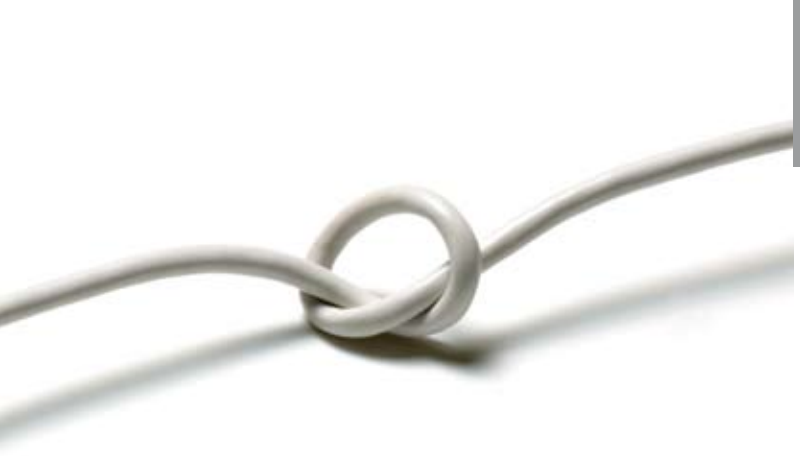

English

English

KRONES Academy
Programme 2010

KRONES

KRONES Academy Programme 2010

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A step ahead through training

Dear Sir or Madam,

How can I develop my people and enhance the team's performance? How can I exploit new potentials? How can I benefit from best practice?

Through KRONES Academy training, we offer a platform for our successful customers to get new insights regarding management and technology, to look out for new trends and to share experiences and network with colleagues.

Our program now includes a new seminar for owners and managers for assessing the own company. This will help you to benefit in bank negotiations and acquisitions (page 95).

For plant managers we have new locations for our successful training combination Leading People and Line Efficiency. We now offer it in Neutraubling, Johannesburg, São Paulo, Bangkok, Franklin and Dubai (page 89).

For line managers and shift leaders we offer the same combination at our LCS Centres. As a qualification managers can achieve the certificate "KRONES Line Manager" after finishing successfully the necessary courses (page 82).

For electricians and IT-personnel we have developed the "KRONES Automation Engineer" certificate; experience shows that downtimes can be minimised by well trained automation engineers on site (page 65).

In addition to our maintenance management training, we have developed systematic troubleshooting, the Contiform overhaul course, Top-ten blow moulder failures and labeller main machine overhaul (page 35).

In addition to our courses in our training centres, we can also offer customised trainings at your facilities. Just talk to your local KRONES Academy contact. For more information and possible benefits for you and your company, visit our new homepage www.krones.com/en/academy.htm and sign-up for our newsletter.

We look forward to support your success!

Your Jörg Puma

Head of KRONES Academy

Contiform operation
Course: P 01

Trained staff is the key to achieve a high line efficiency. This basic course is suited for equipping your staff with the required knowledge of the Contiform. After the two day seminar, the participants will be able to operate the machine independently, will know the lubrication intervals and positions and will be able to eliminate minor malfunctions.

Target group:
Operators

Suitable for machine types:
Contiform S, Contiform H, Contiform SK

Requirements: none

Topics:
- General information about the Contiform
- Explanation of the mechanical components
- Overview of process technology
- Importance of the lubrication system
- Important touch-screen functions
- Saving pages on the touch-screen
- Starting the machine and change-over
- Recipe management

Dates/Locations/Prices: see page 104

Recommended follow-up course:
Contiform basics P 02

Plastics technology

Contiform basics + Introduction to the Contiform electrical components
Course: P 02

Through the interaction of training on the Contiform and an insight into the machine electrical components, the participants obtain during this course a mix of professional knowledge and practical exercises, which will help them in their daily tasks. After this seminar, the participants will be able to operate the machine and perform important adjustment tasks. The acquired knowledge will allow to detect malfunctions and eliminate them easily.

Target group:
Operators, operators with maintenance tasks, mechanics, electricians, electro-mechanical engineers, team leaders, maintenance staff

Requirements: none

Topics:
- Construction and method of operation of the Contiform
- Machine pneumatic system
- The touch-screen menu structure
- Lubrication intervals
- Adjustment work
- Reading and understanding the electric diagram
  AS interface, B&R controller, absolute encoder
- Replacing components
- Mechanical troubleshooting and causes
- Zero offset correction following component replacement
- Heating process / blowing process
- zenOn 6.20 visualisation: dealing with alarms and fault diagnostics
- Recipe management (creating and changing)

Dates/Locations/Prices: see page 104

Recommended follow-up course:
Contiform mechanical adjustments P 03
Contiform overhaul P 04
Contiform S PET process technology P 05
PET-View: maintenance and troubleshooting I 03

Contiform mechanical adjustments
Course: P 03

In this seminar, the participants learn how to correctly adjust the Contiform and prevent malfunctions and therefore keep the machine efficiency high. During this training, the participants do hands on adjustments on the Contiform training machine and thus increase their already existing knowledge. In addition the participants will learn to optimize the adjustments. Mechanical malfunctions can be directly found and eliminated, in order to have problem-free production.

Target group:
Operators, operators with maintenance tasks, mechanics, electro-mechanical engineers, maintenance staff

Suitable for machine types:
Contiform S, Contiform H

Requirements:
You must have attended the course "Contiform basics (P 02)" or have similar direct work experience on the machine

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

Dates/Locations/Prices: see page 104

Recommended follow-up course:
Contiform overhaul P 04
Contiform S PET process technology P 05

Plastics technology

Contiform overhaul
Course: P 04

Well-trained personnel is indispensable to keep maintenance costs low. We are offering you this training to allow you to make an efficient and safe overhaul by knowing how and when to replace wear parts. The acquired knowledge will be explained in a practical manner and be practised on a training machine. This training comes with great documentation and creates an ideal basis for keeping your machine output permanently high and reducing machine downtimes to a minimum.

Target group:
Operators, operators with maintenance tasks, mechanics, electro-mechanical engineers, maintenance staff

Suitable for machine types:
Contiform S, Contiform H

Requirements:
You must have attended the course "Contiform basics (P 02)" or have similar experience on the machine

Topics:
- Using the machine
- Reacting correctly to malfunctions
- Renewing component wear parts
- Checking and replacing components
- Correctly adjusting new parts
- Leakage test

Dates/Locations/Prices: see page 104

Recommended follow-up course:
Contiform mechanical adjustments P 03
Contiform S PET process technology P 05
Maintenance management M 08

Contiform S PET process technology
Course: P 05

This training supports you to maintain a high bottle quality all the time, even for light-weight preform with narrow process window. In this training, participants learn how to adjust new bottle types and to optimise the parameters.

Target group:
Operators, mechanics, electro-mechanical engineers, quality inspectors, team leaders, line managers, shift supervisors

Suitable for machine types:
Contiform S

Requirements:
You must have attended the course "Contiform basics (P 02)" or have similar experience on the machine

Topics:
- Basic knowledge of PET
- Overview of process-critical factors
- Explanation of parameter setting and optimisation for "new" bottles
- Recipe use and management on the touch-screen
- Significance of process parameters in relation to preform and bottle specification
- Practical exercises on the machine including the setting of new bottles

Dates/Locations/Prices: see page 104 – 106

Recommended follow-up course:
PET-View: maintenance and troubleshooting I 03
Contiform Air Recycling P06

Contiform Air Recycling
Course: P 06

The target of this training is to teach you how to maximise the savings of blowing air. With "Air Recycling 2 and 3" you can save up to 50 % of the very expensive oil-free foodgrade high-pressure air. The participants will learn the functions of these programs and after the training they will also be able to adjust the parameters. In addition, pneumatic components will be explained.

Target group:
Operators, mechanics, electro-mechanical engineers, quality inspectors, team leaders, line managers, shift supervisors

Suitable for machine types:
Contiform S

Requirements:
You must have attended the course "Contiform basics (P 02)" or have similar experience on the machine

Topics:
- Introduction – pneumatic components (dome-type and proportional valves)
- Pneumatic circuit diagram (blowing module, heating module)
- Air Recycling 2, Air Recycling 3 (components and functions)
- Practical exercises on the machine

Dates/Locations/Prices: see page 106

Recommended follow-up course:
PET-View: maintenance and troubleshooting I 03

Contiform Heatset
Course: P 07

Troubleshooting process issues are the aim of this three day process training thus allows to reduce downtimes and maximise the efficiency of the Contiform blolw moulder. Operators and maintenance staff will receive a complete overview of the Heatset process.

Target group:
Operators, operators who perform maintenance tasks, technicians, mechanical engineers, quality control & laboratory staff, shift supervisors, team leaders, line managers, maintenance managers

Suitable for machine types:
Heatset Contiform, Contiform S, Contiform H

Requirements: none

Topics:
- Overview of the individual components of the Contiform Heatset including touch-screen
- Stretching unit, cams and heating module, etc.
- Troubleshooting
- HMI visualisation
- Lubrication and cleaning
- Preventive maintenance

Dates/Locations/Prices: see page 106

Recommended follow-up course: on request

Contiform process for supervisors and managers
Course: P 08

During this three day training, Contiform users will receive a complete overview of the Contiform & OEM blow moulder process. Each person will be given the overview of the processing systems. Also, each person will learn how to locate and eliminate processing problems.

Target group:
Quality controllers, shift supervisors, team leaders, line managers, maintenance managers

Suitable for machine types:
Contiform S, Contiform H

Requirements: none

Topics:
- Setup of .0 (startup active stretching)
- Setup of .10 (end of active stretching)
- Oven regulation
- PET material
- Lab equipment
- Touch-screen

Dates/Locations/Prices: see page 106

Recommended follow-up course: on request

PET lab basic course: Function and operation

PET bottle quality control

Course: P 09

Participants gain an understanding of the laboratory equipment.
They will be able to operate the equipment without assistance, identify and eliminate specific malfunctions.

Target group:
Operators, quality and laboratory staff

Suitable for machine types:
All Contiform types

Requirements: none

Topics:
- The target of the quality control in the lab
- Recognise the operation of the instrument in the lab
- Standard testing
  - top load measuring with Agr combi tester
  - volume measuring with Agr top load tester
  - dimension measuring with Agr gawis_od automatic device

Dates/Locations/Prices: see page 106

Recommended follow-up course: on request

Plastics technology

PET lab advanced course: Testing

PET bottle quality control

Course: P 10

This course provides funded knowledge of the laboratory equipment, in order to achieve or restore to the highest degree of accuracy. Participants learn how to eliminate malfunctions in the measuring device quickly and efficiently.
In this seminar, the participants will learn about the interplay between manufacturing and monitoring of containers and the related set-up work.

Target group:
Operators, quality and laboratory staff

Suitable for machine types:
All Contiform types

Requirements: Basic knowledge of quality control

Topics:
- Carbon bottle testing
- CSD bottle burst test with Agr PPT3000 tester
- CSD bottle stress crack test
- Thermal stability test
- Heatset bottle testing
- Heatset preform crystal measuring using abb crystal measurement
- Heatset preform water content measuring
- Heatset bottle heat resistance/aged/vacuum test
- Preform stress checking

Dates/Locations/Prices: see page 106

Recommended follow-up course: on request

Top-ten blow moulder failures:
Troubleshooting

Course: P 11

In order to keep your machine running, the people at the plant floor need to quickly recognise problems and fix them. This course the participants will learn which are the top-ten problems in a blow moulder, how to diagnose them and how to fix them quickly. Come to this training and get a larger A3 quick troubleshooting guide.

Target group:
Operators, mechanics, supervisors

Suitable for machine types:
all Contiform types

Requirements: Contiform basics (P02) or equivalent knowledge

Topics:
Typical causes and solutions for:
- Off center gates
- Preform loader
- Mould not closed
- Preform transfer
- Six other failures that can hurt your production

Dates/Location/Prices: see page 106

Recommended follow-up course: on request

Volumetic VODM filler

Course: F 01

Unnecessary operation or adjustments on the filler can lead to production downtimes. The participants learn how they can ensure malfunction-free filling on the Volumetic VODM filler and how to proceed in a way which is gentle on the product. In addition, they are provided with comprehensive and substantiated information regarding the filling of non-carbonated and carbonated drinks with the aid of descriptive examples.

