- Module components and functions
- Daily and weekly care
- Safety precautions
- Learning evaluation

Key benefits
- Increased productivity and performance
- Increased product safety and quality
- Reduced waste and increased line efficiency
- Minimized frequency and duration of production interruptions

Target group
Operators and maintenance personnel

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 1.5 hours

Location & language
At your site. Available in English.

Duration
Total training time: 1.5 days
Hands-on training time: 1.5 hours

* Time for taking out of production and preparing for production not included.
Tetra Pak® Continuous Freezer

Course objectives
This training is designed to give participants a technical and operational understanding of the continuous freezer including Tetra Pak Continuous Freezer and Tetra Hoyer Frigus KF. The training ensures an understanding of the ice cream structure by focusing on giving an insight of the main components in and the operation of the continuous ice cream freezer. The training includes both theoretical and practical knowledge on the operation of the equipment.

On completion of this training the participant will understand:
- Working principles and control loops
- Technical construction of the main components
- Operational control
- Basic troubleshooting

The participant will individually be able to:
- Identify and technically describe the main components
- Understand input qualities and process parameters to ensure optimal production
- Operate and adjust the equipment
- Use and understand manual(s) and documentation

Course contents
- Introduction to ice cream
- Working principles of main components
- How to read and use manual(s) and documentation
- Safety precautions
- Learning evaluation

Key benefits
- Increased competence and knowledge level
- Increased employee commitment and engagement
- Increased equipment performance
- Ensured consistent desired product quality
- Reduced waste and increased line efficiency

Target group
Operators and maintenance personnel

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 2 to 3 hours

Location & language
At your site or at our Technical Training Centre Denmark. Available in English.

Duration
Total training time: 1 day
Hands-on training time: 2 to 3 hours

* Time for taking out of production and preparing for production not included.
Tetra Pak® Continuous Freezer S

Course objectives
This training is designed to give participants a technical and operational understanding of the self-contained continuous freezer including Tetra Pak Continuous Freezer S and Tetra Hoyer Frigus SF. The training ensures an understanding of the ice cream structure by focusing on giving an insight of the main components in and the operation of the continuous ice cream freezer. The training includes both theoretical and practical knowledge on the operation of the equipment.

On completion of this training the participant will understand:
- Working principles and control loops
- Technical construction of the main components
- Operational control
- Basic troubleshooting

The participant will individually be able to:
- Identify and technically describe the main components
- Understand input qualities and process parameters to ensure optimal production
- Operate and adjust the equipment
- Use and understand manual(s) and documentation

Course contents
- Introduction to ice cream
- Working principles of main components
- How to read and use manual(s) and documentation
- Safety precautions
- Learning evaluation

Key benefits
- Increased competence and knowledge level
- Increased employee commitment and engagement
- Increased equipment performance
- Ensured consistent desired product quality
- Reduced waste and increased line efficiency

Target group
Operators and maintenance personnel

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 3 hours

Location & language
At your site or at our Technical Training Centre Denmark. Available in English.

Duration
Total training time: 1 day
Hands-on training time: 3 hours

* Time for taking out of production and preparing for production not included.
Tetra Pak® Dip and Transfer unit A3

Course objectives
This training is designed to give participants a technical and operational understanding of the dip and transfer unit including the pick and place unit. The training includes both theoretical and practical knowledge on the operation of the equipment.

On completion of this training the participant will understand:
• Working principles
• Technical construction of the main components
• Operational control
• The importance of safety precautions

The participant will individually be able to:
• Identify and technically describe the main components
• Understand input qualities and process parameters to ensure optimal production
• Operate and adjust the equipment
• Use and understand manual(s) and documentation

Course contents
• Working principles of main components
• Technical construction of main components
• How to read and use manual(s) and documentation
• Safety precautions
• Learning evaluation

Key benefits
• Increased competence and knowledge level
• Increased employee commitment and engagement
• Increased equipment performance
• Ensured consistent desired product quality
• Reduced waste and increased line efficiency

Target group
Operators and maintenance personnel

Recommendations
• 5 to 8 participants
• Access to processing equipment for hands-on training*: 2 to 3 hours

Location & language
At your site or at our Technical Training Centre Denmark. Available in English.

Duration
Total training time: 1 day
Hands-on training time: 2 to 3 hours

* Time for taking out of production and preparing for production not included.
Tetra Pak® Extraction Unit Soy

Course objectives
This training is designed to give the participants the knowledge of how to operate the extraction unit (formerly known as Tetra Alwin Soy). The objective is to provide operator training containing knowledge and terminology for the unit and how to run it according to the Operation Manual (OM).

On completion of this training the participant will understand:
• The main components in the unit and their location and terminology
• The importance of safety precautions
• The process of producing product in the unit

The participant will individually be able to:
• Locate the main components in the extraction unit
• Understand the purpose of the various steps when operating the unit
• Start and operate the unit according to the OM
• Understand the function of the push buttons on the HMI (Human Machine Interface)
• Understand the different alarm signals
• Use and understand manual(s) and documentation

Course contents
• Operating the unit according to the OM
• How to read and use manual(s) and documentation
• Unit components and functions
• Daily and weekly care
• Safety precautions
• Learning evaluation

Target group
Operators and maintenance personnel

Recommendations
• 5 to 8 participants
• Access to processing equipment for hands-on training*: 8 hours

Location & language
At your site. Available in English.

Duration
Total training time: 3 days
Hands-on training time: 8 hours

* Time for taking out of production and preparing for production not included.

Key benefits
• Increased productivity and performance
• Increased product safety and quality
• Reduced waste and increased line efficiency
• Minimized frequency and duration of production interruptions
Course objectives
This training is designed to give participants a technical and operational understanding of the extrusion tunnel. The training includes both theoretical and practical knowledge on the operation of the equipment.

On completion of this training the participant will understand:
- Working principles and control loops
- Technical construction of the main components
- Operational control
- The importance of safety precautions

The participant will individually be able to:
- Identify and technically describe the main components
- Understand input qualities and process parameters to ensure optimal production
- Operate and adjust the equipment
- Use and understand manual(s) and documentation

Course contents
- Working principles of main components
- Technical construction of main components
- How to read and use manual(s) and documentation
- Safety precautions
- Learning evaluation

Target group
Operators and maintenance personnel

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 2 to 3 hours per day

Location & language
At your site or at our Technical Training Centre Denmark. Available in English.

Duration
Total training time: 2 days
Hands-on training time: 4 to 6 hours

* Time for taking out of production and preparing for production not included.
Tetra Pak® Formulation system BPC

Course objectives
This training is designed to give the participants an introduction to the system. The objectives are to provide operational knowledge of the system and to prepare the participants for more advanced training courses.

On completion of this training the participant will understand:
- Cosmetics production technology
- Documentation including flow chart and process steps
- Components and function of the formulation system
- System operations in cosmetics production
- Understand the use of the HMI (Human Machine Interface) control panel

The participant will individually be able to:
- Locate the main components in the system
- Start and operate the system according to the Operation Manual (OM) and Electrical Manuals (EM)
- Set up process parameters
- Understand the different alarm signals
- Use and understand manual(s) and documentation

Course contents
- Product safety and operational safety
- Cosmetics processing technology
- Main machine components
- Operation of the system
- Daily and weekly care
- Safety precautions
- Learning evaluation

Target group
Operators and maintenance personnel

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 8 hours

Location & language
At your site. Available in English.

Duration
Total training time: 3 days
Hands-on training time: 8 hours

Key benefits
- Increased productivity and performance
- Increased product quality
- Reduced waste and increasing line efficiency
- Minimized frequency and duration of production interruptions

* Time for taking out of production and preparing for production not included.
Course objectives
This training is designed to give the participants operational skills for their regular duties and tasks as operators of Tetra Pak® High Shear Mixer (formerly known as Tetra Almix). The training is task based around the operating manual. The objectives are to train the participants to carry out all operation steps according to our approved documentation, including daily care and cleaning.

On completion of this training the participant will understand:
- The main components in the mixing system and their location and terminology
- The importance of safety precautions
- The process steps of producing a product with the mixing system

The participant will individually be able to:
- Locate the main components in the mixing system
- Understand the purpose of various functions in the mixing system
- Start and operate the mixer according to the approved documentation
- Understand the function of push buttons on the HMI (Human Machine Interface), if included in the system
- Understand the different alarm signals
- Know the importance of following the production protocol (e.g. order and handling of ingredients)
- Use and understand manual(s) and documentation

Course contents
- Operating the module according to the OM
- How to read and use manual(s) and documentation
- Module components and functions
- Daily and weekly care
- Practical exercises
- Safety precautions
- Learning evaluation

Key benefits
- Increased productivity and performance
- Increased product safety and quality
- Reduced waste and increased line efficiency
- Minimized frequency and duration of production interruptions

Target group
Operators and maintenance personnel

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 2 to 3 hours

Location & language
At your site or at out training facility in Denmark. Available in English.

Duration
Total training time: 1 day
Hands-on training time: 2 to 3 hours

* Time for taking out of production and preparing for production not included.
Tetra Pak® Homogenizer

Course objectives
This training is designed to give the participants an introduction to Tetra Pak Homogenizers. The objectives are to provide operators training containing knowledge and terminology for the equipment and how to safely operate it according to the Operation Manual (OM). This training will also prepare the participants for training courses regarding basic food technology as well as other units.

On completion of this training the participant will understand:

- Basic homogenization theory
- The working principles
- The main components in the unit and their location and terminology
- The importance of safety precautions

The participant will individually be able to:

- Identify and locate the main components in the unit
- Start and operate the unit according to the Operation Manual
- Understand the function of push buttons on the HMI (Human Machine Interface)
- Understand the different alarm signals
- Follow safety precautions
- Use and understand manual(s) and documentation

Course contents
- Operating the unit according to the OM
- How to read and use manual(s) and documentation
- The main components, their functions and location
- Working principles
- Daily and weekly care
- Safety precautions
- Learning evaluation

Key benefits
- Increased productivity and performance
- Reduced waste and increased line efficiency
- Increased safety for staff and equipment
- Increased employee commitment and engagement

Target group
Operators and maintenance personnel

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 2 hours

Location & language
At your site or at our training facility in India. Available in English.

Duration
Total training time: 1 day
Hands-on training time: 2 hours

* Time for taking out of production and preparing for production not included.
Course objectives
This training is designed to give participants a technical and operational understanding of the ingredient doser (Tetra Pak Ingredient Doser or Tetra Hoyer Addus FF). The training includes both theoretical and practical knowledge.

On completion of this training the participant will understand:
- Working principles and control loops
- Technical construction of the main components
- Operational control
- Basic troubleshooting

The participant will individually be able to:
- Identify and technically describe the main components
- Understand process parameters to ensure optimal production
- Operate and adjust the equipment
- Use and understand manual(s) and documentation

Course contents
- Working principles of main components
- How to read and use manual(s) and documentation
- Safety precautions
- Learning evaluation

Key benefits
- Increased competence and knowledge level
- Increased employee commitment and engagement
- Increased equipment uptime and performance
- Ensured consistent desired product quality
- Maximised equipment lifetime
- Reduced waste and increased line efficiency

Target group
Operators and maintenance personnel

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 2 to 3 hours

Location & language
At your site or at our Technical Training Centre Denmark. Available in English.

Duration
Total training time: 1 day
Hands-on training time: 2 to 3 hours

* Time for taking out of production and preparing for production not included.
Course objectives
This training is designed to give participants a technical and operational understanding of the multilane wrapper (model A2). The training includes both theoretical and practical knowledge on the operation of the equipment.

On completion of this training the participant will understand:
- Working principles
- Technical construction of the main components
- Operational control

The participant will individually be able to:
- Identify and technically describe the main components
- Understand input qualities and process parameters to ensure optimal production
- Operate and adjust the equipment
- Use and understand manual(s) and documentation

Course contents
- Working principles of main components
- Technical construction of main components
- How to read and use manual(s) and documentation
- Safety precautions
- Learning evaluation

Target group
Operators and maintenance personnel

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 1 to 2 hours

Location & language
At your site or at our Technical Training Centre Denmark. Available in English.

Duration
Total training time: 0.5 day
Hands-on training time: 1 to 2 hours

* Time for taking out of production and preparing for production not included.
Course objectives
This training is designed to give the participants an introduction to Tetra Pak Separators, Clarifiers and Bactofuge units. The objectives are to provide Operators training containing knowledge and terminology for the equipment and how to safely operate it according to the Operation Manual (OM). This training will also prepare the participants for training courses regarding basic food technology as well as other units.

On completion of this training the participant will understand:
- The basics of centrifugal separation and applications
- The working principles
- The main components in the unit and their location and terminology
- The importance of the safety precautions

The participant will individually be able to:
- Identify and locate the main components in the unit
- Understand design and function of the equipment
- Start and operate the unit according to the Operation Manual
- Understand the function of push buttons on the HMI (Human Machine Interface)
- Understand the different alarm signals
- Follow safety precautions
- Use and understand manual(s) and documentation

Course contents
- Operating the unit according to the OM
- How to read and use manual(s) and documentation
- The main components, their functions and location
- Working principles
- Daily and weekly care
- Safety precautions
- Learning evaluation

Key benefits
- Increased productivity and performance
- Reduced waste and increased line efficiency
- Increased safety for staff and equipment
- Increased employee commitment and engagement

Target group
Operators and maintenance personnel

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 2 hours

Location & language
At your site or at our training facility in India.
Available in English.

Duration
Total training time: 1 day
Hands-on training time: 2 hours

* Time for taking out of production and preparing for production not included.
Tetra Therm® Aseptic Drink

Course objectives
This training is designed to give the participants an introduction to Tetra Therm Aseptic Drink. The objectives are to provide operator training containing knowledge of how to operate and terminology for the Tetra Therm Aseptic Drink module and how to run the unit according to the Operation Manual (OM). This training will also prepare the participants for training courses regarding process technology as well as other units.

