

KRONES Academy

Programme 2012

New in 2012 – Maintenance seminars at the KRONES Academy

Course no.	Title	Language	Location	Page
P 04	Contiform – Maintenance	German	Neutraubling/DE	5
P 06	Contiform – Air Recycling	German	Neutraubling/DE	7
F 12	Aseptic filling technology – Maintenance	German	Neutraubling/DE	14
F 17	Filling technology – Maintenance	German	Neutraubling/DE	16
L 15	Contiroll hotmelt labeller – Maintenance	German	Neutraubling/DE	36
L 16	Cold glue labeller – Maintenance	German	Neutraubling/DE	37
M 08	Maintenance management	German	Neutraubling/DE	89

More machine types upon request



Trained Employees – Your Guarantee for Future Profits



Table of contents

Plastics technology	2
Filling technology	8
Cleaning technology	17
Process technology	18
Labelling technology	26
Inspection technology	39
Packaging and palletising technology	44
Electrotechnology	51
Automation and IT solutions	64
Management training	83
KRONES Academy services	96
Important information in brief	98
Worldwide KRONES Akademie addresses and contacts	100
2012 dates / locations / prices	102

Dear Readers,

Develop the team or increase profits? What appears to be an either-or decision at first glance, quickly turns out to be an if-then relationship when considered more closely. Trained employees are the best insurance for excluding production risks and lastingly increasing efficiency.

We have put together the training courses with which you directly achieve these objectives in this programme. On the following pages, you will find:

Maintenance training courses for increasing the availability of the line and reducing the costs. The different training courses are exactly tailored to the machine technology used and the respective target group.

Automation training courses for electricians who want to expand and perfect their knowledge. Depending on prior knowledge and the area of responsibility, you can put together your own individual training plan from the various modules (see Pg. 64 – 82).

Line efficiency training courses for management personnel offer shift foremen, line managers and production managers the opportunity to locate the potential for improvement in their own company, to lastingly optimise processes and to benefit from worldwide best-practice examples (Pg. 93 – 95).

Regardless of which training courses you decide on, the technical input of our trainers, the practice-oriented exercises and the intensive exchange with colleagues from the industry make every visit to the KRONES academy an investment that is guaranteed to pay off.

We enjoy contributing to your success.

A handwritten signature in blue ink, appearing to read 'Jörg Puma'. The signature is stylized and fluid.

Jörg Puma
Head of the KRONES Academy

Contiform – Operation

Course: P 01

Duration: 2 days

A good knowledge of the machines is indispensable for a high line efficiency. You will obtain the required knowledge of the Contiform in this course. After just two days, you will be able to operate the machine alone. You will also know the lubrication intervals and lubrication points and will learn how to quickly eliminate minor malfunctions.

Target group:
Operators

Suitable for the following machine types:
Contiform S

Requirements: none

Topics:

- General information on the Contiform
- Explanation of the mechanical components
- Overview of the process technology (heating and blowing process)
- Importance of the lubrication system
- Important touch-screen functions
- Starting and converting the machine
- Recipe management

Locations:

Neutraubling (DE), Franklin (US)

Dates/Prices: see page 102 – 103

Contiform Basics and Introduction to the Electrical Components

Course: P 02

Duration: 3 – 4 days

How can malfunctions be eliminated quickly and the product stability permanently optimised? With the necessary background knowledge, this seminar enables you to safely operate the Contiform and carry out important settings independently.

Option (only in Neutraubling): The additional fourth day is devoted to the Contiform electrical components and can be booked as an option.

Target group:

Operators, mechanics, electricians, electromechanics, team leaders, maintenance employees

Suitable for the following machine types:
Contiform S

Requirements: none

Basic topics:

- Design and method of operation of the Contiform
- Machine pneumatic system
- Lubrication intervals
- Overview of possible malfunctions and solution approaches
- Heating and blowing process
- Visualisation zenOn 6.20/6.22: Handling alarms and diagnosing errors (touch-screen)
- Type management (creating and editing recipes)
- Air-recycling systems
- Explanation of the pneumatic components

Electrical components topics:

- AS-i bus, B&R control system, Profibus, KRONES wiring diagram

Locations:

Neutraubling (DE), Franklin (US), Taicang (CN)

Dates/Prices: see page 102 – 103

Contiform – Mechanical Adjustments

Course: P 03

Duration: 2 days

The goal of this seminar is the malfunction-free production with shorter downtimes. You learn how to consistently avoid malfunctions with the proper adjustment of the Contiform, therefore lastingly increasing the efficiency of the machine. To do this you make adjustments on the training machine yourself and learn how to further optimise them. The contents "Recognising and eliminating mechanical malfunctions" round off your knowledge.

Target group:

Operators, mechanics, electromechanics and maintenance employees

Suitable for the following machine types:

Contiform S

Requirements:

Participation in the course "Contiform Basis (P 02) and Introduction to the Electrical Components" or comparable experience with the machine

Topics:

- Overview of the individual components of the Contiform, including touch-screen
- Practical adjustment work on mould hangers, blowing/heating module, stretching unit, cams, etc.
- Transfer synchronisation
- Maintenance and lubrication

Locations:

Neutraubling (DE), Franklin (US), Taicang (CN)

Dates/Prices: see page 102 – 103

Contiform – Maintenance

Course: P 04

Duration: 3 days

How can maintenance costs be kept to a minimum? By correctly replacing wearing parts at the right time. This training course provides you with the necessary technical expertise to conduct maintenance efficiently and safely. Exercises on the training machine ensure that you can immediately implement what you learn at your own company. The carefully developed documents also serve as an ideal basis for knowledge in order to increase output and minimise downtimes in a long term.

Target group:

Mechanics, electromechanics, maintenance employees

Suitable for the following machine types:

Contiform S

Requirements:

Participation in the course "Contiform Basis (P 02) and Introduction to the Electrical Components" or comparable experience with the machine

Topics:

- Reacting properly to malfunctions
- Replacing wearing parts
- Checking and exchanging components
- Adjusting new parts correctly

Locations:

Neutraubling (DE), Franklin (US)

Dates/Prices: see page 102 – 103

New 2012

Contiform S – PET Process Technology

Course: P 05

Duration: 2 days

This training course helps you reach a consistently high bottle quality – even with extremely light preforms with a narrow process window. In addition, you learn how to adjust the machine to new bottle types and optimise parameters.

Target group:

Operators, mechanics, electro-mechanics, quality inspectors and team leaders

Suitable for the following machine types:

Contiform S

Requirements:

Participation in the course "Contiform Basis and Introduction to the Electrical Components (P 02)" or comparable experience with the machine

Topics:

- Basic knowledge of PET
- Decisive process factors
- Setting and optimising parameters for "new" bottles
- Using and managing recipes on the touch-screen
- Significance of process parameters in relation to preform and bottle specifications
- Practical exercises on the machine including how to set up new bottles
- Optimising processes for a lower energy consumption
- Saving recipes

Locations:

Neutraubling (DE), Franklin (US), Taicang (CN)

Dates/Prices: see page 102 – 103

Contiform – Air Recycling

Course: P 06

Duration: 1 day

Minimising the blowing air consumption is an effective method for significantly lowering the operating costs of the Contiform. Up to 40 % of the expensive oil-free high-pressure air can be saved with the programs Air Recycling 2 and 3. This seminar teaches you how to use the programs best: You will become familiar with the functions and pneumatic components. Specific exercises also ensure that you can set the parameters yourself after the training course.

Target group:

Operators, mechanics, electro-mechanical engineers, quality inspectors, team leaders, line managers and shift supervisors

Suitable for the following machine types:

Contiform S

Requirements:

Participation in the course "Contiform Basis and Introduction to the Electrical Components (P 02)" or comparable experience with the machine

Topics:

- Explanation of the pneumatic components
- Pneumatic circuit diagram (blowing module, heating module)
- Air Recycling 2, 3, 4 and 5 (components and functions)
- Practical exercises with the machine

Locations:

Neutraubling (DE)

Dates/Prices: see page 102 – 103

Volumetric VODM Filler

Course: F 01

Duration: 4 days

A good understanding of the machine is the best basis for systematic troubleshooting. Therefore, this seminar provides you with all important information on the Volumetric VODM filling machine – from operation to the method of operation and the mechanical components to maintenance of the most important assemblies.

Target group:

Operators with maintenance tasks, mechanics, electro-mechanical engineers, maintenance employees; and if necessary also team leaders, shift foremen and electricians

Suitable for the following machine types:

Volumetric VODM and variants

Requirements:

Experience with the machine is advantageous, but not absolutely necessary.

Recommendation:

Can be combined with the course "CIP-System VarioClean (B 01)"

Topics:

- Construction and method of operation of the filler
- Troubleshooting on the filling valve
- Piping diagrams
- Operating and cleaning programs
- Control and visualisation on the touch-screen
- Pneumatic system
- Cleaning, lubricating and performing maintenance on the machine
- Maintenance of the most important assemblies

Locations:

Neutraubling (DE), Franklin (US), Bangkok (TH), Taicang (CN)

Dates/Prices: see page 104 – 105

Mecafill VKP filler

Course: F 02

Duration: 4 days

A good understanding of the machine is the best basis for systematic troubleshooting. Therefore, this seminar provides you with all important information on the Mecafill VKP filling machine – from operation to the method of operation and the mechanical components to maintenance of the most important assemblies.

Target group:

Operators with maintenance tasks, mechanics, electro-mechanical engineers, maintenance employees; and if necessary also team leaders, shift foremen and electricians

Suitable for the following machine types:

Mecafill VKP, Mecafill VKPV, Mecafill VKPV-CF, Mecafill VKP-PET and Mecafill VKP-DL

Requirements:

Experience with the machine is advantageous, but not absolutely necessary.

Recommendation:

Can be combined with the course "CIP-System VarioClean (B 01)"

Topics:

- Construction and method of operation of the filler
- Troubleshooting on the filling valve
- Piping diagrams
- Operating and cleaning programs
- Control and visualisation on the touch-screen
- Pneumatic system
- Cleaning, lubricating and performing maintenance on the machine
- Maintenance of the most important assemblies

Locations:

Neutraubling (DE), Franklin (US), Bangkok (TH), Taicang (CN)

Dates/Prices: see page 104 – 105

Aseptic Filling (AF)

Course: F 03

Duration: 5 days

A product recall causes the greatest possible damage that a beverage filler can incur. Therefore, a good understanding of the processes and control is especially indispensable for aseptic filling. The seminar provides the necessary basics and also offers sound insights into the hygienic aspects of filling.

Target group:

Operators, mechanics and electricians

Suitable for the following machine types:

PET-Asept L (PES) and PET-Asept D (H₂O₂)

Requirements: none

Topics:

- Process procedures and control with program
- Hygienic standards
- Method of operation
- Principle of troubleshooting
- Process Control System (PCS) basics

Locations:

Neutraubling (DE), USA (on site only)

Dates/Prices: see page 104 – 105

Sensometric VP Filler

Course: F 09

Duration: 4 days

A good understanding of the machine is the best basis for systematic troubleshooting. Therefore, this seminar provides you with all important information on the Sensometric VP filling machine – from operation to the method of operation and the mechanical components to maintenance of the most important assemblies.

Target group:

Operators with maintenance tasks, mechanics, electro-mechanical engineers, maintenance employees; and if necessary also team leaders, shift foremen and electricians

Suitable for the following machine types:

Sensometric VP-I, VP-VI, VP-VM, VP-L, VP-I-PET and VP-L-PET

Requirements:

Experience with the machine is advantageous, but not absolutely necessary.

Recommendation:

Can be combined with the course "CIP-System VarioClean (B 01)"

Topics:

- Construction and method of operation of the filler
- Troubleshooting on the filling valve
- Piping diagrams
- Operating and cleaning programs
- Control and visualisation on the touch-screen
- Pneumatic system
- Cleaning, lubricating and performing maintenance on the machine
- Maintenance of the most important assemblies

Locations:

Neutraubling (DE)

Dates/Prices: see page 104 – 105

New 2012

Efficient Troubleshooting for Aseptic Systems

Course: F 10

Duration: 3 – 5 days

This course aims at providing you efficient troubleshooting strategies. By means of a questionnaire, we specify your concrete training requirements and then individually adapt the contents to your needs. This procedure has proven itself when it comes to creating more reliable production process flows. Less downtimes and less quality risks and problems are the result of this training.

Target group:

Line managers, team leaders, maintenance employees and operators

Suitable for the following machine types:

KRONES PET-Asept systems

Requirements:

Knowledge of aseptic filling, experience working with KRONES PET-Asept systems

Topics:

- KRONES PET-Asept System: Process overview
- KRONES PET peripheral-component process overview
- Overview of aseptic process
- PCS basics
- PCS in operation
- Process analysis and troubleshooting – Working through a list of questions
- Optional: technical production support

Locations:

Customer filling line on site

Dates/Prices: see page 104 – 105

Critical Hygiene Points

Course: F 11

Duration: 1.5 – 2 days

Away from theory and into practical application. Save money and ensure your product quality with practice-oriented hygiene communication "from the top down" and "through the shifts". Implement the concept of "hygiene and product quality" in your TPM strategy.

For this purpose, this course reveals and documents hygienically critical points of your line and provides them with specific operating instructions. You can use the documentation either as a training document or as user-friendly instructions. As a "living" document, it can be expanded later according to your own ideas.

Target group:

Line supervisors, team leaders, shift supervisors and laboratory employees

(later target groups of the documentation are all persons who work on the line)

Suitable for the following machine types:

Fillers, process technology, aseptic systems

Requirements: none

Topics:

- What are "critical hygiene points" and what is their cause?
- Recording of the critical hygiene points during a joint tour of the line
- Implementation of the results in usable descriptions with specific instructions for action
- Presentation of the resulting documentation and discussion of possible uses

Locations:

Customer filling line on site

Dates/Prices: see page 104 – 105

New 2012

Aseptic Filling Technology – Maintenance

Course: F 12

Duration: 1 day

Preventative maintenance is one of the most important concepts for lastingly keeping downtimes to a minimum. The knowledge required for this is provided in this course: You become familiar with the individual filler assemblies and learn which special hygiene measures an aseptic system requires. Specific exercises on training models give you an opportunity to try out and deepen what you have learned under direction.

Target group:

Maintenance employees, operators with maintenance tasks, quality and laboratory employees

Suitable for the following machine types:

KRONES PET-Asept systems

Requirements:

Experience with aseptic filling

Topics:

- Critical hygiene areas in the aseptic system
- Important hygiene measures during maintenance
- Maintenance-related hygiene
- In practice: Preparing and conducting maintenance work on aseptic components (filling valve, distributor, etc.) while complying with the hygiene conditions

Locations:

Neutraubling (DE)

Dates/Prices: see page 104 – 105

New 2012

The Process Control System (PCS) in Practice

Course: F 13

Duration: 2 days

The seminar illuminates the highly complex aseptic processes important for quality: You will learn more about process-relevant influences and how to deal with them. In addition, the seminar teaches you how the central process control system (PCS) can be used to continually monitor processes – both in each machine and in the entire process. Here the focus is on the operation and control of the aseptic systems, the monitoring of quality-relevant parameters and possible consequences for the quality of various products.

Target group:

Line supervisors, shift supervisors, team leaders, production managers, plant managers and quality managers

Suitable for the following machine types:

KRONES PET-Asept systems

Requirements:

Knowledge of aseptic filling

Topics:

- Technical fundamentals: Terms and definitions, sensitivity of beverages, quality assurance
- Explanation of the process cycle
- PCS basics: Signal transmission, recipe structure, program control
- PCS control and visualisation system
- Process-relevant parameters: Phase and class parameters, sterility, CIP, SIP

Locations:

Neutraubling (DE)

Dates/Prices: see page 104 – 105

New 2012

Filling Technology – Maintenance

Course: F 17

Duration: 2 days

Preventative maintenance is one of the most important concepts for lastingly keeping downtimes to a minimum. The knowledge required for this is provided in this course. For you become familiar with the individual filler assemblies and the special tools required for them. Specific exercises on training models give you an opportunity to try out and deepen what you have learned under direction.

Target group:

Mechanics and maintenance employees

Suitable for the following machine types:

Filling machines (Mecafill, Isofill, Sensometric and Volumetic)

Requirements:

Basic knowledge of general mechanical components and filling technology

Topics:

- Bottle flow
- Drives
- Product distributor and air manifold
- Lift cylinder
- Filling valves
- Removing, dismantling, exchanging, assembling, installing and adjusting wearing parts

Locations:

Neutraubling (DE)

Dates/Prices: see page 104 – 105

Bottle Washers – Step by Step

Course: C 01

Duration: 4 days

A bottle washer will only work properly when it is correctly operated and maintained. This seminar provides the knowledge necessary to achieve this goal: You will learn how best to handle and maintain the machine. In addition, you will learn how to dose the ideal amount of cleaning agents for achieving the best possible results at a minimum of costs. During the seminar, you will acquire a basic understanding of the processes going on in the machine, providing you with the knowhow for optimising these processes, meeting hygienic standards and reducing downtimes.

Target group:

Operators, mechanics and electricians

Suitable for the following machine types:

All KRONES bottle washers apart from the Spiragrip

Requirements: none

Topics:

- How to operate the bottle washer
- Differences between bottle washers
- Introduction to process engineering
- Cleaning and maintenance
- Mechanical and electrical components
- Troubleshooting
- Overview of existing upgrades

Locations:

Flensburg (DE)

Dates/Prices: see page 104 – 105

CIP System VarioClean

Course: B 01

Duration: 0.5 days

This course is ideal for you if you want to reduce the CIP down-times and the related costs to a minimum. With the focus on the main topics "Cleaning parameters" and "Product quality", you are familiarised with the basics of machine technology, the control concept and the visualisation system. Information on the cleaning parameters and their effect on the cleaning process complete your knowledge.