Target group:
Operators (with maintenance tasks), mechanics, electricians, electronic and mechanical engineers, team leaders, shift supervisors

Suitable for machine types:
Volumetic VODM

Requirements: none

Topics:
- Construction and method of operation of the filler
- Filling phases
- Safety and controls
- Pipe system plans
- Operating and cleaning programs
- Touch-screen
- Prior to, during and after production
- Cleaning the machine, lubrication and maintenance
- Change-over
- Control and visualisation
- Pneumatic system
- Method of operation, disassembly and refitting of assemblies

Dates/Locations/Prices: see page 106

Recommended follow-up course:
Filling machine electrics (with LCT 3) E 03 / (with FVC) E 04
VarioClean CIP system B 01
VarioFlash short-term pasteuriser B 03
Mixer: Contiflow F 07

Mecafill VKP filler
Course: F 02

The goal of this seminar is to guarantee a malfunction-free filling process and a filling which is gentle on the product. The required knowledge therefore will be transmitted during this training. Additionally the basics of the filling process and the operating mode of the Mecafill will be explained. The participants will obtain the knowledge to achieve the maximum filling efficiency.

Target group:
Operators (also with maintenance tasks), mechanics, electricians, electronic and mechanical engineers, team leaders, shift supervisors

Suitable for machine types:
Mecafill VKP, Mecafill VKPV, Mecafill VKPCF

Requirements: none

Topics:
- Construction and method of operation of the filler
- Filling phases
- Safe working on the machine
- Controls
- Pipe system plans
- Operating and cleaning programs
- Touch-screen
- Prior to, during and after production
- Cleaning the machine, lubrication and maintenance
- Change-over, both mechanically and on the touch-screen
- Control and visualisation
- Pneumatic system
- Method of operation, disassembly and refitting of individual assemblies

Dates/Locations/Prices: see page 106

Recommended follow-up course:
Filling machine electrics (with LCT 3) E 03 / (with FVC) E 04
VarioClean CIP system B 01
VarioFlash short-term pasteuriser B 03

Cold aseptic filling (CAF) basics
Course: F 03

Product recall is one of the biggest damage which can happen for a beverage company. Well-trained personnel will avoid these costs. Operators and technical staff will get the knowledge to do their daily tasks. Managers and team leaders on all levels receive the knowledge to organise their teams efficiently, taking into account the technical neccessities as well as the hygienical aspects.

Target group:
Operators, operators with maintenance tasks, mechanics, electricians, electronic engineers, mechatronic engineers, quality control personnel, laboratory personnel, team leaders, shift supervisors, logistics managers, maintenance personnel, plant managers

Suitable for machine types:
Cold Aseptic Filling (CAF) Block L (PES) or D (H_2O_2)

Requirements: none

Topics:
- Construction and method of operation of participating machines
- Safety in and on the CAF bloc
- Machine communication, process control, programs
- Control by programs and explanation of them
- Function and structure of individual assemblies
- Explanation of the process cycle

Dates/Locations/Prices: see page 106 – 108

Recommended follow-up course:
Cold Aseptic Filling (CAF) advanced – operation F 04
Cold Aseptic Filling (CAF) advanced – mechanics F 05
Cold Aseptic Filling (CAF) general advanced F06
VarioClean CIP system B 01
VarioFlash flash pasteuriser B 03
VarioDos hygiene centre B 02
Filling machine electrics (with LCT 3) E 03 / (with FVC) E 04
Aseptic and sterile-process technology M 12

Cold aseptic filling (CAF) advanced – operation

Course: F 04

CAF operators with their knowledge from the basic course will specialise in operation of the CAF-line. In the shortest possible time. Proper operational skills in combination with hygienical know-how will ensure an efficient production with no product recalls.

Target group:
Operators, operators with maintenance tasks, team leaders

Suitable for machine types:
CAF (Cold Aseptic Filling) Block L (PES) or D (H_2O_2)

Requirements:
Must have participated in "Cold aseptic filling (CAF) basics (F 03)" course

Topics:
- Individual flow diagrams and overall diagrams (valves, sensors, pressure and level regulation)
- Operating and cleaning programs
- Visualisation, monitoring
- Touch-screens of the individual machines
- Prior to, during and after production
- Conversion for type change-over and cleaning
- Care, cleaning and maintenance
- Possible malfunctions
- Set-point and actual values (compressed-air values, etc.)

Hygiene and aseptic:
- Clothing regulations
- Conduct in the area of the CAF system
- Opening and closing the clean room in a hygienic manner and the measures to be taken afterwards
- Behaviour in the clean room

Dates/Locations/Prices: see page 108

Recommended follow-up course:
Cold Aseptic Filling (CAF) advanced – mechanics F 05

Cold aseptic filling (CAF) advanced – mechanics

Course: F 05

Mechanics with the know-how from the basic course will specialise in mechanical tasks of a CAF-line in the shortest possible time. Proper knowledge of the mechanic components as well as the hygienical neccessities will make the production safe.

Target group:
Operators with maintenance tasks, mechanics, electro and mechanical engineers, team leaders, maintenance personnel

Suitable for machine types:
Cold Aseptic Filling (CAF) Block L (PES) or D (H_2O_2)

Requirements:
Must have participated in "Cold aseptic filling (CAF) basics (F 03)" course

Topics:
- Control and visualisation
- Pneumatic components
- Lubrication and maintenance
- Assembly, disassembly and function of individual assembly groups using training components

Hygiene and aseptic:
- Clothing regulations
- Conduct in the area of the CAF system
- Opening and closing the clean room in a hygienic manner and the measures to be taken afterwards
- Behaviour in the clean room

Dates/Locations/Prices: see page 108

Recommended follow-up course: on request

Cold aseptic filling (CAF) general advanced

Course: F 06

This course gives the participants the opportunity to practise removing and installing components guided by professional instructions. At the end of the course the attendees will find it easy to dismantle components, perform maintenance and eliminate malfunctions. On the third day of training the focus is on aseptics and hygienic behaviour.

Target group:
Operators with maintenance tasks, mechanics, electricians, quality control and laboratory personnel, shift supervisors, group leaders/team leaders, maintenance managers

Suitable for machine types:
CAF (Cold Aseptic Filling) Block L (PES) or D (H_2O_2)

Requirements:
Must have participated in "Cold aseptic filling (CAF) basics (F 03)" course

Topics:
- Malfunction diagnostics
- Deactivating filling valves, times, angles, fill level
- Function of individual valves and sensors
- Pneumatic system
- Lubrication and maintenance
- Clothing regulation

Dates/Locations/Prices: see page 108

Recommended follow-up course: on request

Filling technology

Contiflow mixer

Course: F 07

An optimal adjusted mixer saves costs during the production process. In this course participants will get the know-how to set up the parameters and troubleshoot the mixer in an efficient way.

Target group:
Maintenance engineer

Suitable for machine types:
Contiflow

Requirements: none

Topics:
- Machine construction and functions
- Mixture principle, mixing ratio calculation, fixed ratio mixture
- Automatic compensation mixture parameters setting
- Machine parameters setting
- Add new product type, type parameters setting
- Production and CIP programs
- Anton Paar measure part Brix and CO_2 parameters setting,
- Anton Paar
- Machine internal and external signal transmission
- Alarms, diagnostics, troubleshooting

Dates/Locations/Prices: see page 108

Recommended follow-up course: on request

Basic CAF filling process

Course: F 08

This course enables the participants to read the KRONES flow chart effectively and thus optimise the filling process. After this course the participants have the knowledge to recognise the relationship between the flow chart symbols and the product line.

Target group:
All people related to the product line

Suitable for machine types:
CAF (Cold Aseptic Filling) Block L (PES) or D (H_2O_2)

Requirements:
Must have participated in "Cold aseptic filling (CAF) basics (F 03)" course

Topics:
- Basic knowledge of system flow chart
- Functions of basic valve and pump
- Reading methods of flow chart, serial number principles
- Take the case of customers using machines as an example, analyse the system flow chart

Dates/Locations/Prices: see page 108

Recommended follow-up course: on request

Bottle washers
Learning step-by-step

Course: C 01

Bottle washers can only perform their task correctly if they are operated and maintained properly. As part of the seminar, the participants learn how to operate the machine properly. They will know the critical points of the machine and know how to calculate the correct amount of cleaning agent. This knowledge allows the participants to achieve the best possible cleaning results with minimum costs.

Target group:
Operators, operators with maintenance tasks, mechanics, electricians, electronic engineers, electro-mechanical engineers, quality inspectors, laboratory personnel, team leaders, shift supervisors

Suitable for machine types:
All KRONES bottle washers except for the Spiragrip

Requirements: none

Topics:
- Bottle washer method of operation
- Differences in the bottle washers
- Introduction to process engineering
- Cleaning, maintenance
- Mechanical and electrical components
- Searching for and eliminating faults

Dates/Locations/Prices: see page 108

Recommended follow-up course: on request

VarioClean CIP system
Course: B 01

Reducing the CIP downtime to a minimum and the risks associated with it. Cleaning parameters and the product quality are the main topics of this course. The participants will learn basics of the machine technology. Aditionally the control concept and visualisation will be explained. Cleaning parameters and how they affet the cleaning process will complete the course.

Target group:
Operators, operators with maintenance tasks, mechanics, electro-mechanical engineers, quality inspectors, team leaders, shift supervisors

Suitable for machine types: VarioClean

Requirements: none

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

Dates/Locations/Prices: see page 108

Recommended follow-up course:
VODM Volumetic filler F 01
Mecafill VKP filler F 02
CAF (Cold Aseptic Filling) basics F 03

VarioDos hygiene centre
Course: B 02

Especially in the aseptic filling technology, hygiene and cleanlyness are very important for the product quality. The participants will learn basics of the machine technology. Aditionally the control concept and visualisation will be explained. Cleaning parameters and how they effect the cleaning process will complete the course.

Target group:
Machine operators, machine operators with maintenance tasks, mechanics, electro-mechanical engineers, quality inspectors, team leaders, shift supervisors

Suitable for machine types: VarioDos Liquid Aseptic

Requirements: none

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

Dates/Locations/Prices: see page 108

Recommended follow-up course:
CAF (Cold Aseptic Filling) basics F 03
Aseptic filling and sterile-process technology M 12

VarioFlash flash pasteuriser

Course: B 03

The participants get a well founded knowledge about the pasteurisation technology. They familarise themselves with the functional layout of the flash pasteuriser, the control concept, visualisation and the most important parameters. In the berverage processing thermal product treatment is the most effective technology to guarantee a high product quality.

Target group:
Machine operators, machine operators with maintenance tasks, mechanics, electro-mechanical engineers, quality inspectors, team leaders, shift supervisors

Suitable for machine types: VarioFlash B

Requirements: none

Topics:
- Basics of thermal product treatment
- Components and process sequences
- Safety instruction
- 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 correctly and comparing them
- Cleaning, maintenance

Dates/Locations/Prices: see page 110

Recommended follow-up course:
VODM Volumetic filler F 01
Mecafill VKP filler F 02
VarioClean CIP system B 01

Bottle and can + product treatment (pasteuriser)

Course: B 04

This workshop offers a comprehensive insight into the pasteurisation process. At the end of this course, the participants will be able to perform inspection and maintenance work on the machine quickly and effectively. The result during pasteurisation will be optimised while the downtimes are simultaneously minimised.

Target group:
Operators, operators who perform maintenance tasks, mechanics, electricans, electronic engineers, mechatronic engineers, quality control, laboratory personnel, team leader, shift leader

Suitable for machine types: SHIELD

Requirements: none

Topics:
- What is pasteurisation?
- How the pasteuriser works
- Pasteuriser structure
- Central Heat Exchanger Supply System (CHESS)
- Mechanical and electrical components
- Operation: touch-screen, cleaning

Dates/Locations/Prices: see page 110

Recommended follow-up course: on request

Beer production in practice

Course: B 05

The participants learn about the brewing process, how beer is produced and the aggregates used to produce it. They will be familiarised with the raw material handlings and bio-chemical background. A beer brewing trial is the practical part of the seminar.

Target group: all

Suitable for machine types: all

Requirements: none

Topics:

- Beer filtration: TFS (Twin Flow System), alternative methods
- Raw material customers: Malt (raw grain), hops, yeast, water
- Tolerance values
- Wort production
- Fermentation / storage
- Cleaning / disinfection: Cleaning parameters, CIP system
- Quality assurance using sensors, chemicals and microbiology

Dates/Locations/Prices: see page 110

Recommended follow-up course: on request

Cold glue technology

Course: L 01

In order to run your labeller efficiently and on a high quality level, a well trained team is needed. The KRONES Academy provides the knowledge to reach these targets. Quality improvement change over optimisation and downtime reduction are practised on our training machine.