On completion of this training the participant will understand:
- The main components in the aseptic line and their location and terminology
- The importance of safety precautions
- The process of producing a beverage product

The participant will individually be able to:
- Start and operate the unit according to the OM
- Locate the main components of the aseptic processing module
- Understand the purpose of the various steps in the processing module
- Understand the function of the push buttons on the HMI (Human Machine Interface)
- Understand the different alarm signals
- Know the importance of the filling in the production protocol
- Use and understand manual(s) and documentation

Course contents
- Operation of the module according to the OM
- How to read and use manual(s) and documentation
- Module components and functions
- Daily and weekly care
- Safety precautions
- Learning evaluation

Key benefits
- Increased productivity and performance
- Increased product safety and quality
- Reduced waste and increased line efficiency
- Minimized frequency and duration of production interruptions

Target group
Operators and maintenance personnel

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 8 hours

Location & language
At your site. Available in English.

Duration
Total training time: 3 days
Hands-on training time: 8 hours

* Time for taking out of production and preparing for production not included.
Course objectives
This training is designed to give the participants an introduction to Tetra Therm Aseptic Flex (indirect UHT system). The objectives are to provide operator training containing knowledge and terminology for indirect modules and how to carry out all operation steps according to the Operation Manual (OM). This training will also prepare the participants for other training courses, for example Tetra Pak CIP Unit training.

On completion of this training the participant will understand:
- The main components in the aseptic line and their locations and terminology
- The importance of safety precautions
- The process of producing an aseptic product

The participant will individually be able to:
- Start and operate the unit according to the OM
- Locate the main components of the aseptic processing module
- Understand the purpose of the various steps in the processing module
- Understand the function of the push buttons on the HMI (Human Machine Interface)
- Understand the different alarm signals
- Know the importance of the filling in the production protocol
- Use and understand manual(s) and documentation

Course contents
- Operation of the module according to the OM
- How to read and use manual(s) and documentation
- Module components and functions
- Daily and weekly care
- Safety precautions
- Learning evaluation

Key benefits
- Increased productivity and performance
- Increased product safety and quality
- Reduced waste and increased line efficiency
- Minimized frequency and duration of production interruptions

Target group
Operators and maintenance personnel

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 8 hours

Location & language
At your site. Available in English.

Duration
Total training time: 3 days
Hands-on training time: 8 hours

* Time for taking out of production and preparing for production not included.
Tetra Therm® Aseptic Visco (UHT system)

Course objectives
This training is designed to give the participants an introduction to Tetra Therm Aseptic Visco (UHT system). The objectives are to provide operator training containing knowledge and terminology for the module and how to carry out all operation steps according to the Operation Manual (OM). This training will also prepare the participants for other training courses, for example Tetra Pak CIP Unit training.

On completion of this training the participant will understand:
- The main components in the aseptic line and their locations and terminology
- The importance of safety precautions
- The process of producing an aseptic product

The participant will individually be able to:
- Start and operate the unit according to the OM
- Locate the main components of the aseptic processing module
- Understand the purpose of the various steps in the processing module
- Understand the function of the push buttons on the HMI (Human Machine Interface)
- Understand the different alarm signals
- Know the importance of the filling in the production protocol
- Use and understand manual(s) and documentation

Course contents
- Operation of the module according to the OM
- How to read and use manual(s) and documentation
- Module components and functions
- Daily and weekly care
- Product behaviour
- Safety precautions
- Learning evaluation

Key benefits
- Increased productivity and performance
- Increased product safety and quality
- Reduced waste and increased line efficiency
- Minimized frequency and duration of production interruptions

Target group
Operators and maintenance personnel

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 8 hours

Location & language
At your site. Available in English.

Duration
Total training time: 3 days
Hands-on training time: 8 hours

* Time for taking out of production and preparing for production not included.
Tetra Therm® Aseptic VTIS (direct UHT system)

Course objectives
This training is designed to give the participants an introduction to Tetra Therm Aseptic VTIS (direct UHT system). The objectives are to provide operator training containing knowledge and terminology for direct modules. This training will also prepare the participants for other training courses, for example Tetra Pak CIP Unit training.

On completion of this training the participant will understand:
- The main components in the aseptic line and their location and terminology
- The importance of safety precautions
- The process of producing an aseptic product

The participant will individually be able to:
- Start and operate the unit according to the Operation Manual (OM)
- Locate the main components of the aseptic processing module
- Understand the purpose of various steps in the processing module
- Understand the function of push buttons on the HMI (Human Machine Interface)
- Understand the different alarm signals
- Know the importance of filling in the production protocol
- Use and understand manual(s) and documentation

Course contents
- Operation of the module according to the OM
- How to read and use manual(s) and documentation
- Module components and functions
- Daily and weekly care
- Safety precautions
- Learning evaluation

Key benefits
- Increased productivity and performance
- Increased product safety and quality
- Reduced waste and increased line efficiency
- Minimized frequency and duration of production interruptions

Target group
Operators and maintenance personnel

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 8 hours

Location & language
At your site. Available in English.

Duration
Total training time: 3 days
(2 days if participants are trained in infuser setup)
Hands-on training time: 8 hours

* Time for taking out of production and preparing for production not included.
Tetra Therm® Lacta

Course objectives
This training is designed to give the participants an introduction to Tetra Therm Lacta. The objectives are to provide operator training containing knowledge and terminology for indirect modules and how to carry out all operation steps according to the Operation Manual (OM). This training will also prepare the participants for other training courses, for example Tetra Pak CIP Unit training.

On completion of this training the participant will understand:
- The main components in the line and their locations and terminology
- The importance of safety precautions
- The process of producing a product

The participant will individually be able to:
- Start and operate the unit according to the OM
- Locate the main components of the processing module
- Understand the purpose of the various steps in the processing module
- Understand the function of the push buttons on the HMI (Human Machine Interface)
- Understand the different alarm signals
- Know the importance of the filling in the production protocol
- Use and understand manual(s) and documentation

Course contents
- Operation of the module according to the OM
- How to read and use manual(s) and documentation
- Module components and functions
- Daily and weekly care
- Safety precautions
- Learning evaluation

Key benefits
- Increased productivity and performance
- Increased product safety and quality
- Reduced waste and increased line efficiency
- Minimized frequency and duration of production interruptions

Target group
Operators and maintenance personnel

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 8 hours

Location & language
At your site. Available in English.

Duration
Total training time: 3 days
Hands-on training time: 8 hours

* Time for taking out of production and preparing for production not included.
Final pressing & mould handling system

Course objectives
This training is designed to provide participants with the theoretical knowledge and practical operational skills required to carry out regular duties and tasks according to the Operation Manual (OM). It gives participants a good understanding of the working principles and the Human Machine Interface (HMI) of the system.

On completion of this training the participant will understand:
- Basic line functions and main components
- CIP and production program
- Operational control
- The importance of safety precautions

The participant will individually be able to:
- Understand design and function of the equipment
- Locate the main components in the system
- Understand and use the functions of Human Machine Interface (HMI)
- Use and understand manual(s) and documentation

Course contents
- The main components, their functions and location
- CIP and production functions
- Operations from HMI
- Use of documentation
- Safety precautions
- Learning evaluation

Key benefits
- Increased productivity and performance
- Increased product safety and quality
- Minimized frequency and duration of production interruptions

Target group
Operators and supervisors

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 14 hours

Location & language
At your site. Available in English.

Duration
Total training time: 3 days
Hands-on training time: 14 hours

* Time for taking out of production and preparing for production not included.
Introduction to plant

Course objectives
This training is designed to give the participants an introduction to their processing plant. The objective is to provide all plant personnel with an insight to the process flow in the plant and production schedule. This course should be followed by the participation in the course “Introduction to plant operation” (CTO_12711).

On completion of this training the participant will understand:
- Plant safety and hygiene for personnel, equipment and products
- The plant processing equipment and services
- The structure and purpose of plant production time schedule

The participant will individually be able to:
- Follow plant safety guidelines and hygiene practices
- Identify the plant production areas and equipment according to machinery lay out
- Identify the automation network and electrical components

Course contents
- Plant production documents
- General plant safety and hygiene practices
- Processing areas and equipment
- Services for plant production
- Process flow and production schedule
- Cleaning In Place set-up
- Automation and electrical network

Key benefits
- Increased awareness and understanding of the plant processing equipment and services
- Increased awareness and understanding of plant production schedule

Target group
All production personnel

Recommendations
- 6 to 12 participants
- No prior experience is required

Location & language
At your site. Available in English.

Duration
Total training time: 2 days
Introduction to plant operation

Course objectives
This training is designed to give the participants theoretical and practical knowledge to run the processing plant. The objectives are to provide the plant production and maintenance personnel a thorough understanding of the plant functionalities and operations on the user interface. The course will give an insight to plant product quality and maintenance needs also. It is recommended to take the specific courses for detailed understanding of the process equipment.

On completion of this training the participant will understand:
- The plant processing functionalities and technical design
- The plant operations
- Product quality parameters
- Introduction to preventive maintenance

The participant will individually be able to:
- Run production using the user interface in the processing plant
- Act according to the preventive maintenance recommendation and select spare parts

Course contents
- Plant operations documents
- Plant functionality
- Process and services flow in the plant
- Processing areas and equipment
- Plant operations on the user interface
- Product quality parameters
- Critical Control Points (CCP) monitoring
- Cleaning In Place recipes and operation in the plant
- Introduction to preventive maintenance

Key benefits
- Enable the start-up and running of the plant
- Increased knowledge of products quality and plant hygiene

Target group
All production personnel

Recommendations
- 6 to 12 participants
- Prior knowledge of plant production and/or course "Introduction to plant" (CTO_12710)

Location & language
At your site. Available in English.

Duration
Total training time: 3 days
Milk reception unit

Course objectives
This training is designed to give the participants the knowledge of how to operate the milk reception unit. The objectives are to provide operator training containing knowledge and terminology for the unit and how to run it according to the Operation Manual (OM). This training will also prepare the participants for training regarding process technology as well as other machines / equipment.

On completion of this training the participant will understand:
- Basic milk handling
- The process of milk from cow to dairy
- The main components in the unit, their functions and location
- Basic food safety and the Critical Control Points (CCP)
- Safety precautions and safety aspects

The participant will individually be able to:
- Locate the main components on the unit
- Prepare, start and operate the unit according to the OM
- Describe the function of the push buttons on the HMI
- Understand basic CIP technology and CIP procedures
- Use and understand manual(s) and documentation

Course contents
- Basic function of the unit
- How to read and use manual(s) and documentation
- Control panel
- Hands-on activities
- Safety precautions
- Learning evaluation

Key benefits
- Increased productivity and performance
- Increased product safety and quality
- Increased employee commitment and engagement

Target group
Operators and maintenance personnel

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 7 hours

Location & language
At your site. Available in English.

Duration
Total training time: 2 days
Hands-on training time: 7 hours

* Time for taking out of production and preparing for production not included.
Powder production – drying

Course objectives
This training is designed to give the participants an introduction to the operation of the dryer area of the plant and how the relevant components and processes, including CIP (Cleaning In Place), work together. The objectives are to provide operator training containing knowledge and terminology for the module and how to carry out all tasks related to setup, checks, operation and CIP steps according to the Operation Manual (OM). The course can include homogenization and ingredient addition (if applicable to the process).

On completion of this training the participant will understand:
- The main components, terminology and location
- The importance of safety precautions
- The process and tasks required to produce product

The participant will individually be able to:
- Setup, check, operate and CIP of the unit(s) according to the OM
- Locate the main components and follow the process flow of the dryer
- Understand the purpose of the various steps in the processing module
- Understand the function of the selections on the HMI (Human Machine Interface)
- Understand the different alarm signals
- Know the importance of filling in the production documents
- Identify process control points and critical control points
- Use and understand the manual(s) and documentation

Course contents
- How to read and use manual(s) and documentation
- Module components and functions
- How to follow the process on HMI and P&IDs (Piping and Instrumentation Diagram)
- Daily and weekly care
- Safety precautions
- Learning evaluation

Key benefits
- Increased productivity and performance
- Increased product safety and quality
- Reduced waste and increase line efficiency
- Minimized frequency and duration of production interruptions

Target group
Operators and maintenance personnel

Recommendations
- Max. 6 participants
- Course “Dairy Processing & Technology – Basic” (CTT_43000)
- Relevant equipment training courses
- Access to processing equipment for hands-on training*: 12 hours

Location & language
At your site. Available in English.

Duration
Total training time: 3 days
Hands-on training time: 12 hours

* Time for taking out of production and preparing for production not included.
Powder production – evaporation

Course objectives
This training is designed to give the participants an introduction to the operation of the evaporator areas of the plant and how the relevant components and processes, including CIP (Cleaning In Place), work together. The objectives are to provide operator training containing knowledge and terminology for the module and how to carry out all tasks related to setup, checks, operation and CIP steps according to the Operation Manual (OM). The course can include pasteurization and ingredient addition (if applicable to the process).

On completion of this training the participant will understand:
- The main components, terminology and location
- The importance of safety precautions
- The process and tasks required to produce product

The participant will individually be able to:
- Setup, check, operate and CIP of the unit(s) according to the OM
- Locate the main components and follow the process flow of the evaporator
- Understand the purpose of the various steps in the processing module
- Understand the function of the selections on the HMI (Human Machine Interface)
- Understand the different alarm signals
- Know the importance of filling in the production documents
- Identify process control points and critical control points
- Use and understand the manual(s) and documentation

Course contents
- How to read and use manual(s) and documentation
- Module components and functions
- How to follow the process on HMI and P&IDs (Piping and Instrumentation Diagram)
- Daily and weekly care
- Safety precautions
- Learning evaluation

Key benefits
- Increased productivity and performance
- Increased product safety and quality
- Reduced waste and increased line efficiency
- Minimized frequency and duration of production interruptions

Target group
Operators and maintenance personnel

Recommendations
- Max. 6 participants
- Course “Dairy Processing & Technology – Basic” (CTT_43000)
- Relevant equipment training courses
- Access to processing equipment for hands-on training*: 12 hours

Location & language
At your site. Available in English.

Duration
Total training time: 3 days
Hands-on training time: 12 hours

* Time for taking out of production and preparing for production not included.
Powder production – wet process

Course objectives
This training is designed to give the participants an introduction to the operation of the wet process areas of the plant and how the relevant components and processes, including CIP (Cleaning In Place), work together. The objectives are to provide operator training containing knowledge and terminology for the module and how to carry out all tasks related to setup, checks, operation and CIP steps according to the Operation Manual (OM). The course can include pasteurization, homogenization and ingredient addition (if applicable to the process).