Target group:

Operators, mechanics, electro-mechanics, quality inspectors, team leaders and supervisors

Suitable for the following machine types:

VarioClean

Requirements: none

Topics:

- Basics of cleaning technology (pH values, chemicals, cleaning sequences, etc.)
- Components of the CIP system
- Safety instructions
- Prior to, during and after production
- Control and visualisation
- Possible malfunctions during the process
- Reading the set-point and actual values and comparing them
- Cleaning and maintenance

Locations:

Neutraubling (DE)

Dates/Prices: see page 106 – 107

Flash Pasteuriser – Thermal Product Treatment

Course: B 03

Duration: 1 day

Heat treatment is the most effective method in beverage processing for guaranteeing high product quality. This course provides you with a background knowledge so that you can optimally utilise the advantages of pasteurisation technology: In just one day you will become familiar with the function diagram of the flash pasteuriser, the control concept, the visualisation and the most important parameters.

Target group:

Operators, mechanics, electro-mechanics, quality inspectors, team leaders and supervisors

Suitable for the following machine types:

VarioFlash B, VarioFlash J and VarioAsept

Requirements: none

Topics:

- Basics of heat treatment
- Components and process sequences
- Safety instructions
- Prior to, during and after production
- Type change-over on the touch-screen
- Control and visualisation
- Possible malfunctions during the process
- Reading the set-point and actual values and comparing them
- Cleaning and maintenance

Locations:

Neutraubling (DE)

Dates/Prices: see page 106 – 107

Bottle, Can and Product Treatment (Pasteuriser)

Course: B 04

Duration: 1 day

This workshop offers you a comprehensive insight into the pasteurisation process. After just one day you are capable of quickly and effectively carrying out inspection and maintenance work on the machine. The pasteurisation results are therefore lastingly optimised – with minimal downtimes.

Target group:

Operators, mechanics, electronic engineers, electro-mechanical engineers, quality inspectors, laboratory employees, team leaders and shift supervisors

Suitable for the following machine types:

SHIELD

Requirements: none

Topics:

- What is pasteurisation?
- How does the pasteuriser function?
- Pasteuriser design
- Central Heat Exchanger Supply System (CHESS)
- Mechanical and electrical components
- Operation: Touch-screen, cleaning

Locations:

Flensburg (DE)

Dates/Prices: see page 106 – 107

Beer Production in Practice

Course: B 05

Duration: 2 days

What do the oldest cultural drink and the latest findings from research and technology have in common? This course not only provides you with the basic of brewing beer (raw materials, brewing and fermenting process and beer filtration) – you also learn how to apply this knowledge to the KRONES brewing lines. You also develop an understanding of the natural processes during brewing and of the parameters which determine these processes. With this background knowledge, the relationship between technology, characteristic numbers and consumption values becomes apparent.

Target group:

Beginners and those entering the brewery sector from other industries without background knowledge

Suitable for the following machine types: All

Requirements: none

Topics:

- Raw materials: Malt, raw grain, water, hops and yeast
- Wort preparation
- Fermentation and maturing
- Beer filtration
- Cleaning and disinfection, CIP
- Processing and operating materials
- Quality assurance
- Characteristic numbers and consumption values

Locations:

Neutraubling (DE)

Dates/Prices: see page 106 – 107

Contiflow Mixer

Course: B 06

Duration: 1 day

An optimally adjusted mixer reduces costs during the production process. Therefore, this course teaches you how to correctly set parameters and efficiently eliminate malfunctions.

Target group:

Maintenance technicians

Suitable for the following machine types:

Contiflow

Requirements: none

Topics:

- Design and method of operation of the machine
- Mixing principle, calculation of the mixing ratios, mixing with fixed shares
- Automatic compensation, setting of the mixing parameters
- Setting of the machine parameters
- Adding new product types, setting of the type parameters
- Production and CIP programs
- Brix measurement and CO₂ parameters
- Internal and external signal transmission of the machine
- Alarms, diagnoses, troubleshooting

Locations:

Neutraubling (DE)

Dates/Prices: see page 106 – 107

Botec F1 – Basic Course

Course: B 07

Duration: 2 days

From brewing recipe to line recipe: The main topic of this course is how the process control system implements the brewing process. In addition to general basics of automation, you are also provided with sound knowledge of the Botec F1 process control system. The SCADA visualisation and practical exercises for interaction with the system are also part of the course. In addition to the process monitoring system, you are also familiarised with everyday tasks. This includes, for example, recipe parameter settings, creation and starting of production batches, CIP and logging and evaluation of process data.

Target group:

Brewery employees who work with Botec F1

Suitable for the following machine types: All

Requirements:

A basic knowledge of PCs and MS Office

Topics:

- Logging in and logging out
- Loading and starting a recipe
- Monitoring the process parameters and access to the trend data
- Operating the SCADA objects

Locations:

Neutraubling (DE)

Dates/Prices: see page 106 – 107

New 2012

Efficient Working with Botec-Controlled Systems

Course: B 08

Duration: 3 – 5 days

This workshop is designed to make working with Botec more efficient and to specifically fill in any gaps in knowledge. For this purpose, you receive a questionnaire at the start of the course with which you can determine your individual training needs. The questions and topics relevant for you are then systematically covered in the course. The understanding of the processes and parameters obtained in this way noticeably pay off in production, with increased stability, shorter downtimes and reduced quality risks.

Target group:

Line operators, line managers and process supervisors

Suitable for the following machine types:

Botec F1 project control

Requirements:

Experience in working with process systems, a basic knowledge of MS Office

Topics:

- Process parameters
- Process steps and recipes
- Interrelations of process steps
- Botec F1 recipe editor
- Generate and evaluate Batch I record
- Trend evaluation
- Troubleshooting and process explanation ("what, why, how?")

Locations:

Neutraubling (DE)

Dates/Prices: see page 106 – 107

New 2012

KRONES EvoGuard Valve Technology

Course: B 09

Duration: 1.5 days

Fast, appropriate maintenance reduces quality risks and therefore also reject costs. This seminar provides the tools required for the maintenance of valves: You have an opportunity to practice how valves are dismantled and reassembled and how seals are exchanged on training models. A theoretical part on process and control technology rounds off the seminar.

Target group:

Maintenance employees, line operators, process engineers and process technicians

Suitable for the following machine types:

EvoGuard valve series

Requirements:

Basics of filling and process technology

Topics:

- Method of operation of the individual valves (using models, only in-house at KRONES)
- Basics of process technology:
- Pneumatic system
- Dismantling and assembling individual valves using training components (only in-house at KRONES)
- Control
- Basic and comprehensive maintenance

Locations:

Neutraubling (DE)

Dates/Prices: see page 106 – 107

Cold Glue Technology

Course: L 01

Duration: 3.5 days

How can a high efficiency and quality level be achieved with the labeller? The course tells you: On our training machine we clearly explain how to improve the quality standards, structure the change-over times more efficiently and shorten the downtimes. Practical exercises give you the opportunity to try out what you have learned yourself and perfect your skills.

Target group:

Operators, mechanics, electromechanics, team leaders, line supervisors and maintenance employees

Suitable for the following machine types:

Cold-glue table and modular machines

Requirements: none

Topics:

- Overview of machine functions
- Mechanical system and electrical components
- Operation and checks prior to, during, and after production
 - Control elements, touch-screen
 - Troubleshooting
- Change-over
- Adjustment
 - Machine infeed and discharge
 - Brushing, rolling
 - Glue pallet, glue roller and glue scraper
 - Gripper cylinder and label magazine
- Lubrication and maintenance
- Label, container and glue quality

Locations:

Neutraubling (DE), Franklin (US), Bolton (UK), Bangkok (TH), Johannesburg (ZA)

Dates/Prices: see page 106 – 109

Contiroll (745) Hotmelt Technology

Course: L 02

Duration: 3 days

Reduced costs for comprehensive maintenance, faster change-over: This course shows you how to achieve these goals. In three days you are provided with all the knowledge you need to optimally operate and maintain the Contiroll. During the practical part on the training machine you have the opportunity to try out and practice the methods shown.

Target group:

Operators, mechanics, electromechanics, team leaders, line supervisors and maintenance employees

Suitable for the following machine types: Contiroll

Requirements: none

Topics:

- Overview of machine functions
- Pneumatic and electric components
- Operation and checks prior to, during, and after production
 - Control elements, touch-screen
 - Troubleshooting
- Change-over
- Adjustment
 - Machine infeed and discharge
 - Brushing, rolling
 - Reel holder, label reel gluing
 - Label film guider, feed roller, cutting unit
 - Glue roller and glue scraper, vacuum gripper
 - Label transfer to the container
- Lubrication and maintenance
- Label, container and glue quality

Locations:

Neutraubling (DE), Franklin (US), Bolton (UK), Bangkok (TH), Taicang (CN)

Dates/Prices: see page 108 – 109

Hotmelt Technology Controll HS (High Speed)

Course: L 03

Duration: 4 days

Labelling at high speed and with excellent quality? It's child's play for the Controll when correctly operated and maintained. And with the right amount of background knowledge and practical exercises, this seminar enables you to ensure outstanding product quality and quickly eliminate any malfunctions.

Target group:

Operators, mechanics, electromechanics, team leaders, line supervisors and maintenance employees

Suitable for the following machine types:

Controll HS (High Speed)

Requirements: none

Topics:

- Overview of machine functions
- Pneumatic and electric components
- Operation and checks prior to, during, and after production
 - Control elements, touch-screen
 - Troubleshooting
- Change-over
- Adjustment
 - Machine infeed and discharge
 - Brushing, rolling
 - Reel holder, label reel gluing
 - Label film guider, feed roller, cutting unit
 - Glue roller and glue scraper, vacuum gripper
 - Label transfer to the container
- Lubrication and maintenance
- Label, container and glue quality

Locations:

Neutraubling (DE), Franklin (US), Bangkok (TH), Taicang (CN)

Dates/Prices: see page 108 – 109

Self-Adhesive Technology

Course: L 04

Duration: 2 days

High efficiency and low costs – both are possible. This course shows how to avoid downtimes and achieve a lastingly high labelling quality. In addition, you are also provided with a sound knowledge of proper machine care and maintenance. At the end of the two days, you can reliably work with the machine and you know everything important about relevant parameters (labels, containers, etc.).

Target group:

Operators, mechanics, electromechanics, team leaders, line supervisors and maintenance employees

Suitable for the following machine types:

APS 3 and APS 4 (labelling stations for self-adhesive labels)

Requirements: none

Topics:

- Overview of machine functions
- Pneumatic and electric components
- Operation of the machine and touch-screen
- Troubleshooting
- Change-over
- Adjustment
 - Machine infeed and discharge
 - Label carrier-film feed unit
 - Applicator head
 - Label application wedge
 - Label film rewinder
- Lubrication and maintenance
- Requirements for label and container quality
- Machine parameters

Locations:

Neutraubling (DE), Franklin (US), Bolton (UK), Taicang (CN)

Dates/Prices: see page 108 – 109

Sleevematic M

Course: L 05

Duration: 2 days

Shrinkable labels are an outstanding way to promote sales. However, this requires them to be seated properly on each individual container. This course teaches you how to achieve this in a very short time. A knowledge of how to adjust machine parameters and carry out maintenance tasks will also help you avoid downtimes and lastingly produce on a high level.

Target group:

Operators, mechanics and maintenance employees

Suitable for the following machine types:

Sleevematic M

Requirements: none

Topics:

- Overview of machine functions
- Label and container route
- Operation of the machine and touch-screen
- Explanation of the most important parameters
- Adjustments: Machine infeed, mandrel, cutting ring, feed and transfer rollers
- Quality of labels and containers
- Maintenance and lubrication

Locations:

Neutraubling (DE), USA (on site only)

Dates/Prices: see page 108 – 111

Labeller change-over – Workshop

Course: L 07

Duration: 2 days

Efficiency often falls by the wayside during change-overs. To compensate for this, methods for a more productive change-over are developed as a group in this workshop. As the workshop is designed to be interactive, it especially takes the individual situation of your line into account in the process. The newly developed procedure is described in a check list and can be used immediately at your plant after the two days have been completed.

Target group:

Operators, mechanics, electro-mechanics and team leaders

Suitable for the following machine types:

All KRONES labellers.

Requirements: none

Topics:

- Analysis of the actual situation
- Specification of your objectives together with the operating and management personnel
- Optimisation of the process using the experience of the team members
- Development of a new process directly at the machine
- Recording of the new process in a check list
- Change-over using the newly defined processes
- Measuring the amount of time saved

Locations:

At the site

Dates/Prices: see page 110 – 111

Contiroll HS (High Speed) – Operator Training Course

Course: L 08

Duration: 2 days

This course provides you with an insight into the Contiroll HS, its control functions and navigation on the touch-screen. With practical exercises you gain the confidence necessary to efficiently operate the Contiroll HS on a high production level.

Target group:

Operators, mechanics and maintenance employees

Suitable for the following machine types:

Contiroll HS (High Speed)

Requirements: none

Topics:

- Design, safety and function of the Contiroll HS
- Pneumatic components
- Touch-screen menu
- Maintenance and lubrication
- Basic knowledge of electrical components
- Handling containers and labels
- Elementary process for troubleshooting

Locations:

Franklin (US), Bangkok (TH)

Dates/Prices: see page 110 – 111

Contiroll HS (High Speed) – Maintenance

Course: L 09

Duration: 3 days

This maintenance course helps you achieve maximum productivity with the Contiroll HS. In three days of intensive training, you deepen your knowledge of the set-up, mechanical design and timing of the machine. This enables you to check, adjust and correct all mechanical functions of the Contiroll HS.

Target group:

Operators, mechanics and maintenance employees

Suitable for the following machine types:

Contiroll HS (High Speed)

Requirements:

Participation in the course "Contiroll HS – Operator Training Course (L 08)" or corresponding knowledge

Topics:

- Explanation of the mechanical and pneumatic components with practical exercises
- Maintenance intervals, comprehensive maintenance
- Adjustment procedures for components of the Contiroll HS
- Removal and installation of necessary components
- Exercises on proper cleaning and care
- Deepening of the troubleshooting process

Locations:

Franklin (US), Bangkok (TH), Taicang (CN)

Dates/Prices: see page 110 – 111

Canmatic Labeller – Operation or Maintenance

Course: L 11

Duration: 2 – 2.5 days

The more qualified a machine is operated and maintained, the more efficiently it runs. With specific exercises and valuable background information, this course enables you to get the maximum performance out of your Canmatic. In the process, all training curricula are explained and practised directly on a training machine.

Please note: The course for operators covers two days, and the course for maintenance employees two-and-a-half days.

Target group:

Operators, technicians, mechanics, quality control and laboratory employees, team leaders, line supervisors and maintenance supervisors

Suitable for the following machine types:

Canmatic with wrap-around or pre-cut labelling

Requirements: none

Topics:

- Labelling: Method of operation
- Glue, label and container
- Application: From label to container
- The flow of containers from the infeed to the discharge
- Setting up the labeller including synchronising the labelling station
- Change-over
- Operating the touch-screen
- Safety devices and displays
- Care and maintenance
- Troubleshooting

Locations:

Franklin (US)

Dates/Prices: see page 110 – 111

Contiroll HS – Systematic Troubleshooting

Course: L 14

Duration: 2 days

Strategies on how to eliminate malfunctions exist at most companies. But it is even more important to detect and eliminate faults at an early stage. This course gives you everything you need to do this: You learn concrete methods and solutions for systematic troubleshooting. Practical exercises under direction ensure that you can immediately implement what you learn at your own company.

Target group:

Maintenance employees, mechanics, line supervisors and team leaders

Suitable for the following machine types:

Contiroll HS

Requirements: sufficient experience with the machine

Topics:

- Methods, basics and definitions
- Practical troubleshooting on the Contiroll HS
- Touch-screen: the most frequent error messages
- Adjustment errors on the Contiroll HS

Locations:

Neutraubling (DE), Franklin (US)

Dates/Prices: see page 110 – 111

New 2012

Contiroll Hotmelt Labeller – Maintenance

Course: L 15

Duration: 3 days

Fewer downtimes, fewer malfunctions, longer service life – this course teaches you how to lastingly increase the productivity of the labeller. You learn how to quickly make the machine operational again should any failures occur. A training machine and special training modules enable you to try out and practice the methods presented with the assistance of the trainer.

Target group:

Mechanics and maintenance employees

Suitable for the following machine types:

Contiroll 745, Contiroll HS and Contiroll Module

Requirements:

Basic knowledge of general mechanical components and labelling technology

Topics:

- Maintaining and adjusting the container guidance handling parts in practice: Rolling-on station, rotary plate, gluing unit, cutting unit and vacuum gripper
- Repairing the machine drive
- Routine maintenance and lubricating work
- Working with the special tools

Locations:

Neutraubling (DE)

Dates/Prices: see page 110 – 111

New 2012

Cold Glue Labeller – Maintenance

Course: L 16

Duration: 3 days

How are malfunction-free operation and a long service life ensured for the labeller? This course provides you with answers to these questions. For it teaches you how to quickly restore operability following a failure, how to avoid malfunctions from the outset and how to perform preventative maintenance on the machine. You optimise your learning success with practical exercises on the training machine and training modules.

Target group:

Mechanics and maintenance employees

Suitable for the following machine types:

Cold-glue table and modular machines

Requirements:

Basic knowledge of general mechanical components and labelling technology

Topics:

- Repairing and adjusting the container guidance handling parts in practice: Brushing-on station, rotary plate, glue roller, label magazine and gripper cylinder
- Repairing the various drives
- Routine maintenance and lubricating work
- Working with the special tools

Locations:

Neutraubling (DE), Bangkok (TH)

Dates/Prices: see page 110 – 111



Linatronic M2 Series – Basic Course

Course: I 01

Duration: 4 days

Working with foresight produces better results than just reacting to malfunctions. Therefore, this course covers more than just the avoidance of downtimes. You also learn how to save unnecessary material costs for bulk glass: With the right machine settings, you reduce the reject rate while achieving a continually high quality standard. Practical exercises on the Linatronic training machine give you the opportunity to test and deepen the knowledge acquired in practice.