Target group:
Operators, mechanics, electro-mechanical engineers, shift supervisors, team leaders, line managers, maintenance staff

Suitable for machine types:
Vinetta, Universella, Bonamatic, Starmatic, Solomatic, Topmatic, Multimatic with Unimodul, Prontomodul, Starmodul, Solomodul, Topmodul, Multimodule

Requirements: none

Topics:

- Machine method of operation
- Operation of the machine and touch-screen (if available)
- Detecting and eliminating faults
- Monitoring and adjustment work
- Change-over
- Maintenance and lubrication
- Quality of the label, container and glue quality
- Machine parameters

Dates/Locations/Prices: see page 110

Recommended follow-up course:
Cold glue technology advanced course (on request)
Labeller main machine overhaul L 06
Labeller change-over workshop for teams L 07

Hotmelt technology
Contiroll
Course: L 02

Reduce maintenance cost and speed up change overs by well trained personnel are the content of this course. This training provides the participants with the knowledge needed to achieve the best possible machine operation and maintenance. In addition, important factors determining the correct way to work with the machine are transferred. As part of the training, the participants receive practical training on the Academy's labelling machines.

Target group:
Operators, mechanics, electro-mechanical engineers, shift supervisors, team leaders, line managers, maintenance staff

Suitable for machine types:
Contiroll

Requirements: none

Topics:
- Machine method of operation
- Operation of the machine and touch-screen
- Detecting and eliminating faults
- Monitoring and adjustment work
- Change-over
- Maintenance and lubrication
- Quality of label, container and glue
- Machine parameters

Dates/Locations/Prices: see page 112

Recommended follow-up course:
Labeller main machine overhaul L 06
Labeller change-over workshop for teams L 07

Hotmelt technology
Contiroll HS (High Speed)
Course: L 03

A correct operation and maintenance are indispensable to achieve the high speed on a Contiroll HS. Despite the high operational speed, the focus is on achieving a perfect end product. This seminar transmits the knowledge needed for safe and efficient labelling, as well as for the detection and elimination of malfunctions. During the seminar, the achieved knowledge is also put into practice on the Contiroll HS training machine.

Target group:
Operators, mechanics, electricians, electro-mechanical engineers, shift supervisors, team leaders, line managers, maintenance staff

Suitable for machine types:
Contiroll HS (High Speed)

Requirements: none

Topics:
- Machine method of operation
- Operation of the machine and touch-screen
- Detecting and eliminating faults
- Monitoring and adjustment work
- Change-over
- Maintenance and lubrication
- Demands on the label, container and glue quality
- Machine parameters

Dates/Locations/Prices: see page 112

Recommended follow-up course:
Labeller main machine overhaul L 06
Labeller change-over workshop for teams L 07

Self-adhesive technology
Course: L 04

High efficiency, low cost – both is possible. In this course the participants will learn how to avoid machine downtimes and to keep the quality of the labelling process at a high level. Correct machine care and maintenance completes the knowledge. How to work safely with the machine and important parameters (labels, containers, etc.) are transferred in this training.

Target group:
Operators, mechanics, electricians, electro-mechanical engineers, team leaders, shift supervisors, line managers, maintenance staff

Suitable for machine types:
APS 3 and APS 4 (autarkic pressure sensitive labellers)

Requirements: none

Topics:
- Machine method of operation
- Operation of the machine, touch-screen and operator panel
- Detecting and eliminating faults
- Monitoring and adjustment work
- Change-over
- Maintenance and lubrication
- Demands on the label and container quality
- Machine parameters

Dates/Locations/Prices: see page 112 – 114

Recommended follow-up course:
Labeller main machine overhaul L 06
Labeller change-over workshop for teams L 07

Labelling technology

Sleevematic shrink labelling
Course: L 05

Shrink labels are an excellent way to promote sales, but only if they have been applied to the product properly. A part of this training explains how this can be achieved with a high level of perfection and within a short time – without having to spend ages adjusting the machine. Knowing the correct setting of machine parameters and major maintenance tasks will help to prevent downtimes and keep production running

Target group:
Operators, operators with maintenance tasks, mechanics, electro-mechanical engineers, maintenance staff

Suitable for machine types:
Sleevematic M

Requirements: none

Topics:
- Method of operation of the machine
- General overview of the routes taken by the containers and labels
- Operation of the machine and touch-screen
- Prior to, during and after production
- Monitoring and adjustment work, both mechanically and on the touch-screen
- Change-over with test-run check
- Quality of the labels and containers
- Maintenance and lubrication

Dates/Locations/Prices: see page 114

Recommended follow-up course:
Labeller change-over workshop for teams L 07

Labeller main machine overhaul
Course: L 06

Preventive maintenance can save a lot of money. To guarantee a reliable operational performance on the main machine, regular machine overhauls are necessary. The required knowledge is therefore transmitted in this seminar. The acquired knowledge can then be practised with professional support on the training machines. Machine care and maintenance completes the know-how needed to allow the participant to independently overhaul the machine after this training. The main focus of this training is the replacement of wear parts and their correct adjustment.

Target group:
Mechanics, engineers, electro-mechanical engineers, maintenance staff

Suitable for machine types:
General labelling technology: cold glue, hotmelt, self-adhesive labelling, Sleevematic

Requirements:
Knowledge of labelling technology

Topics:
- Construction and method of operation of the main machine
- Overhaul of individual machine components
- Replacing wear parts
- Practical adjustments on individual assemblies
- Maintenance of the oil-circulating lubrication system
- Machine cleaning and lubrication

Dates/Locations/Prices: see page 114

Recommended follow-up course:
Cold glue technology L 01
Hotmelt technology, Contiroll L 02
Hotmelt technology, Contiroll HS (High Speed) L 03
Self-adhesive technology L 04
Sleevematic shrink labelling L 05
Labeller change-over workshop for teams L 07

Labeller change-over workshop for teams
Course: L 07

The bottleneck of the change-over often is the labeller. This training helps you to increase your effiency by reducing the change-over time. The aim of this course is to develop a procedure with your team how to carry out the change over on your labeller. In this inter-active course the special characteristics of your line are looked at in detail. Due to the fact that this is an individual seminar, course dates are agreed on request. If required, the same procedure can be applied for machine cleaning. At the end of the workshop a small document is created which describes the new procedure.

Target group:
Operators, mechanics, electricians, electro-mechanical engineers, team leaders

Suitable for machine types:
Labellers in general

Requirements: none

Topics:
- Determining the actual situation
- Determining your goal together with your company management level
- Occupational safety
- Creation of a standard operating procedure (SOP: step-by-step instruction)
- Type change-over with the aid of newly established processes

Dates/Locations/Prices: see page 114

Recommended follow-up course:
Labeller cleaning (on request)

Contiroll HS (High Speed) operator training

Course: L 08

This course provides an overview of the Contiroll HS operational theory, its control functions and how to navigate using the touch-screen. Through the use of hands-on training, participants will gain confidence and appropriate knowledge to effectively operate the Contiroll HS to maximum productivity levels.

Target group:
Operators, mechanics and maintenance staff

Suitable for machine types:
Contiroll HS (High Speed)

Requirements: none

Topics:
- Construction, safety and function of the HS Contiroll
- Pneumatic components
- Touch-screen menu prompting
- Maintenance and lubrication
- Basic knowledge of electrical components
- Container and label handling
- Basic troubleshooting procedures

Dates/Locations/Prices: see page 114

Recommended follow-up course:
Contiroll HS (High Speed) maintenance L 09

Contiroll HS (High Speed) maintenance

Course: L 09

The maintenance course goes further in-depth with rebuilding of the machine and also setup and timing adjustments resulting in maximum operating efficiency. Participants will be able to check, adjust and correct all mechanical functions of the Contiroll HS.

Target group:
Operators, mechanics and maintenance staff

Suitable for machine types:
Contiroll HS (High Speed)

Requirements:
Participation at the course "Contiroll HS operator training (L 08)" or adequate knowledge

Topics:
- Demonstration and hands-on procedures for mechanical and pneumatic components
- Maintenance intervals, preventative maintenance
- Adjusting procedures on the Contiroll HS components
- Removing and installing necessary components
- Exercises on proper cleaning and care
- In-depth troubleshooting procedures

Dates/Locations/Prices: see page 114

Recommended follow-up course:
Labeller main machine overhaul L 06

Autocol APS S4D

Course: L 10

Especially older machines like the APS S4D need qualified personnel to run and maintain the machine in a proper way. These intensive courses give both operating and maintenance personnel the knowledge and skills to identify and remedy faults quickly and efficiently, thus maximising the performance of the machine.

Target group:
Operators, operators who perform maintenance tasks, mechanics, mechatronic engineers, team leaders, shift supervisors, line manager

Suitable for machine types:
Autocol S4D variant

Requirements: none

Topics:
- Labelling, how it works
- Application: from label web to bottle
- The labels: quality, storage, testing
- The container: from infeed to discharge
- The machine: design and function, electrical and pneumatic components
- The labelling applicator: design and function, checks and settings, cleaning and maintenance
- Identification of ware parts
- Set-up of a new label types
- Overview of controller parameters
- Function of LCT-1
- Overhaul of applicator head

Dates/Locations/Prices: see page 114

Recommended follow-up course: on request

Labelling technology

Canmatic labeller troubleshooting

Hot melt, wrap around cut and stack label

Course: L 11

In this two days course for operators and two and a half days for maintenance personnel the participants will learn everything important to run and maintain the Canmatic labeller. The whole training will be given at a training machine, so the participants will be able to do practical training. That and the achieved knowledge will support your employees to keep the machine efficiency at home on high level.

Target group:
Operators, operators who perform maintenance tasks, technicians, mechanical engineers, quality control and laboratory personnel, shift supervisors, team leaders, line managers, maintenance managers

Suitable for machine types:
Canmatic, Wrap around, Stack

Requirements: none

Topics:
- Labelling and how it works
- Glue, label and container
- Application: from label to container
- The container flow from infeed to discharge
- Setting the labelling machine, including timing the labelling station
- Change-over procedures
- Operation of touch-screen/HMI
- Safety devices and displays
- Care and maintenance
- Troubleshooting procedure

Dates/Locations/Prices: see page 114

Recommended follow-up course: on request

Pressure sensitive & cold glue label specifications
Material and troubleshooting
Course: L 12

Very often the origin of a malfunction depends not on the machine or operator, but on the material used as input. In this course the participants will learn how different specification of material like labels, glue, etc. could influence the productivity of the machine. The attendees have the possibility to do practical training during the seminar with the help of machine components.

Target group:
Operators, personnel who perform troubleshooting tasks, technicians, mechanical engineers, quality control & laboratory personnel, shift supervisors, team leaders, line managers, maintenance managers

Suitable for machine types:
Autocol & cold glue labelling

Requirements: none

Topics:
- Labelling and how it works.
- Label and container
- Application: from label web to container
- The labels: Quality, storage, testing
- The influence of containers, labels on the quality of the finished product.
- Safety devices and displays.

Dates/Locations/Prices: see page 114

Recommended follow-up course: on request

Comp-intense KRONES fundamental mechanical labeller technology
Course: L 13

This practical course is to keep a high labelling quality on all containers and eliminate machine downtime to a minimum. At the end of the course, participants will be able to setup the machine for all types of bottles and labels while maintaining a consistent high level of production quality and minimise waste. Pre- and post-assessments will be conducted throughout the training programme.

Target group:
Mechanical artisans, technicians and engineers, mechanical supervisors and team leaders

Suitable for machine types:
Vinetta, Universella, Bonamatic, Starmatic, Solomatic, Topmatic, Multimatic with Unimodul, Prontomodul, Starmodul, Solomodul, Topmodul, Multimodul

Requirements:
This is for technical staff that was exposed to learning and understands labelling technology. You must have at least six months maintenance and setting experience on the machine.