On completion of this training the participant will understand:
- The main components, terminology and location
- The importance of safety precautions
- The process and tasks required to produce product

The participant will individually be able to:
- Setup, check, operate and CIP of the unit(s) according to the OM
- Locate the main components and follow the process
- Understand the purpose of the various steps in the relevant components
- Understand the function of the selections on the HMI (Human Machine Interface)
- Understand the different alarm signals
- Know the importance of filling in the production documents
- Identify process control points and critical control points
- Use and understand the manual(s) and documentation

Course contents
- How to read and use manual(s) and documentation
- Module components and functions
- How to follow the process on HMI and P&IDs (Piping and Instrumentation Diagram)
- Daily and weekly care
- Safety precautions
- Learning evaluation

Key benefits
- Increased productivity and performance
- Increased product safety and quality
- Reduced waste and increased line efficiency
- Minimized frequency and duration of production interruptions

Target group
Operators and maintenance personnel

Recommendations
- Max. 6 participants
- Course “Dairy Processing & Technology – Basic” (CTT_43000)
- Relevant equipment training courses
- Access to processing equipment for hands-on training*: 12 hours

Location & language
At your site. Available in English.

Duration
Total training time: 3 days
Hands-on training time: 12 hours

* Time for taking out of production and preparing for production not included.
UHT production (Dairy): Level 1
Demonstrate the knowledge

Course objectives
This training is the first level of the comprehensive programme for the skill development of operators in UHT (Ultra High Temperature) production in the dairy industry. It covers the basic principles of UHT processing of dairy products including different unit operations and aseptic filling. The course should be followed by practical exposure to UHT production and participation in second level of the course (Demonstrate the skill for operation).

On completion of this training the participant will understand:
- Aseptic technology
- Aseptic processing equipment
- Aseptic filling concept
- Cleaning technology

The participant will increase applied knowledge in the following areas:
- Raw milk quality tests for aseptic processing
- Principles of aseptic technology
- Unit operations in aseptic processing and filling
- Principles of cleaning

Course contents
- Food safety and commercial sterility
- Raw milk quality tests
- Unit operations in dairy aseptic processing
- Aseptic filling machine introduction
- Cleaning and sterilization
- Learning evaluation

Key benefits
- Increased competence and knowledge in the area of aseptic dairy processing and filling
- Increased productivity and performance
- Increased product safety and quality

Target group
Operators, maintenance and quality assurance personnel in the dairy industry

Recommendations
- 5 to 8 participants
- Course “Dairy Processing &Technology – Basic” (CTT_43000)
- Access to UHT line*: 6 hours

Location & language
At your site. Available in English.

Duration
Total training time: 2.5 days
Hands-on training time: 11 hours (including practical exercises)

* Time for taking out of production and preparing for production not included.
UHT production (Dairy): Level 2
Demonstrate the skill for operation

Course objectives
This training is the second level of the comprehensive programme for the skill development of operators in UHT (Ultra High Temperature) production in the dairy industry. It covers the operational details of UHT processing module and aseptic filling machine. The course should be followed by practical exposure to UHT production and participation in third level of the course (Demonstrate the skill for troubleshooting and supervision).

On completion of this training the participant will understand:
- Quality assurance concept
- Critical control points for food safety
- Operation of aseptic processing module
- Operation of aseptic filling machine in brief
- CIP and sterilization procedure

The participant will increase applied knowledge in the following areas:
- Product quality control
- UHT process cycle
- Aseptic filling machine and package quality
- Cleaning and sterilization programme

Course contents
- Quality assurance and product quality tests
- UHT production and fault handling
- Aseptic filling machine operation phases
- Aseptic package quality tests
- CIP (Cleaning In Place) procedure and cleaning verification
- Safety precautions
- Learning evaluation

Key benefits
- Improved operational skill of aseptic dairy processing and filling
- Increased productivity and performance
- Increased product safety and quality

Target group
Operators, maintenance and quality assurance personnel in the dairy industry

Recommendations
- 5 to 8 participants
- Course “UHT production (Dairy): Level 1” (CTO_13001) or passed pre-test
- Access to UHT line*: 19 hours

Location & language
At your site. Available in English.

Duration
Total training time: 4 days
Hands-on training time: 24 hours (including practical exercises)

* Time for taking out of production and preparing for production not included.
UHT production (Dairy): Level 3
Demonstrate the skill for troubleshooting and supervision

Course objectives
This training is the final level of the comprehensive programme for the development of operators in UHT (Ultra High Temperature) production in the dairy industry. It guides the participants in troubleshooting and supervising the UHT processing of dairy products. The course should be followed by practical exposure to UHT production planning and supervision.

On completion of this training the participant will understand:
- Systematic troubleshooting concept
- Functionalities of aseptic processing module
- Erect-fill-seal concept
- Crucial cleaning requirements

The participant will increase applied knowledge in the following areas:
- Hygienic production
- UHT production planning
- Care of the UHT production module
- Cleaning parameters control

Course contents
- Food safety and legal requirements
- UHT production best practices
- Erect-fill-seal machine for aseptic filling
- Troubleshooting case studies
- Safety precautions
- Learning evaluation

Key benefits
- Improved supervision skill of aseptic dairy processing and packaging
- Increased productivity and performance
- Increased product safety and quality

Target group
Operators, maintenance and quality assurance personnel in the dairy industry

Recommendations
- 5 to 8 participants
- Course “UHT production (Dairy): Level 2” (CTO_13003) or passed pre-test
- Access to UHT line*: 3 hours

Location & language
At your site. Available in English.

Duration
Total training time: 2 days
Hands-on training time: 8.5 hours (including practical exercises)

* Time for taking out of production and preparing for production not included.
Our professional maintenance training gives your workforce the skills they need to safely and efficiently maintain your processing equipment.

All maintenance training courses will help your maintenance staff to perform their regular duties according to the manuals including checks and daily/weekly care.

Subjects covered will include how the equipment functions and knowledge of how to maintain it.

These training courses always include safety and hygiene guidelines focusing on food safety and personnel safety. They include extensive hands-on training and are delivered by experienced trainers.

**Key benefits**

- Improved equipment performance through fewer and shorter unplanned stops
- Lower direct maintenance cost
- Increased safety for staff and equipment
<table>
<thead>
<tr>
<th>Name of course</th>
<th>Duration</th>
<th>Course number</th>
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<tbody>
<tr>
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<td>Tetra Alfast®</td>
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<td>Tetra Pak® Casomatic system SC7</td>
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<tr>
<td>Milk reception unit</td>
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* course duration dependent on equipment based training time
Course objectives
This training is designed to give the participants theoretical and practical knowledge of the maintenance activity of the equipment. This is to also enable basic maintenance of main components in the system. This training will also prepare participants to handle troubleshooting, best maintenance practices.

On completion of this training the participant will understand:
- Safety precautions
- Best maintenance practices
- Maintenance of main components
- Tetra Albatch operation and functionality

The participant will individually be able to:
- Identify all components in the manuals (Technical and Operation) and the unit
- Handle HMI (Human Machine Interface) alarms and troubleshooting with the help of the Operation Manual (OM)
- Do load cell maintenance
- Do tank outlet valve maintenance
- Do unique SSV (single seat valve) / change over valve maintenance
- Do drive end maintenance
- Do mechanical shaft seal maintenance
- Do seat valve maintenance
- Identify spare parts numbers for ordering with the help of the Technical Manual (TeM)
- Maintain proper maintenance schedule as per our recommendation
- Use and understand manual(s) and documentation

Course contents
- Basic function of the processing unit
- How to read and use manual(s) and documentation
- Control panel
- Hands on activities on module
- Maintenance activity on selected components
- Safety precautions
- Learning evaluation

Key benefits
- Increased safety for staff and equipment
- Increased productivity and performance
- Improved Mean time between failures (MTBF)
- Increased employee commitment and engagement
- Secured scheduled maintenance control

Target group
Personnel performing maintenance of the unit

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 2 hours
- Access to target components for hands-on maintenance*: 16 hours

Location & language
At your site. Available in English.

Duration
Total training time: 3.5 days
Hands-on training time: 18 hours

* Time for taking out of production and preparing for production not included.
Course objectives
This training is designed to give the participants theoretical and practical knowledge of the maintenance activity of the equipment. This is to also enable basic maintenance of main components in the system. This training will also prepare participants to handle troubleshooting, best maintenance practices.

On completion of this training the participant will understand:
- Safety precautions
- Best maintenance practices
- Risk assessment of maintenance activity
- Maintenance of main components
- Standardization process

The participant will individually be able to:
- Identify all components in the manuals (Technical and Operation) and the unit
- Handle HMI (Human Machine Interface) alarms and troubleshooting with the help of the Operation Manual (OM)
- Do modulating valve maintenance
- Do flow meter maintenance
- Do density transmitter maintenance
- Identify spare parts numbers for ordering with the help of the Technical Manual (TeM)
- Maintain proper maintenance schedule as per our recommendation
- Use and understand manual(s) and documentation

Course contents
- Basic function of the processing unit
- How to read and use manual(s) and documentation
- Control panel
- Hands on activities on module
- Maintenance activity on selected components
- Safety precautions
- Learning evaluation

Key benefits
- Increased safety for staff and equipment
- Increased productivity and performance
- Improved Mean time between failures (MTBF)
- Increased employee commitment and engagement
- Secured scheduled maintenance control

Target group
Personnel performing maintenance of the unit

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 4 hours
- Access to target components for hands-on maintenance*: 10 hours

Location & language
At your site. Available in English.

Duration
Total training time: 3 days
Hands-on training time: 14 hours

* Time for taking out of production and preparing for production not included.
Tetra Alrox® Lacta

Course objectives
This training is designed to give the participants theoretical and practical knowledge of the maintenance activity of the equipment. This is to also enable basic maintenance of main components in the system. This training will also prepare participants to handle troubleshooting, best maintenance practices.

On completion of this training the participant will understand:
- Safety precautions
- Best maintenance practices
- Risk assessment of maintenance activity
- Maintenance of main components
- Deaeration process

The participant will individually be able to:
- Identify all components in the manuals (Technical and Operation) and the unit
- Alarms and troubleshooting with the help of the Operation Manual (OM)
- Do vacuum pump maintenance
- Do regulating valve maintenance
- Do vacuum chamber maintenance
- Identify spare parts numbers for ordering with the help of the Technical Manual (TeM)
- Maintain proper maintenance schedule as per our recommendation
- Use and understand manual(s) and documentation

Course contents
- Basic function of the processing unit
- How to read and use manual(s) and documentation
- Control panel
- Hands on activities on module
- Maintenance activity on selected components
- Safety precautions
- Learning evaluation

Key benefits
- Increased safety for staff and equipment
- Increased productivity and performance
- Improved Mean time between failures (MTBF)
- Increased employee commitment and engagement
- Secured scheduled maintenance control

Target group
Personnel performing maintenance of the unit

Recommendations
- 5 to 8 participants
- Access to target components for hands-on maintenance*: 9 hours

Location & language
At your site. Available in English.

Duration
Total training time: 2 days
Hands-on training time: 9 hours

* Time for taking out of production and preparing for production not included.
Course objectives
This training is designed to give the participants theoretical and practical knowledge of the maintenance activity of the equipment. This is to also enable basic maintenance of main components in the system. This training will also prepare participants to perform basic risk assessment, troubleshooting, best maintenance practices.

On completion of this training the participant will understand:

- Safety precautions
- Best maintenance practices
- Risk assessment of maintenance activity
- Maintenance of main components
- HMI handling

The participant will individually be able to:

- Identify all components in the manuals (Technical and Operation) and the unit
- Handle HMI (Human Machine Interface) alarms and troubleshooting with the help of the Operation Manual (OM)
- Do modulating valve maintenance
- Do flow meter maintenance
- Do density transmitter maintenance
- Identify spare parts numbers for ordering with the help of the Technical Manual (TeM)
- Maintain proper maintenance schedule as per our recommendation
- Use and understand manual(s) and documentation

Course contents
- Basic function of the processing unit
- How to read and use manual(s) and documentation
- Control panel
- Hands on activities on module
- Maintenance activity on selected components
- Safety precautions
- Learning evaluation

Key benefits
- Increased safety for staff and equipment
- Increased productivity and performance
- Improved Mean time between failures (MTBF)
- Increased employee commitment and engagement
- Secured scheduled maintenance control

Target group
Personnel performing maintenance of the unit

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 2.5 hours
- Access to target components for hands-on maintenance*: 6 to 7 hours (agitator type)

Location & language
At your site. Available in English.

Duration
Total training time: 2.5 days (based on agitator type)
Hands-on training time: 9 hours

* Time for taking out of production and preparing for production not included.
Tetra Alsafe® (Electrical)

Course objectives
This training is designed to give the participants theoretical and practical knowledge of the electrical system of the equipment. This is to enable settings and replacements of defect components in the system. This training will also prepare the participants to perform troubleshooting and fault localization on the equipment.

On completion of this training the participant will understand:
- The importance of electrical safety precaution
- The main electrical components

The participant will individually be able to:
- Identify all components in the manuals and on the unit
- Replace PLC (Programmable Logic Controller) modules, inclusive download of program from PSD (Programme Storage Device)
- Replace the frequency converters
- Force valves from HMI (Human Machine Interface) when fault finding
- Use and understand manual(s) and documentation

Course contents
- Electrical equipment
- How to read and use manual(s) and documentation
- Safety precautions
- Circuit diagram
- PLC
- Frequency converter
- HMI
- Safety precautions
- Learning evaluation

Target group
Electricians performing maintenance of the unit

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 4 hours

Location & language
At your site. Available in English.

Duration
Total training time: 0.5 day
(mix of theory and hands-on training)

Key benefits
- Increased safety for staff and equipment
- Increased productivity and performance
- Increased employee commitment and engagement
- Increased knowledge in electrical competence

* Time for taking out of production and preparing for production not included.
MAINTENANCE TRAINING

Tetra Pak® Aseptic Dosing unit E

Course objectives
This training is designed to give the participants theoretical and practical knowledge of the maintenance activity of the dosing unit (formerly known as Tetra Aldose). This is to also enable basic maintenance of the main components in the unit. This training will also prepare participants to handle troubleshooting and best maintenance practices.