Target group:

Electricians, electronic engineers, electro-mechanical engineers

Suitable for the following machine types:

Linatronic 735 M2 and 712 M2

Requirements:

Basic knowledge of the electrical components

Topics:

- Design and function
- Overview of the electrical and electronic components
- Hardware diagram
- Bus systems
- Operation
- Change-over
- Inspection units
- Troubleshooting
- Data back-up
- Creating new users

Locations:

Neutraubling (DE)

Dates/Prices: see page 110 – 111

Linatronic M2 Series – Advanced Course

Course: I 02

Duration: 4 – 5 days

Are you a Linatronic expert? After this seminar you certainly will be. For it enables you to independently tackle nearly all malfunctions and other tasks on the machine. Based on the knowledge provided in the basic course, you learn how to further increase inspection accuracy. The setting up of new container types and efficient troubleshooting are practised directly on the training machine here.

Target group:

Electricians, electronic engineers, electro-mechanical engineers

Suitable for the following machine types:

Linatronic 735 M2 and 712 M2

Requirements:

Participation in the "Linatronic M2 Series – Basic Course (I 01)" or comparable knowledge

Topics:

- Brief revision of principles of inspection technology
- Creating and parametrising a new container type
- Explaining and parametrising the test container program
- Adjusting the shift register
- Fault diagnosis using the oscilloscope
- Replacing faulty components

Locations:

Neutraubling (DE), Taicang (CN)

Dates/Prices: see page 110 – 113

PET-View

Course: I 03

Duration: 3 days

Different types of preforms and various ambient temperatures can lead to malfunctions and failures. This seminar shows the interrelations between these variables and gives you an opportunity to optimally adapt the inspection efficiency to your respective conditions. The setting up of new container types and efficient troubleshooting are practised directly on the training machine (Contiform with integrated PET-View).

Target group:

Electricians, electronic engineers, electro-mechanical engineers

Suitable for the following machine types:

PET-View type 776

Requirements:

Basic knowledge of the electrical components

Topics:

- PET-View design and function
- Overview of the electrical and electronic components
- Operation
- Function and parametrisation of the inspection units
 - Base inspection
 - Neck finish inspection
 - Side wall and base quality
- Troubleshooting

Locations:

Neutraubling (DE), USA (on site only), Taicang (CN)

Dates/Prices: see page 112 – 113

Checkmat 731/752**Course:** I 05**Duration:** 3 days

Ensure the quality of your products with a Checkmat – however only if it is correctly operated and adjusted. In this course you will learn how to optimally work with the inspector and how to prevent rejection of faultless products. To provide a realistic learning environment for you, the course is always available on a training machine.

Target group:

Electricians, electronic engineers and electro-mechanics

Suitable for the following machine types:

Checkmat 731/752, Sekamat, Cantronic and ModulCheck

Requirements:

Basic knowledge of the electrical components

Topics:

- Structure of the inspection system and introduction to network technology
- Adjustment, operation, maintenance and cleaning
- Introduction to the machine documents
- Parametrisation of the checks and the inspection system
- Reprogramming the system
- Setting up a new container type
- Troubleshooting malfunctions

Locations:

Franklin (US), Bangkok (TH), Taicang (CN)

Dates/Prices: see page 112 – 113**Checkmat 707****Course:** I 06**Duration:** 2 days

Ensure the quality of your products with a Checkmat – however only if it is correctly operated and adjusted. In this course you will learn how to optimally work with the Inspector and how to prevent rejection of faultless products. To provide a realistic learning environment for you, the course is always available on a training machine.

Target group:

Electricians, electronic engineers and electro-mechanics

Suitable for the following machine types:

Checkmat 707 with LCT3 controller

Requirements:

Basic knowledge of the electrical components

Topics:

- Mechanical design of the inspector
- Adjustment, operation, maintenance and cleaning
- Introduction to the machine documents
- Parametrisation of the checks and the inspection system
- Reprogramming the system
- Troubleshooting malfunctions
- Restoring the system following a malfunction

Locations:

Neutraubling (DE), Franklin (US), Bangkok (TH)

Dates/Prices: see page 112 – 113

Non-Returnable Packaging Technology

Course: D 01

Duration: 4 days

Also when using packing machines, productivity is rapidly increased with professional operation and change-over. The required knowledge is gained in this practice-oriented seminar. After just four days you are capable of safely operating the machine, independently carrying out change-overs and carrying out maintenance tasks.

Target group:

Machine operators with maintenance tasks, mechanics, maintenance employees, team leaders and line supervisors

Suitable for the following machine types:

Variopac, Wrapapac (from zenOn 5.5) and Variopac Pro

Requirements: none

Topics:

- Safety systems
- Function and operation of touch-screen
- Function and operation of the P127 controller (if used)
- Quality requirements for glue, carton and film
- Basic functions of the machines
- Identification and troubleshooting of faults (diagnostic functions)
- Exchanging motors, frequency inverters and encoders
- Cutter exchange on the film cutting module
- Machine pneumatic system
- SEW Movigear conveyor controller
- Reading, understanding and using electrical hardware diagrams
- Machine change-over
- Explanation of the parameters
- Electrical components and gas, shrinking tunnel (KRONES, Sotec)
- Maintenance and lubrication
- Documentation and ordering of spare parts

Locations:

Rosenheim (DE), Taicang (CN)

Dates/Prices: see page 112 – 113

Palletising Technology

Course: D 02

Duration: 3 days

Pallets are indispensable for transport and storage. That makes it all the more important to achieve a high efficiency and a minimal error quota during palletising. This course teaches you how to do exactly that. In the process, the correct adjustment of the machines is covered, as is troubleshooting and the avoidance of faults.

Target group:

Machine operators with maintenance tasks, mechanics, maintenance employees, team leaders and line supervisors

Suitable for the following machine types:

Modulpal, Robobox, pallet and container conveyors and modular palletisers

Requirements: none

Topics:

- Safety systems
- Function and operation of touch-screen
- Basic function of the machines
- Quality requirements for layer pads
- Basic functions of the machines
- Identification and troubleshooting of faults (diagnostic functions)
- Exchanging motors, encoders, Acopos/Danfoss frequency inverters
- Calibration of the servo-axis
- Machine pneumatic system
- Reading, understanding and using electrical hardware diagrams
- Machine change-over
- Explanation of the parameters
- Fully automatic gripper change (if used)
- Gripper head
- Maintenance and lubrication
- Documentation and ordering of spare parts

Locations:

Taicang (CN)

Dates/Prices: see page 112 – 113

New 2012

Packaging Technology

Course: D 03

Duration: 2 days

Faultless packaging is important for your product. And your production? That as well! For the way a packing machine is adjusted, operated and maintained directly affects its productivity. This course teaches you what requirements must be met so that you can get the most out of the line here. Proven strategies for troubleshooting faults round off the course.

Target group:

Machine operators with maintenance tasks, mechanics, maintenance employees, team leaders and line supervisors

Suitable for the following machine types:

Modulpal, Linapac, Linapac II, Smartpac, pack transport and container transport

Requirements: none

Topics:

- Safety systems
- Function and operation of touch-screen
- Basic function of the machines
- Quality requirements: Glue and carton
- Basic functions of the machines
- Identification and troubleshooting of faults (diagnosis)
- Exchanging motors, Acopos frequency inverters and encoders
- Calibrating motors and encoders
- Pneumatic components
- Reading, understanding and using electrical hardware-diagrams
- Machine change-over
- Explanation of the parameters
- Fully automatic gripper change (if used)
- Differences between the various cup grippers
- Maintenance and lubrication
- Documentation and ordering of spare parts

Locations:

Rosenheim (DE), Taicang (CN)

Dates/Prices: see page 112 – 113

Robobox and Modulpal

Course: D 04

Duration: 3 days

Palletising at high speed and with excellent quality? No problem for the Robobox and Modulpal team – but only when operation and maintenance are done properly. With the right amount of background knowledge and practical exercises, this seminar enables you to ensure outstanding product quality, quickly eliminate any malfunctions and avoid failures.

Target group:

Mechanics, maintenance employees, team leaders and line supervisors

Suitable for the following machine types:

Modulpal, Robobox, pallet and container conveyors and modular palletisers

Requirements: Basic technical knowledge

Topics:

- Safety systems
- Function and operation of touch-screen
- Basic function of the machines
- Basic functions of the machines
- Identification and troubleshooting of faults (diagnosis)
- Exchanging motors, encoders, Acopos/Danfoss frequency inverters
- Calibration of the servo-axis
- Machine pneumatic system
- Reading, understanding and using electrical hardware diagrams
- Machine change-over
- Explanation of the parameters
- Fully automatic gripper change (if used)
- Gripper head
- Maintenance and lubrication
- Documentation and ordering of spare parts
- Replacing bearings, belts and linear units

Locations:

Rosenheim (DE)

Dates/Prices: see page 112 – 113

New 2012

Modulpal – Returnable Technology

Course: D 05

Duration: 3 days

A basic understanding of the machine is the best basis for high productivity. Therefore, this seminar provides you with all important information on the Modulpal returnable technology – from operation to the method of operation to comprehensive maintenance of the most important assemblies.

Target group:

Mechanics, maintenance employees, engineers, electricians, team leaders and line supervisors

Suitable for the following machine types:

Modulpal, pallet and container conveyors and modular palletisers

Requirements: Basic technical knowledge

Topics:

- Safety systems
- Function and operation of touch-screen
- Basic functions of the machine
- Main functions of the machine
- Identification and troubleshooting of faults (diagnosis)
- Exchanging motors, encoders and Acopos/Danfoss frequency inverters
- Calibration of the servo-axis
- Machine pneumatic system
- Reading, understanding and using electrical hardware diagrams
- Machine change-over
- Explanation of the parameters
- Fully automatic gripper change (if used)
- Gripper head, hook gripper
- Maintenance and lubrication
- Documentation and ordering of spare parts
- Replacing bearings, belts and linear units

Locations:

Rosenheim (DE)

Dates/Prices: see page 112 – 113

New 2012

Modulpal – Non-Returnable Technology

Course: D 06

Duration: 3 days

A basic understanding of the machine is the best basis for high productivity. Therefore, this seminar provides you with all important information on the Modulpal non-returnable technology – from operation to the method of operation to comprehensive maintenance of the most important assemblies.

Target group:

Mechanics, maintenance employees, engineers, electricians, team leaders and line supervisors

Suitable for the following machine types:

Modulpal, pallet and container conveyors and modular palletisers

Requirements: Basic technical knowledge

Topics:

- Safety systems
- Function and operation of touch-screen
- Basic functions of the machine
- Main functions of the machine
- Identification and troubleshooting of faults (diagnosis)
- Exchanging motors, encoders, Acopos/Danfoss frequency inverters
- Calibration of the servo-axis
- Machine pneumatic system
- Reading, understanding and using electrical hardware diagrams
- Machine change-over
- Explanation of the parameters
- Fully automatic gripper change (if used)
- Gripper head, shutter head
- Maintenance and lubrication
- Documentation and ordering of spare parts
- Replacing bearings, belts and linear units

Locations:

Rosenheim (DE)

Dates/Prices: see page 112 – 113

New 2012

Innovations in Packaging and Palletising Technology

Course: D 07

Duration: 2 days

What's new in packaging and palletising technology? This course gives concrete answers to this question. You are provided with a complete overview of all machines, are brought up to date on development and learn whether and how you can profitably use the innovations presented at your company.

Target group:

Managers, team leaders and line supervisors

Suitable for the following machine types:

Complete packaging and palletising technology

Requirements:

Basic technical knowledge

Topics:

- Packaging technology
- Returnable technology
- Non-returnable technology
- Palletising technology
- Bulk glass processing
- Packaging technology

Locations:

Rosenheim (DE)

Dates/Prices: see page 112 – 113

KRONES Electrical Technology for Maintenance Employees from Mechanical System

Course: E 01

Duration: 2 days

The more diverse your technical knowledge is, the better you can react to an extremely broad range of situations in the daily routing of production. This course enables you to obtain a sound knowledge of the electrical technology. This includes reading and understanding electrical hardware diagrams, the identification of electrical components and navigation on the touch-screen. After completing the seminar, you are capable of independent troubleshooting and of reducing the down-times in case of a machine failure.

Target group:

Machine operators with maintenance tasks, mechanics, maintenance employees, team leaders, line supervisors and maintenance supervisors

Suitable for the following machine types:

All fillers and labellers

Requirements:

A basic knowledge of the mechanical system of KRONES machines would be advantageous.

Topics:

- KRONES electrical hardware diagram system
- Technical fundamentals: Bus system, AS interface
- Touch-screen with zenOn: Type management, user management and data back-up
- KRONES standard encoder (exchanging and adjusting)
- Diagnosing and exchanging components
- Data back-up and recovery after malfunctions

Locations:

Neutraubling (DE), Franklin (US), São Paulo (BR), Johannesburg (ZA), Nairobi (KE), Lagos (NG)

Dates/Prices: see page 114 – 115

Contiform – Electrical Components

Course: E 02

Duration: 2 days

A basic understanding of the machine's electrical components is the best basis for systematic troubleshooting. Therefore, this seminar provides you with all important information on the electrical components of the Contiform – from the electrical hardware diagrams to operation of the touch-screen to control technology used.

Target group:

Electricians, electronic engineers, electro-mechanical engineers

Suitable for the following machine types:

All Contiform machines

Requirements:

Basic knowledge of blow-moulders

Topics:

- KRONES electrical hardware diagram
- AS-i bus: Basics
- AS-i safety at work (machine-specific)
- Profibus
- Danfoss FC300/VLT5000 frequency inverter, MCT10 software
- Absolute-value encoder
- B&R controller/blowing curve
- HC-Net heating controller
- LCC controller/width measurement (optional)
- Visualisation/HMI zenOn
- SDC servo-drive controller (machine-specific)

Locations:

Neutraubling (DE), Franklin (US), Taicang (CN)

Dates/Prices: see page 114 – 115

Filler – Electrical Components (LCT3/KFS3 Controller)

Course: E 03

Duration: 3 days

What quality and efficiency your production achieves, is also dependent on the machine controllers: In this course you learn how to understand, diagnosis, repair and exchange electrical parts so that you can ensure reliable functionality here.

Target group:

Electricians, electronic engineers, electrical engineers and electro-mechanics

Suitable for the following machine types:

Mecafill, Sensometric and Volumetric (each with LCT3 controller)

Requirements:

A basic knowledge of the mechanical components of the machine would be advantageous.

Topics:

- System overview and paths of communication
- KRONES electrical hardware diagram
- Basics of AS interface and Profibus
- Danfoss FC300/VLT5000; MCT10 software
- Touch-screen with zenOn
- KRONES standard encoder and sensors
- Diagnosing and exchanging components
- KFS3 filling valve controller
- Operation and parametrisation on the LCT3
- Filling valve and sensor diagnostics
- Backing up the parameters (software included in KRONES scope of supply)
- Diagnostics and troubleshooting

Locations:

Neutraubling (DE), Bangkok (TH), Taicang (CN)

Dates/Prices: see page 114 – 115

Filler – Electrical Components (FVC Controller)

Course: E 04

Duration: 3 days

The goal of this seminar is high-quality production with minimal rejects: You learn how to troubleshoot, repair, adjust the machine and return to production after failures. So that you can make use of your successful training, you can repeatedly test your newly acquired knowledge interactively.

Target group:

Electricians, electronic engineers, electro-mechanical engineers

Suitable for the following machine types:

Mecafill, Sensometric and Volumetric (new generation)

Requirements:

Basic knowledge of the mechanical components

Topics:

- System overview
- KRONES electrical hardware diagram in detail
- Basics of the bus system, AS-i safety at work, Profibus
- Danfoss FC300/MCT10 software
- Touch-screen with zenOn: Type management, user management and data back-up
- KRONES standard encoder and sensors
- Diagnosis, exchanging components
- Machine malfunctions, fill-level and pressure control
- FVC filling valve controller: Method of operation and hardware
- Network structure: Ethernet, Powerlink and E-link
- Network diagnosis
- Filling valve diagnosis
- Operation and parametrisation
- Backing up the parameters (software included in KRONES scope of supply)
- Replacing control elements
- Troubleshooting

Locations:

Neutraubling (DE), São Paulo (BR), Bangkok (TH), Taicang (CN)

Dates/Prices: see page 114 – 115

Cold Glue Labeller – Electrical Components

Course: E 05

Duration: 2 days

The label is the calling card for each product. And so that it leaves behind a good impression, everything must run smoothly behind the scenes. This seminar provides the knowledge necessary for this purpose: You are given a complete overview of the electronics and functions of the labeller. What you learn enables you to carry out fast diagnoses and carry out professional troubleshooting.

Target group:

Electricians, electronic engineers, electrical engineers and electro-mechanics

Suitable for the following machine types:

Vinetta, Universella, Bonomatic, Starmatic, Solomatic, Topmatic and Multimatic

Requirements:

A basic knowledge of the mechanical components of the machine would be advantageous.

Topics:

- KRONES electrical hardware diagram
- Technical fundamentals: AS-i safety at work, Profibus
- Danfoss FC300/VLT5000; Software MCT10
- Touch-screen with zenOn: Type management, user management and data back-up
- Standard encoder and sensors
- Diagnosing, exchanging and restoring components

Locations:

Neutraubling (DE), Franklin (US), Bangkok (TH)

Dates/Prices: see page 114 – 117

Contiroll and Contiroll HS (B&R Controllers) – Electrical Components

Course: E 06

Duration: 3 days

Perfect high speed for wrap-around labelling is only possible with high-tech machines. And to efficiently maintain and adjust these machines, technical knowledge and a basic understanding of the electrical components used is required. This course provides you with both: You acquire valuable skills for maintaining the machine and learn which fine adjustments of the servo-drives are required to achieve excellent labelling results.