Topics:
- Main zero marks of the machine and encoder, centring bell and cam arrangement, infeed, discharge starwheel timing
- Set pallet turret, set up glue roller, set up glue scraper
- Set pallet timing, set up label box, set up pallet to label box
- Set up gripper drum
- Change-overs, lubrication, machine layout, operation, adjustments, label material, container material, adhesives
- Safety devices and displays
- Care and maintenance
- Troubleshooting

Dates/Locations/Prices: see page 114

Recommended follow-up course:
Machine specific mechanical advanced courses (phase 2 with new installations on request)

Linatronic M2 basic course

Course: I 01

In this course, the participants learn how to effectively eliminate any machine malfunctions and parameterise the machine again to reduce unneccessary material costs (new glass). You can minimise the rejection rate regarding the quality standards. Practical exercises on the Linatronic training machine help the participant better understand the knowledge acquired.

Target group:
Electricians, electronic engineers, electro-mechanical engineers

Suitable for machine types:
Linatronic M2

Requirements:
Basic knowledge of the electrical systems

Topics:
- Construction and function
- Change of format and spare parts
- Drive systems

Electronic system:
- Inspection units
- Inspector controller
- Touch-screen

Electrical system:
- Hardware plan
- BUS systems

Dates/Locations/Prices: see page 116

Recommended follow up course:
Linatronic M2 advanced course I 02

Linatronic M2 advanced course

Course: I 02

Here the participants are trained to become Linatronic experts and can independently master almost all malfunctions and other tasks on the machine. In that training the participants will learn based on the knowledge of the basic course how to maximise the inspection accuracy. The setting up of new bottle types on the inspector and efficient fault elimination are transmitted through practical exercises on the training machine.

Target group:
Electricians, electronic engineers, electro-mechanical engineers

Suitable for machine types:
Linatronic M2

Requirements:
Participation in the "Linatronic M2 basic course (I 01)" or similar previous knowledge

Topics:
- Recapitulation of the basics of inspection technology
- Creation of new users
- Replacing the camera and camera computer
- Setting up a new bottle type and how to parameterise it
- Setting up the test bottle program as an aid for checking adjustments
- Performing back-ups and how to use them
- Fault diagnostics with the aid of oscilloscope applications

Dates/Locations/Prices: see page 116

Recommended follow-up course: on request

PET-View: maintenance and troubleshooting

Course: I 03

Different types of preforms, different environmental temperatures, the use of different machines and other variables can lead to malfunctions or machine breakdowns. This seminar shows the interrelations between this variables and thus allows the participants to optimally adapt the inspection efficiency to their specific conditions. Furthermore the entire process, starting with the manufacture of a bottle and ending with the inspection, are trained on a PET-View training inspection system.

Target group:
Electricians, electronic engineers, electro-mechanical engineers

Suitable for machine types:
Contiform with integrated PET-View inspection system

Requirements:
Basic knowledge of plastics technology (Contiform)

Topics:
- PET-View design and function
- Changing the bottle type and generating new types
- Base, neck finish and sidewall inspection
- PET-View operation and parameter settings
- Practical work on the machine
- Fault simulation, troubleshooting and fault elimination
- Replacement of spare parts
- Introduction to network technology

Dates/Locations/Prices: see page 116

Recommended follow up course:
Contiform S PET process technology P 05

Inspection technology

Inspection systems technology

Course: I 04

Within this training the participants learn how to best adjust the inspection system to suit their requirements. Furthermore, by disassembling machine components they develop a better understanding of how their inspector works. In order to design a course which fulfils as many of our customers demands as possible, we can offer you a course tailored to your needs upon request.

Target group:
Electricians, electronic engineers, electro-mechanical engineers

Suitable for machine types:
Checkmat, Sekamat, Cantronic, ModulCheck

Requirements:
Basic knowledge of the electrical systems

Topics:
- Structure of the inspection system and introduction to network technology
- Inspection technology method of operation
- Touch-screen operation
- Assessing analyses and statistics
- Identifying and eliminating malfunctions
- Setting up a new type of bottle and how to parameterise it

Dates/Locations/Prices: see page 116

Recommended follow up course:
Inspection technology advanced course (on request)
Interaction between labellers and the Checkmat (on request)

Checkmat 731

Course: I 05

Optimally trained personnel are capable of setting up inspection units such as the Checkmat 731 to perfectly meet the brand's demand on quality. During this training the participants will obtain the necessary know-how to optimise the Checkmat inspection accuracy. Through their practical training on a Checkmat training machine with a stand alone and integrated D.A.R.T. Checkmat 731 controller, the knowledge they learn is consolidated and the steps they need for their later work in their own company are practised.

Target group:
Electricians, electronic engineers, electro-mechanical engineers

Suitable for machine types:
Checkmat 731

Requirements:
Basic knowledge of the electrical systems

Topics:
- Mechanical structure of the inspector
- Adjustment, operation, maintenance and cleaning
- Introduction to the machine documents
- Parameterisation of the inspection units and the inspection system
- How to reprogram the system
- Setting up a new bottle type
- How to identify and eliminate malfunctions

Dates/Locations/Prices: see page 116 – 118

Recommended follow up course:
Inspection technology advanced course (on request)
Interaction between labellers and the Checkmat (on request)

Checkmat 707

Course: I 06

Optimally trained personnel are capable of setting up inspection units such as the Checkmat 707 to perfectly meet the brand's demand on quality. During this training the participants will obtain the necessary know-how to optimise the Checkmat inspection accuracy. Through their practical training on a Checkmat training machine with LCT 3 controller, the knowledge they learn is consolidated and the steps they need for their later work in their own company are practised.

Target group:
Electricians, electronic engineers, electro-mechanical engineers

Suitable for machine types:
Checkmat 707 with LCT 3 controller

Requirements:
Basic knowledge of the electrical systems

Topics:
- Mechanical structure of the inspector
- Adjustment, operation, maintenance and cleaning
- Introduction to the machine documents
- Parameterisation of the inspection units and the inspection system
- How to reprogram the system
- How to identify and eliminate malfunctions
- System retrieval following a malfunction

Dates/Locations/Prices: see page 118

Recommended follow up course:
Inspection technology advanced course (on request)
Interaction between labellers and the Checkmat (on request)

Convenience packaging technology
Course: D 01

During these two days of training, the participants will obtain comprehensive knowledge about machines used for convenience packaging technology. After attending this course the participants will be abele to run the machine in a proper way, perform change-overs and maintenance tasks by themselves. This allows the attendees to do a better productivity on their machines.

Target group:
Operator with maintenance tasks, mechanics, maintenance personnel, team leader, shift leader, line manager,

Suitable for machine types:
Variopac, Wrapapac, Modulpac, Variocart, Varicol, Variogrip, bundle transport, container conveyor

Requirements: none

Topics:
- Safety systems
- Function and operation of the touch-screen (zenOn 6.20)
- Function and operation of the P127 control device (if used)
- Quality requirements, glue, carton and foil
- Main functions of the machines
- Targeting and deleting errors (diagnostic functions)
- Replacing motors, Acopos / Danfoss converter, encoder
- Knife change at the foil-cutter-module
- Machine pneumatic
- SEW movigear conveyour belt control
- Reading, understanding and using an wiring diagram
- Machine change-over
- Programming parameters
- Electro and gas shrinktunnel (KRONES, Sotec)
- Maintenance and lubrication
- Documentation and ordering spare parts

Dates/Locations/Prices: see page 118

Recommended follow-up course:
Electrical components for packaging and palletising technology E 11

Packaging and palletising technology

Palletising technology
Course: D 02

The pallet is one of the most important unit bearer worldwide. This course is the best way to achieve the needed knowledge to adjust the machine in an optimal way. The participants will learn how to detect, eliminate and prevent errors in order to run their machine with a higher efficiency.

Target group:
Operator with maintenance tasks, mechanics, maintenance personnel, team leader, shift leader, line manager,

Suitable for machine types:
Modulpal, Robogrip, Robobox, Linapac, container sweep-off depalletiser, pallet transport, container conveyor

Requirements: none

Topics:
- Safety systems
- Function and operation of the touch-screen (zenOn 6.20)
- Basic functions of the machine
- Quality requirements, glue, carton and foil
- Main functions of the machines
- Targeting and deleting errors (diagnostic functions)
- Replacing motors, encoder, Acopos and Danfoss converters
- Calibrating the servo axis
- Knife change at the foil-cutter-module
- Machine pneumatic
- Reading, understanding and using an wiring diagram
- Machine change-over
- Programming parameters
- Full automatic gripper change (if used)
- Gripper head
- Maintenance and lubrication
- Documentation and ordering spare parts

Dates/Locations/Prices: see page 118

Recommended follow-up course:
Electrical components for packaging and palletising technology E 11

Packaging technology
Course: D 03

For a save transport proper packed goods are indispensable. In this two day course the participant will learn how to adjust their packing machine in the most efficient way. In addtion the attendees will learn how to detect and eliminate errors and which requirements must be achieved to obtain a high productivity.

Target group:
Operator with maintenance tasks, mechanics, maintenance personnel, team leader, shift leader, line manager,

Suitable for machine types:
Modulpal, Linapac, Linapac II, Smartpac, bundle transport, container conveyor

Requirements: none

Topics:
- Safety systems
- Function and operation of the touch-screen (zenOn 6.20)
- Basic functions of the machine
- Quality requirements Glue, carton and foil
- Main functions of the machines
- Targeting and deleting errors (diagnostic functions)
- Replacing motors, Acopos converter and encoder
- Calibrating the motor and encoder
- Knife change at the foil-cutter-module
- Pneumatic
- Reading, understanding and using an wiring diagram
- Machine change-over
- Programming parameters
- Explanation full automatic gripper change (if used)
- Differences between cup grippers
- Maintenance and lubrication
- Documentation and ordering spare parts

Dates/Locations/Prices: see page 118

Recommended follow-up course:
Electrical components for packaging and palletising technology E 11

KRONES electrotechnology for non-electricians
Course: E 01

You have a lack of electricians? In this course you can enlarge the number of employees with electrical knowledge. The participants will learn the function of electrical components and touch-screen. After the course they are able to eliminate specific faults and know how to maintain electrical components. They have the skills to replace parts with the "plug and play" method, so they can help to minimse downtimes.

Target group:
Operators with maintenance tasks, mechanics, maintenance personnel, team leaders, shift leader, line manager, maintenance manager

Suitable for machine types:
Fillers of all types
Labellers of all types

Requirements:
Mechanical basic knowledge of KRONES machines is useful

Topics:
- KRONES electrical diagram system
- Bus-system, AS-interface basics
- Operating system touch-screen with zenOn 6.20:
  - type management
  - user management
  - data saving on USB-stick
- KRONES standard encoder (replacement and adjustment through "plug & play")
- Diagnostics, replacement of components
- Saving data and recovery after malfunctions

Dates/Locations/Prices: see page 118 – 120

Recommended follow-up course: on request

Contiform electrics
Course: E 02

This course contents is the basic knowledge of Contiform electrics. The participants will learn how to detect faults and resolve them. This will lead to minimised electrically caused downtimes.

Target group:
Electricians, electronic engineers, mechatronic engineers

Suitable for machine types:
All Contiform types

Requirements: none

Topics:
- HMI – zenOn 6.20 visualisation
- Racos hardware plan
- Profibus
- Frequence converter – Danfoss
- ASi-Bus
- ASi-Safety (machine specific)
- Absolute encoder
- B&R control device / blowing cam
- HC-Net heating control
- LCC-controller/ width measurement (optional)

Dates/Locations/Prices: see page 120

Recommended follow-up course:
IT systems technology workshop A13
Contiform S PET-process technology P 05

Filler electrics (LCT 3 / KFS 3 controller)
Course: E 03

The participants of this course will learn about the machine's electrical components. Afterwards, electrical malfunctions can be detected and resolved. Maintenance can be carried out correctly. All this will lead to a higher efficiency.

Target group:
Electricians, electronic engineers, electrical engineers, electromechanical engineers

Suitable for machine types:
Mecafill, Sensometic, Volumetic (each with LCT 3 controller)

Requirements:
A basic knowledge of the machines mechanical components is an advantage

Topics:
- System overview of the paths of communication
- KRONES electrical wiring diagram
- Basics of the AS-interface, Profibus
- The Danfoss FC300 / VLT5000 frequency inverter; MCT10
- Touch-screen operating system zenOn 6.20 data saving
- KRONES standard encoder and sensors
- Diagnostics, replacing components
- KFS 3 filling valve controller
- Communication routes for control components
- Operation and parameterisation on the LCT 3
- Filling valve diagnostics and diagnostics of the sensors used
- Back-up of the parameters (software provided by KRONES)
- Changing the control components
- Diagnostics and trouble-shooting

Dates/Locations/Prices: see page 120

Recommended follow-up course:
VODM Volumetic filler F 01
Mecafill VKP filler F 02

Filling machine electrics (FVC controller)

Course: E 04

This course illustrates the process engineering used in the machines and the electrical components associated with it. The participants will learn how to restore the machines' production capacity very fast after the malfunction or a component change. Besides that the attendees will achieve skills to work self-sufficiently with the touch-screen, so they can administrate users and type paramter.