On completion of this training the participant will understand:
- Safety precautions
- Best maintenance practices
- Risk assessment of maintenance activity
- Maintenance of main components
- Dosing process

The participant will individually be able to:
- Identify all components in the manuals (Technical and Operation) and on the unit
- Handle HMI (Human Machine Interface) alarms and troubleshooting with the help of the Operation Manual (OM)
- Do modulating valve maintenance
- Do flow meter maintenance
- Do density transmitter maintenance
- Identify spare parts numbers for ordering with the help of the Technical Manual (TeM)
- Maintain proper maintenance schedule as per our recommendation
- Use and understand manual(s) and documentation

Course contents
- Basic function of the unit
- How to read and use manual(s) and documentation
- Control panel
- Hands-on activities
- Maintenance activity on selected components
- Safety precautions
- Learning evaluation

Key benefits
- Increased safety for staff and equipment
- Increased productivity and performance
- Improved Mean time between failures (MTBF)
- Increased employee commitment and engagement
- Secured scheduled maintenance control

Target group
Personnel performing maintenance of the unit

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 4 hours
- Access to target components for hands-on maintenance*: 10 hours

Location & language
At your site. Available in English.

Duration
Total training time: 3 days
Hands-on training time: 14 hours

* Time for taking out of production and preparing for production not included.
Tetra Pak® Automatic Stick

Course objectives
This training is designed to give participants a technical and operational understanding of the automatic stick inserter including both the automatic stick single and multi. The training includes both theoretical and practical knowledge of the maintenance activities.

On completion of this training the participant will understand:
- Working principles
- Technical construction of the main components
- Operational control
- Principle of maintenance
- Automation and electrical introduction
- Basic troubleshooting
- The importance of safety precautions

The participant will individually be able to:
- Identify and technically describe the main components
- Understand input qualities and process parameters to ensure optimal production
- Perform routine maintenance care
- Operate and adjust the equipment
- Use and understand manual(s) and documentation

Course contents
- Working principles of main components
- Technical construction of main components
- How to read and use manual(s) and documentation
- Best practise maintenance
- Safety precautions
- Learning evaluation

Key benefits
- Increased competence and knowledge level
- Increased employee commitment and engagement
- Increased equipment performance
- Ensured consistent desired product quality
- Maximised equipment lifetime
- Reduced waste and increased line efficiency

Target group
Personnel performing maintenance of the unit

Recommendations
- Max. 6 participants
- Access to processing equipment for hands-on training*: 1 to 2 hours

Location & language
At your site or at our Technical Training Centre Denmark. Available in English.

Duration
Total training time: 0.5 day
Hands-on training time: 1 to 2 hours

* Time for taking out of production and preparing for production not included.
Course objectives
This training is designed to provide participants with a good understanding of the working principles and the Human Machine Interface (HMI) of the Tetra Pak Casomatic system MC (multicolumn continuous whey drainage and cheese shaping system). In addition, it gives participants theoretical knowledge and practical experience of the maintenance activities. This training will also prepare participants to perform basic risk assessment, troubleshooting and maintenance best practices.

On completion of this training the participant will understand:
- Safety precautions
- Maintenance best practices
- Risk assessment of maintenance activity
- Maintenance of key components

The participant will individually be able to:
- Identify all components in the manuals (Technical Manual and Operational Manual) and in the system
- Handle HMI alarms and troubleshooting
- Perform maintenance activities including system specific components
- Follow safety precautions
- Use and understand manual(s) and documentation

Course contents
- Basic principles of cheese making
- Key functionality of the system and its main components
- CIP (Cleaning In Place) and production functionality
- Operations from HMI
- Service: electrical and mechanical
- Hands-on activities
- Safety precautions
- Learning evaluation

Key benefits
- Less downtime due to disturbance
- Increased level of troubleshooting
- Qualified service capabilities

Target group
Personnel performing maintenance of the system

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 6 to 8 hours

Location & language
At your site. Available in English.

Duration
Total training time: 3.5 days
Hands-on training time: 6 to 8 hours

* Time for taking out of production and preparing for production not included.
Tetra Pak® Casomatic system SC7

Course objectives
This training is designed to give the participants theoretical knowledge and practical experience of the maintenance activities. It gives the participants a good understanding of the working principles and the Human Machine Interface (HMI). This training will also prepare participants to perform basic risk assessment, troubleshooting and maintenance best practices.

On completion of this training the participant will understand:
- Safety precautions
- Maintenance best practices
- Risk assessment of maintenance activity
- Maintenance of key components
- Basic troubleshooting

The participant will individually be able to:
- Identify all components in the manuals (Technical Manual and Operational Manual) and in the system
- Handle HMI alarms and troubleshooting
- Perform maintenance activities including system specific components
- Use and understand manual(s) and documentation

Course contents
- Basic principles of cheese making
- Key functionality the system and its main components
- CIP (Cleaning In Place) and production functionality
- Operations from HMI
- Service, electrical and mechanical
- Hands-on activities
- Safety precautions
- Learning evaluation

Key benefits
- Less downtime due to disturbance
- Increased level of troubleshooting
- Qualified service capabilities

Target group
Personnel performing maintenance of the system

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 6 to 8 hours

Location & language
At your site. Available in English.

Duration
Total training time: 3.5 days
Hands-on training time: 6 to 8 hours

* Time for taking out of production and preparing for production not included.
Tetra Pak® CIP Unit

Course objectives
This training is designed to give the participants theoretical and practical knowledge of the maintenance activity of the CIP Unit (formerly known as Tetra Alcip). This is to also enable basic maintenance of the main components in the CIP (Cleaning In Place) system. This training will also prepare participants to perform basic risk assessment, troubleshooting and best maintenance practices.

On completion of this training the participant will understand:
- Safety precautions
- Best practices
- Risk assessment of maintenance activity
- Maintenance of main components
- Operational, food safety and critical control points

The participant will individually be able to:
- Identify all components in the manuals (Technical and Maintenance) and in the equipment
- Handle HMI (Human Machine Interface) alarms and troubleshooting with the help of the Operation Manual (OM)
- Do chemical dosing pump maintenance
- Do maintenance of conductivity meter
- Identify spare parts numbers for ordering with the help of the Technical Manual (TeM)
- Maintain proper maintenance schedule as per our recommendation
- Use and understand manual(s) and documentation

Course contents
- Basic functions of the processing equipment
- How to read and use manual(s) and documentation
- Control panel
- Hands on activities
- Safety precautions
- Learning evaluation

Key benefits
- Increased safety for staff and equipment
- Increased productivity and performance
- Improved Mean time between failures (MTBF)
- Increased employee commitment and engagement
- Secured scheduled maintenance control

Target group
Personnel performing maintenance of the unit

Recommendations
- 5 to 8 participants
- Basic processing knowledge
- Access to processing equipment for hands-on training*: 1.5 hours day 1, 6.5 hours day 2 and 5.5 hours day 3

Location & language
At your site. Available in English.

Duration
Total training time: 3 days
Hands-on training time: 13.5 hours

* Time for taking out of production and preparing for production not included.
Tetra Pak® Continuous Freezer

Course objectives
This training is designed to give participants a technical and operational understanding of the continuous freezer including Tetra Pak Continuous Freezer and Tetra Hoyer Frigus KF. The training ensures an understanding of the ice cream structure by focusing on giving a complete insight of the main components in the ice cream freezer. The training includes both theoretical and practical knowledge of the maintenance activities.

On completion of this training the participant will understand:
- Working principles and control loops
- Technical construction of the main components
- Principles of maintenance
- Operational control
- Basic troubleshooting

The participant will individually be able to:
- Identify and technically describe the main components
- Understand input qualities and process parameters to ensure optimal production
- Operate and adjust the equipment
- Perform routine maintenance care, including:
  - Adjustment and overhaul mix- and cream pumps
  - Inspection and maintenance of cylinder, dasher, scraper knives and beater
- Use and understand manual(s) and documentation

Course contents
- Introduction to ice cream
- Working principles of main components
- How to read and use manual(s) and documentation
- Best practice maintenance
- Safety precautions
- Learning evaluation

Key benefits
- Increased competence and knowledge level
- Increased employee commitment and engagement
- Increased equipment uptime and performance
- Ensured consistent desired product quality
- Maximised equipment lifetime
- Reduced waste and increased line efficiency

Target group
Personnel performing maintenance of the unit

Recommendations
- Max. 6 participants
- Access to processing equipment for hands-on training*: 2 to 3 hours per day

Location & language
At your site or at our Technical Training Centre Denmark. Available in English.

Duration
Total training time: 2 days
Hands-on training time: 4 to 6 hours

* Time for taking out of production and preparing for production not included.
Course objectives
This training is designed to give participants a technical and operational understanding of the self-contained continuous freezer including Tetra Pak Continuous Freezer S and Tetra Hoyer Frigus SF. The training ensures an understanding of the ice cream structure by focusing on giving a complete insight of the main components in the ice cream freezer. The training includes both theoretical and practical knowledge of the maintenance activities.

On completion of this training the participant will understand:
- Working principles and control loops
- Technical construction of the main components
- Principles of maintenance
- Operational control
- Basic troubleshooting

The participant will individually be able to:
- Identify and technically describe the main components
- Understand input qualities and process parameters to ensure optimal production
- Operate and adjust the equipment
- Perform routine maintenance care, including:
  - Adjustment and overhaul mix- and cream pumps
  - Inspection and maintenance of cylinder, dasher, scraper knives and beater
- Use and understand manual(s) and documentation

Course contents
- Introduction to ice cream
- Working principles of main components
- How to read and use manual(s) and documentation
- Best practice maintenance
- Safety precautions
- Learning evaluation

Key benefits
- Increased competence and knowledge level
- Increased employee commitment and engagement
- Increased equipment uptime and performance
- Ensured consistent desired product quality
- Maximised equipment lifetime
- Reduced waste and increased line efficiency

Target group
Personnel performing maintenance of the unit

Recommendations
- Max. 6 participants
- Access to processing equipment for hands-on training*: 2 to 3 hours per day

Location & language
At your site or at our Technical Training Centre Denmark. Available in English.

Duration
Total training time: 2 days
Hands-on training time: 4 to 6 hours

* Time for taking out of production and preparing for production not included.
Tetra Pak® Dip and Transfer unit A3

Course objectives
This training is designed to give participants a technical and operational understanding of the dip and transfer unit including the pick and place unit. The training includes both theoretical and practical knowledge of both the operation and the maintenance activities.

On completion of this training the participant will understand:
- Working principles
- Technical construction of the main components
- Operational control
- Principle of maintenance
- Automation and electrical introduction
- Basic troubleshooting
- The importance of safety precautions

The participant will individually be able to:
- Identify and technically describe the main components
- Understand input qualities and process parameters to ensure optimal production
- Perform routine maintenance care
- Operate and adjust the equipment
- Use and understand manual(s) and documentation

Course contents
- Working principles of main components
- Technical construction of main components
- How to read and use manual(s) and documentation
- Best practise maintenance
- Safety precautions
- Learning evaluation

Key benefits
- Increased competence and knowledge level
- Increased employee commitment and engagement
- Increased equipment uptime and performance
- Ensured consistent desired product quality
- Maximised equipment lifetime
- Reduced waste and increased line efficiency

Target group
Personnel performing maintenance of the unit

Recommendations
- Max. 6 participants
- Access to processing equipment for hands-on training*: 2 to 3 hours per day

Location & language
At your site or at our Technical Training Centre Denmark. Available in English.

Duration
Total training time: 2 days
Hands-on training time: 4 to 6 hours

* Time for taking out of production and preparing for production not included.
Tetra Pak® Extraction Unit Soy

Course objectives
This training is designed to give the participants theoretical and practical knowledge of the maintenance activity of the extraction unit (formerly known as Tetra Alwin Soy). This is to also enable basic maintenance of the main components in the unit. This training will also prepare participants to handle troubleshooting and best maintenance practices.

On completion of this training the participant will understand:
- Safety precautions
- Best maintenance practices
- Maintenance of main components
- Extraction unit operation and functionality

The participant will individually be able to:
- Identify all components in the manuals (Technical and Operation) and on the unit
- Handle HMI (Human Machine Interface) alarms and troubleshooting with the help of the Operation Manual (OM)
- Perform maintenance of grinder (coarse or fine)
- Perform maintenance of decanter (greasing and routine check)
- Perform maintenance of other components (e.g. pumps and valves)
- Identify spare parts numbers for ordering with the help of the Technical Manual (TeM)
- Maintain proper maintenance schedule as per our recommendation
- Use and understand manual(s) and documentation

Course contents
- Basic function of the extraction unit
- How to read and use manual(s) and documentation
- Control panel
- Hands-on activities
- Maintenance activity on selected components
- Safety precautions
- Learning evaluation

Key benefits
- Increased safety for staff and equipment
- Increased productivity and performance
- Improved Mean time between failures (MTBF)
- Increased employee commitment and engagement
- Secured scheduled maintenance control

Target group
Personnel performing maintenance of the unit

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 8 hours

Location & language
At your site. Available in English.

Duration
Total training time: 3 days
Hands-on training time: 8 hours

* Time for taking out of production and preparing for production not included.
**Course objectives**

This training is designed to give participants a technical and operational understanding of the extrusion tunnel. The training includes both theoretical and practical knowledge of both the operation and the maintenance activities.

On completion of this training the participant will understand:

- Working principles
- Technical construction of the main components
- Operational control
- Principle of maintenance
- Automation and electrical introduction
- Basic troubleshooting
- The importance of safety precautions

The participant will individually be able to:

- Identify and technically describe the main components
- Understand input qualities and process parameters to ensure optimal production
- Perform routine maintenance care
- Operate and adjust the equipment
- Use and understand manual(s) and documentation

**Course contents**

- Working principles of main components
- Technical construction of main components
- How to read and use manual(s) and documentation
- Best practise maintenance
- Safety precautions
- Learning evaluation

**Target group**

Personnel performing maintenance of the unit

**Recommendations**

- Max. 6 participants
- Access to processing equipment for hands-on training*: 2 to 3 hours per day

**Location & language**

At your site or at our Technical Training Centre Denmark. Available in English.