Target group:

Electricians, electronic engineers, electrical engineers and electro-mechanics

Suitable for the following machine types:

Contiroll Classic and Contiroll HS (High Speed)
Contiroll Module and Contiroll HS Module (B&R controller)

Requirements:

Basic knowledge of the mechanical components

Topics:

- KRONES electrical hardware diagram
- Technical fundamentals: AS-i safety at work, Profibus
- Danfoss FC300/frequency inverter, MCT10 software
- Main drive, synchronisation of discharge conveyor
- Touch-screen with zenOn: Type management, user management and data back-up
- Standard encoder, exchanging and adjusting
- System overview, network and communication
- Machine functions, e.g. broken container detection system, height adjustment, infeed monitoring
- Parameter structure, fine adjustment of labelling station on touch-screen
- Diagnostics, replacing components and data back-up

Locations:

Neutraubling (DE), Franklin (US), Bangkok (TH), Taicang (CN)

Dates/Prices: see page 116 – 117

Contiroll 745 with LCT3 Controller – Electrical Components

Course: E 07

Duration: 3 days

Incorrect maintenance, unknown problems or a lack of understanding can quickly result in unsatisfactory product quality with Contiroll labellers. This course provides you with the knowledge necessary for the professional repairing and fine adjustment of the machine. Improved product quality and shorter downtimes make this training course worthwhile investment.

Target group:

Electricians, electronic engineers, electrical engineers and electro-mechanics

Suitable for the following machine types:

Contiroll 745 with LCT3 controller

Requirements:

A basic knowledge of the mechanical components of the machine would be advantageous.

Topics:

- KRONES electrical hardware diagram
- Profibus basics
- Danfoss FC300/VLT5000; MCT10 software
- Touch-screen with zenOn; data back-up
- Exchanging and adjustment of the encoder
- Function and adjustment of all sensors
- Replacing electrical components
- Parametrisation on the LCT3
- Practical exercises with the training machine
- Creating and parametrising a new container type
- Diagnostics, replacing components and data back-up (LCT3)

Locations:

Neutraubling (DE), Franklin (US), Bangkok (TH), Taicang (CN)

Dates/Prices: see page 116 – 117

Module Labeller Generation 2 – Electrical Components

Course: E 09

Duration: 3 days

This course focuses on minimising the downtimes and increasing the efficiency of the labeller in a lasting way. You are provided with a comprehensive introduction to the parametrisation on the touch-screen. With this knowledge you can then carry out specific troubleshooting. So that you can make use of your successful training, you can repeatedly test your newly acquired knowledge interactively.

Target group:

Electricians, electronic engineers, electro-mechanical engineers

Suitable for the following machine types:

Modular labellers manufactured from 2009 (second generation, one touch-screen for labelling station and machine)

Requirements:

Basic knowledge of the mechanical components

Topics:

- System overview, communication and network
- KRONES electrical hardware diagram
- Basics of the bus system, AS-i safety at work, Profibus
- Danfoss FC300/MCT10 software
- Touch-screen with zenOn: Type management, user management and data back-up
- Exchanging and adjusting the 2-in-1 encoder
- Diagnostics, replacing components and data back-up
- Adjusting the height of the docking stations and the zero point
- RPC rotary plate control with servomotors: Function, parametrisation, diagnostics and motor exchange
- Labelling stations (cold glue, Autocol, APS 3 and Canmodul)
- Function, diagnostics and troubleshooting
- Data back-up

Locations:

Neutraubling (DE)

Dates/Prices: see page 116 – 117

Electrical Components for Packaging and Palletising Technology

Course: E 11

Duration: 2 days

This seminar provides you with a general view of the current electrical technology which is used in KRONES packaging and palletising technology. The curriculum includes the detection and exchanging of electrical components and the referencing of the servomotor axis. An introduction to user management and data back-up on the touch-screen completes the seminar.

Target group:

Electricians, electronic engineers and electro-mechanics

Suitable for the following machine types:

All packers and palletisers

Requirements: Basic knowledge of the electrical components

Topics:

- Safety devices
- Function and operation of touch-screen (zenOn)
- Function and operation of P127 compact panel (if present)
- Basic functions of the machines (customer-specific)
- Troubleshooting (diagnosis)
- Exchanging motors, frequency inverters and encoders
- Calibration of the individual servomotor axes
- Explanation of the B&R controller and the components (CP360, X20, AC 140)
- Control of SEW Movigear for the container conveyor
- Reading, understanding and using electrical hardware diagrams
- Pneumatic system
- Change-over of the machine for the type change
- Program parameters
- Electrical components and gas, shrinking tunnel (KRONES, Sotec)
- Maintenance and lubrication
- Documentation and ordering of spare parts

Locations:

Rosenheim (DE), Taicang (CN)

Dates/Prices: see page 116 – 117

Basics of KRONES Electrical Components

Course: E 12

Duration: 10 days

This course intensively covers with the basics of the current electrical technology. You learn how to quickly troubleshoot malfunctions, how to back up data, detect faults and replace electrical components. In addition, you are also provided with an introduction to the user management system, tips on how to work correctly with the touch-screen and relevant data for production. Enlightening before and after evaluations round off the training course for you.

Target group:

Electricians, technicians and engineers, line managers for electrical components and team leaders

Suitable for the following machine types:

KRONES machines

Requirements:

We recommend a basic knowledge of the Siemens S7.

Topics:

- Subtleties of the KRONES connecting diagram system
- Basics of the AS-Interface bus system
- Basics of the Profibus system
- Danfoss FC300/VLT5000 frequency inverter and MCT10 software (upload/download of parameters)
- zenOn 5.5/6.2: Ghost/user management/data back-up/type management
- KRONES standard encoder
- Hardware and KFS3/LCT3/KFS5 filling program
- Siemens PLC -Step 7 software and hardware configuration/upload or download of programs
- Fault diagnosis and exchange of components
- Data back-up and restoration after malfunctions

Locations:

Johannesburg (ZA), Nairobi (KE), Lagos (NG)

Dates/Prices: see page 116 – 117

General KRONES Electrical Components

Course: E 14

Duration: 3 days

This seminar provides you with an overview of the electrical components used in most of the KRONES machines. You learn how to quickly restore the production readiness of your KRONES machines when general malfunctions occur. A particular focus is on the topics data security, effective malfunction diagnosis and exchange of faulty electrical components. In the practical part, you have the opportunity to practice exchanging the encoder or frequency inverter under professional direction. In additional exercises you gain confidence in using the touch-screen, the controller and the production-related data.

Target group:

Electricians

Suitable for the following machine types:

KRONES machines

Requirements:

Basic knowledge of electrical systems

Topics:

- Subtleties of the KRONES connecting diagram system
- Basics of the AS interface bus system
- Basics of the Profibus system
- Danfoss FC300/VLT5000 frequency inverter and MCT10 software
- Touch-screen operating system with with zenOn 6.2 software
- Standard encoder

Locations:

Taicang (CN)

Dates/Prices: see page 116 – 117

New 2012

Electrical Training in the Laboratory

Course: E 15

Duration: 3.5 days

Have a command of the basics of electrical technology in just three-and-a-half days? This course makes it possible: You are provided with a complete overview of the electrical technology used in the KRONES equipment. If necessary, we will be happy to custom tailor the content to your requirements or your machine.

Target group:

Electricians

Suitable for the following machine types:

All KRONES machines

Requirements: none

Topics:

- Basics of the PLC Siemens and Allen-Bradley
 - Hardware configuration
 - User software/conductor logic (KRONES-specific)
 - Bus systems
 - AS-i bus, Profibus, Ethernet and Devicenet
 - Data block editor
 - Diagnosis
- zenOn touch-screen
 - KRONES visualisation philosophy
 - zenOn editor
- B&R automation
 - Hardware overview
 - Acopos drive diagnosis
 - User software – PVI transmission, K-Dot
- Data back-up
 - KRONES image back-up and restoration utility
 - Local and remote
- Understanding RACOS plans

Locations:

Franklin (US)

The course takes place once a month. Just contact us for the exact dates.

Dates/Prices: see page 116 – 117

New 2012

AS-i Bus Safety

Course: E 16

Duration: 0.5 days

This training course supplements the course "Electrical Training in the Laboratory (E 15)" and introduces you to the AS-i bus interface. As a low-level bus system, it is suitable for transmitting smaller data quantities. It is especially suitable for use when digital signals are required in the field. However, it also processes analog signals which change much more slowly. Thanks to its simple design, you require no knowledge of programming for the AS interface: For most bus components, and especially for safety devices, it is only necessary to set the respective address.

Target group:

Electricians, electronic engineers and electro-mechanics

Suitable for the following machine types:

KRONES machines

Requirements:

Basic knowledge of electrical components

Note:

This course supplements the course "Electrical Training in the Laboratory (E 15)".

Locations:

Franklin (US)

The course takes place once a month. Just contact us for the exact dates.

Dates/Prices: see page 116 – 117

KRONES Academy for Automation Courses

Certification for automation employees

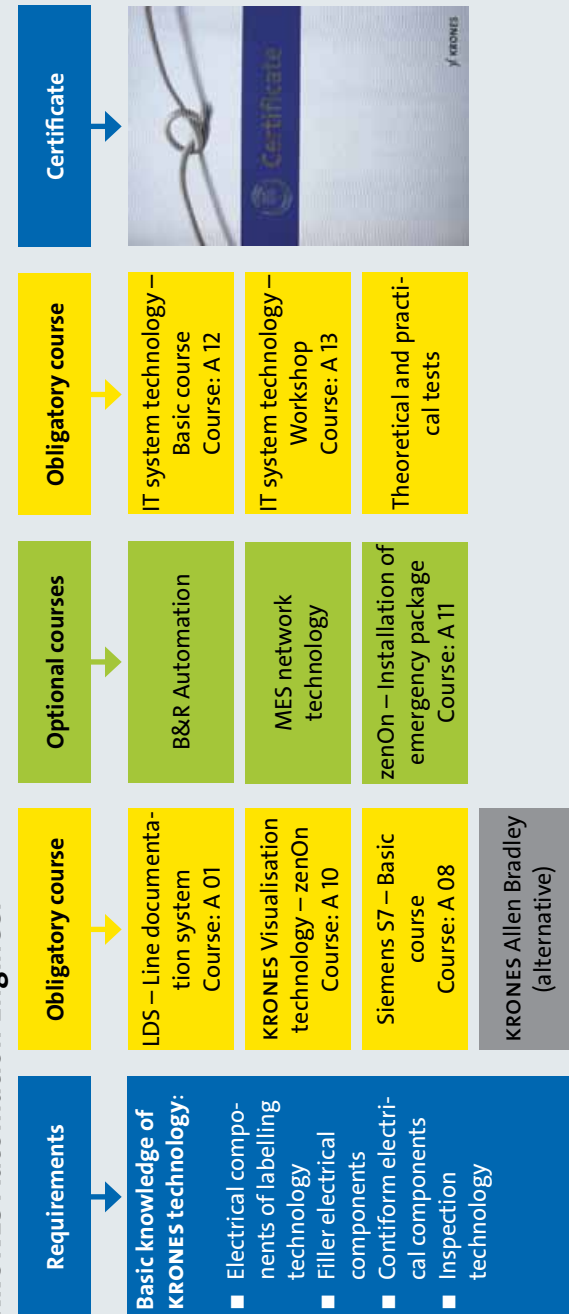
Filling companies in which the electrical team is familiar with automation technology are characterised by considerably shorter downtimes. For with the corresponding technical knowledge, problems can be treated at their roots – and eliminated before they cause economic damage. As our IT trainers all have practical experience, they know exactly what is relevant for electricians, electronic engineers, electro-mechanical engineers or IT administrators. Self-developed training devices ensure a reality-oriented learning environment: With them, realistic actual situations can be simulated at our modern IT training centres in Neutraubling, Franklin, Johannesburg and Bangkok.

Please note: In addition to the individual courses, we also offer a complete certification program for automation employees:

KRONES Automation Engineer

The "KRONES Automation Engineer" helps you quickly to analyse faults and fix the problem. You optimise the troubleshooting process and shorten downtimes of the line. You obtain the "KRONES Automation Engineer" certificate with modular workshops which are divided into a theoretical and a practical part. With corresponding prior education, you can also pass the certification test without prior training.

KRONES Automation Engineer



KRONES Automation Notebook for Customers

As a special service, we offer you the pre-installed KRONES automation notebook, which already contains the most important software for new diagnosis functions for troubleshooting and data back-up.

Hardware:

- Dell E6510 with adequate equipment (professional series)
- Dell notebook bag
- OS Windows® XP Pro (Windows® 7 Ultimate Downgrade)
- Simatic S7 USB adapter
- USB RS232 adapter for Simatic
- USB card reader USB 2.0 (19 in 11)

Software:

(technical changes/deviations with reservation)

- Microsoft Office Home & Business 2010
- Acronis True Image Workstation (Backup & Recovery™ 10)
- Siemens Step 7 SIMATIC Manager V5.4 SP5
- zenOn emergency package with zenOn 5.50/6.20/6.22
- KRONES software and utilities
 - Danfoss MCT10 set-up software 3.13
 - VNC Viewer Remote Access HMI
 - B&R CPU diagnosis, CF back-up, B&R controller,
 - K-DOT parameter back-up of modular stations DTS4
 - PDWIN, PDEXE parameter back-up LCT 3 reading/writing, DCopy, CF back-up, HMI
 - EasyConfig, configuration Pyrometer (aseptic)
 - DbAMGR2k, SQL, Database Tool

Optional:

- Allen Bradley RS Logix 5000
- B&R Automation Studio 3.0.8x with PVI Manager, service licence with limited functions
- LMS/LDS/KAM simulations (on request)

Price: on request

Contact person:

Markus Wilhelm

Phone: +49 (9401) 70-4707

E-mail: markus.wilhelm@krones.com

LDS – Line Documentation System KRONES Operating Data Acquisition

Course: A 01

Duration: 3 days

You use KRONES LDS to measure the effectiveness of your line? And you are also already familiar with all functions and parameters of this tool? This seminar makes the instrument more accessible, from the visualisation functions in the Data Monitor to the DownanalyseKit. The correct use of the LDS tools makes it easier for you to make the productivity leaks in your line visible.

Target group:

All LDS users

Suitable for the following software:

Line documentation system (LDS)

Requirements: none

Topics:

- Structure of the LDS and system requirements
- Visualisation of production in real time (Data Monitor)
- Diagrams and trend analyses (Data Chart)
- Optimisation of weak points (Data Report)
- Secure long-term archiving (Data Archive)
- Information processing (Data Controller)
- System configuration (Data Configurator)
- Downtime analysis of master machine (DownanalyseKit)
- Important key factors

Locations:

Neutraubling (DE), USA (on site only), Taicang (CN)

Dates/Prices: see page 116 – 117

SIPS – Strategic Maintenance and Planning System

Course: A 02

Duration: 2 days

KRONES SIPS is a powerful instrument for optimising your planning – however only if the users can handle all functions. In this course you learn how tasks are activated or distributed, how reports are created and how new objects are configured. After just two days you are able to easily operate the tool so that you can fully concentrate on your tasks.

Target group:

Maintenance supervisors, all PLC users

Suitable for the following software:

Strategic maintenance and planning system (SIPS)

Requirements: none

Topics:

- Tasks and instructions
- Activation, recall and distribution of tasks
- Task feedback
- Deleting messages
- Creating tasks using messages
- Reporting
- Object configuration

Locations:

Neutraubling (DE), USA (on site only)

Dates/Prices: see page 116 – 117

SPMS – Spare Parts Management System

Course: A 03

Duration: 2 days

Do you have too many or too few spare parts in stock? Can you always find any part? The KRONES SPMS Tool helps you answer these questions – provided the software is used correctly. In this course you learn how to use the software so that it helps you organise your parts and shorten downtimes.

Target group:

Maintenance supervisors, all SPMS users

Suitable for the following software:

Spare parts management system (SPMS)

Requirements: none

Topics:

- Introduction and basics
- Master data and inventory management: Registration of parts, assignment of storage locations, management
- Creating, changing and deleting of orders and reservations
- Object configuration
- Reports about inventory, consumption and orders

Locations:

Neutraubling (DE), USA (on site only)

Dates/Prices: see page 118 – 119

KAM – KRONES Asset Management

Course: A 04

Duration: 4 days

KRONES KAM can do a great deal for you. However, to fully benefit from this instrument, it is also necessary to understand what is behind it. Spend four days with our experts to obtain a thorough insight into the system and answers to all your questions. Benefit from the knowledge and experience of our trainers and their practice-oriented instruction methods.

Target group:

Maintenance supervisors, all KAM users

Suitable for the following software:

KRONES Asset Management (KAM)

Requirements: none

Topics:

- Management of maintenance tasks
- Creation of error messages
- Document management
- Management of spare parts for maintenance
- Interactive planning table
- Budget planning and cost control
- Shift management for machines and people
- Configuration of various data views
- Expanded system of users and rights

Locations:

Neutraubling (DE)

Dates/Prices: see page 118 – 119

LMS – Line Management System

Course: A 05

Duration: 4 days

LMS supports you in reducing the change-over times on your line. And in four days of training you learn everything necessary for fully utilising the performance of the system from our specialists. With a higher availability of the line, the investment pays off quickly.

Target group:

All LMS users

Suitable for the following software:

Line management system (LMS)

Requirements: none

Topics:

General information

- Activating and deactivating LMS
- Production process
- Troubleshooting

Order management module

- Creating production orders in the workbench
- Planning/start of orders in the workbench
- Changing order
- Deleting order
- Start of order on machine touch-screen

Materials management module

- Creating, changing and deleting of materials
- Working with finished products
- Working with parts lists

Locations:

Neutraubling (DE)

Dates/Prices: see page 118 – 119

KRONES IT Workshop for Specialists

Course: A 06

Duration: 2 days

You are familiar with LDS, SPMS and SIPS? You use these instruments regularly? That's wonderful! But what about your background knowledge? Learn more about the client-server hardware and understand the SQL server and the LDS in its complete structure. These two days help you extract the last bit of efficiency from the tools.