Target group:
Electricians, electronic engineers, mechatronic engineers

Suitable for machine types:
Mecafill, Sensometic, Volumetic (new generation)

Requirements:
Mechanical basic knowledge

Topics:
- System overview
- KRONES electrical wiring diagram in detail
- Basics of the bus-system, AS-interface, Profibus
- Danfoss frequency converter FC300 / MCT 10 software
- Operating system touch-screen zenOn 6.20 data saving
- KRONES standard encoder and sensors
- Diagnostics, replacement of components
- Machine malfunctions, like level and pressure control
- Filling valve FVC: functionality and hardware
- Communication channels of the controlling components
- Network diagnostics
- Filling valve diagnostics
- Operation and parameterisation
- Back-up of the parameters (software provided by KRONES)
- Replacement of controlling units
- Error detection and elimination

Dates/Locations/Prices: see page 120

Recommended follow-up course:
VODM Volumetic filler F 01
Filler Mecafill VKP F 02

Cold-glue labeller electrics

Course: E 05

The participants in this course get to know the machine and its electrical components. The sequence during production, operation and administration of the touch-screen will be learned. In this way malfunctions will be detected and resolved faster. This can help to rise the overall line effectiveness.

Target group:
Electricians, electronic engineers, electrical engineers, electromechanical engineers

Suitable for machine types:
Vineta, Universella, Bonomatic, Starmatic, Solomatic, Topmatic, Multimatic

Requirements:
A basic knowledge of the machines mechanical components is recommended

Topics:
- KRONES electrical wiring diagram
- Basics of the AS-interface, Profibus
- The Danfoss FC300 / VLT5000 frequency inverter; MCT10 software
- Touch-screen operating system with zenOn 6.20:
  - Type management
  - User administration
  - Saving data on USB memory stick
- Standard encoder and sensors
- Diagnostics, replacing and restoring components

Dates/Locations/Prices: see page 120

Recommended follow-up course:
Cold glue technology L 01

Contiroll and Contiroll HS (High Speed) electrics
Course: E 06

The reason for a malfunction is often the machine's electrical controls. This type of fault is difficult to localise. The knowledge needed to perform adjustment work and execute effective trouble-shooting on the electrical components is acquired by the participants within this training. In addition to this, the handling of the zenOn software touch-screen is learned.

Target group:
Electricians, electronic engineers, electrical engineers, electro-mechanical engineers

Suitable for machine types:
Contiroll Classic, Contiroll HS (High Speed)
Contiroll module, Contiroll HS module, (B&R control)
Note: only for machines without LCT 3 controller!

Requirements:
Mechanical basic knowledge

Topics:
- KRONES electrical wiring diagram
- Basics of the AS-interface, Profibus
- The Danfoss FC300 / frequency inverter; MCT10 software
- Main drive, synchronisation of discharge conveyor
- Touch-screen operating system zenOn 6.20 data saving
- Special encoder, exchange and adjustment
- System overview, network and communication
- Machine functions: broken bottle detection, height adjustment, infeed control
- Paramater structure, labelling station adjustment on the touch-screen
- Diagnostics, replacing components and data back-up

Dates/Locations/Prices: see page 120 – 122

Recommended follow-up course:
Hotmelt technology, Contiroll L 02
Hotmelt technology, Contiroll HS (High Speed) L 03

Contiroll 745 with LCT3 controller – electrics
Course: E 07

In this course the participants learn about the electrical components and the method of operation during production. They carry out administrative tasks on the touch-screen and LCT3 controller. The participants will know-how to analyse electrical malfunctions and how to eliminate them to regain production as quick as possible!

Target group:
Electricians, electronic engineers, electrical engineers, electro-mechanical engineers

Suitable for machine types:
Contiroll 745 with LCT 3 controller

Requirements:
A basic knowledge of the machine's mechanical components is an advantage

Topics:
- KRONES electrical wiring diagram
- Basics of the AS-interface, Profibus
- The Danfoss FC300 / VLT5000 frequency inverter; MCT10 software
- Touch-screen operating system zenOn 6.20 data saving
- Encoder exchange and adjustment
- Function and adjustment of all sensors
- Changing electrical components
- Parameterisation on the LCT 3
- Practical exercises on the training machine
- Creating and adjusting a new label type
- Diagnostics, replacing components and data back-up (LCT 3)

Dates/Locations/Prices: see page 122

Recommended follow-up course:
Hotmelt technology, Contiroll L02

Module 1 – Labeller – electrical system

Course: E 08

The participants learn the function of the main machine and the module labelling stations. They are trained to handle the touch-screen parameterisation to assure production. After the course, the participants are able to replace parts and carry out maintenance tasks to get the machine back into production.

Target group:
Electricians, electronic engineers, mechatronic engineers

Suitable for machine types:
Modular machines construction year 2008 and older (with operating panel on each labelling station)
Attention: Contiroll labelling stations won't be part of this course!

Requirements:
Mechanical basic knowledge

Topics:
- KRONES electro connection diagram
- Basics of the bus-system, Profibus
- Danfoss frequency converter FC300 / VLT5000; MCT10 softw.
- Main drive, synchronisation with the discharge conveyor
- Operating system touch-screen zenOn 6.20, data saving
- Encoder replacement and adjustment
- Diagnostics, replacement of components, saving data
- Machine functions: touch-screen, height adjustment, broken bottle detection, infeed monitoring
- RPC rotary plate control system with servomotors: function, parameterisation, diagnostics, motor replacement
- Labelling stations (cold glue, Autocol, APS 3, Canmodul)
- Function, diagnosis and error elimination
- Data back-up with K-Dot software (from KRONES)

Dates/Locations/Prices: see page 122

Recommended follow-up course:
Cold glue technology L 01
Self-adhesive technology L 04
Labeller main machine overhaul L 06

Module 2 – Labeller – electrical system

Course: E 09

The participants of this course learn the function of the main machine and the labelling stations. They are trained to hande the parameterisation on the touch-screen to assure production. After the course the participants are able to carryout efficient fault-finding and eliminating errors to bring the machine back in top production.

Target group:
Electricians, electronic engineers, mechatronic engineers

Suitable for machine types:
Modul 2-labellers, construction year 2009 and newer (generation 2, one touch-screen for labelling station and machine)

Requirements:
Mechanical basic knowledge

Topics:
- System overview, communication and network
- KRONES electrical diagram
- Basics of BUS-system, AS-interface, ASi-Safety, Profibus
- Danfoss frequency converter FC300 / MCT10 software
- Main drive, synchronisation with the discharge conveyor
- Operating system touch-screen with zenOn 6.20
- 2in1 Encoder replacement and adjustment
- Diagnostics, replacement of components, saving data
- Machine functions
- Height of the docking stations as well as zero point adjustment
- RPC rotary plate control system with servomotor
- Labelling stations (cold glue, Autocol, APS 3, Canmodul)
- Function, diagnostics and error elimination
- Data back-up

Dates/Locations/Prices: see page 122

Recommended follow-up course:
Cold glue technology L 01
Self-adhesive technology L 04
Labeller main machine overhaul L 06

Comp-intense KRONES fundamental electrical labeller technology

Course: E 10

This practical course is to keep a high labelling quality on all containers and eliminate machine downtime to a minimum. At the end of the course, participants will be able to setup the machine for all types of bottles and labels while maintaining a consistent high level of production quality and minimise waste. Pre- and post-assessments will be conducted throughout the training program.

Target group:
Electrical artisans, technicians and engineers, electrical supervisors and team leaders

Suitable for machine types:
KRONES labellers

Requirements:
Siemens PLC 7 Serv 1 course

Topics:
- Standard encoders
- Electrical connection diagram
- AS interface
- Profibus
- Danfoss frequency inverter
- Touch-screen with zenOn software
- Care and maintenance
- Troubleshooting

Dates/Locations/Prices: see page 122

Recommended follow-up course:
Machine specific electrical advanced courses (phase 2 with new installations on request)

Electrical components for packing and palletising technology

Course: E 11

This seminar provides you with a general view of the current electro technology which is used in KRONES packing and palletising technology. Fault detection and changing faulty electrical components with servomotor shaft homing are also among the topics. User administration and data back-up on the touch-screen round off the seminar.

Target group:
Electricians, electronic engineers, electro-mechanical engineers

Suitable for machine types:
All packers and palletisers

Requirements:
Electrical basic knowledge

Topics:
- Safety devices
- Touch-screen function and operation (zenOn 6.20)
- P127 control panel function and operation (if provided)
- Basic machine functions (customer related)
- Detection and elimination of faults (diagnostics functions)
- Changing motors, Danfoss frequency inverter, Acopos inverter and encoder
- Calibrating the individual servomotor shafts
- Explanation of the B&R controller and components (CP 360, X20, AC 140)
- SEW movigear container conveyor controller
- Reading, understanding and using the electric diagram
- Pneumatic system
- Converting the machine for change-over
- Program parameters
- Electrics and gas, shrinking tunnel (KRONES, Sotec)
- Maintenance and lubrication
- Documentation and parts orders

Dates/Locations/Prices: see page 122

Recommended follow-up course: on request

Comp-Intense KRONES fundamental electrics
Course: E 12

This training provides the participants with a fundamental view of the current electrical technology which is used in almost all of the KRONES machines. They will discover how they can get the machine running in case of malfunction and learn how to back-up data and how to detect faults and replace individual faulty electrical components. Important insights into the user management system, tips on how to work correctly with the touch-screen and data relevant for production will complete the training. Pre- and post-assessments will be conducted throughout the training program.

Target group:
Electrical artisans, technicians and engineers, electrical supervisors and team leaders

Suitable for machine types:
KRONES machinery

Requirements:
Siemens S7 basic knowledge is recommended

Topics:
- Subtleties of the KRONES electrical wiring diagram system
- Fundamentals of the AS-interface bus-system
- Fundamentals of the Profibus-system
- The Danfoss FC300 / VLT5000 frequency inverter and MCT10 software (uploading / downloading of parameters)
- zenOn 5.5 / 6.2: Ghost / user management / data back-up / type management
- KRONES standard encoders
- KFS3 / LCT3 / KFS5 hardware and filling program
- Siemens PLC Step 7 software and hardware configuration / uploading / downloading of programs
- Fault diagnostics and how to replace components
- Data back-up and the recovery after malfunction

Dates/Locations/Prices: see page 122

Recommended follow-up course:
Machine specific electrical advanced courses (on request)

Bottle conveyor with Glideliner and Bloc synchronisation
Course: E 13

The efficiency of lines is greatly affected by the parameterisation and maintenance of the bottle conveyor. Glideliner and Bloc synchronisation managed by the LCT3 should be considered as a system, and just not as a bottle conveyor. This system consists in a general scope as mechanical, electrical and electronic concepts. Participants in this course will learn to know its mechanical design and the parameter concept which will help the technical personnel to find any troubleshooting and keep the system with the original setup.

Target group:
Mechatronic, electric or electronic engineers, operators who perform maintenance tasks

Suitable for machine types:
Glideliner in returnable and PET-lines (downstream the filler or the labeller)
Bloc synchronisation in returnable and PET-lines (between the EBI and fillers)

Requirements:
Basic electrical knowledge of bottling lines

Topics:
- Basic working principles.
- LCT3
- Parameter description.
- Load and reading of parameters.
- Input and output explanation
- Practical exercises showing each parameter effect

Dates/Locations/Prices: see page 122

Recommended follow-up course:
Basic principle of filling lines (on request)
Basic electric lines knowledge (on request)

General KRONES electrical system

Course: E 14

This seminar covers a summary of the electrical system installed in most KRONES machines. Participants learn how to restore the production capacity of their KRONES machines quickly, when general electrical malfunctions occur. Particular emphasis is placed on data security, effective diagnostics and the replacement of specific defective electrical components. Practice exercises in changing the encoder or frequency inverter are carried out in the "hands on" part of the course. Employees gain confidence in working with the touch-screen and learn how to work with the controll as well as production related data.