**Duration**

Total training time: 3 days
Hands-on training time: 6 to 9 hours

* Time for taking out of production and preparing for production not included.
Course objectives
This training is designed to give the participants the knowledge of how to maintain the system. The objective is to provide hands on training for maintenance and troubleshooting of the main components of the system. In addition to this the training also provides basic knowledge of process control and electrical components.

On completion of this training the participant will understand:
- The technology of the formulation system
- Machine components
- Maintenance best practice
- Machine manuals, flow chart, preventive maintenance recommendation and spare part list

The participant will individually be able to:
- Identify all components in the manuals and on the unit
- Perform preventive maintenance on main components
- Perform basic troubleshooting
- Identify spare parts numbers for ordering with the help of the Technical Manual (TeM)
- Use and understand manual(s) and documentation

Course contents
- Maintenance according to Technical Manual (assembly drawing, component drawing and instruction manual)
- Preventive maintenance
- Maintenance and troubleshooting of the components
- Control Panel
- Safety precautions
- Learning evaluation

Key benefits
- Increased safety for staff and equipment
- Increased productivity and performance
- Improved Mean time between failures (MTBF)
- Increased employee commitment and engagement

Target group
Personnel performing maintenance of the unit

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 1 day

Location & language
At your site. Available in English.

Duration
Total training time: 3 days
Hands-on training time: 1 day

* Time for taking out of production and preparing for production not included.
Course objectives
This training is designed to give the participants theoretical and practical knowledge of the maintenance activity of the equipment. This is to also enable basic maintenance of the main components in the system. This training will also prepare participants to perform basic risk assessment, troubleshooting and best maintenance practices.

On completion of this training the participant will understand:

- Safety precautions
- Principles of maintenance
- Maintenance best practices and risk assessment
- Operational, food safety and critical control points

The participant will individually be able to:

- Identify all components in the manuals (Technical and Maintenance) and the unit
- Handle HMI (Human Machine Interface) alarms and troubleshooting with the help of the Operation Manual (OM)
- Perform preventive maintenance on this unit
- Identify spare parts numbers for ordering with the help of the Technical Manual (TeM)
- Maintain proper maintenance schedule as per our recommendation
- Use and understand manual(s) and documentation

Course contents

- Basic functions of the processing equipment
- How to read and use manual(s) and documentation
- General maintenance of this unit
- Control panel
- Hands on activities
- Safety precautions
- Learning evaluation

Key benefits

- Increased safety for staff and equipment
- Increased productivity and performance
- Improved Mean time between failures (MTBF)
- Increased employee commitment and engagement
- Secured scheduled maintenance control

Target group
Personnel performing maintenance of the unit

Recommendations

- 5 to 8 participants
- Operation training course “Tetra Pak High Shear Mixer” (CTO_12120)
- Access to processing equipment for hands-on training*: 4 hours

Location & language
At your site. Available in English.

Duration
Total training time: 2 days
Hands-on training time: 4 hours

* Time for taking out of production and preparing for production not included.
Tetra Pak® Homogenizer

Course objectives
This training is designed to train the participants to understand the working principle of homogenizer and carry out maintenance of the wet end and supply system (cooling) of this unit (formerly known as Tetra Alex).

On completion of this training the participant will understand:
- How to perform maintenance of the wet end and supply system (cooling)
- Function and design of this equipment

The participant will individually be able to:
- Identify all components in the manuals (Technical and Maintenance) and in the equipment
- Perform preventive maintenance on this unit
- Follow safety precautions
- Prepare unit pre-maintenance
- Dismantle of suction and discharge valves
- Remove and replacing of piston
- Remove and replacement of homogenizing head
- Identify and explain different types of wear and tear
- Use and understand manual(s) and documentation

Course contents
- The working principles and components of this unit
- How to read and use manual(s) and documentation
- Perform general maintenance of this unit according to the Technical Manual
- Safety precautions
- Learning evaluation

Key benefits
- Increased safety for staff and equipment
- Increased productivity and performance
- Improved Mean time between failures (MTBF)
- Increased employee commitment and engagement
- Secured scheduled maintenance control

Target group
Personnel performing maintenance of the unit

Recommendations
- Max. 6 participants
- Access to processing equipment for hands-on training*: 11 hours

Location & language
At your site or at one of our training facilities. Available in English.

Duration
Total training time: 3 days
Hands-on training time: 11 hours

* Time for taking out of production and preparing for production not included.
Tetra Pak® Ingredient Doser

Course objectives
This training is designed to give participants a technical and operational understanding of the ingredient doser including Tetra Pak Ingredient Doser and Tetra Hoyer Addus FF. The training includes both theoretical and practical knowledge of the maintenance activities.

On completion of this training the participant will understand:
- Working principles and control loops
- Technical construction of the main components
- Principles of maintenance
- Operational control
- Basic troubleshooting

The participant will individually be able to:
- Identify and technically describe the main components
- Understand process parameters to ensure optimal production
- Operate and adjust the equipment
- Perform routine maintenance care of:
  - Dosing screw (dosing auger)
  - Feed pump (lamella pump)
  - Inline blender
- Use and understand manual(s) and documentation

Course contents
- Working principles of main components
- How to read and use manual(s) and documentation
- Best practice maintenance
- Safety precautions
- Learning evaluation

Key benefits
- Increased competence and knowledge level
- Increased employee commitment and engagement
- Increased equipment uptime and performance
- Ensured consistent desired product quality
- Maximised equipment lifetime
- Reduced waste and increased line efficiency

Target group
Personnel performing maintenance of the unit

Recommendations
- Max. 6 participants
- Access to processing equipment for hands-on training*: 2 to 3 hours

Location & language
At your site or at our Technical Training Centre Denmark. Available in English.

Duration
Total training time: 1 day
Hands-on training time: 2 to 3 hours

* Time for taking out of production and preparing for production not included.
Tetra Pak® In-line Blender

Course objectives
This training is designed to give the participants theoretical and practical knowledge of the maintenance activity of the in-line blender (formerly known as Tetra Alblend). This is to also enable basic maintenance of the main components in the blender. This training will also prepare participants to handle troubleshooting and best maintenance practices.

On completion of this training the participant will understand:
- Safety precautions
- Best maintenance practices
- Risk assessment of maintenance activity
- Maintenance of main components
- Blending process

The participant will individually be able to:
- Identify all components in the manuals (Technical and Operation) and on the unit
- Handle HMI (Human Machine Interface) alarms and troubleshooting with the help of the Operation Manual (OM)
- Do modulating valve maintenance
- Do flow meter maintenance
- Do density transmitter maintenance
- Identify spare parts numbers for ordering with the help of the Technical Manual (TeM)
- Maintain proper maintenance schedule as per our recommendation
- Use and understand manual(s) and documentation

Course contents
- Basic function of the unit
- How to read and use manual(s) and documentation
- Control panel
- Hands-on activities
- Maintenance activity on selected components
- Safety precautions
- Learning evaluation

Key benefits
- Increased safety for staff and equipment
- Increased productivity and performance
- Improved Mean time between failures (MTBF)
- Increased employee commitment and engagement
- Secured scheduled maintenance control

Target group
Personnel performing maintenance of the unit

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 4 hours
- Access to target components for hands-on maintenance*: 10 hours

Location & language
At your site. Available in English.

Duration
Total training time: 3 days
Hands-on training time: 14 hours

* Time for taking out of production and preparing for production not included.
Tetra Pak® Multilane Wrapper

Course objectives
This training is designed to give participants a technical and operational understanding of the multilane wrapper (model A2). The training includes both theoretical and practical knowledge of the operation and the maintenance activities.

On completion of this training the participant will understand:
- Working principles
- Technical construction of the main components
- Operational control
- Principle of maintenance
- Automation and electrical introduction
- Basic troubleshooting

The participant will individually be able to:
- Identify and technically describe the main components
- Understand input qualities and process parameters to ensure optimal production
- Operate and adjust the equipment
- Perform routine maintenance care
- Use and understand manual(s) and documentation

Course contents
- Working principles of main components
- How to read and use manual(s) and documentation
- Best practise maintenance
- Safety precautions
- Learning evaluation

Key benefits
- Increased competence and knowledge level
- Increased employee commitment and engagement
- Increased equipment uptime and performance
- Ensured consistent desired product quality
- Maximised equipment lifetime
- Reduced waste and increased line efficiency

Target group
Personnel performing maintenance of the unit

Recommendations
- Max. 6 participants
- Access to processing equipment for hands-on training*: 2 to 3 hours

Location & language
At your site or at our Technical Training Centre Denmark. Available in English.

Duration
Total training time: 1 day
Hands-on training time: 2 to 3 hours

* Time for taking out of production and preparing for production not included.
Course objectives
This training is designed to train the participants to understand the working principle and how to carry out the maintenance of Tetra Pak Plate Heat Exchanger units (formerly known as Tetra Plex).

On completion of this training the participant will understand:
- Working principles of plate heat exchangers
- Safety precautions

The participant will individually be able to:
- Identify all components in the manuals (Technical and Maintenance) and on the unit
- Perform preventive maintenance on this unit
- Follow safety precautions
- Understand the principles of heat transfer for this unit
- Understand plate hanging list, different plates and positions
- Dismantle and assemble plates
- Remove and replace gaskets
- Use and understand manual(s) and documentation

Course contents
- The working principles of heat transfer and this unit
- How to read and use manual(s) and documentation
- General maintenance of this unit according to the instruction manual
- Safety precautions
- Learning evaluation

Key benefits
- Increased safety for staff and equipment
- Increased productivity and performance
- Improved Mean time between failures (MTBF)
- Increased employee commitment and engagement
- Secured scheduled maintenance control

Target group
Personnel performing maintenance of the unit

Recommendations
- Max. 6 participants
- Access to processing equipment for hands-on training*: 4 to 6 hours

Location & language
At your site or at one of our training facilities. Available in English.

Duration
Total training time: 1 day
Hands-on training time: 4 to 6 hours

* Time for taking out of production and preparing for production not included.
Tetra Pak® Separator

Course objectives
This training is designed to train the participants to understand the working principle and how to carry out the maintenance of Tetra Pak Separator units (formerly known as Tetra Centri).

On completion of this training the participant will understand:
• The working principles of this equipment
• The basics of centrifugal separation and applications
• The importance of the safety aspects and warnings
• Best practices for maintenance of this equipment

The participant will individually be able to:
• Identify all components in the manuals (Technical and Maintenance) and on the equipment
• Perform preventive maintenance on this equipment – disconnecting piping and draining of unit
• Follow safety precautions
• Understand design and function
• Carry out maintenance of centrifugal separator
• Use and understand manual(s) and documentation

Course contents
• The working principles of separators and applications
• How to read and use manual(s) and documentation
• General maintenance of this unit according to the instruction manual
• Safety precautions
• Learning evaluation

Key benefits
• Increased safety for staff and equipment
• Increased productivity and performance
• Improved Mean time between failures (MTBF)
• Increased employee commitment and engagement
• Secured scheduled maintenance control

Target group
Personnel performing maintenance of the unit

Recommendations
• Max. 6 participants
• Access to processing equipment for hands-on training*: 12 hours

Location & language
At your site or at one of our training facilities.
Available in English.

Duration
Total training time: 2 days
Hands-on training time: 12 hours

* Time for taking out of production and preparing for production not included.
Tetra Pak® Tubular Heat Exchanger

Course objectives
This training is designed to train the participants to understand the working principle and how to carry out the maintenance of Tetra Pak Tubular Heat Exchanger units (formerly known as Tetra Spiraflo).

On completion of this training the participant will understand:
• Working principles of tubular heat exchangers
• Safety precautions

The participant will individually be able to:
• Identify all components in the manuals (Technical and Maintenance) and on the unit
• Perform preventive maintenance on this unit
• Follow safety precautions
• Understand the principles of heat transfer
• Dismantle the unit, replace O-rings and product seals, reassemble the unit
• Perform rinsing of program to check absence of leakages
• Use and understand manual(s) and documentation

Course contents
• The working principles of heat transfer and this unit
• How to read and use manual(s) and documentation
• General maintenance of this unit
• Safety precautions
• Learning evaluation

Key benefits
• Increased safety for staff and equipment
• Increased productivity and performance
• Improved Mean time between failures (MTBF)
• Increased employee commitment and engagement
• Secured scheduled maintenance control

Target group
Personnel performing maintenance of the unit

Recommendations
• Max. 6 participants
• Access to processing equipment for hands-on training*: 4 to 6 hours

Location & language
At your site or at one of our training facilities.
Available in English.

Duration
Total training time: 1 day
Hands-on training time: 4 to 6 hours

* Time for taking out of production and preparing for production not included.
Tetra Therm® Aseptic Drink

Course objectives
This training is designed to give the participants theoretical and practical knowledge of the maintenance activity of the equipment. This is to also enable basic maintenance of the main components in the system. This training will also prepare participants to perform basic risk assessment, troubleshooting and best maintenance practices.

On completion of this training the participant will understand:
- Safety precautions
- Principles of maintenance
- Maintenance best practices and risk assessment
- Operational, food safety and critical control points

The participant will individually be able to:
- Identify all components in the manuals (Technical and Maintenance) and the unit
- Handle HMI (Human Machine Interface) alarms and troubleshooting with the help of the Operation Manual (OM)
- Perform maintenance of heat exchanger (plate or tubular)
- Perform maintenance of other components (e.g. pumps and valves)
- Identify spare parts numbers for ordering with the help of the Technical Manual (TeM)
- Maintain proper maintenance schedule as per our recommendation
- Use and understand manual(s) and documentation

Course contents
- Basic functions of the processing equipment
- How to read and use manual(s) and documentation
- Control panel
- Daily and weekly care
- Hands on activities
- Safety precautions
- Learning evaluation

Key benefits
- Increased safety for staff and equipment
- Increased productivity and performance
- Improved Mean time between failures (MTBF)
- Increased employee commitment and engagement
- Secured scheduled maintenance control

Target group
Personnel performing maintenance of the unit

Recommendations
- 5 to 8 participants
- Basic processing knowledge
- Access to processing equipment for hands-on training*: 8 hours for heat exchanger and 4 for other components

Location & language
At your site. Available in English.