Target group:

LDS, SPMS and SIPS users with basic knowledge and some experience with the systems

Suitable for the following software:

Line documentation system (LDS)
Spare parts management system (SPMS)
Strategic maintenance and planning system (SIPS)

Requirements:

Participation in one of the courses A 01, A 02 or A 03 or comparable prior knowledge

Topics:

- Design and structure of the LDS
- Network overview
- Client/server hardware
- Data Registry Manager (database connections)
- Microsoft SQL Server
- Database model: Configuration and data tables
- Data configurator: Processing of values
- Data security

Locations:

Neutraubling (DE)

Dates/Prices: see page 118 – 119

KRONES Web Reporting

Course: A 07

Duration: 1 day

Wouldn't it be great to have OEE, error reports or other productivity data directly on your desk? Web reporting can take care of that for you. However, you should be the one who determines what it reported and where the data come from. Learn how to use the instrument on your own and independently of external help. This course makes you a experienced user in just one day.

Target group:

Line supervisors, maintenance supervisors and administrators

Suitable for the following software:

Line documentation system (LDS) and web reporting

Requirements: none

Topics:

- Basics and connection to LDS
- LDS standard web reports:
 - Efficiency
 - Production status
 - Malfunction analysis report, malfunction list
 - Program report
 - Product list
 - Production report
 - OEE, consumption data measurement (optional)

Locations:

Neutraubling (DE)

Dates/Prices: see page 118 – 119

Siemens S7 for KRONES Machines – Basic Course

Course: A 08

Duration: 4 days

How can faults be quickly found and eliminated? How can downtimes be avoided and a complete data back-up created? This course provides you with answers to these questions and concrete solution strategies which take place in an excellently equipped PLC laboratory. It teaches you the basics of programming of the Siemens S7 for KRONES machines and creates a general understanding of the PLC functions. Many course curricula, e.g. the efficient exchange of components, are accompanied by exercises and offer an opportunity to immediately implement what is learned in practice.

Target group:

Electricians, electronic engineers, electro-mechanical engineers, administrators and automation technicians

Suitable for the following software:

Siemens Step 7, V5.4 (you can purchase the software together with our KRONES automation notebook; see page 66.)

Requirements: none

Topics:

- Configuration:
 - Hardware and peripheral components of KRONES machine
 - Subnet Profibus configuration
 - Subnet Ethernet configuration (optional)
 - AS-i gateway with example B&W, Siemens CP343-2
- Design of user software
- Data block types and editor (KOP/FUP/AWL)
- Communication with the sub-controllers or sub-systems
- Data back-up
- Diagnosis

Locations:

Neutraubling (DE), Franklin (US), Johannesburg (ZA), Nairobi (KE), Lagos (NG), Bangkok (TH)

Dates/Prices: see page 118 – 119

Siemens S7 for KRONES Machines – Advanced Course

Course: A 09

Duration: 4 days

You want to study the Siemens S7 in greater detail? This course is the ideal opportunity: You become familiar with programming from the ground up and are also familiarised with the advanced functions of the software. Clear examples and specific exercises ensure that you can reliably use what you have learned in practice after the course.

Target group:

Electricians, electronic engineers, electro-mechanical engineers, automation technicians and administrators

Suitable for the following software:

Siemens Step 7, V5.4 (you can purchase the software together with our KRONES automation notebook; see page 66.)

Requirements:

Participation in the "Siemens S7 for KRONES Machines – Basic Course (A 08)" or corresponding prior knowledge. Your laptop should be equipped with the Simatic Manager. If not, we will be happy to support you with the installation.

Topics:

- Configuration:
 - Hardware and peripheral components of KRONES machine
 - Subnet Profibus configuration, Profibus components
 - Subnet Ethernet configuration (TCP/IP protocol)
 - AS-i gateway with example B&W, Siemens CP343-2
- Network technology (Ethernet, DP/DP coupler)
- Batteries/index function
- Communication with HMI and sub-systems
- Data back-up
- Diagnosis
- Indirect addressing, pointers and address register

Locations:

Neutraubling (DE), Johannesburg (ZA), Nairobi (KE), Lagos (NG), Bangkok (TH)

Dates/Prices: see page 118 – 119

KRONES Visualisation Technology – zenOn Touch-Screen Software

Course: A 10

Duration: 2 days

How does KRONES visualisation technology work? You quickly gain confidence and routine here with the clear examples and exercises from practice. In our training laboratory you work on simulations in the current zenOn-6.20/6.22 development environment. After the seminar you are capable of making changes to the visualisation system, efficiently troubleshooting and reducing downtimes.

Target group:

Electricians, electronic engineers, electro-mechanical engineers, administrators and automation technicians

Suitable for the following software: zenOn 6.20/6.22

Recommendation:

KRONES Automation Notebook (see page 66)

Topics:

KRONES visualisation philosophy

- Design of the hardware and communications assemblies
- File structures, project back-up and installation
- Practical use of the zenOn tools
- KRONES emergency package solution
- Alarm handling, diagnosis and interpretation of faults

zenOn editor (project planning environment)

- Use and functions of the zenOn Explorer (project management)
- Functions, menu structure of the zenOn editor, SQL-DB
- Working environment of the project manager
- Configuration of various dynamic elements
- Configuration of the variable list
- Editing and adding of malfunction texts and warnings
- Exercises on experimental set-ups

Locations:

Neutraubling (DE), Franklin (US), Bangkok (TH)

Dates/Prices: see page 120 – 121

zenOn – Installation of Emergency Package

Course: A 11

Duration: 0.5 day

What do you do when the touch-screen fails? Wait until the problem is resolved or a replacement is delivered? It is better to simply operate the machine with the zenOn emergency package on a laptop or PC. This seminar teaches you how to do exactly that. It shows you how to maintain communication with the machine even during failures.

If you book this course together with the seminar "KRONES Visualisation Technology – zenOn (A 10)", then the software licence is already included in the price of the seminar.

As an alternative to this course, we offer you a preinstalled KRONES automation notebook (see page 66).

Target group:

Electricians, electronic engineers, electro-mechanical engineers, administrators and automation technicians

Suitable for the following software: zenOn 6.20/6.22

Requirements:

Participation in "KRONES Visualisation Technology zenOn Touch-Screen Software (A 10)".

Please note: The participants in this course must bring their own notebooks on which the zenOn emergency package software will be installed.

Topics:

- Installation of the zenOn software with all KRONES changes
- Communication and testing of the zenOn software
- Emergency package: zenOn 5.50/6.20/6.22 installation CDs, KRONES software (zenOn Explorer, fonts, etc.), USB dongle software license, all connection cables and documentation

Locations:

Neutraubling (DE), Franklin (US), Bangkok (TH)

Dates/Prices: see page 120 – 121

IT System Technology - Basic Principles

Course: A 12

Duration: 2 days

In this course you have an opportunity to expand your existing technical knowledge to the KRONES IT system technology. You obtain a comprehensive understanding of the networking and control technology. And with the knowledge gained it is easy for you to efficiently operate your line and ensure clear communication with the machine.

Target group:

Electricians, electronic engineers, electro-mechanical engineers

Suitable for the following machine types:

All KRONES machines equipped with suitable software

Requirements:

Participation in the "Siemens S7 for KRONES Machines – Basic Course (A 08)" or corresponding prior knowledge.

Recommendation:

KRONES Automation Notebook (see page 66)

Topics:

KRONES visualisation philosophy

- Basics of networking technology
- Electrical components of the machine
 - Danfoss FC300/VLT500 frequency inverter
 - Reading Racos electrical hardware diagram
 - Absolute-value encoder and shift register
- Network and control technology
 - Basics of network technology
 - Profibus
 - AS interface
 - HMI zenOn 6.20/6.22 visualisation

Locations:

Neutraubling (DE), Franklin (US)

Dates/Prices: see page 120 – 121

IT System Technology - Workshop

Course: A 13

Duration: 2 days

A thorough knowledge of the IT system considerably reduces machine failures. This not only enables problems to be solved more quickly, they can also be avoided from the start. This workshop provides you with a comprehensive knowledge of the network and control technology. Practice-related devices and training machines create a realistic learning environment in the process.

Target group:

Electricians, electronic engineers, electro-mechanics, administrators and automation technicians

Suitable for the following machine types:

Contiform S, Contiform H, Contiform SK and all other KRONES machines with corresponding software

Requirements:

Participation in "IT System Technology – Basics (A 12)"

Previous knowledge of Siemens S7 or participation in

"Siemens S7 for KRONES Machines – Basic Course (A 08)"

Recommendation: KRONES Automation Notebook

(see page 66)

Topics:

- Introduction and safety instruction on the Contiform
- Network and control technology
 - Basics of networking
 - Step 7 control technology
 - Profibus, AS interface
 - HMI – zenOn-6.20/6.22 visualisation
- Electrical functions of the machine
 - Danfoss FC300/VLT500 frequency inverter
 - Reading Racos electrical hardware diagram
 - Absolute-value encoder and shift register functions
 - B&R controller for the filling and labelling process
 - HC Net heating controller (optional for Contiform)
 - KRONES LCT3 controller for filling process (optional)

Locations:

Neutraubling (DE)

Dates/Prices: see page 120 – 121

B&R Automation (Electrical Components) – Workshop

Course: A 14

Duration: 2 days

It is indispensable to always be up to date when working on the PLCs. In this workshop you work independently on mobile training models which correspond to the latest state of technology. You obtain comprehensive technical knowledge on the operation of the B&R Automation Studio. After two days you are capable of operating and maintaining the line and machines more efficiently and of quickly troubleshooting malfunctions.

Target group:

Electricians, IT specialists, maintenance employees and administrators

Suitable for the following machine types:

All KRONES machines equipped with suitable software

Requirements:

Basic technical knowledge; basic IT and PC knowledge

Recommendation:

KRONES Automation Notebook (see page 66)

Topics:

- B&R components at KRONES (System 2003/'05/X20 etc.)
- Basics of drive technology: SDC module, Acopos
- Basics of B&R Automation Studio 3.0.8x; integrated help system
- CF creation according to KRONES standard (Create Image)
- Diagnosis of the most common hardware and Acopos
- Info at B&R homepage for downloading documents
- Diagnosis of B&R hardware components

A service licence for B&R Automation Studio 3.0.8x can be purchased as an option.

Please note: The source code of the machine projects is not passed on to the participant.

Locations:

Neutraubling (DE), Franklin (US), Bangkok (TH)

Dates/Prices: see page 120 – 121

Control Technology ControlLogix and DeviceNet

Course: A 15

Duration: 4 days

This training course clearly and understandably demonstrates the relationships and processes in KRONES lines. In a laboratory designed especially for training purposes, you not only learn how to use hardware and software-programming on test racks and training machines – you are also familiarised with the diagnostic functions for efficient troubleshooting.

Target group:

Electricians, electro-mechanical engineers and administrators

Suitable for the following machine types:

This course is designed for KRONES lines.

Recommendation:

KRONES Automation Notebook (see page 66)

Topics:

- Communication with the controller
 - Network addresses and assignment
 - Structure of communication with RSLinx

Memory organisation

- Configuration
 - Project design
 - Hardware and peripheral components
 - Tags and tasks
- DeviceNet
 - RSNetWorx for DeviceNet
 - Inserting Flex I/O
 - Illustration of I/O data
 - Scanner settings

Basic commands

- Data back-up
- Diagnosis
- Interactive evaluation

Locations:

Neutraubling (DE)

Dates/Prices: see page 120 – 121

KRONES Data Backup Solution (Local/Network)

Course: A 16

Duration: 0.5 days

In this workshop you learn how to back up all necessary data of the KRONES machines. In this way you prevent data loss and problems when exchanging parts or the danger of failures.

The KRONES data back-up solution is a convenient all-in-one solution that can be carried out fully automatically both locally and network-oriented. The emergency medium software "Acronis Backup & Recovery 10" used is already included as an individual licence in the seminar price.

Target group:

Electricians, administrators and automation technicians

Suitable for the following software:

Acronis Backup & Recovery 10

Requirements: none

Topics:

CF data back-up for all KRONES machines and controllers

- zenOn 5.50SPx, 6.20SPx and 6.22SPx HMI controller
- B&R controller (FVC, SDC, etc.)
- B&R controller D.A.R.T.

Acronis Backup & Recovery 10

- Creation of an emergency boot medium, e.g. USB stick
- Local back-up on the machine
- Data back-up with networked lines on network drives via remote PC
- Time-schedule controlled, automated data back-up without operator intervention at definable intervals
- Group-server based, time-controlled data back-up for all machines in the network

Locations: Neutraubling (DE)

Dates/Prices: see page 120 – 121



**KRONES Academy
Management Training**

KRONES Management Training

Your personal development as the basis for company success

In the last several years alone, more than 300 management personnel and team leaders from almost 20 different countries participated in the seminars and workshops we have offered in Africa, Asia, Europe and South America. KRONES Management Training is considered to be the reference in the filling and packaging industry for the development of management personnel. It gives them an opportunity to acquire knowledge, set up a network with other management personnel, exchange experience and find the best solution for themselves. We promote this with a broad range of training methods, such as action learning, best-practice examples, case studies and peer coaching.

Line Efficiency in 3 Modules

	Objective	Focus	Setting
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1 Module Analysis	Analyse the potential for improvement	Overview of line efficiency and analysis tool	"I can actively influence the improvement."
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2 – 3 months later

2 Module Optimising	Implement improvements and integrate the team	Communication, conflict management	"With an active, motivated team I gain momentum."
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Approx. 1 year later

3 Module TPM	Lasting change	Total Productive Management, 12 steps of introduction, Change Management	"I can achieve lasting improvements with changes in the company culture."
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KRONES Technology for Those Entering from Other Industries

Course: M 03

Duration: 4 days

Acquire a sound insight into the most important machines for filling technology in an extremely short time – that is the goal of "KRONES Technology for Those Entering from Other Industries". For optimal success, it is best to combine this seminar with the course on packaging and palletising technology (M 04), which takes place in the same week.

Target group:

Line supervisors, team leaders, logistics managers and plant managers

Requirements: none

Topics:

- Overview of the individual machines (PET blowing machines, fillers, labellers and inspectors)
- Meaning of incidentals (PET, preforms, caps, labels and glue)
- Practical training course and visits to production
- Avoiding malfunctions
- Limits of the process
- Future trends

Locations:

Neutraubling (DE)

Dates/Prices: see page 122 – 123

Packaging and Palletising Technology for Those Entering from Other Industries

Course: M 04

Duration: 1 day

In this seminar you gain an insight into the design, the method of operation and the most important technical details of packaging and palletising machines. How can you save money by using the right materials? With the acquired knowledge, you can analyse the important relationships in your production and tackle new situations. For optimal success, it is best to combine this seminar with the course „KRONES Technology for Those Entering from Another Industry (M 03)", which takes place in the same week.

Target group:

Line supervisors, team leaders, logistics managers and plant managers

Requirements: none

Topics:

- Overview of the individual machine types
- Influence of the incidentals
- Practical training: switching on the machine and putting it into operation
- Locating and troubleshooting typical malfunctions
- Special applications
- Limits of the process
- Options for optimising the line

Locations:

Rosenheim (DE)

Dates/Prices: see page 122 – 123

Train the Trainer

Course: M 06

Duration: 2 days

How can you pass on your knowledge to your employees as effectively as possible? You have technical knowledge and want to know how you can also pass it on? This course supports you in training and instructing new colleagues. For you acquire the knowledge and techniques here in order to master your teaching activities and deal with learning resistance.

Target group:

Line supervisors, shift supervisors and team leaders

Requirements: none

Topics:

- Basics of communication
- Presentation techniques
- Planning and preparing training courses
- Reducing resistance to learning
- Integrating difficult participants
- Checking the success of training
- Understanding and accepting your role as as trainer
- Practical exercises with feedback
- Simulation of training situations on the machine or line

Locations:

Neutraubling (DE)

Dates/Prices: see page 122 – 123

Maintenance Management

Course: M 08

Duration: 2 days

Do you use too many or too few resources for maintenance? Are you sure that your inspection and overhaul intervals are optimal? Could "condition-based maintenance" be a strategy for you? Discuss these and other questions with our specialists. Learn from the experience of other maintenance supervisors. Attend our two-day seminar and find the answers.

Target group:

Maintenance supervisors

Requirements:

At least one year of experience as a maintenance supervisor

Topics:

- Measuring success with KPI and OEE
- Maintenance strategies: reactive, preventative and condition-based
- Spare parts strategies
- Optimising routine tasks
- Overhauls
- Planning tools
- Implementing new strategies

Locations:

Neutraubling (DE)

Dates/Prices: see page 122 – 123

More Flexible Production and Warehouse Logistics

Course: M 09

Duration: 2 days

Bottlenecks in the logistics chain often prove to increase costs in the long term. This seminar focuses on how you can systematically locate and eliminate these bottlenecks. For this purpose, possible goal conflicts in the company are discussed, solution approaches developed and factors for success talked over. The course curriculum and the intensive exchange of experiences in the group supports you in structuring your intralogistics better and more flexibly.

Target group:

Logistics managers, production managers, finance managers, plant managers and owners

Requirements: none

Topics:

- Industry trends and a change in paradigms
- Challenges of our own business model; goal conflicts in production and logistics
- Different business models and consequences for production and intralogistics
- Determination and evaluation of major problem areas
- Best-practice examples for implementation
- Goal conflicts and solution approaches for integrated controlling

Locations:

Neutraubling (DE)

Dates/Prices: see page 122 – 123

Aseptic Filling and Process Technology

Course: M 12

Duration: 2 days

High production performance at an extremely low price and top quality – these are the challenges beverage companies are faced with today. This seminar focuses on how to completely master these tasks in aseptic filling and process technology.