Target group:
Electricians

Suitable for machine types:
KRONES machinery

Requirements:
Basic knowledge of electrical systems

Topics:
- Subtleties of the KRONES electrical wiring diagram system
- Principles of the AS-interface bus-system
- Principles of the Profibus-system
- The Danfoss FC300 / VLT5000 frequency inverter and MCT10 software
- The touch-screen operating system with zenOn 6.2 software standard encoders

Dates/Locations/Prices: see page 122

Recommended follow-up course:
Advanced Course: Control and Electronic (E 15)

Advanced Course: Control and Electronic

Course: E 15

The deeper knowledge of KRONES electrical system is covered using examples and practice exercises. Participants learn how to work properly with the synchronised bloc, the shift register, servocapper and LCT3, and will therefore be able to use it effectively in their daily work. The course is specially designed for KRONES filling machines.

Target group:
Electricians and maintenance engineers

Suitable for machine types:
KRONES machines

Requirements:
Participation in the "General KRONES electrical system (E 14)" or corresponding knowledge

Topics:
- ASi-bus system: Master, slave address, configuration, configuration in PLC
- Profibus modules, resistor, repeater configuration in PLC
- Bloc synchronisation: Encoder, control, parameters adjust
- Shift register: General encoder, bottle present, parameters adjust, zero reference point
- Servocapper controller: Servomotor, encoder, parameters adjust, diagnostics tools
- LCT3 electronic: Backpanel, Eprom, modules, parameters adjust, type management

Dates/Locations/Prices: see page 122

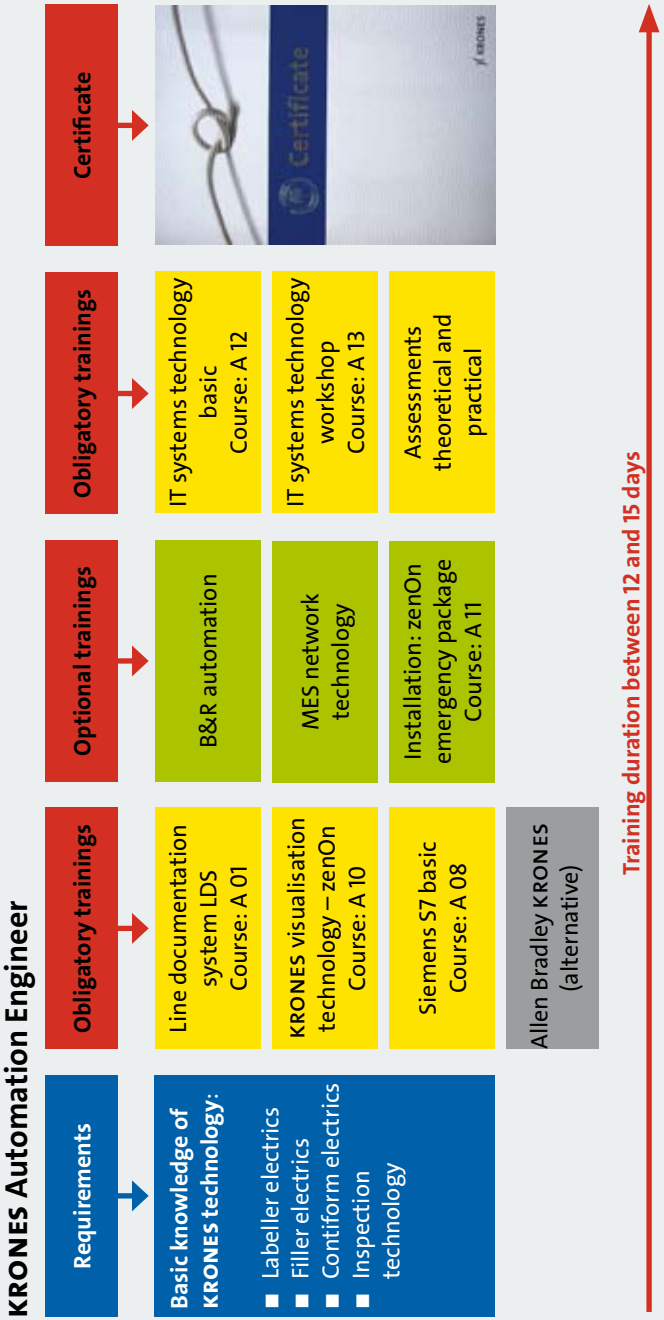
Recommended follow-up course:
on request

Automation and IT solutions

KRONES Academy automation courses
Certification for automation personnel

Bottling plants with automation competence in their electrical team have significant lower downtimes and solve the root causes of problems by efficient troubleshooting.
The KRONES Academy IT-trainers have a practice-oriented background to train your electricians, electronic engineers, mechatronic engineers and IT-administrators. In the modern IT-training centres at Neutraubling, Johannesburg, Dubai and Bangkok the participants can simulate actual situations on specially developed training devices.
Besides the courses which follow on the next pages, KRONES offers a programme to certify your automation personnel:

KRONES Automation Engineer
The "KRONES Automation Engineer" has the ability to efficently analyse and eliminate errors, optimising the troubleshooting process and to reduce the line downtime. To achieve the certification "KRONES Automation Engineer", KRONES provides in our modern IT-training centres modular training workshops consisting of a theoretical and a practical part. KRONES offers also the possibility to only pass the test for the certification for those who already have the required knowledge without participating in the training.



Line documentation system – LDS

KRONES operation data recording

Course: A 01

A LDS is the key to analyse the reasons for line downtimes in an efficient way. This three day workshop will make the particpants familiar with working effectively with the line documentation system. A number of different inspection, administration and data back-up methods will be explained which can provide the attendees information on how a line is performing including also all foreign machines (not KRONES). In addition, the workshop will deal with the "DownalyseKit" on how analyse the lines weak points and identify those machines responsible for the biggest losses.

Target group:
Electricians, electronic engineers, mechatronic engineers, administrators, automation engineers, shift leaders, line manager

Suitable for software type:
Line documentation system (LDS)

Requirements: none

Topics:
- Structure of the LDS and system requirements
- Data Monitor (real time visualisation of production)
- Data Chart (charts and trend analyses)
- Data Report (optimisation of weak-points)
- Data Archive (secure long-term archive storage)
- Data Controller (processing of information)
- Data Configurator (system configuration)
- DownalyseKit (downtime analysis of the lead machine)
- Important key factors

Dates/Locations/Prices: see page 124

Recommended follow-up course:
KRONES automation engineer (certification)
KRONES asset management – KAM A 04
KRONES workshop for experts A 06
KRONES web reporting (ReportKit) A 07

Automation and IT solutions

Strategic maintenance and planning system – SIPS

Course: A 02

In this workshop, the partipants will become familiar with the strategic maintenance and planning system (SIPS) on a theoretical and practical. The aim is to prevent as many line downtimes as possible by performing professional maintenance. In addition, the attendees way will learn how they can save time by planning repeated measures. The seminar is completed with an outline of how the system can be extended and how the existing line data can be integrated.

Target group:
Electricians, electronic engineers, mechatronic engineers, administrators, automation engineers, shift leaders, line manger

Suitable for software type:
Strategic maintenance and planning system (SIPS)

Requirements: none

Topics:
- Jobs and instructions
- Activating, withdrawing and distributing jobs
- Job feedback
- Deleting messages
- Creating jobs from messages
- Reports
- Object configuration

Dates/Locations/Prices: see page 124

Recommended follow-up course:
Spare parts management system – SPMS A 03
KRONES asset management – KAM A 04

Spare parts management system – SPMS
Course: A 03

The aim of the course is to manage the spare parts warehouse with a clear arrangement and foresight, to distribute orders on time and minimise line downtimes in due to long delivery times. The KRONES Academy offer in addition to the "Strategic maintenance and planning system – SIPS (A 02)" training, the workshop on the "Spare parts management system – SPMS". This module complements the SIPS and is used to manage the spare parts in the warehouse allowing immediate reservation or ordering.

Target group:
Warehouse personnel, maintenance and servicing personnel, shift leader, maintenance manager

Suitable for software type:
Spare part management system (SPMS)

Requirements: none

Topics:
- Introduction and basics
- Master data and inventory management: Recording parts, assigning storage locations, management
- Creating, changing and deleting orders and reservations
- Object configuration
- Reports about inventory, consumption, ordering

Dates/Locations/Prices: see page 124

Recommended follow-up course:
Strategic maintenance and planning system – SIPS A 02
KRONES asset management – KAM A 04

KRONES asset management – KAM
Course: A 04

The aim of this course is on the one hand to prevent downtime by performing professional maintenance and on the other hand how to manage the spare parts warehouse with a clear arrangement and foresight to distribute orders. The newly developed modular maintenance and repair module is fully integrated in the KRONES MES solution.

Target group:
Warehouse personnel, maintenance staff, shift supervisors

Suitable for software type:
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 different views of the data
- Expanded system of users and rights

Dates/Locations/Prices: see page 124

Recommended follow-up course:
KRONES IT workshop for experts A 06

Line management system – LMS

Course: A 05

This course supports the participants with the knowledge how to use LMS efficently and the result is to have shorter change-over times and thus increase a lines availability. The filling line is not viewed as being the sum of individual isolated machines but as an entire system with production batches.

Target group:
Shift supervisors, line managers, logistics managers, production managers

Suitable for software type:
Line management system (LMS)

Requirements: none

Topics:

General

- LMS activation / deactivation
- Production process
- Troubleshooting

Order administration module

- For creating production orders in the workbench
- For planning / starting orders in the workbench
- Changing the order
- Deleting the order
- Starting the order on the machine touch-screen

Material management module

- For creating, changing and deleting materials
- For working with finished goods
- For working with parts lists

Dates/Locations/Prices: see page 124

Recommended follow-up course:
KRONES IT workshop for experts A 06

KRONES IT workshop for experts

Course: A 06

In this expert workshop, the attendees will be working with that software which they use at their own facility including configurations and possible expansions. The participants will be dealing with concepts for data security in detail. The aim of the course is to provide them with in-depth understanding of the different software so that the participants can independently master all of the requirements in this field.

Target group:
Electricians, electronic engineers, mechatronic engineers, administrators, IT-experts, automation engineers

Suitable for software type:
Line documentation system (LDS)
Spare part management system (SPMS)
Strategic maintenance and planning system (SIPS)

Requirements:
Participation on one of fhe particular courses A 01, A 02, A 03 or comparable previous knowledge

Topics:

- Construction 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: Value processing
- Data security

Dates/Locations/Prices: see page 124

Recommended follow-up course: on request

KRONES web reporting (ReportKit)

Course: A 07

How to achieve control about the performance and how to prioritise improvement measures. In this workshop the participants will acquire competency in a method which is used to query all analyses and information in a line as standardised web reports. The web reports can be queried from all computers connected to the LDS – without any additional installations and configurations. The theory learned is then put into practice on the training computers.

Target group:
Administrators, shift leaders, line manger, production manager, plant manager

Suitable for software type:
Line data storage system (LDS)
+ ReportKit

Requirements: none

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

Dates/Locations/Prices: see page 124

Recommended follow-up course: on request

Siemens S7 basic course for KRONES machinery

Course: A 08

The participants learn how to find and eliminate faults more quickly and thus be able to greatly reduce downtimes. The target is a gap-free data back-up. The efficient exchange of components is also part of the course. With numerous exercises attendees can put the learned knowledge in practice and expand it. This course deals with the basics of Siemens S7 programming for KRONES machinery and provides a global understanding of how the PLC works.

Target group:
Electricians, electronic engineers, mechatronic engineers, administrators, automation engineers

Suitable for software type:
Siemens Step 7 v5.4
(it is possible to buy the software from KRONES)

Requirements:
The Simatic-Manager should be installed at your laptop. If not we would be pleased to give you support in the installation and the default settings.

Topics:
- Configuration:
  - Hardware and periphery actual KRONES machine
  - Configuration Subnet Profibus
  - Configuration Subnet Ethernet (optional)
  - AS-i Gateway on the example B&W, Siemens CP343-2
- Structure of the actual user software
- Types of data block and editor (KOP/FUP/AWL)
- Data back-up
- Diagnostics

Dates/Locations/Prices: see page 124

Recommended follow-up course:
KRONES automation engineer (certification)
Siemens S7 advanced course for KRONES machinery A 09
IT systems technology basic A 12

Siemens S7 advanced course for KRONES machinery

Course: A 09

This course provides the participants with the sufficient opportunity to get familiarised with Siemens S7 programming possibilities. Using examples and exercises, the attendee becomes familar with the extended functions of the S7 software.