Duration
Total training time: 3 days
Hands-on training time: 12 hours

* Time for taking out of production and preparing for production not included.
Tetra Therm® Aseptic Drink (Electrical)

Course objectives
This training is designed to give the participants theoretical and practical knowledge of the electrical system of the equipment. This is to enable settings and replacements of defect components in the system. This training will also prepare the participants for how to perform basic risk assessment, troubleshooting and best maintenance practices.

On completion of this training the participant will understand:
- The importance of electrical safety precaution
- The electrical main components

The participant will individually be able to:
- Identify all components in the manuals and on the unit
- Replace PLC (Programmable Logic Controller) modules, inclusive download of program from PSD (Programme Storage Device)
- Replace the frequency converters
- Calibrate the CIP (Cleaning In Place) header batch
- Force valves from HMI (Human Machine Interface) when fault finding
- Use and understand manual(s) and documentation

Course contents
- Electrical equipment
- How to read and use manual(s) and documentation
- Circuit diagram
- PLC
- Frequency converter
- HMI
- Calibration of CIP header batch
- Safety precautions
- Learning evaluation

Key benefits
- Increased safety for staff and equipment
- Increased productivity and performance
- Increased employee commitment and engagement
- Increased knowledge in electrical competence

Target group
Electricians performing maintenance of the unit

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 4 hours

Location & language
At your site. Available in English.

Duration
Total training time: 0.5 day
(mix of theory and hands-on training)

* Time for taking out of production and preparing for production not included.
Course objectives
This training is designed to give the participants theoretical and practical knowledge of the maintenance activity of this equipment. This is also to enable basic maintenance of the main components in the system. This training will also prepare participants to perform basic risk assessment, troubleshooting and best maintenance practices.

On completion of this training the participant will understand:
- Safety precautions
- Principles of maintenance
- Maintenance best practices and risk assessment
- Operational, food safety and critical control points

The participant will individually be able to:
- Identify all components in the manuals (Technical and Maintenance) and the unit
- Handle HMI (Human Machine Interface) alarms and troubleshooting with the help of the Operating Manual (OM)
- Perform maintenance of tubular heat exchanger
- Perform maintenance of other components (e.g. pumps and valves)
- Identify spare parts numbers for ordering with the help of the Technical Manual (TeM)
- Maintain proper maintenance schedule as per our recommendation
- Use and understand manual(s) and documentation

Course contents
- Basic functions of the processing equipment
- How to read and use manual(s) and documentation
- Control panel
- Daily and weekly care
- Hands on activities
- Safety precautions
- Learning evaluation

Key benefits
- Increased safety for staff and equipment
- Increased productivity and performance
- Improved Mean time between failures (MTBF)
- Increased employee commitment and engagement
- Secured scheduled maintenance control

Target group
Personnel performing maintenance of the unit

Recommendations
- 5 to 8 participants
- Basic processing knowledge
- Access to processing equipment for hands-on training*: 8 hours for heat exchanger and 4 for other components

Location & language
At your site. Available in English.

Duration
Total training time: 3 days
Hands-on training time: 12 hours

* Time for taking out of production and preparing for production not included.
Tetra Therm® Aseptic Flex (Electrical)

Course objectives
This training is designed to give the participants theoretical and practical knowledge of the electrical system of the equipment. This is to enable settings and replacements of defect components in the system. This training will also prepare the participants for how to perform basic risk assessment, troubleshooting and best maintenance practices.

On completion of this training the participant will understand:
• The importance of electrical safety precaution
• The electrical main components

The participant will individually be able to:
• Identify all components in the manuals and on the unit
• Replace PLC (Programmable Logic Controller) modules, inclusive download of program from PSD (Programme Storage Device)
• Replace the frequency converters
• Calibrate the CIP (Cleaning In Place) header batch
• Force valves from HMI (Human Machine Interface) when fault finding
• Use and understand manual(s) and documentation

Course contents
• Electrical equipment
• How to read and use manual(s) and documentation
• Circuit diagram
• PLC
• Frequency converter
• HMI
• Calibration of CIP header batch
• Safety precautions
• Learning evaluation

Key benefits
• Increased safety for staff and equipment
• Increased productivity and performance
• Increased employee commitment and engagement
• Increased knowledge in electrical competence

Target group
Electricians performing maintenance of the unit

Recommendations
• 5 to 8 participants
• Access to processing equipment for hands-on training*: 4 hours

Location & language
At your site. Available in English.

Duration
Total training time: 0.5 day
(mix of theory and hands-on training)

* Time for taking out of production and preparing for production not included.
**Course objectives**

This training is designed to give the participants theoretical and practical knowledge of the maintenance activity of the equipment. This is to also enable basic maintenance of the main components in the system. This training will also prepare participants to perform basic risk assessment, troubleshooting and best maintenance practices.

On completion of this training the participant will understand:

- Safety precautions
- Principles of maintenance
- Maintenance best practices and risk assessment
- Operational, food safety and critical control points

The participant will individually be able to:

- Identify all components in the manuals (Technical and Maintenance) and the unit
- Handle HMI (Human Machine Interface) alarms and troubleshooting with the help of the Operation Manual (OM)
- Perform maintenance of heat exchanger (plate or tubular)
- Perform maintenance of other components (e.g. pumps and valves)
- Identify spare parts numbers for ordering with the help of the Technical Manual (TeM)
- Maintain proper maintenance schedule as per our recommendation
- Use and understand manual(s) and documentation

**Course contents**

- Basic functions of the processing equipment
- How to read and use manual(s) and documentation
- Control panel
- Daily and weekly care
- Hands on activities
- Safety precautions
- Learning evaluation

**Key benefits**

- Increased safety for staff and equipment
- Increased productivity and performance
- Improved Mean time between failures (MTBF)
- Increased employee commitment and engagement
- Secured scheduled maintenance control

**Target group**

Personnel performing maintenance of the unit

**Recommendations**

- 5 to 8 participants
- Basic processing knowledge
- Access to processing equipment for hands-on training*: 8 hours for heat exchanger and 4 for other components

**Location & language**

At your site. Available in English.

**Duration**

Total training time: 3 days
Hands-on training time: 12 hours

* Time for taking out of production and preparing for production not included.
Tetra Therm® Lacta

Course objectives
This training is designed to give the participants theoretical and practical knowledge of the maintenance activity of the equipment. This is to also enable basic maintenance of the main components in the system. This training will also prepare participants to perform basic risk assessment, troubleshooting and best maintenance practices.

On completion of this training the participant will understand:
- Safety precautions
- Principles of maintenance
- Maintenance best practices and risk assessment
- Operational, food safety and critical control points

The participant will individually be able to:
- Identify all components in the manuals (Technical and Maintenance) and the unit
- Handle HMI (Human Machine Interface) alarms and troubleshooting with the help of the Operation Manual (OM)
- Perform maintenance of plate heat exchanger
- Perform maintenance of other components (e.g. pumps and valves)
- Identify spare parts numbers for ordering with the help of the Technical Manual (TeM)
- Maintain proper maintenance schedule as per our recommendation
- Use and understand manual(s) and documentation

Course contents
- Basic functions of the processing equipment
- How to read and use manual(s) and documentation
- Control panel
- Daily and weekly care
- Hands on activities
- Safety precautions
- Learning evaluation

Key benefits
- Increased safety for staff and equipment
- Increased productivity and performance
- Improved Mean time between failures (MTBF)
- Increased employee commitment and engagement
- Secured scheduled maintenance control

Target group
Personnel performing maintenance of the unit

Recommendations
- 5 to 8 participants
- Basic processing knowledge
- Access to processing equipment for hands-on training*: 8 hours for heat exchanger and 4.5 for other components

Location & language
At your site. Available in English.

Duration
Total training time: 3 days
Hands-on training time: 12.5 hours

* Time for taking out of production and preparing for production not included.
Contherm scraped-surface heat exchanger

Course objectives
This training is designed to train the participants to understand the working principle and how to carry out the maintenance of scraped-surface heat exchanger units (Contherm).

On completion of this training the participant will understand:
- The design and working principle of a scraped-surface heat exchanger
- The importance of safety precautions
- The preparations required prior to maintenance
- Best practices for maintenance
- Basic troubleshooting

The participant will individually be able to:
- Identify all components in the manual and on the unit
- Perform preventive maintenance on this unit
- Follow safety precautions
- Understand the principles of heat transfer for this unit
- Handle the hydraulic rotor lift system
- Perform basic troubleshooting
- Use and understand manual and documentation

Course contents
- Design and working principle
- How to read and use manual and documentation
- General maintenance of this unit according to the instruction manual
- Troubleshooting
- Safety precautions
- Learning evaluation

Key benefits
- Increased safety for staff and equipment
- Increased productivity and performance
- Improved Mean time between failures (MTBF)
- Increased employee commitment and engagement
- Secured scheduled maintenance control

Target group
Personnel performing maintenance of the unit

Recommendations
- Max. 6 participants
- Access to processing equipment for hands-on training*: 7 hours

Location & language
At your site. Available in English.

Duration
Total training time: 1 day
Hands-on training time: 7 hours

* Time for taking out of production and preparing for production not included.
Final pressing & mould handling system

Course objectives
This training is designed to give the participants theoretical knowledge and practical experience of the maintenance activities. It gives the participants a good understanding of the working principles and the Human Machine Interface (HMI). This training will also prepare participants to perform basic risk assessment, troubleshooting and maintenance best practices.

On completion of this training the participant will understand:
- Basic line functions and main components
- Safety precautions
- Control panel service functions
- Maintenance of key components

The participant will individually be able to:
- Identify all components in the manuals (Technical and Operation) and in the system
- Handle HMI alarm and troubleshooting
- Perform maintenance activities including system specific components
- Use and understand manual(s) and documentation

Course contents
- Key functionality the system and its main components
- CIP (Cleaning In Place) and production functionality
- Operations from HMI
- Service, electrical and mechanical
- Hands-on activities
- Safety precautions
- Learning evaluation

Target group
Personnel performing maintenance of the system

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 14 hours

Location & language
At your site. Available in English.

Duration
Total training time: 3 days
Hands-on training time: 14 hours

* Time for taking out of production and preparing for production not included.
Milk reception unit

Course objectives
This training is designed to give the participants theoretical and practical knowledge of the maintenance activity of the milk reception unit. The objectives are to provide maintenance training containing knowledge and terminology for the unit and how to run it according to the Technical Manual (TeM). This training will also prepare the participants for training regarding process technology as well as other machines / equipment.

On completion of this training the participant will understand:
- Safety precautions and safety aspects
- Function of the unit and the main components
- Maintenance of main components
- Maintenance best practices

The participant will individually be able to:
- Locate the main components on the unit
- Handle HMI (Human Machine Interface) alarms and troubleshooting with the help of the Operating Manual
- Prepare, perform and validate maintenance, of selected items
- Understand basic CIP technology and CIP procedures
- Identify spare parts numbers for ordering with the help of the Technical Manual (TeM)
- Maintain proper maintenance schedule as per our recommendation
- Use and understand manual(s) and documentation

Course contents
- Basic function of the unit
- How to read and use manual(s) and documentation
- Control panel
- Hands-on activities
- Best maintenance practice
- Safety precautions
- Learning evaluation

Key benefits
- Increased safety for staff and equipment
- Increased productivity and performance
- Improved Mean time between failures (MTBF)
- Increased employee commitment and engagement
- Secured scheduled maintenance control

Target group
Personnel performing maintenance of the unit

Recommendations
- 5 to 8 participants
- Access to processing equipment for hands-on training*: 5 hours

Location & language
At your site. Available in English.

Duration
Total training time: 2 days
Hands-on training time: 5 hours

* Time for taking out of production and preparing for production not included.
CONTROL YOUR OPERATIONS

Our professional automation training gives your workforce the skills they need to understand the basic essentials as well as operating and maintaining your Tetra Pak® PlantMaster automation system.

All automation training courses will help your production staff to perform their regular duties according to our manuals.

Subjects covered in our courses include basic automation understanding, being able to operate and maintain your automation system.

These training courses include a blended learning approach with both classroom led and hands-on training and are delivered by experienced trainers.

Key benefits

- Improved plant performance by better process control
- Better technical and operational understanding
- Minimized frequency and duration of production interruptions
<table>
<thead>
<tr>
<th>Name of course</th>
<th>Duration</th>
<th>Course number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to automation</td>
<td>1 day</td>
<td>CTA_59000</td>
</tr>
<tr>
<td>Tetra Pak® PlantMaster for maintenance engineers: Siemens</td>
<td>5 days</td>
<td>CTA_59002</td>
</tr>
<tr>
<td>Tetra Pak® PlantMaster for maintenance engineers: Rockwell Automation</td>
<td>5 days</td>
<td>CTA_59004</td>
</tr>
<tr>
<td>Tetra Pak® PlantMaster for operators: Siemens</td>
<td>2 days</td>
<td>CTA_59001</td>
</tr>
<tr>
<td>Tetra Pak® PlantMaster for operators: Rockwell Automation</td>
<td>2 days</td>
<td>CTA_59003</td>
</tr>
</tbody>
</table>
Introduction to automation

Course objectives
This training is designed to give the participants an introduction to the concept of plant automation. The objectives are to provide non automation experienced plant personnel an insight into what automation is and why it is important in a competitive and developing industry. This training will prepare the participants for other training courses, including Tetra Pak® PlantMaster for operators.

On completion of this training the participant will understand:
- Why automation is necessary and the drawbacks of a manual system
- The function of the various components that make up an automated plant

The participant will individually be able to:
- Identify the differences between automated and manual process
- Identify different input and output types in the production environment
- Identify the main components of a PLC (Programmable Logic Controller)
- Understand the basic function of a PLC
- Understand the uses and differences of HMI (Human Machine Interface) and SCADA (Supervisory Control And Data Acquisition)
- Understand the function of the I/O Server, Database & Report Server

Course contents
- Concept of automation
- Inputs and outputs
- Digital and analogue signals
- Programmable logic controllers
- Bus systems
- Basic communication
- Graphic user interface
- Database
- Traceability and reporting tools

Target group
Plant operator personnel

Recommendations
- 5 to 8 participants
- No prior experience is required

Location & language
At your site. Available in English.