Target group:

Team leaders, line supervisors, production managers, quality managers and packing materials/logistics managers, plant managers and maintenance managers

Requirements: none

Topics:

- Advantages of aseptic filling
- Definition of terms and legal basics
- Disinfection concepts
- Performance and major cost factors
- Quality assurance
- Special training requirements and solutions
- Project planning overview
- Hygienic design:
- "Quo vadis aseptic?"

Locations:

Neutraubling (DE)

Dates/Prices: see page 122 – 123

Project Management – from Practice to Practice

Course: M 14

Duration: 3 days

We offer selected customers a participation in the KRONES "Project Management" course. This course is based on practical experience on site and the new ABMI project standards for the filling industry – it is therefore exactly tailored to the needs of the project managers in the beverage industry. The course curriculum fulfils the PMI standards and gives you an opportunity to further develop your project and team management skills. The acquired competence pays off many times over, e.g. when setting up new machines and lines, during upgrades and overhauls, when lightweighting and when introducing new products.

Target group:

Project managers of design teams on a company and line level and other experts who are integrated in the project

Recommendation:

You are welcome to bring an actual project into the seminar to obtain valuable input.

Locations:

Neutraubling (DE)

Dates/Prices: see page 122 – 123

Line Efficiency 1 – Analysis

Course: M 16

Duration: 2.5 days

Exact stock-taking is a vital requirement for increasing the productivity of the line. In this course you learn how commercial key performance indicators (KPI) are measured and weak points in the line are recognised. You become familiar with proven tools to locate the causes of losses and learn how you use them in practice. Methods for determining the financial viability (ROI, TCO, Break Even) and for structuring management decisions complete your knowledge.

Optional: This course can be continued after a practical phase of several weeks with the seminar "Line Efficiency 2 – Optimisation (M 17)".

Target group:

Line supervisors, supervisors and team leaders

Requirements:

At least one year of experience as a team leader or line supervisor

Topics:

- Line layout
- Buffer and overspeed, V-diagram
- Measuring buffer times, line productivity
- Loss analysis
- TCO (Total Cost of Ownership)
- Commercial key performance indicators (KPI)
- Structuring routine tasks more efficiently
- The role of the team leader
- Employees and their influence on line productivity
- Motivating employees

Locations:

Neutraubling (DE), Johannesburg (ZA), Franklin (US), São Paulo (BR), Bangkok (TH)

Dates/Prices: see page 122 – 123

Line Efficiency 2 – Optimisation

Course: M 17

Duration: 2.5 days

"How do I effectively implement improvement measures in production?" This seminar provides you with answers to this question. You learn how you get your team on board, reduce resistance and solve conflicts. And you learn how you can convincingly communicate the required measures both "upward" and "downward".

Target group:

Supervisors, team leaders and plant managers

Requirements:

Course "Line Efficiency 1 – Analysis (M 16)" or comparable experience, quick check (you will receive details following registration)

Topics:

- Review: Experience with the analysis from "Line Efficiency 1"
- Evaluations of the quick checks
- Typical reactions to changes
- Basics of communication
- Dealing with resistance
- De-escalating discussion management
- Having a convincing manner – both "upward" and "downward"
- Generating motivation and commitment

Locations:

Neutraubling (DE), Johannesburg (ZA)

Dates/Prices: see page 122 – 123

Line Efficiency 3 – TPM and Its Implementation

Course: M 18

Duration: 2 days

There is a major difference between fast profits and lasting optimisations. This course explains to you what "Total Productive Management" is and what factors determine the success of the management system. Concrete examples from the beverage sector also show how the processes can be carried out successfully in your company.

Target group:

Supervisors, team leaders, plant managers and project managers

Requirements:

Experience in the beverage industry

Topics:

- Total Productive Management
- The eight pillars of TPM
- The role of management in change processes
- Experience with the implementation of TPM
- How TPM is implemented: "Everything in its own time!"
- Economic advantages of long-term thinking
- Dos and Don'ts
- Discussion of individual situations

Locations:

Neutraubling (DE)

Dates/Prices: see page 122 – 123

KRONES Evaluation

The Machine Operating Licence

How well does your team of operators deal with the complex line technology? Is there still a need for training. If there is, then where? Our "Machine Operating Licence" provides you with objective answers to these questions. For this purpose, we test how safely and professionally the starting, operating, shutting down and changing-over of the line is carried out during ongoing production. The machine operating licence combines theoretical questions with practical exercises and takes approximately two to four hours for each participant. We recommend that you carry out this evaluation approximately six months after a training course or in cases in which the performance fails to meet up to your expectations and you require a status and development plan.

Target group:

Operators

Suitable for the following machine types:

All KRONES machines

Requirements: none

Topics:

Theoretical and practical tasks at the machine

Dates/Places/Prices:

These are dependent on the machine type and the number of participants (USA on site only).

SOP (Standard Operating Procedures)

Easy-to-Understand, Step-by-Step Instructions

The KRONES academy develops individual SOPs for your company. For this purpose, our experienced technical editors develop working instructions that are practice-oriented and easy to understand together with your production employees. Rich illustration and a minimum of text make the step-by-step instructions especially clear.

Suitable for the following machine types:

All KRONES machines

Dates/Places/Prices:

These are dependent on the machine type and the process to be developed (only on request, USA on site only).

Course registration

Website: www.krones.com/en/academy.htm

E-mail: academy@krones.com

For fax, phone or postal registrations, please see the next three pages

Course topics

For more detailed information on the course topics, please check our website (www.krones.com/en/academy.htm) or contact the KRONES Academy.

Seminar schedules

On the first day, training starts at 9 a.m.,
on the successive days at 8 a.m.

Seminar end: approx. 4 p.m.

The management training times may differ.

Prices

Our current prices are indicated in the schedule in the appendix of this catalogue. Costs for our seminars are quoted per participant unless otherwise noted. Course fees include lunch and drinks provided at break times during training days. Training materials used for work and practical exercises are included as well. All prices are to be understood exclusive of the current rate of VAT or any other tax. Travel, accommodation and any other expenditures of the trainees are not included in the course fee. Charges for board and lodging are to be settled directly with the hotel or restaurant. In Germany, we can arrange free transfer between Munich airport/Regensburg train station, your hotel and the KRONES Academy in Neutraubling and Rosenheim, as well as between Hamburg airport/train station, hotel and the KRONES Academy in Flensburg.

Cancellations

Cancellations received in writing up to two weeks from the start of training are accepted free of charge. Please note that cancellations made less than two weeks before the start of the training will be subject to 100 % of the fee. Instead of cancelling, participants can arrange for a substitute without incurring further charges.

The KRONES Academy reserves the right to cancel, postpone or change any training course, in which case participants will be informed.

Individual courses

In addition to the courses listed in this catalogue, we customise our training offers to suit your own specific requirements. Please talk to your local KRONES Academy listed on the next pages.

Enquiries

If you have any questions about the courses or about any other topic which is not listed, please contact your local KRONES Academy.

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Course no.	Title	Language	Duration	Date	Price/participant	Location
Plastics technology						
P 01-1	Contiform – Operation	German	2 days	March 27 – 28, 2012	790 €	Neutraubling/DE
P 01-2		English	2 days	April 3 – 4, 2012	790 €	Neutraubling/DE
P 01-3		English	4 days	Jan 3 – 6, 2012	\$ 2,100	Franklin/US
P 01-4		English	4 days	June 5 – 8, 2012	\$ 2,100	Franklin/US
P 01-5		English	4 days	Sept 25 – 28, 2012	\$ 2,100	Franklin/US
P 02-1	Contiform – Basics and introduction to electrics	German	3 – 4 days	March 6 – 9, 2012	1,185 € / 1,580 €	Neutraubling/DE
P 02-2		English	3 – 4 days	Oct 9 – 12, 2012	1,185 € / 1,580 €	Neutraubling/DE
P 02-3		English	4 days	Jan 10 – 13, 2012	\$ 2,100	Franklin/US
P 02-4		English	4 days	June 12 – 15, 2012	\$ 2,100	Franklin/US
P 02-5		English	4 days	Oct 2 – 5, 2012	\$ 2,100	Franklin/US
P 02-6		Chinese	3 days	Jan 4 – 6, 2012	30,000 RMB	Taicang/CN
P 03-1	Contiform – Mechanical adjustments	German	2 days	March 13 – 14, 2012	990 €	Neutraubling/DE
P 03-2		German	2 days	Sept 25 – 26, 2012	990 €	Neutraubling/DE
P 03-3		German	2 days	Nov 20 – 21, 2012	990 €	Neutraubling/DE
P 03-4		English	2 days	upon request	990 €	Neutraubling/DE
P 03-5		English	4 days	Jan 17 – 20, 2012	\$ 2,100	Franklin/US
P 03-6		English	4 days	June 19 – 22, 2012	\$ 2,100	Franklin/US
P 03-7		English	4 days	Oct 9 – 12, 2012	\$ 2,100	Franklin/US
P 03-8		Chinese	3 days	April 9 – 11, 2012	30,000 RMB	Taicang/CN
P 04-1	Contiform – Maintenance	German	3 days	April 24 – 26, 2012	1,485 €	Neutraubling/DE
P 04-2		German	3 days	Sept 18 – 19, 2012	1,485 €	Neutraubling/DE
P 04-3		German	3 days	Nov 27 – 29, 2012	1,485 €	Neutraubling/DE
P 04-4		English	3 days	upon request	1,485 €	Neutraubling/DE
P 04-5		English	3 days	Feb 22 – 24, 2012	\$ 1,575	Franklin/US
P 04-6		English	3 days	Aug 1 – 3, 2012	\$ 1,575	Franklin/US
P 04-7		English	3 days	Nov 14 – 16, 2012	\$ 1,575	Franklin/US
P 05-1	Contiform S – PET process technology	German	2 days	March 15 – 16, 2012	990 €	Neutraubling/DE
P 05-2		German	2 days	Sept 27 – 28, 2012	990 €	Neutraubling/DE
P 05-3		German	2 days	Nov 22 – 23, 2012	990 €	Neutraubling/DE
P 05-4		English	2 days	upon request	990 €	Neutraubling/DE
P 05-5		English	3 days	Feb 1 – 3, 2012	\$ 1,575	Franklin/US
P 05-6		English	3 days	July 11 – 13, 2012	\$ 1,575	Franklin/US
P 05-7		English	3 days	Oct 24 – 26, 2012	\$ 1,575	Franklin/US
P 05-8		Chinese	3 days	Aug 13 – 15, 2012	30,000 RMB	Taicang/CN
P 06-1	Contiform – Air Recycling	German	1 day	upon request	upon request	Neutraubling/DE
P 06-2		English	1 day	upon request	upon request	Neutraubling/DE

2012 seminars

Course no.	Title	Language	Duration	Date	Price/participant	Location
Filling technology						
F 01-1	Volumetric VODM filler	German	4 days	April 23 – 26, 2012	1,580 €	Neutraubling/DE
F 01-2		German	4 days	Oct 22 – 25, 2012	1,580 €	Neutraubling/DE
F 01-3		English	4 days	upon request	1,580 €	Neutraubling/DE
F 01-4		English	2 days	Jan 25 – 26, 2012	\$ 950	Franklin/US
F 01-5		English	2 days	Feb 9 – 10, 2012	\$ 950	Franklin/US
F 01-6		Spanish	2 days	Oct 4 – 5, 2012	\$ 950	Franklin/US
F 01-7		English	4 days	June 5 – 8, 2012	19,200 THB	Bangkok/TH
F 01-8		English	4 days	Nov 13 – 16, 2012	19,200 THB	Bangkok/TH
F 01-9		Chinese	4 days	Feb 7 – 10, 2012	40,000 RMB	Taicang/CN
F 02-1	Mecafill VKP filler	German	4 days	March 5 – 8, 2012	1,580 €	Neutraubling/DE
F 02-2		German	4 days	Oct 16 – 19, 2012	1,580 €	Neutraubling/DE
F 02-3		English	4 days	upon request	1,580 €	Neutraubling/DE
F 02-4		English	2 days	Jan 26 – 27, 2012	\$ 950	Franklin/US
F 02-5		English	2 days	Feb 9 – 10, 2012	\$ 950	Franklin/US
F 02-6		Spanish	2 days	Oct 4 – 5, 2012	\$ 950	Franklin/US
F 02-7		English	4 days	June 12 – 15, 2012	19,200 THB	Bangkok/TH
F 02-8		English	4 days	Nov 20 – 23, 2012	19,200 THB	Bangkok/TH
F 02-9		Chinese	4 days	May 14 – 17, 2012	40,000 RMB	Taicang/CN
F 03-1	Aseptic filling (AF)	German	5 days	June 18 – 22, 2012	1,975 €	Neutraubling/DE
F 03-2		English	5 days	Dec 3 – 7, 2012	1,975 €	Neutraubling/DE
F 03-3	Aseptic filling (AF) – Basic course	English	2 days	Feb 1 – 2, 2012	\$ 950	Franklin/US
F 03-4		English	2 days	Oct 11 – 12, 2012	\$ 950	Franklin/US
F 03-7		Spanish	2 days	Feb 2 – 3, 2012	\$ 950	Franklin/US
F 09-1	Sensometric VP filler	German	4 days	March 20 – 23, 2012	1,580 €	Neutraubling/DE
F 09-2		German	4 days	Sept 25 – 28, 2012	1,580 €	Neutraubling/DE
F 09-3		English	4 days	upon request	1,580 €	Neutraubling/DE
F 10-1	Efficient troubleshooting for aseptic systems	German	3 – 5 days	upon request	upon request	on site
F 10-2		English	3 – 5 days	upon request	upon request	on site
F 11-1	Critical hygiene points	German	1.5 – 2 days	upon request	upon request	on site
F 11-2		English	1.5 – 2 days	upon request	upon request	on site
F 12-1	Aseptic filling technology – Maintenance	German	1 day	May 8, 2012	395 €	Neutraubling/DE
F 12-2		German	1 day	Nov 6, 2012	395 €	Neutraubling/DE
F 12-3		English	1 day	Feb 7, 2012	395 €	Neutraubling/DE
F 12-4		English	1 day	Oct 23, 2012	395 €	Neutraubling/DE
F 13-1	The process control system (PCS) in practice	German	2 days	May 9 – 10, 2012	790 €	Neutraubling/DE
F 13-2		English	2 days	Feb 8 – 9, 2012	790 €	Neutraubling/DE
F 17-1	Filling technology – Maintenance	German	2 days	upon request	790 €	Neutraubling/DE
F 17-2		English	2 days	upon request	790 €	Neutraubling/DE

Cleaning technology						
C 01-1	Bottle washers – Step by step	German	4 days	March 13 – 16, 2012	1,580 €	Flensburg/DE
C 01-2		German	4 days	Nov 20 – 23, 2012	1,580 €	Flensburg/DE
C 01-3		English	4 days	Feb 14 – 17, 2012	1,580 €	Flensburg/DE
C 01-4		English	4 days	Dec 4 – 7, 2012	1,580 €	Flensburg/DE

Course no.	Title	Language	Duration	Date	Price/participant	Location
Process technology						
B 01-1	CIP system VarioClean	German	0.5 days	upon request	198 €	Neutraubling/DE
B 01-2		English	0.5 days	upon request	198 €	Neutraubling/DE
B 03-1	Flash pasteuriser – Thermal product treatment	German	1 day	March 9, 2012	395 €	Neutraubling/DE
B 03-2		German	1 day	Oct 26, 2012	395 €	Neutraubling/DE
B 03-3		English	1 day	upon request	395 €	Neutraubling/DE
B 04-1	Bottle, can and product treatment (pasteuriser)	German	1 day	March 12, 2012	395 €	Flensburg/DE
B 04-2		German	1 day	Nov 19, 2012	395 €	Flensburg/DE
B 04-3		English	1 day	Feb 13, 2012	395 €	Flensburg/DE
B 05-1	Beer production in practice	German	2 days	upon request	790 €	Neutraubling/DE
B 05-2		English	2 days	upon request	790 €	Neutraubling/DE
B 06-1	Contiflow Mixer	German	1 day	April 27, 2012	395 €	Neutraubling/DE
B 06-2		German	1 day	upon request	395 €	Neutraubling/DE
B 07-1	Botec F1 – Basic course	German	2 days	June 26 – 27, 2012	790 €	Neutraubling/DE
B 07-2		English	2 days	June 28 – 29, 2012	790 €	Neutraubling/DE
B 08-1	Efficient working with Botec-controlled systems	German	3 – 5 days	upon request	upon request	Neutraubling/DE
B 08-2		English	3 – 5 days	upon request	upon request	Neutraubling/DE
B 09-1	KRONES EvoGuard valve technology	German	1.5 days	upon request	395 €	Neutraubling/DE
B 09-2		English	1.5 days	upon request	395 €	Neutraubling/DE