Target group:
Electricians, electronic, mechatronic and automation engineers, administrators

Suitable for software type:
Siemens Step 7 v5.4
(it is possible to buy the software from KRONES)

Requirements:
Participation in the "Siemens S7 basic course for KRONES machinery (A 08)" or corresponding previously acquired knowledge.
The Simatic-Manager should be installed at your laptop. If not, we would be pleased to give you support in the installation and the default settings.

Topics:
- Configuration:
  - Hardware and periphery actual KRONES machine
  - Configuration Subnet Profibus, Profibus components
  - Configuration Subnet Ethernet, (TCP/IP protocol)
  - AS-i Gateway on the example B&W, Siemens CP343-2
- Network technology (Ethernet, DP/DP coupler)
- Accumulator / index function
- Data back-up
- Diagnostics
- Indirect addressing
- Pointer and address register

Dates/Locations/Prices: see page 124

Recommended follow-up course:
KRONES automation engineer (certification)
IT systems technology basic A 12

KRONES visualisation technology – zenOn

Touch-screen software

Course: A 10

With the aid of examples and exercises, the participants will learn the KRONES visualisation technology and its functions in KRONES machines. They will work on simulation experiments based on sample KRONES projects in our modern training laboratory with the current zenOn 6.20 development environment. After the seminar, they will be able to make changes to the visualisation system and perform efficient troubleshooting.

Target group:
Electricians, electronic engineers, mechatronic engineers, administrators, automation engineers

Suitable for software type:
zenOn 6.20

Requirements: none

Topics:
KRONES visualisation philosophy
- Structure of the hardware and communications assemblies
- File structures, project back-up and installation
- Practical applications and handling of the zenOn tools
- KRONES emergency package solution
- Alarm handling, diagnostics and interpretation of faults

zenOn editor (projection environment
- Handling, function zenOn explorer (project management)
- Functions, menu structure zenOn editor, SQL-database
- Working environment in the project manager
- Configuration of different dynamic elements
- Configuration of the variables list
- Editing and adding malfunction texts, malfunction warnings
- Exercises on experimental set-ups

Dates/Locations/Prices: see page 124 – 126

Recommended follow-up course:
Installation: zenOn emergency package A 11
IT systems technology basic A 12
zenOn 5.50 workshop (on request)

Installation: zenOn emergency package
Course: A 11

Instead of having a machine downtime, until receiving a new touch-screen you can run your machine by using a laptop with the zenOn emergency package installed. This one day seminar will familiarise the participants with how to start up the zenOn emergency package. The attendees will learn to maintain the communication between the user and the machine if the touch-screen fails. The software included in the seminar price (USB dongle software licence, all necessary connection cables and documents) allows to operate KRONES machines from a notebook/PC.

Target group:
Electricians, electronic engineers, mechatronic engineers, administrators, automation engineers

Suitable for software type:
zenOn 6.20

Requirements:
Participation in the "KRONES visualisation technology – zenOn (A 10)".
Please pay attention that you just receive the zenOn emergency package software in combination with the "KRONES visualisation technology – zenOn (A 10)".

Topics:
- Installation of the zenOn software with all KRONES modifications
- Communication and testing of the zenOn software
- Emergency package:
  zenOn5.50/6.20 installation CDs, KRONES Software (zenOn Explorer, Fonts, etc.), USB-Dongle software licence, all needed connection line, documentation

Dates/Locations/Prices: see page 126

Recommended follow-up course: on request

IT systems technology basic
Course: A 12

This course tests the participants' ability to combine the areas of knowledge and the KRONES IT techology used in KRONES lines in general. In addition, they will acquire a comprehensive understanding of networking and control technology. The newly acquired know-how will allow the participants to operate the line more efficiently and to secure clear communication with a machine.

Target group:
Electricians, electronic engineers, mechatronic engineers

Suitable for machine types:
All KRONES machines with fitting software equipment

Requirements:
Participation in the "Siemens S7 basic course for KRONES machinery (A 08)" or corresponding previously acquired knowledge.

Topics:
- Basics of networking technology
- Electrical components of the machine:
  - Danfoss frequence converter FC300/VLT500
  - Reading the Racos electrical-plan
  - Absolut encoder and shift register
- Network and control technolgy:
  - Basics of networking technology
  - Profibus
  - AS-interface
  - HMI – zenOn 6.20 visualisation

Dates/Locations/Prices: see page 126

Recommended follow-up course:
KRONES automation engineer (certification)
KRONES visualisation technology – zenOn A 10
Installation: zenOn emergency package A 11
IT systems technology workshop A 13

IT systems technology workshop
Course: A 13

Knowledge of IT system can reduce machine downtimes by solving problems faster and avoid future problems. This course provides a comprehensive understanding of the networking and control technology. In this workshop, the participants work independently and in a practice-oriented manner on equipment and on training machines.

Target group:
Electricians, electronic engineers, electro-mechanical engineers, administrators, automation engineers

Suitable for machine types:
Contiform S, Contiform H, Contiform SK
All other KRONES machines equiped with the corresponding software

Requirements:
Participation to the " IT systems technology basic (A12)"
Previous knowledge of Siemens Step 7 or participation in "Siemens S7 basic course for KRONES machinery (A 08)"

Topics:
- Introduction and safety instruction on the Contiform
- Networking and control technology:
  - Networking basics
  - Step 7 control technology
  - Profibus, AS Interface
  - HMI – zenOn 6.20 visualisation
- Machine electrical features:
  - Danfoss frequency inverter FC300/VLT500
  - Reading the Racos circuit diagram
  - Absolute encoder and shift register functions
  - B&R controller for filling and labelling process control
  - HC-Net heater controller (optional for Contiform)
  - KRONES LCT 3 filling process controller (optional)

Dates/Locations/Prices: see page 126

Recommended follow-up course:
KRONES automation engineer (certification)

Management training

KRONES Management training
– your personal development as the basis for a successful company

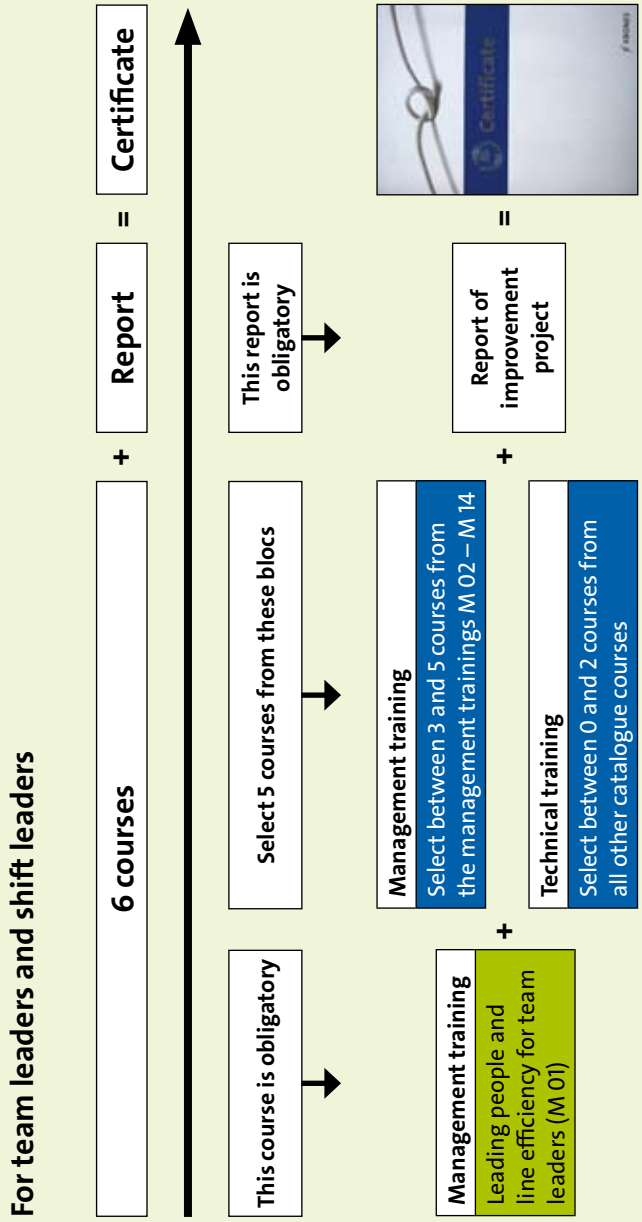
During the last year alone, more than one hundred and fifty managers and team leaders from almost 20 different nations participated in the courses and workshops that we had in Africa, Asia, Europe and South America. The KRONES Management training is the reference in the bottling and packaging industry for the development of leaders, where you have the opportunity to learn, network with other managers, can relate experiences and find the best solution for you. We support this with a range of learning methods such as action learning, best practice presentations, case studies and peer coaching.

Our new certification programme for the plant-floor leaders combines different courses to enlarge and complete your knowledge of a bottling or packaging line.

KRONES Line Manager certification for the plant-floor leader

Line managers, shift leaders, supervisors or team leaders are one of the keys for top line efficiency. Companies with highly qualified line managers have a higher productivity with less downtime and lower quality losses. For that, the KRONES Academy offers the certification for the "KRONES Line Manager".

We are coming with some new courses for 2010, don't miss on that opportunity to visit our Management training, reflect and discuss your daily problems and come back with new approaches.



Leading people and line efficiency for team leaders

Course: M 01

A high line efficiency is based on good leadership. You learn how Key Performance Indicators (KPI) can be implemented, downtime analysed and strategies developed which provide a sustained improvement in your line efficiency and your management style.

Target group:
Line manager, shift managers, supervisors and team leaders

Requirements:
At least one year's experience as a team leader / shift supervisor / line manager

Topics:

Leading people

- Leadership roles and behaviour
- Target formulation and achievement
- Employee communication
- Task delegation
- Feedback to employees and superiors
- Coaching
- Employee motivation
- Typical challenges and how to solve them
- Creating a healthy culture "criticism and recognition"
- Securing long-term success
- Conflict management

Line efficiency

- Line layout
- OEE, buffers and overspeed, V-diagram
- Downtime analyses
- Measuring buffer times, line efficiency
- Loss analysis
- TCO (Total cost of ownership)
- KPI (Key Performance Indicators)
- How to minimise downtime due to routine tasks
- Employees and their effect on the line efficiency
- Maintenance strategy
- How to implement improvements

Dates/Locations/Prices: see page 128

Management training

Systematic troubleshooting

Course: M 02

This is a really important course for maintenance staff that need to quickly and efficiently troubleshoot line equipment to minimise downtime. You will learn how to find and address the root cause of the problem, to avoid stopping your line twice for the same reason. The participants are shown methods which they can use to support troubleshooting on any machine. In addition to this, the participants are shown behavioural patterns which help them to act during a machine malfunction in a target-oriented and systematic manner despite being under pressure.

Target group:
maintenance personnel, mechanics, electricians, electronic engineers, electro-mechanical engineers, line manager, shift managers, supervisors and team leaders

Requirements: none

Topics:

- System of troubleshooting
- Problem definitions, method basics
- Roles and behavioural patterns in fault situations
- Systematic search for the source of faults (fishbone, etc.)
- From immediate measures to fault prevention
- Supporting fault prevention
- Practical exercises on KRONES machines

Dates/Locations/Prices: see page 128

KRONES technology for team leaders

Course: M 03

In this seminar, you acquire an overview of the structure, method of operation and the most important technical details of blow moulders, fillers, labellers and inspectors. How can you save money by using the right materials? The acquired knowledge allows you to better analyse the important connections in your production and to manage new situations. You can combine this course with the seminar "M 04 Packaging and palletising technology for team leaders" which will happen in the same week, to extend your knowledge about the dry-end machines.

Target group:
Line manager, shift managers, supervisors and team leaders

Requirements: none

Topics:
- Overview of the individual machine types (PET blow moulders, fillers, labellers and inspectors)
- Influence of the consumption materials (PET resin, preform, cap, sports cap, label and glue)
- "Hands-on" training – turning on and starting up the machine
- Locating and troubleshooting the "top ten" malfunctions
- Special applications
- "What is impossible" – limits of the process
- Ways of improving the line

Dates/Locations/Prices: see page 128

Packaging and palletising technology for team leaders

Course: M 04

In this seminar, you acquire an overview of the structure, method of operation and the most important technical details of packers and palletisers. How can you save money by using the right materials? The acquired knowledge allows you to better analyse the important connections in your production and to manage new situations. You can combine this course with the seminar "M 03 KRONES technology for team leaders" (blow moulders, fillers, labellers and inspectors) which will happen in the same week, to extend your knowledge about the wet-part machines.