Duration
1 day
Tetra Pak® PlantMaster for maintenance engineers: Siemens

Course objectives
This training is designed to give the participants in depth technical and operational understanding of the Tetra Pak PlantMaster automation system (Siemens platform). Focusing on maintenance and diagnosis of the system, including hands on technical exercises for common automation tasks for PLC (Programmable Logic Controller), GUI (Graphic User Interface) and supporting applications including production integrator and recipe manager.

On completion of this training the participant will understand:
• Automation system architecture including S88 methodology
• Common structure and plant modelling and terminology
• PLC and GUI structure, with signal flow from field object to SCADA (Supervisory Control And Data Acquisition)
• Bus, Queue and CIP (Cleaning In Place) concept
• How to effectively maintain and diagnose an automation system

The participant will individually be able to:
• Backup and restore an automation system (PLC, GUI and database)
• Add a control module, interlock and running fault
• Successfully maintain the automation system
• Carry out administrative tasks in production integrator

Course contents
• S88 and common structure
• Modelling terminology
• PLC and GUI structure
• Control system maintenance
• Architecture details and fault finding
• PLC and GUI modifications hands on
• Production integrator hands on
• Simulation activities

Key benefits
• Increased productivity and performance
• Increased product safety and quality
• Reduced waste and increased plant efficiency
• Minimised frequency and duration of production interruptions

Target group
Personnel performing maintenance of the automation system

Recommendations
• 5 to 8 participants
• Process knowledge
• PC knowledge
• Understanding of your plant P&ID (Piping and Instrumentation Diagram) and functional diagram
• Understanding of your automation architecture
• Knowledge of your PLC and SCADA editor software, Microsoft Office applications and Microsoft SQL server

Location & language
At your site. Available in English.

Duration
5 days
Tetra Pak® PlantMaster for maintenance engineers: Rockwell Automation

Course objectives
This training is designed to give the participants in depth technical and operational understanding of the Tetra Pak PlantMaster automation system (Rockwell Automation platform). Focusing on maintenance and diagnosis of the system, including hands on technical exercises for common automation tasks for PLC (Programmable Logic Controller), GUI (Graphic User Interface) and supporting applications including production integrator and recipe manager.

On completion of this training the participant will understand:
- Automation system architecture including S88 methodology
- Common structure and plant modelling and terminology
- PLC and GUI structure, with signal flow from field object to SCADA (Supervisory Control And Data Acquisition)
- Bus, Queue and CIP (Cleaning In Place) concept
- How to effectively maintain and diagnose an automation system

The participant will individually be able to:
- Backup and restore an automation system (PLC, GUI and database)
- Add a control module, interlock and running fault
- Successfully maintain the automation system
- Carry out administrative tasks in production integrator

Course contents
- S88 and common structure
- Modelling terminology
- PLC and GUI structure
- Control system maintenance
- Architecture details and fault finding
- PLC and GUI modifications hands on
- Production integrator hands on
- Simulation activities

Key benefits
- Increased productivity and performance
- Increased product safety and quality
- Reduced waste and increased plant efficiency
- Minimised frequency and duration of production interruptions

Target group
Personnel performing maintenance of the automation system

Recommendations
- 5 to 8 participants
- Process knowledge
- PC knowledge
- Understanding of your plant P&ID (Piping and Instrumentation Diagram) and functional diagram
- Understanding of your automation architecture
- Knowledge of your PLC and SCADA editor software, Microsoft Office applications and Microsoft SQL server

Location & language
At your site. Available in English.

Duration
5 days
**Tetra Pak® PlantMaster for operators: Siemens**

**Course objectives**
This training is designed to give the participants technical and operational understanding of the Tetra Pak PlantMaster automation system (Siemens platform), focusing on the expert usage of the graphic user interface and supporting applications including production integrator and recipe manager.

On completion of this training the participant will understand:
- Graphic user interface
- Production support windows
- Production execution
- Production reporting

The participant will individually be able to:
- Expertly navigate the graphic user interface of the automation system
- Demonstrate safe and correct usage of production and cleaning procedures
- Demonstrate control module features including manual mode and alarm suppression
- Utilise support windows to identify and evaluate reasons for active and historical production disturbances
- Create and start a new recipe batch, including parameter download functionality
- Visualise and understand logged data
- Generate production reports including production tracking, CIP (Cleaning In Place) and KPI (Key Performance Indicator) analysis

**Course contents**
- S88 and common structure
- HMI (Human Machine Interface) structure and security
- Plant control
- Interlocks and running faults
- Control modules
- CIP
- Alarm handling
- Production integrator
- Production execution
- Simulation activities

**Target group**
Plant operator personnel

**Recommendations**
- 5 to 8 participants
- Course “Introduction to automation” (CTA_59000)
- Basic process knowledge
- Basic PC knowledge
- Understanding of your Operator Manual
- Understanding of your plant P&ID (Piping and Instrumentation Diagram)
- Understanding of the process functional diagram

**Location & language**
At your site. Available in English.

**Duration**
2 days
Tetra Pak® PlantMaster for operators: Rockwell Automation

Course objectives
This training is designed to give the participants technical and operational understanding of the Tetra Pak PlantMaster automation system (Rockwell Automation platform), focusing on the expert usage of the graphic user interface and supporting applications including production integrator and recipe manager.

On completion of this training the participant will understand:
- Graphic user interface
- Production support windows
- Production execution
- Production reporting

The participant will individually be able to:
- Expertly navigate the graphic user interface of the automation system
- Demonstrate safe and correct usage of production and cleaning procedures
- Demonstrate control module features including manual mode and alarm suppression
- Utilise support windows to identify and evaluate reasons for active and historical production disturbances
- Create and start a new recipe batch, including parameter download functionality
- Visualise and understand logged data
- Generate production reports including production tracking, CIP (Cleaning In Place) and KPI (Key Performance Indicator) analysis

Course contents
- S88 and common structure
- HMI (Human Machine Interface) structure and security
- Plant control
- Interlocks and running faults
- Control modules
- CIP
- Alarm handling
- Production integrator
- Production execution
- Simulation activities

Key benefits
- Increased productivity and performance
- Increased product safety and quality
- Reduced waste and increased plant efficiency
- Minimised frequency and duration of production interruptions

Target group
Plant operator personnel

Recommendations
- 5 to 8 participants
- Course “Introduction to automation” (CTA_59000)
- Basic process knowledge
- Basic PC knowledge
- Understanding of your Operator Manual
- Understanding of your plant P&ID (Piping and Instrumentation Diagram)
- Understanding of the process functional diagram

Location & language
At your site. Available in English.

Duration
2 days
ENSURE QUALITY AND FOOD SAFETY

Our food safety training helps you minimize product quality issues.

We offer targeted trainings tailored specifically for senior management, middle management and operational staff including quality assurance and quality control personnel.

These trainings cover the entire production process from raw material to finished product. They are conducted by skilled trainers providing best practice and expert knowledge within each area.

Key benefits
- Minimized product quality issues that could damage brand value and impact sales if experienced by retailers and/or consumers
- Reduced costs and waste due to quality issues
- Increased knowledge in legislation for food safety and food quality
- Increased awareness and understanding of quality assurance
<table>
<thead>
<tr>
<th>Name of course</th>
<th>Duration</th>
<th>Course number</th>
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<tbody>
<tr>
<td>High acid products (Beverage)</td>
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<td>CTS_34001</td>
</tr>
<tr>
<td>Hygienic processing and packaging for dairy</td>
<td>5 days</td>
<td>CTS_33001</td>
</tr>
<tr>
<td>Introduction to long life production</td>
<td>0.5 day</td>
<td>CTS_31001</td>
</tr>
<tr>
<td>Low acid products (Dairy) – introduction</td>
<td>1 day</td>
<td>CTS_33002</td>
</tr>
<tr>
<td>Low acid products (Dairy)</td>
<td>3 days</td>
<td>CTS_33003</td>
</tr>
<tr>
<td>Manage aseptic production</td>
<td>3 days</td>
<td>CTS_31002</td>
</tr>
<tr>
<td>Microbiological troubleshooting</td>
<td>5 days</td>
<td>CTS_31004</td>
</tr>
</tbody>
</table>
High acid products (Beverage)

Course objectives
This training provides participants with understanding of aseptic processing and packaging of high acid products.

On completion of this training the participant will understand:
- High acid products covering the production line from raw material to finished product
- Quality control versus quality assurance
- Cleaning/CIP (Cleaning In Place)
- Package integrity checks

Course contents
- Aseptic processing and packaging of high acid products
- Quality assurance versus quality control
- Cleaning and CIP
- Package integrity methods

Key benefits
- Minimized product quality issues
- Reduced cost and waste
- Increased awareness and understanding of the importance of food safety

Target group
Middle management and operational staff in the beverage processing and packaging industry

Recommendations
- 6 to 12 participants
- No prior experience is required

Location & language
At your site or at one of our training facilities. Available in English.

Duration
1 day
Hygienic processing and packaging for dairy

Course objectives
This training provides participants with understanding of processing from raw material to finished product, quality control and quality assurance including critical control points concept.

On completion of this training the participant will understand:
- Equipment for aseptic processing
- Aseptic technology
- Basic microbiology
- General aspects of quality control and quality assurance
- Critical Control Points concept
- Cleaning and CIP (Cleaning In Place)
- Package integrity

Course contents
- From raw material to finished product (dairy aseptic production)
- General aspects of quality control and quality assurance
- Aseptic transfer

Key benefits
- Minimized product quality issues
- Reduced cost and waste
- Increased awareness and understanding of the importance of food safety

Target group
Operational staff including quality assurance

Recommendations
- 6 to 12 participants
- Knowledge of dairy processing and experience from aseptic production

Location & language
At your site or at one of our training facilities. Available in English.

Duration
5 days
Introduction to long life production

Course objectives
This training provides participants with an introduction to long life production.

On completion of this training the participant will understand:
• Role of senior management in connection with product quality
• Difference between quality assurance and quality control
• Introduction to long life production

Course contents
• Product quality
• Quality assurance and quality control
• Long life production

Key benefits
• Minimized product quality issues
• Reduced cost and waste
• Increased awareness and understanding of the importance of food safety

Target group
Senior management

Recommendations
• 6 to 12 participants
• No prior experience is required

Location & language
At your site or at one of our training facilities. Available in English.

Duration
0.5 day
Low acid products (Dairy) – introduction

Course objectives
This training provides participants with understanding of aseptic processing and packaging of low acid products.

On completion of this training the participant will understand:
- Low acid products
- What happens to the product at every processing step
- The impact of food safety

Course contents
- Aseptic processing and packaging of low acid products
- Quality assurance versus quality control
- Cleaning and CIP (Cleaning In Place)
- Package integrity methods

Key benefits
- Minimized product quality issues
- Reduced cost and waste
- Increased awareness and understanding of the importance of food safety

Target group
Middle management and operational staff in the dairy processing and packaging industry

Recommendations
- 6 to 12 participants
- No prior experience is required

Location & language
At your site or at one of our training facilities.
Available in English.

Duration
1 day
Low acid products (Dairy)

Course objectives
This training provides participants with a deeper understanding of aseptic processing and packaging of low acid products and is a follow-up to the introduction course.

On completion of this training the participant will understand*
• Low acid products covering the production line from raw material to finished product
• Quality control versus quality assurance
• Basic microbiology
• Cleaning/CIP (Cleaning In Place)
• Microbiological troubleshooting
• Package integrity checks

* The topics will be covered in more detail than in the first low acid course.

Course contents
• Aseptic processing and packaging of low acid products
• Quality assurance versus quality control
• Cleaning and CIP
• Package integrity methods

Key benefits
• Minimized product quality issues
• Reduced cost and waste
• Increased awareness and understanding of the importance of food safety

Target group
Middle management and operational staff in the processing and packaging industry

Recommendations
• 6 to 12 participants
• No prior experience is required

Location & language
At your site or at one of our training facilities.
Available in English.

Duration
3 days
Manage aseptic production

Course objectives
This training provides participants with an increased knowledge of aseptic production to improve performance in plants.

On completion of this training the participant will understand:
- Tetra Pak best practices to your own operation
- Impact of preventive measures to avoid quality related mishaps
- Where in the product line the risk is major
- Cost efficient preventive measures
- Continuous improvements to avoid rather than detect unsterilities
- Competence development to match your performance ambitions
- Maintenance routines to reduce impact on production
- Analyzing available data to identify potential improvements and quick wins
- Need for thorough cost mapping, improved analysis and/or changes in production planning
- Cost impact of implementing improvements

Course contents
- A practical approach to aseptic production
- Quality systems, competence development and maintenance management
- Operational cost analysis

Key benefits
- Increased knowledge in how to lower operation costs, achieve high and consistent product quality
- Increased knowledge in understanding and applying best practice
- Improved production planning to ensure you meet delivery deadlines

Target group
Plant managers, production managers, quality managers, service managers and others interested in gaining a deeper understanding of aseptic technology.

Recommendations
- 6 to 12 participants
- It is recommended that participants have a basic knowledge of aseptic technology.
- Participants should have at least six months experience of working in a long life production environment.

Location & language
At your site or at one of our training facilities. Available in English.

Duration
3 days
Microbiological troubleshooting

Course objectives
This training provides participants with understanding of the principles of systematic troubleshooting.

On completion of this training the participant will understand:
- Cases from both technical and microbiological troubleshooting
- General microbiology
- Rough identification of spoilage flora
- General aspects of quality control and quality assurance
- Critical Control Points
- Aseptic transfer
- Aseptic packaging
- Hazard Analysis Critical Control Points (HACCP) Concept
- Cleaning and CIP (Cleaning In Place)
- Package integrity

Course contents
- Principles of systematic troubleshooting
- General aspects of quality control and quality assurance
- Aseptic transfer

Key benefits
- Minimized product quality issues
- Reduced cost and waste
- Increased awareness and understanding of the importance of food safety

Target group
Operational staff including quality assurance and quality control personnel within the processing and packaging industry

Recommendations
- 6 to 12 participants
- Knowledge of aseptic processing and at least three years experience in aseptic production

Location & language
At your site or at one of our training facilities. Available in English.

Duration
5 days
UNDERSTAND FOOD TECHNOLOGY

Food technology training from Tetra Pak gives your staff the applied product technology knowledge they need to better understand what happens to products when they are being processed in our equipment. By understanding products at the different processing steps your staff will improve both performance and quality in production.