Labelling technology						
L 01-1	Cold glue technology	German	3.5 days	Jan 24 – 27, 2012	1,383 €	Neutraubling/DE
L 01-2		German	3.5 days	April 17 – 20, 2012	1,383 €	Neutraubling/DE
L 01-3		German	3.5 days	Nov 6 – 9, 2012	1,383 €	Neutraubling/DE
L 01-4		English	3.5 days	May 22 – 25, 2012	1,383 €	Neutraubling/DE
L 01-5		English	3.5 days	Feb 21 – 24, 2012	\$ 1,663	Franklin/US
L 01-6		English	3.5 days	April 3 – 6, 2012	\$ 1,663	Franklin/US
L 01-7		English	3.5 days	May 15 – 18, 2012	\$ 1,663	Franklin/US
L 01-8		Spanish	3.5 days	Oct 17 – 19, 2012	\$ 1,663	Franklin/US
L 01-9		English	3 days	Jan 9 – 11, 2012	£ 795	Bolton/UK
L 01-10		English	3 days	Jan 23 – 25, 2012	£ 795	Bolton/UK
L 01-11		English	3 days	Feb 6 – 8, 2012	£ 795	Bolton/UK
L 01-12		English	3 days	Feb 20 – 22, 2012	£ 795	Bolton/UK
L 01-13		English	3 days	March 5 – 7, 2012	£ 795	Bolton/UK
L 01-14		English	3 days	March 19 – 21, 2012	£ 795	Bolton/UK
L 01-15		English	3 days	April 2 – 4, 2012	£ 795	Bolton/UK
L 01-16		English	3 days	April 16 – 18, 2012	£ 795	Bolton/UK
L 01-17		English	3 days	May 14 – 16, 2012	£ 795	Bolton/UK
L 01-18		English	3 days	May 28 – 30, 2012	£ 795	Bolton/UK
L 01-19		English	3 days	June 18 – 20, 2012	£ 795	Bolton/UK
L 01-20		English	3 days	June 25 – 27 2012	£ 795	Bolton/UK
L 01-21		English	3 days	July 9 – 11, 2012	£ 795	Bolton/UK
L 01-22		English	3 days	Aug 20 – 22, 2012	£ 795	Bolton/UK
L 01-23		English	3 days	Sept 3 – 5, 2012	£ 795	Bolton/UK
L 01-24		English	3 days	Sept 24 – 26, 2012	£ 795	Bolton/UK

Course no.	Title	Language	Duration	Date	Price/participant	Location
L 01-25	Cold glue technology	English	3 days	Oct 8 – 10, 2012	£ 795	Bolton/UK
L 01-26		English	3 days	Oct 29 – 31, 2012	£ 795	Bolton/UK
L 01-27		English	3 days	Nov 12 – 14, 2012	£ 795	Bolton/UK
L 01-28		English	3 days	Nov 26 – 28, 2012	£ 795	Bolton/UK
L 01-29		English	3 days	Dec 10 – 12, 2012	£ 795	Bolton/UK
L 01-30		English	3.5 days	Feb 21 – 24, 2012	16,800 THB	Bangkok/TH
L 01-31		English	3.5 days	Sept 4 – 7, 2012	16,800 THB	Bangkok/TH
L 01-32		English	5 days	March 12 – 16, 2012	9,000 ZAR	Johannesburg/ZA
L 01-33		English	5 days	July 2 – 6, 2012	9,000 ZAR	Johannesburg/ZA
L 01-34		English	5 days	Nov 5 – 9, 2012	9,000 ZAR	Johannesburg/ZA
L 02-1	Contiroll (745) hotmelt technology	German	3 days	Feb 28 – Mar 1, 2012	1,185 €	Neutraubling/DE
L 02-2		German	3 days	Oct 16 – 18, 2012	1,185 €	Neutraubling/DE
L 02-3		English	3 days	June 12 – 14, 2012	1,185 €	Neutraubling/DE
L 02-4		English	3 days	upon request	upon request	Franklin/US
L 02-5		English	2 days	Jan 26 – 27, 2012	£ 575	Bolton/UK
L 02-6		English	2 days	March 8 – 9, 2012	£ 575	Bolton/UK
L 02-7		English	2 days	May 31 – June 1, 2012	£ 575	Bolton/UK
L 02-8		English	2 days	July 12 – 13, 2012	£ 575	Bolton/UK
L 02-9		English	2 days	Sept 6 – 7, 2012	£ 575	Bolton/UK
L 02-10		English	2 days	Nov 15 – 16, 2012	£ 575	Bolton/UK
L 02-11		English	3 days	June 18 – 20, 2012	14,400 THB	Bangkok/TH
L 02-12		English	3 days	Nov 26 – 28, 2012	14,400 THB	Bangkok/TH
L 02-13		Chinese	3 days	Jan 17 – 19, 2012	30,000 RMB	Taicang/CN
L 03-1	Hotmelt technology Contiroll HS (High Speed)	German	4 days	March 20 – 23, 2012	1,580 €	Neutraubling/DE
L 03-2		German	4 days	Dec 4 – 7, 2012	1,580 €	Neutraubling/DE
L 03-3		English	4 days	June 26 – 29, 2012	1,580 €	Neutraubling/DE
L 03-4		English	4 days	upon request	upon request	Franklin/US
L 03-5		English	4 days	April 2 – 5, 2012	19,200 THB	Bangkok/TH
L 03-6		English	4 days	Sept 11 – 14, 2012	19,200 THB	Bangkok/TH
L 03-7		Chinese	3 days	March 19 – 21, 2012	30,000 RMB	Taicang/CN
L 04-1	Self-adhesive technology	German	2 days	Feb 7 – 8, 2012	790 €	Neutraubling/DE
L 04-2		German	2 days	Oct 9 – 10, 2012	790 €	Neutraubling/DE
L 04-3		English	2 days	March 13 – 14, 2012	790 €	Neutraubling/DE
L 04-4		English	2.5 days	March 14 – 16, 2012	\$ 1,188	Franklin/US
L 04-5		English	2.5 days	Nov 7 – 9, 2012	\$ 1,188	Franklin/US
L 04-6		Spanish	2.5 days	June 6 – 8, 2012	\$ 1,188	Franklin/US
L 04-7		English	2 days	Feb 23 – 24, 2012	£ 575	Bolton/UK
L 04-8		English	2 days	April 19 – 20, 2012	£ 575	Bolton/UK
L 04-9		English	2 days	June 28 – 29, 2012	£ 575	Bolton/UK
L 04-10		English	2 days	Aug 23 – 24, 2012	£ 575	Bolton/UK
L 04-11		English	2 days	Oct 11 – 12, 2012	£ 575	Bolton/UK
L 04-12		English	2 days	Dec 13 – 14, 2012	£ 575	Bolton/UK
L 04-13		Chinese	3 days	June 11 – 13, 2012	30,000 RMB	Taicang/CN
L 05-1	Sleevematic M	German	2 days	Feb 14 – 15, 2012	790 €	Neutraubling/DE
L 05-2		English	2 days	March 27 – 28, 2012	790 €	Neutraubling/DE

Course no.	Title	Language	Duration	Date	Price/participant	Location
L 05-3	Sleevematic M	Spanish	2 days	upon request	790 €	Neutraubling/DE
L 05-4		English	2 days	upon request	upon request	Franklin/US
L 07-1	Labeller change-over – Workshop	German	2 days	upon request	upon request	on site
L 07-2		English	2 days	upon request	upon request	on site
L 08-1	Contiroll HS (High Speed) – Operator training course	English	2 days	Jan 12 – 13, 2012	\$ 950	Franklin/US
L 08-2		English	2 days	May 10 – 11, 2012	\$ 950	Franklin/US
L 08-3		English	2 days	Sept 20 – 21, 2012	\$ 950	Franklin/US
L 08-4		English	2 days	April 9 – 10, 2012	9,600 THB	Bangkok/TH
L 08-5		English	2 days	Sept 17 – 18, 2012	9,600 THB	Bangkok/TH
L 09-1	Contiroll HS (High Speed) – Maintenance	English	3 days	Jan 4 – 6, 2012	\$ 1,425	Franklin/US
L 09-2		English	3 days	May 2 – 4, 2012	\$ 1,425	Franklin/US
L 09-3		Spanish	3 days	Sept 12 – 14, 2012	\$ 1,425	Franklin/US
L 09-4		English	3 days	Feb 27 – 29, 2012	14,400 THB	Bangkok/TH
L 09-5		English	3 days	Sept 19 – 21, 2012	14,400 THB	Bangkok/TH
L 09-6		Chinese	3 days	Aug 22 – 24, 2012	30,000 RMB	Taicang/CN
L 11-1	Canmatic labeller (operation)	English	2 days	March 8 – 9, 2012	\$ 950	Franklin/US
L 11-2		English	2 days	Oct 31 – Nov 1, 2012	\$ 950	Franklin/US
L 11-3		Spanish	2 days	May 24 – 25, 2012	\$ 950	Franklin/US
L 11-4	Canmatic labeller (maintenance)	English	2.5 days	March 7 – 9, 2012	\$ 1,190	Franklin/US
L 11-5		English	2.5 days	Nov 5 – 7, 2012	\$ 1,190	Franklin/US
L 14-1	Contiroll HS – Systematic troubleshooting	German	2 days	May 8 – 9, 2012	790 €	Neutraubling/DE
L 14-2		English	2 days	Sept 11 – 12, 2012	790 €	Neutraubling/DE
L 14-3		English	2 days	upon request	upon request	Franklin/US
L 15-1	Contiroll hotmelt labeller – Maintenance	German	3 days	upon request	1,185 €	Neutraubling/DE
L 15-2		English	3 days	upon request	1,185 €	Neutraubling/DE
L 16-1	Cold glue labeller – Maintenance	German	4 days	Jan 31 – Feb 3, 2012	1,580 €	Neutraubling/DE
L 16-2		German	4 days	May 22 – 25, 2012	1,580 €	Neutraubling/DE
L 16-3		German	4 days	Oct 23 – 25, 2012	1,580 €	Neutraubling/DE
L 16-4		English	4 days	April 24 – 27, 2012	1,580 €	Neutraubling/DE
L 16-5		English	4 days	June 26 – 29, 2012	19,200 THB	Bangkok/TH
L 16-6		English	4 days	Dec 11 – 14, 2012	19,200 THB	Bangkok/TH

Inspection technology

I 01-1	Linatronic M2 series – Basic course	German	4 days	Feb 28 – Mar 2, 2012	1,580 €	Neutraubling/DE
I 01-2		German	4 days	Sept 11 – 14, 2012	1,580 €	Neutraubling/DE
I 01-3		German	4 days	Nov 6 – 9, 2012	1,580 €	Neutraubling/DE
I 01-4		English	4 days	April 17 – 20, 2012	1,580 €	Neutraubling/DE
I 01-5		English	4 days	Oct 9 – 12, 2012	1,580 €	Neutraubling/DE
I 01-6		French	4 days	upon request	1,580 €	Neutraubling/DE
I 01-7		Dutch	4 days	upon request	1,580 €	Neutraubling/DE
I 01-8		Spanish	4 days	upon request	1,580 €	Neutraubling/DE
I 02-1	Linatronic M2 series – Advanced course	German	4 days	April 24 – 27, 2012	1,580 €	Neutraubling/DE
I 02-2		German	4 days	Dec 11 – 14, 2012	1,580 €	Neutraubling/DE
I 02-3		English	4 days	Nov 27 – 30, 2012	1,580 €	Neutraubling/DE

Course no.	Title	Language	Duration	Date	Price/participant	Location
I 02-4	Linatronic M2 series – Advanced course	French	4 days	upon request	1,580 €	Neutraubling/DE
I 02-5		Dutch	4 days	upon request	1,580 €	Neutraubling/DE
I 02-6		Spanish	4 days	upon request	1,580 €	Neutraubling/DE
I 02-7		Chinese	3 days	Feb 13 – 15, 2012	30,000 RMB	Taicang/CN
I 03-1	PET-View	German	3 days	Feb 14 – 16, 2012	1,185 €	Neutraubling/DE
I 03-2		English	3 days	Oct 16 – 18, 2012	1,185 €	Neutraubling/DE
I 03-3		French	3 days	upon request	1,185 €	Neutraubling/DE
I 03-4		Dutch	3 days	upon request	1,185 €	Neutraubling/DE
I 03-5		Spanish	3 days	upon request	1,185 €	Neutraubling/DE
I 03-6		English	3 days	upon request	upon request	Franklin/US
I 03-7		Chinese	3 days	July 11 – 13, 2012	30,000 RMB	Taicang/CN
I 05-1	Checkmat 731/752	English	2 days	April 19 – 20, 2012	\$ 1,050	Franklin/US
I 05-2		English	2 days	Dec 13 – 14, 2012	\$ 1,050	Franklin/US
I 05-3		English	3 days	April 23 – 25, 2012	14,400 THB	Bangkok/TH
I 05-4		English	3 days	Nov 5 – 7, 2012	14,400 THB	Bangkok/TH
I 05-5		Chinese	3 days	Sept 5 – 7, 2012	30,000 RMB	Taicang/CN
I 06-1	Checkmat 707	German	2 days	May 8 – 9, 2012	790 €	Neutraubling/DE
I 06-2		English	2 days	upon request	790 €	Neutraubling/DE
I 06-3		English	2 days	April 19 – 20, 2012	\$ 1,050	Franklin/US
I 06-4		English	2 days	Dec 13 – 14, 2012	\$ 1,050	Franklin/US
I 06-5		English	2 days	April 26 – 27, 2012	9,600 THB	Bangkok/TH
I 06-6		English	2 days	Nov 8 – 9, 2012	9,600 THB	Bangkok/TH

Packaging and palletising technology						
D 01-1	Non-returnable packaging technology	German	4 days	April 17 – 20, 2012	1,580 €	Rosenheim/DE
D 01-2		German	4 days	Nov 27 – 30, 2012	1,580 €	Rosenheim/DE
D 01-3		English	4 days	April 24 – 27, 2012	1,580 €	Rosenheim/DE
D 01-4		Chinese	3 days	March 28 – 30, 2012	30,000 RMB	Taicang/CN
D 02-1	Palletising technology	Chinese	3 days	Oct 10 – 12, 2012	30,000 RMB	Taicang/CN
D 03-1	Packaging technology	German	2 days	March 20 – 21, 2012	790 €	Rosenheim/DE
D 03-2		German	2 days	Nov 12 – 13, 2012	790 €	Rosenheim/DE
D 03-3		English	2 days	Sept 25 – 26, 2012	790 €	Rosenheim/DE
D 03-4		Chinese	3 days	Dec 19 – 21, 2012	30,000 RMB	Taicang/CN
D 04-1	Robobox and Modulpal	German	3 days	Jan 24 – 26, 2012	1,185 €	Rosenheim/DE
D 04-2		German	3 days	Sept 18 – 20, 2012	1,185 €	Rosenheim/DE
D 04-3		English	3 days	Feb 7 – 9, 2012	1,185 €	Rosenheim/DE
D 05-1	Modulpal – Returnable technology	German	3 days	Feb 28 – Mar 1, 2012	1,185 €	Rosenheim/DE
D 05-2		German	3 days	Oct 9 – 11, 2012	1,185 €	Rosenheim/DE
D 05-3		English	3 days	June 12 – 14, 2012	1,185 €	Rosenheim/DE
D 06-1	Modulpal – Non-returnable technology	German	3 days	May 22 – 24, 2012	1,185 €	Rosenheim/DE
D 06-2		German	3 days	Oct 23 – 25, 2012	1,185 €	Rosenheim/DE
D 06-3		English	3 days	Sept 4 – 6, 2012	1,185 €	Rosenheim/DE
D 07-1	Innovations in packaging and palletising technology	German	2 days	June 19 – 20, 2012	1,185 €	Rosenheim/DE
D 07-2		German	2 days	Dec 11 – 12, 2012	1,185 €	Rosenheim/DE
D 07-3		English	2 days	Nov 6 – 7, 2012	1,185 €	Rosenheim/DE

Course no.	Title	Language	Duration	Date	Price/participant	Location
Electrotechnology						
E 01-1	KRONES electrical technology for mechanics	German	2 days	June 19 – 20, 2012	790 €	Neutraubling/DE
E 01-2		English	2 days	May 15 – 16, 2012	790 €	Neutraubling/DE
E 01-3		English	2 days	upon request	\$ 1,050	Franklin/US
E 01-4		English	3 days	July 16 – 18, 2012	5,400 ZAR	Johannesburg/ZA
E 01-5		English	3 days	Oct 8 – 10, 2012	5,400 ZAR	Johannesburg/ZA
E 01-6		English	3 days	May 22 – 24, 2012	1,505 €	Nairobi/KE
E 01-7		English	3 days	March 19 – 21, 2012	1,960 €	Lagos/NG
E 01-8		English	3 days	Sept 4 – 6, 2012	1,960 €	Lagos/NG
E 01-9		Spanish	3 days	upon request	1,185 €	São Paulo/BR
E 01-10		Portuguese	3 days	Feb 14 – 16, 2012	1,185 €	São Paulo/BR
E 01-11		Portuguese	3 days	March 27 – 29, 2012	1,185 €	São Paulo/BR
E 01-12		Portuguese	3 days	May 22 – 24, 2012	1,185 €	São Paulo/BR
E 01-13		Portuguese	3 days	July 17 – 19, 2012	1,185 €	São Paulo/BR
E 01-14		Portuguese	3 days	Sept 11 – 13, 2012	1,185 €	São Paulo/BR
E 01-15		Portuguese	3 days	Nov 27 – 29, 2012	1,185 €	São Paulo/BR
E 02-1	Contiform – Electrical components	German	2 days	Jan 31 – Feb 1, 2012	790 €	Neutraubling/DE
E 02-2		German	2 days	Oct 16 – 17, 2012	790 €	Neutraubling/DE
E 02-3		English	2 days	Feb 14 – 15, 2012	790 €	Neutraubling/DE
E 02-4		English	2 days	Oct 30 – 31, 2012	790 €	Neutraubling/DE
E 02-5		English	4 days	Jan 24 – 27, 2012	\$ 2,100	Franklin/US
E 02-6		English	4 days	June 26 – 29, 2012	\$ 2,100	Franklin/US
E 02-7		English	4 days	Oct 16 – 19, 2012	\$ 2,100	Franklin/US
E 02-8		Chinese	2 days	April 23 – 24, 2012	20,000 RMB	Taicang/CN
E 03-1	Filler – Electrical components (LCT3/KFS3 controller)	German	3 days	March 12 – 14, 2012	1,185 €	Neutraubling/DE
E 03-2		English	3 days	May 21 – 23, 2012	1,185 €	Neutraubling/DE
E 03-3		English	3 days	June 18 – 20, 2012	14,400 THB	Bangkok/TH
E 03-4		English	3 days	Nov 26 – 28, 2012	14,400 THB	Bangkok/TH
E 03-5		Chinese	2 days	May 22 – 23, 2012	20,000 RMB	Taicang/CN
E 04-1	Füller – Electrical components (FVC controller)	German	3 days	Feb 7 – 9, 2012	1,185 €	Neutraubling/DE
E 04-2		English	3 days	April 3 – 5, 2012	1,185 €	Neutraubling/DE
E 04-3		English	3 days	June 11 – 13, 2012	14,400 THB	Bangkok/TH
E 04-4		English	3 days	Nov 19 – 21, 2012	14,400 THB	Bangkok/TH
E 04-5		Spanish	3 days	upon request	1,185 €	São Paulo/BR
E 04-6		Portuguese	3 days	Feb 7 – 9, 2012	1,185 €	São Paulo/BR
E 04-7		Portuguese	3 days	April 24 – 26, 2012	1,185 €	São Paulo/BR
E 04-8		Portuguese	3 days	June 19 – 21, 2012	1,185 €	São Paulo/BR
E 04-9		Portuguese	3 days	Aug 21 – 23, 2012	1,185 €	São Paulo/BR
E 04-10		Portuguese	3 days	Oct 23 – 25, 2012	1,185 €	São Paulo/BR
E 04-11		Portuguese	3 days	Dec 11 – 13, 2012	1,185 €	São Paulo/BR
E 04-12		Chinese	3 days	June 27 – 29, 2012	30,000 RMB	Taicang/CN
E 05-1	Cold glue labeller – Electrical components	German	2 days	March 15 – 16, 2012	790 €	Neutraubling/DE
E 05-2		English	2 days	May 24 – 25, 2012	790 €	Neutraubling/DE
E 05-3		English	2 days	March 1 – 2, 2012	\$ 1,050	Franklin/US
E 05-4		English	2 days	Oct 25 – 26, 2012	\$ 1,050	Franklin/US