Usually held on-site as a complement to our equipment training we provide the right training for your specific product needs.

Qualified Tetra Pak staff provide all training materials as well as hands-on task based learning.

Key benefits
- Increased workforce competence
- Increased basic knowledge in food technology to optimise performance
- Improved product knowledge which leads to securing food safety and quality
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<thead>
<tr>
<th>Name of course</th>
<th>Duration</th>
<th>Course number</th>
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</thead>
<tbody>
<tr>
<td>Beverage Processing &amp; Technology – Basic</td>
<td>0.5 day</td>
<td>CTT_44000</td>
</tr>
<tr>
<td>Cheese Processing &amp; Technology – Basic</td>
<td>2 days</td>
<td>CTT_46000</td>
</tr>
<tr>
<td>Cleaning In Place Technology – Basic</td>
<td>0.5 day</td>
<td>CTT_42001</td>
</tr>
<tr>
<td>Dairy Processing &amp; Technology – Basic</td>
<td>0.5 day</td>
<td>CTT_43000</td>
</tr>
<tr>
<td>Desserts, Soups and Cooking Sauces Processing &amp; Technology – Basic</td>
<td>0.5 day</td>
<td>CTT_45000</td>
</tr>
<tr>
<td>Ice Cream Introduction (eLearning)</td>
<td>0.5 hour</td>
<td>CTT_47006</td>
</tr>
<tr>
<td>Ice Cream Processing &amp; Technology – Basic</td>
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</tr>
<tr>
<td>Infant Formula Powder Processing &amp; Technology – Basic</td>
<td>1 day</td>
<td>CTT_43001</td>
</tr>
<tr>
<td>Membrane Filtration Technology – Basic</td>
<td>0.5 day</td>
<td>CTT_42000</td>
</tr>
<tr>
<td>Soy Processing &amp; Technology – Basic</td>
<td>0.5 day</td>
<td>CTT_44001</td>
</tr>
</tbody>
</table>
Beverage Processing & Technology – Basic

Course objectives
This training is designed to give participants an introduction to beverage technology. It will cover the basic principles of beverage technology including the different steps in processing. The course should be combined with and is a good complement to Tetra Pak® Training Services equipment training.

On completion of this training the participant will understand:
- The basic principles of beverage technology
- The importance of the Brix and other quality parameters
- The purpose of the different steps in the process and how the product reacts
- The main components of the pasteurization unit
- Deaeration and air influence on product quality

The participant will individually be able to:
- Increase knowledge in particles, rheology, powder mixing, blending and heat treatment
- Understand the principles of obtaining a microbiologically safe product
- Identify where losses are generated and how losses can be minimised and important quality parameters

Course contents
- Beverage characteristics
- Beverage ingredients, water, sugar, concentrates, additives and powder dissolving
- Blending, heat treatment, deaeration, homogenization and dosing
- Practical exercises related to these topics

Key benefits
- Improved basic knowledge in the area of beverage processing and technology to enable better performance and delivery of quality products

Target group
Operators, maintenance personnel and other production personnel in the beverage industry

Recommendations
- 6 to 12 participants
- No previous knowledge required

Location & language
At your site. Available in English.

Duration
0.5 day with an option of more practical exercises
Course objectives
This training is designed to give participants an introduction to cheese processing and technology. It will cover the basic principles of cheese making technology including the different steps in processing. The course should be combined with and is a good complement to Tetra Pak® Training Services equipment training.

On completion of this training the participant will understand:
- Cheese classification
- Main processing steps for cheese-making (milk reception and treatment for cheese making, curd making, curd handling and curd block forming, dry salting and brining, storage, ripening and packaging).
- The technology of milk pre-treatment, curd making, block forming and curd handling
- Properties of cheese types
- Effect of processing conditions on cheese properties

The participant will individually be able to:
- Explain typical names and terms in relation to cheese technology and processes
- Explain the most relevant process for turning liquid milk into cheese and whey products
- Understand the main differences and similarities between cheese types their processes and technology

Course contents
- Cheese types
- Cheese processing and technology (overview of equipment and lines per cheese category and whey collection and treatment)
- Whey and permeate products
- Effect of processing conditions and ingredients (incl. milk) on cheese properties and key performance requirements
- Cleaning and sanitizing

Key benefits
- Improved basic knowledge in the area of cheese processing and technology to enable better performance and delivery of quality products

Target group
Operators and production managers

Recommendations
- 6 to 12 participants
- No previous knowledge required

Location & language
At your site or at one of our training facilities.
Available in English.

Duration
2 days
Cleaning In Place Technology – Basic

Course objectives
This training gives participants an introduction to Cleaning In Place (CIP) technology. It covers the principles of cleaning and understanding of basic CIP procedures. This course should be combined with and is a good complement to Tetra Pak® Training Services equipment training.

On completion of this training the participant will understand:
- Basic CIP technology
- The importance of cleaning in food processing
- The purpose of CIP
- That the need for cleaning varies

The participant will individually be able to:
- Locate the main components of a cleaning system
- Recognize cleaning parameters and basic CIP procedures
- Recognize steps in cleaning verification
- Know the basics steps of a whole production cycle

Course contents
- What to remove with cleaning
- CIP parameters
- CIP procedures
- Components of a CIP system
- How to verify cleaning efficiency

Key benefits
- Improved basic knowledge in the area of CIP technology to secure performance, a safe food production and product quality

Target group
Operators, maintenance personnel and other production personnel

Recommendations
- 6 to 12 participants
- No previous knowledge required

Location & language
At your site or at one of our training facilities. Available in English.

Duration
0.5 day
Dairy Processing & Technology – Basic

Course objectives
This training is designed to give participants an introduction to dairy processing. It will cover the basic principles of dairy processing including the different unit operations. The course should be combined with and is a good complement to Tetra Pak® Training Services equipment training.

On completion of this training the participant will understand:
- The importance of food safety
- Science of milk
- Raw milk quality
- Unit operations in dairy processing
- Importance of cleaning and hygienic practices in dairy processing plant

The participant will individually be able to:
- Understand raw milk quality tests
- Understand the principles of milk separation and homogenization
- Understand pasteurization of milk products
- Follow the correct cleaning procedure and checks for clean surface

Course contents
- Food safety principles
- Science of milk constituents
- Raw milk handling and quality tests
- Unit operations in dairy processing including deaeration, separation, homogenization and heat treatment
- Cleaning

Key benefits
- Improved basic knowledge in the area of dairy processing and technology to enable better performance and delivery of quality products

Target group
Operators, maintenance personnel and other production personnel in the dairy industry

Recommendations
- 6 to 12 participants
- No previous knowledge required

Location & language
At your site. Available in English.

Duration
0.5 day with an option of more practical exercises
Desserts, Soups and Cooking Sauces
Processing & Technology – Basic

Course objectives
This training is designed to give participants an introduction to formulated food such as desserts, soups and cooking sauces. It will cover basic processing principles and technology of formulated and high viscous food products. The course should be combined with and is a good complement to Tetra Pak® Training Services equipment training.

On completion of this training the participant will understand:
- The basic technology of formulated high viscous food products with and without particles
- The influence of different ingredients and their impact on final product characteristics
- How the product properties influence different steps in the process
- Critical parameters to obtain food safety with formulated high viscous food products

The participant will individually be able to:
- Understand different formulations of food products and how they influence final product
- Apply basic knowledge of viscous and particle containing products in mixing and heat treatment operations
- Understand the principles of obtaining a microbiological safe product

Course contents
- Formulated food products characteristics
- Key ingredients for desserts, soups and cooking sauces
- Mixing, heat treatment, homogenization and storage technologies
- Practical exercises related to these topics

Key benefits
- Improved basic knowledge in the area of formulated food processing and technology to enable better performance and delivery of safe quality products

Target group
Operators, maintenance and other production personnel in the food industry

Recommendations
- 6 to 12 participants
- No previous knowledge required

Location & language
At your site or at one of our training facilities. Available in English.

Duration
0.5 day
Ice Cream Introduction (eLearning)

Course objectives
This training is designed to give participants an introduction to ice cream composition and processing. It will cover the basic principles of ice cream technology including the different steps in processing. The course is suitable as part of the onboarding of personnel, as well as a refresher.

On completion of this training the participant will understand:
- Ice cream structure and composition
- The main processing steps for ice cream production
  - Mix preparation process
  - Ice cream freezing
  - Handling of ice cream including, moulding, filling and extrusion
  - Hardening and storage of final ice cream

The participant will individually be able to:
- Explain typical names and terms in ice cream technology and processes
- Identify and understand ice cream defects
- Explain the overall working principles of ice cream manufacturing process

Course contents
- Introduction to ice cream structure
- Description of main raw materials
- Ice cream production process

Key benefits
- Introduction to the area of ice cream processing and technology

Target group
All personnel

Recommendations
- Unlimited number of participants
- No previous knowledge required

Location & language
Available in English.

Duration
15 to 30 minutes
Ice Cream Processing & Technology – Basic

Course objectives
This training is designed to give participants an introduction to ice cream raw material and composition as well as the effect of mix preparation. It will cover the basic principles of ice cream technology including the different steps in processing. The course should be combined with and is a good complement to Tetra Pak® Training Services equipment training.

On completion of this training the participant will understand:
- Ice cream structure and composition
- The main processing steps and working principles for:
  - Handling of raw materials
  - Batch, low- and high shear mixing of raw materials
  - Heat treatment of the ice cream mix
  - Homogenization of the ice cream mix
  - Ageing of the ice cream mix
  - Freezing of the ice cream mix

The participant will individually be able to:
- Identify and understand ice cream mix defects
- Explain typical names and terms in ice cream technology and processes
- Explain the working principles of mixing preparation process

Course contents
- Ice cream microstructure
- Raw material functionality
- The working principle of mix preparation process
- The working principle and control loops of the freezing process

Key benefits
- Improved knowledge in the area of ice cream processing and technology to enable better performance and delivery of quality products

Target group
Operators and production managers

Recommendations
- 6 to 12 participants
- No previous knowledge required

Location & language
At your site or at one of our training facilities. Available in English.

Duration
1.5 days with an option of 0.5 day workshop
Infant Formula Powder Processing & Technology – Basic

Course objectives
This training is designed to give the participants an introduction to infant formula powder processing and technology. The objectives are to provide operators with a greater product technical knowledge, and identify factors that influence safety and product quality. It will cover the basic principles of infant formula processing and the basic manufacturing steps. The course should be combined with and is a good complement to Tetra Pak® Training Services equipment training.

On completion of this training the participant will understand:
- The main differences in the commercial forms of infant formula powder recipes
- The key macro and micro ingredients and their influence on the final powder
- The process and quality tasks required to produce a liquid product ready for evaporation and spray drying

The participant will individually be able to:
- Locate the main components and follow the mixing / wet process flow up to the evaporator / dryer
- Understand the purpose of the various steps in the wet processing activity
- Undertake the basic process control quality tests, e.g. pH
- Identify process control points and critical control points

Course contents
- What is infant formula powder?
- Differentiation of the recipes, understanding key raw materials and their role
- Understanding the key activities of mixing, heat treatment, and interaction of certain ingredients
- Practical exercises (chemical analyses)
- Learning evaluation

Key benefits
- Improved basic knowledge in the area of infant formula processing and technology to enable better performance and delivery of quality products

Target group
Operators and quality control personnel

Recommendations
- 6 to 12 participants
- Course “Dairy Processing & Technology – Basic” (CTT_43000)
- Relevant equipment training courses
- Access to processing laboratory for hands-on training: 2 hours

Location & language
At your site. Available in English.

Duration
1 day with 2 hours hands-on training time
Membrane Filtration Technology – Basic

Course objectives
This training is designed to give participants an introduction to membrane filtration. It will cover the basic principles of membrane technology including examples of applications. This course should be combined with and is a good complement to Tetra Pak® Training Services equipment training.

On completion of this training the participant will understand:
- The basic principles of membrane filtration
- The basic terminology
- Different purposes with membrane filtration
- The different configuration of membrane element
- The different types of membrane filtration
- Operating principles

The participant will individually be able to:
- Explain the basic principles of membrane filtration (cross-flow, dead-end)
- Understand the basic terminology within membrane filtration
- Understand the configurations of membrane elements (spiral wound, plate & frame and tubular)
- Explain the basic theory of membrane filtration (such as driving force and retention)
- Understand what factors can influence fouling and cleaning
- Identify the ranges of pressure driven membrane filtration (reverse osmosis, nanofiltration, ultrafiltration and microfiltration)
- Explain the operating principles batch and continuous
- Give examples of applications where membrane filtration is used

Course contents
- Basic principles of membrane filtration
- Configuration of membrane elements
- Basic theory
- The ranges of membrane filtration
- Examples of applications
- Operating principles

Key benefits
- Improved basic knowledge in the area of membrane filtration technology to enable better performance and delivery of safe quality products

Target group
Operators, maintenance personnel and other production personnel

Recommendations
- 6 to 12 participants
- No previous knowledge required

Location & language
At your site or at one of our training facilities.
Available in English.

Duration
0.5 day
Soy Processing & Technology – Basic

**Course objectives**
This training is designed to give participants an introduction to soy technology. It will cover the basic principles of soy technology including the different steps in processing. The course should be combined with and is a good complement to Tetra Pak® Training Services equipment training.

On completion of this training the participant will understand:
- The basic principles of soy technology
- The chemistry of soya beans
- The importance of quality parameters
- The purpose of the different steps in the process and how the product reacts
- The main components of the extraction unit

The participant will individually be able to:
- Ensure optimal storage conditions of soya bean raw material
- Identify the factors to improve the protein extraction yield
- Recognize the properties of beany and low beany soy base

**Course contents**
- Soya bean chemistry
- Soy base characteristics
- Grinding, fibre separation, enzyme deactivation
- Practical exercises related to these topics

**Key benefits**
- Improved basic knowledge in the area of soy processing and technology to enable better performance and delivery of quality products

**Target group**
Operators, maintenance personnel and other production personnel

**Recommendations**
- 6 to 12 participants
- No previous knowledge required

**Location & language**
At your site or at the Soya and Tea Centre Singapore. Available in English.

**Duration**
0.5 day with an option of 0.5 day practical exercises