2012 seminars

Course no.	Title	Language	Duration	Date	Price/participant	Location
E 05-5	Cold glue labeller – Electrical components	English	2 days	Sept 24 – 26, 2012	9,600 THB	Bangkok/TH
E 05-6		English	2 days	April 18 – 20, 2012	9,600 THB	Bangkok/TH
E 06-1	Contiroll and Contiroll HS (B&R controllers)	German	3 days	March 27 – 29, 2012	1,185 €	Neutraubling/DE
E 06-2		English	3 days	March 6 – 8, 2012	1,185 €	Neutraubling/DE
E 06-3		English	2 days	Jan 19 – 20, 2012	\$ 1,050	Franklin/US
E 06-4		English	2 days	Sept 27 – 28, 2012	\$ 1,050	Franklin/US
E 06-5		English	3 days	Feb 8 – 10, 2012	14,400 THB	Bangkok/TH
E 06-6		English	3 days	July 2 – 4, 2012	14,400 THB	Bangkok/TH
E 06-7		Chinese	3 days	Nov 19 – 21, 2012	30,000 RMB	Taicang/CN
E 07-1	Contiroll 745 with LCT3 controller	German	3 days	June 26 – 28, 2012	1,185 €	Neutraubling/DE
E 07-2		English	3 days	June 4 – 6, 2012	1,185 €	Neutraubling/DE
E 07-3		English	3 days	upon request	\$ 1,425	Franklin/US
E 07-4		English	3 days	Feb 16 – 20, 2012	14,400 THB	Bangkok/TH
E 07-5		English	3 days	July 5 – 9, 2012	14,400 THB	Bangkok/TH
E 07-6		Chinese	3 days	Dec 24 – 26, 2012	30,000 RMB	Taicang/CN
E 09-1	Module labeller generation 2 – Electrical components	German	3 days	Nov 13 – 15, 2012	1,185 €	Neutraubling/DE
E 09-2		English	3 days	Nov 20 – 22, 2012	1,185 €	Neutraubling/DE
E 11-1	Elec. comp. for packaging and palletising technology	German	2 days	March 22 – 23, 2012	790 €	Rosenheim/DE
E 11-2		German	2 days	Nov 14 – 15, 2012	790 €	Rosenheim/DE
E 11-3		English	2 days	May 2 – 3, 2012	790 €	Rosenheim/DE
E 11-4		English	2 days	Sept 27 – 28, 2012	790 €	Rosenheim/DE
E 11-5		Chinese	2 days	Feb 27 – 28, 2012	20,000 RMB	Taicang/CN
E 12-1	Basics of KRONES electrical components	English	10 days	April 9 – 20, 2012	18,000 ZAR	Johannesburg/ZA
E 12-2		English	10 days	June 4 – 15, 2012	18,000 ZAR	Johannesburg/ZA
E 12-3		English	10 days	Sept 10 – 21, 2012	18,000 ZAR	Johannesburg/ZA
E 12-4		English	10 days	March 19 – 30, 2012	2,940 €	Nairobi/KE
E 12-5		English	10 days	June 18 – 29, 2012	2,940 €	Nairobi/KE
E 12-6		English	10 days	Aug 20 – 31, 2012	2,940 €	Nairobi/KE
E 12-7		English	10 days	Feb 6 – 17, 2012	2,400 €	Lagos/NG
E 12-8		English	10 days	May 14 – 25, 2012	2,400 €	Lagos/NG
E 12-9		English	10 days	July 16 – 27, 2012	2,400 €	Lagos/NG
E 12-10		English	10 days	Nov 5 – 16, 2012	2,400 €	Lagos/NG
E 14-1	General KRONES electrical components	Chinese	3 days	Sept 17 – 19, 2012	30,000 RMB	Taicang/CN
E 15-1	Electrical training in the laboratory	English	3.5 days	upon request	upon request	Franklin/US
E 16-1	AS-i bus safety	English	0.5 days	upon request	upon request	Franklin/US

Automation and IT solutions						
A 01-1	LDS – Line documentation system	German	3 days	March 20 – 22, 2012	1,185 €	Neutraubling/DE
A 01-2		English	3 days	Oct 23 – 25, 2012	1,185 €	Neutraubling/DE
A 01-3		English	3 days	upon request	upon request	Franklin/US
A 01-4		Chinese	3 days	May 7 – 9, 2012	30,000 RMB	Taicang/CN
A 02-1	SIPS – Strategic maintenance and planning system	German	2 days	upon request	790 €	Neutraubling/DE
A 02-2		English	2 days	upon request	790 €	Neutraubling/DE
A 02-3		English	3 days	upon request	upon request	Franklin/US

Course no.	Title	Language	Duration	Date	Price/participant	Location
A 03-1	SPMS – Spare parts management system	German	2 days	upon request	790 €	Neutraubling/DE
A 03-2		English	2 days	upon request	790 €	Neutraubling/DE
A 03-3		English	3 days	upon request	upon request	Franklin/US
A 04-1	KAM – KRONES asset management	German	4 days	upon request	1,580 €	Neutraubling/DE
A 04-2		English	4 days	upon request	1,580 €	Neutraubling/DE
A 05-1	LMS – Line management system	German	4 days	upon request	1,580 €	Neutraubling/DE
A 05-2		English	4 days	upon request	1,580 €	Neutraubling/DE
A 06-1	KRONES IT workshop for specialists	German	2 days	upon request	790 €	Neutraubling/DE
A 06-2		English	2 days	upon request	790 €	Neutraubling/DE
A 07-1	KRONES web reporting	German	1 day	upon request	395 €	Neutraubling/DE
A 07-2		English	1 day	upon request	395 €	Neutraubling/DE
A 08-1	Siemens S7 for KRONES machines – Basic course	German	4 days	Jan 17 – 20, 2012	1,580 €	Neutraubling/DE
A 08-2		German	4 days	March 27 – 30, 2012	1,580 €	Neutraubling/DE
A 08-3		German	4 days	Sept 11 – 14, 2012	1,580 €	Neutraubling/DE
A 08-4		German	4 days	Oct 23 – 26, 2012	1,580 €	Neutraubling/DE
A 08-5		English	4 days	Jan 24 – 27, 2012	1,580 €	Neutraubling/DE
A 08-6		English	4 days	March 20 – 23, 2012	1,580 €	Neutraubling/DE
A 08-7		English	4 days	Sept 18 – 21, 2012	1,580 €	Neutraubling/DE
A 08-8		English	4 days	Nov 6 – 9, 2012	1,580 €	Neutraubling/DE
A 08-9		English	4 days	upon request	\$ 2,280	Franklin/US
A 08-10		English	4 days	Feb 7 – 10, 2012	7,200 ZAR	Johannesburg/ZA
A 08-11		English	4 days	May 8 – 11, 2012	7,200 ZAR	Johannesburg/ZA
A 08-12		English	4 days	Aug 7 – 10, 2012	7,200 ZAR	Johannesburg/ZA
A 08-13		English	4 days	Nov 13 – 16, 2012	7,200 ZAR	Johannesburg/ZA
A 08-14		English	4 days	July 3 – 6, 2012	1,505 €	Nairobi/KE
A 08-15		English	4 days	Oct 16 – 19, 2012	1,505 €	Nairobi/KE
A 08-16		English	4 days	April 10 – 13, 2012	1,960 €	Lagos/NG
A 08-17		English	4 days	Sept 4 – 7, 2012	1,960 €	Lagos/NG
A 08-18		English	4 days	May 8 – 11, 2012	19,200 THB	Bangkok/TH
A 08-19		English	4 days	Oct 2 – 5, 2012	19,200 THB	Bangkok/TH
A 09-1	Siemens S7 for KRONES machines – Advanced course	German	4 days	May 8 – 11, 2012	1,580 €	Neutraubling/DE
A 09-2		German	4 days	Dec 4 – 7, 2012	1,580 €	Neutraubling/DE
A 09-3		English	4 days	May 21 – 24, 2012	1,580 €	Neutraubling/DE
A 09-4		English	4 days	Dec 11 – 14, 2012	1,580 €	Neutraubling/DE
A 09-5		English	4 days	Feb 13 – 16, 2012	7,200 ZAR	Johannesburg/ZA
A 09-6		English	4 days	May 14 – 17, 2012	7,200 ZAR	Johannesburg/ZA
A 09-7		English	4 days	Aug 13 – 16, 2012	7,200 ZAR	Johannesburg/ZA
A 09-8		English	4 days	Nov 19 – 22, 2012	7,200 ZAR	Johannesburg/ZA
A 09-9		English	4 days	July 9 – 12, 2012	1,505 €	Nairobi/KE
A 09-10		English	4 days	Oct 22 – 25, 2012	1,505 €	Nairobi/KE
A 09-11		English	4 days	April 16 – 19, 2012	1,960 €	Lagos/NG
A 09-12		English	4 days	Sept 10 – 13, 2012	1,960 €	Lagos/NG
A 09-13		English	4 days	May 15 – 16, 2012	19,200 THB	Bangkok/TH
A 09-14		English	4 days	Oct 9 – 10, 2012	19,200 THB	Bangkok/TH

Course no.	Title	Language	Duration	Date	Price/participant	Location
A 10-1	KRONES visualisation technology – zenOn software	German	2 days	Feb 7 – 8, 2012	790 €	Neutraubling/DE
A 10-2		German	2 days	June 13 – 14, 2012	790 €	Neutraubling/DE
A 10-3		German	2 days	Oct 10 – 11, 2012	790 €	Neutraubling/DE
A 10-4		German	2 days	Nov 27 – 28, 2012	790 €	Neutraubling/DE
A 10-5		English	2 days	March 6 – 7, 2012	790 €	Neutraubling/DE
A 10-6		English	2 days	June 20 – 21, 2012	790 €	Neutraubling/DE
A 10-7		English	2 days	Sept 26 – 27, 2012	790 €	Neutraubling/DE
A 10-8		English	2 days	Oct 16 – 17, 2012	790 €	Neutraubling/DE
A 10-9		English	2 days	upon request	\$ 1,140	Franklin/US
A 10-10		English	2 days	May 21 – 22, 2012	9,600 THB	Bangkok/TH
A 10-11		English	2 days	Oct 15 – 16, 2012	9,600 THB	Bangkok/TH
A 11-1	zenOn – Installation of emergency package	German	0.5 days	Feb 9, 2012	439 €	Neutraubling/DE
A 11-2		German	0.5 days	June 15, 2012	439 €	Neutraubling/DE
A 11-3		German	0.5 days	Oct 12, 2012	439 €	Neutraubling/DE
A 11-4		German	0.5 days	Nov 29, 2012	439 €	Neutraubling/DE
A 11-5		English	0.5 days	March 8, 2012	439 €	Neutraubling/DE
A 11-6		English	0.5 days	June 22, 2012	439 €	Neutraubling/DE
A 11-7		English	0.5 days	Sept 28, 2012	439 €	Neutraubling/DE
A 11-8		English	0.5 days	Oct 18, 2012	439 €	Neutraubling/DE
A 11-9		English	0.5 days	upon request	\$ 466	Franklin/US
A 11-10		English	0.5 days	May 23, 2012	4,800 THB	Bangkok/TH
A 11-11		English	0.5 days	Oct 17, 2012	4,800 THB	Bangkok/TH
A 12-1	IT system technology – Basic principles	German	2 days	April 17 – 18, 2012	790 €	Neutraubling/DE
A 12-2		German	2 days	Nov 20 – 21, 2012	790 €	Neutraubling/DE
A 12-3		English	2 days	April 24 – 25, 2012	790 €	Neutraubling/DE
A 12-4		English	2 days	Nov 13 – 14, 2012	790 €	Neutraubling/DE
A 12-5		English	2 days	upon request	\$ 1,140	Franklin/US
A 13-1	IT system technology – Workshop	German	2 days	April 19 – 20, 2012	790 €	Neutraubling/DE
A 13-2		German	2 days	Nov 22 – 23, 2012	790 €	Neutraubling/DE
A 13-3		English	2 days	April 26 – 27, 2012	790 €	Neutraubling/DE
A 13-4		English	2 days	Nov 15 – 16, 2012	790 €	Neutraubling/DE
A 14-1	B&R automation (electrical components) – Workshop	German	2 days	June 11 – 12, 2012	790 €	Neutraubling/DE
A 14-2		German	2 days	Oct 8 – 9, 2012	790 €	Neutraubling/DE
A 14-3		English	2 days	June 18 – 19, 2012	790 €	Neutraubling/DE
A 14-4		English	2 days	Sept 24 – 25, 2012	790 €	Neutraubling/DE
A 14-5		English	2 days	upon request	\$ 1,140	Franklin/US
A 14-6		English	2 days	May 24 – 25, 2012	9,600 THB	Bangkok/TH
A 14-7		English	2 days	Oct 18 – 19, 2012	9,600 THB	Bangkok/TH
A 15-1	Control technology ControlLogix and DeviceNet	German	4 days	upon request	1,580 €	Neutraubling/DE
A 15-2		English	4 days	upon request	1,580 €	Neutraubling/DE
A 16-1	KRONES data backup solution (local/network)	German	0.5 days	upon request	359 €	Neutraubling/DE
A 16-2		English	0.5 days	upon request	359 €	Neutraubling/DE

2012 seminars

Course no.	Title	Language	Duration	Date	Price/participant	Location
Management training						
M 03-1	KRONES technology for those entering from other industries	German	4 days	March 26 – 29, 2012	2,380 €	Neutraubling/DE
M 03-2		English	4 days	Nov 19 – 22, 2012	2,380 €	Neutraubling/DE
M 04-1	Packaging and palletising technology for those entering from other industries	German	1 day	March 30, 2012	595 €	Rosenheim/DE
M 04-2		English	1 day	Nov 23, 2012	595 €	Rosenheim/DE
M 06-1	Train the trainer	German	2 days	upon request	1,190 €	Neutraubling/DE
M 06-2		English	2 days	upon request	1,190 €	Neutraubling/DE
M 08-1	Maintenance management	German	2 days	Jan 24 – 25, 2012	1,310 €	Neutraubling/DE
M 08-2		English	2 days	Oct 16 – 17, 2012	1,310 €	Neutraubling/DE
M 09-1	More flexible production and warehouse logistics	German	2 days	upon request	1,310 €	Neutraubling/DE
M 09-2		English	2 days	upon request	1,310 €	Neutraubling/DE
M 12-1	Aseptic filling and process technology	German	2 days	June 25 – 26, 2012	1,190 €	Neutraubling/DE
M 12-3		English	2 days	Dec 10 – 11, 2012	1,190 €	Neutraubling/DE
M 14-1	Project management – From practice to practice	German	3 days	upon request	upon request	Neutraubling/DE
M 14-2		English	3 days	upon request	upon request	Neutraubling/DE
M 16-1	Line efficiency 1 – Analysis	German	2.5 days	March 13 – 15, 2012	1,488 €	Neutraubling/DE
M 16-2		English	2.5 days	Oct 9 – 11, 2012	1,488 €	Neutraubling/DE
M 16-3		English	2.5 days	May 21 – 23, 2012	9,500 ZAR	Johannesburg/ZA
M 16-4		English	2.5 days	Sept 17 – 19, 2012	9,500 ZAR	Johannesburg/ZA
M 16-5		English	2 days	Oct 23 – 24, 2012	\$ 3,000	Franklin/US
M 16-6		English	2 days	Oct 25 – 26, 2012	\$ 3,000	Franklin/US
M 16-7		English	2 days	upon request	1,190 €	Bangkok/TH
M 16-8		Portuguese	2 days	upon request	upon request	São Paulo/BR
M 17-1	Line efficiency 2 – Optimisation	German	2.5 days	March 19 – 21, 2012	1,488 €	Neutraubling/DE
M 17-2		English	2.5 days	Nov 5 – 7, 2012	1,488 €	Neutraubling/DE
M 17-3		English	2.5 days	May 23 – 25, 2012	9,500 ZAR	Johannesburg/ZA
M 17-4		English	2.5 days	Sept 19 – 21, 2012	9,500 ZAR	Johannesburg/ZA
M 18-1	Line efficiency 3 – TPM and its implementation	German	2 days	April 17 – 18, 2012	1,190 €	Neutraubling/DE
M 18-3		English	2 days	upon request	1,190 €	Neutraubling/DE