Target group:
Line manager, shift managers, supervisors, team leaders and logistics managers

Requirements: none

Topics:
- Overview of the individual machine types
- Influence of the consumption materials
- "Hands-on" training – turning on and starting up the machine
- Locating and troubleshooting typical malfunctions
- Special applications
- "What is impossible" – limits of the process
- Ways of improving the line

Dates/Locations/Prices: see page 128

Competent employee management – lever for optimised sequences in the filling line

Course: M 05

Whether you are promoted from being a team member to a manager, or are taking on a new team: management requires preparation, a knowledge of effective methods and the tools of clear role awareness – Which management style suits me, the company, the team? When do I have to trust the employee and when do I have to check? How to conduct employee discussions in a target-oriented and constructive manner? The aim of this training is to provide you with both the "tools of the trade" and help you reflect about your own management behaviour. The acquired knowledge is trained and practised with exercises, role play and feedback sessions so that your new skills remain in place and can be applied with confidence.

Target group:
Line manager, shift managers, supervisors, team leaders, production managers, operations managers, logistics managers, plant managers

Requirements: none

Topics:
- Recognising the basics required for an appropriate employee management style (situational management, management as a "coach")
- Reflection on your own role as a manager
- Comparison of how you see yourself and how others see you.
- Specific management "tools": praise / criticism, transferring and checking tasks
- The tools of communication: 4 sides of a message, active listening
- Own ideal versus willingness to compromise (Riemann-Thomann model)
- Systematically preparing and holding employee discussions
- Giving and taking effective feedback
- Conflict management: understanding, mastering and avoiding future conflicts

Dates/Locations/Prices: see page 128

Management training

How to run an effective employee training

Course: M 06

How can you pass your professional knowledge to your employees as effectively as possible? You already have the professional knowledge and would like to know how to pass it on to your employees as effectively as possible. Particularly those employees who train and instruct new colleagues can acquire knowledge and techniques here on how to make teaching much easier. In hands-on exercises, you will have an opportunity to turn the information you learned into practice and to perfect your abilities.

Target group:
Line manager, shift managers, supervisors and team leaders

Requirements: none

Topics:
- How do we learn?
- Basics of communication
- Presentation techniques
- Training preparation and planning
- Breaking down resistance to learning
- Getting difficult trainees to join in
- Checking the success of the training
- Understanding and accepting the role of the trainer
- Practical exercises with feedback
- Motivation through knowledge
- Simulation of training situations on the machine or line

Dates/Locations/Prices: see page 128

Management training

Leading people and line efficiency for plant managers

Course: M 07

How can I save money and improve my line efficiency at the same time? During this training you will better understand your line dynamics, the challenges associated with filling lines and what solutions you can use to improve the numbers. You will receive field-tested methods which you can use to keep your line efficiency at a constantly high level, make better use of the communication paths between managers and employees and clearly improve your general goals.

Bring your problems to discuss them in class, make a best practice presentation to get feedback from other experienced managers in the branch and take advantage of this opportunity to learn and network with others.

We offer this training worldwide in Neutraubling (Regensburg)/Germany, Franklin (Milwaukee)/USA, Bangkok/Thailand, Dubai/UAE, São Paulo/Brazil and Johannesburg/South Africa.

Target group:
Production manager, packaging manager, operation manager, supply chain manager, plant manager

Requirements:
At least one year's experience as a manager

Topics:

Leading people
- Role and management
- Setting targets
- Communication
- Delegation
- Feedback
- Coaching
- Motivation
- Daily tasks
- Typical challenges and solutions
- Securing long-term success

Line efficiency
- Line layout
- Total cost of ownership
- Downtime analyses
- Key performance indicator (KPI)
- Measuring line efficiency
- Performance diagrams, buffers, overspeed
- Maintenance strategy

Dates/Locations/Prices: see page 128

Maintenance Management
Course: M 08

Structured maintenance is expensive – maintenance performed because of a machine breakdown can be even more expensive. This course allows you to increase your operational performance and reliability and improve the efficiency of your maintenance management system in the long term. You will receive a well-founded knowledge of how to reduce machine downtimes in the future and structure your spare-parts management system with foresight.

Target group:
Maintenance managers

Requirements:
At least one year's experience as a maintenance manager

Topics:
- Maintenance organisation
- The job of a maintenance manager
- Resources: physical and human, internal and external
- Total cost of ownership, budgets and the true maintenance costs
- People: productivity, motivation, knowledge management and role designation
- Equipment lifecycle management: from the ordering the machine to maintaining to disposal
- Optimising routine tasks: change-overs, lubrication, preventative maintenance, cleaning
- Inspections and overhauls
- Spare parts management

Dates/Locations/Prices: see page 128

More flexible production and warehouse logistics
Course: M 09

Bottlenecks in the supply chain are major potentials for long-term and hidden cost drivers which have to be located and eliminated. This seminar will inform you how you can save continuously costs. Together with Prof. Dr. Andreas Otto, possible goal conflicts in the company are discussed and then used to develop an approach to find solutions. A visit to an exemplary company, the discussion of success factors during implementation and an intensive exchange of participant experiences are all fundamental parts of the training.
Please note that besides the seminar you will get the possibility to visit the water and soft drink bottling plant from Labertaler near Regensburg. This state of the art factory will give you an example of how logistic could work in a beverage plant.

Target group:
Logistic manager, production manager, financial manager, plant manager, proprietor

Requirements: none

Topics:
- Industry trend and paradigm change
- Challenges of the own business model together with the goal conflicts of production and logistic
- Introduction of Labertaler and their logistic system
- Labertaler plant tour
- Different business models and implications for the production and intralogistic
- Indentifying and assessing main problem areas
- Best practise examples for implementation.
- Goal conflicts and solution approaches for an integrated controlling
- Action learning

Dates/Locations/Prices: see page 130

Water and energy optimisation
– in industrial companies
Course: M 10

Sustainability is an economic challenge which is increasing in importance. This forum shows you how to identify and use potential savings of energy and water. You will learn from our experts as well as from speakers of other companies which methods you can use in your existing machinery. You will see practical examples which can lead to concrete results. To make it perfect, you will get also a field report about alternative energy production.

Target group:
Production leaders, plant manager, environmental officer, technical leaders for non-returnable PET soft drink, water or beer

Requirements:
Basic knowledge of water and energy management

Topics:
- Measuring the consumption of water, refrigeration, compressed air and electricity
- Analysing the report consumption data
- How to get more energy-efficiency of engines and generators
- How to find leaks of compressed air
- How to improve water and wastewater treatment and recycling
- How to generate alternative energy

Dates/Locations/Prices: see page 130

Management training

KRONES technology for decision makers
Course: M 11

How can you better manage your production line? What precisely happens when your engineers work on the machine and why do delays and downtime happen? These and other questions are clarified in this seminar. The knowledge you need is extended by learning more about the machines in your production site and this allows you to acquire a better understanding into your internal work sequences. In addition to this, you can get a better impression of external consumption materials and how they influence the production process and why some machines have higher operational costs than others.

Target group:
Managers with little filling line experience

Requirements: none

Topics:
- Information about the individual machine types (PET blow moulder, filler, labeller and inspection machines)
- Influence of the consumption materials
- Special applications
- "What is impossible" – limits of the process
- Cost analysis
- Practical exercises: turning on and starting up the machine (optional)

Dates/Locations/Prices: see page 130

Aseptic and sterile-process technology

Course: M 12

In aseptic filling, the product quality is at the forefront.
The aim of the seminar is to raise the participant's awareness of the highly complex processes in aseptic filling, to get to know about process-relevant influencing variables and learn how to manage them.
Learn how to use the central control unit (PCS) in order to contiously monitor the process in every equipment and the complete line. The method of operation and program control of the CAF system, the observance of parameters which are relevant to quality and possible implications for the quality of different products are the focus of this seminar.

Target group:
Line manager, shift managers, supervisors, team leaders, production managers, operations managers, quality managers and plant manager

Requirements: none

Topics:
- Technological basics: terms and definitions, sensitivity of beverages, quality assurance
- Explanation of the CAF process
- PCS basics: Botec, signal transmission, recipe structure
- PCS control and visualisation system
- Process-relevant parameters: phase and class parameters, sterility, CIP, SIP

Dates/Locations/Prices: see page 130

Financial business rating

What is the value of a filling plant or brewery?

Course: M 13

The need to find the value of a plant can be necessary by different causes for example negotiation for credits, payment for a shareholder, claims, acquisition and sales. This one day seminar will give you a summary and best practises from the bottling industry to find answers that will improve your negotiation's strengths.
For that seminar we provide industry expertise including business ratings/ benchmarks for the beverage industry. The expert with long lasting experience will be able to give you a lot of helpful references.

Target group:
Proprietor, controller, project, manager, sales manager

Requirements: none

Topics:
- Necessity for doing benchmark
- The different methods for business ratings/benchmarks
- Monetary value of brands
- Splitting the value of a company between assets, brands, customer base, etc.
- How to arrange the contract
- Rating
- Case study
- Where is my break even point

Dates/Locations/Prices: see page 130

Project management
From the practice to the practice
Course: M 14

For selected customers we offer to participate at the new KRONES Academy Project Management curriculum. Based on the practical experience from the field and the new ABMI project standards for the bottling industry the curriculum is tailored to the needs of project managers in the beverage industry.
The curriculum is compatible with PMI standards and involves the development of project management as well as leadership skills needed for leading without power. The competences are needed in new machine and new line installations as well as upgrades and overhauls up to light weighting and new product introduction projects.

Target group:
Project managers in engineering teams at corporate and plant level as well as other professionals involved in projects.

Requirements:
When participating in the training involved in an actual project – bring it with you to get valuable input and a more successful outcome.

Dates/Locations/Prices: see page 130

If you are interested please contact for further information:
Helio Portela
e-mail: helio.portela@krones.com

Management training

Workshop: training trends in the beverage and packaging industry
Course: M 15

How can you achieve measurable and sustainable success through training? In the name of the KRONES Academy we want to invite you to our exclusive workshop for managers.

Our main topics 2010:
- Saving costs and increase productivity through selected training investments
- Blended learning – a concept for the bottling industry
- Best practise sharing:"Experience how training pays off?"

Customers quote from the workshop 2009:
- Peter Rewi, New Zealand Breweries: "It is generally accepted that people are the most important asset of an organisation... ...To do this effectively, development of people should not be considered as a cost factor but should be treated as the basis for a company's progress and future."
- Stephan Camps, N.V. Danone S.V.: "Training is becoming more and more important especially in these times we can't afford losses in due to a lack of knowledge"

Target group:
Training manager, human resources manager, packaging manager, operation manager, production manager, plant manager, proprietor

Dates/Locations/Prices: see page 130

KRONES Assessment
The machine driver license

To get transperency and a measurable status the KRONES Academy offers assessments. Our experienced trainers can evaluate your machine operators if they can effectively start, run, stop and perform change-overs in your equipment following the proper procedures. This evaluation normally takes from two to four hours per person, it is a combination of a theoretical test and practical work in the machine. We provide this service during your normal operation. We recommend you to perform the assessment around six months after the training or if perfomance is below expectation and you need a status and development plan.

Target group:
Operators, operators who perform maintenance tasks

Suitable for machine types:
All KRONES machine types

Requirements:
none

Topics:
- Practical test and observation on the machine

Dates/Locations/Prices: to be determined depending on the machine type and number of operators to be evaluated

SOP (Standard Operating Procedures)
The easy to follow step-by-step instructions

The KRONES Academy, USA can develop customised SOP for the operation of your plant. Our experienced technical writers develop this easy to follow and understand instructions in co-operation with your production staff. The step-by-step concept is illustrated with lots of photos and minimum of text.

Suitable for machine types:
All KRONES machine types

Dates/Locations/Prices: to be determined depending on the machine type and procedures to be developed (per request 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 3 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 directly.

Times of seminars
Training starts on the first day at 9 a.m.
On successive days at 8 a.m.
Seminars end: approx. 4 p.m.
The management training times may differ.

Prices
Our current prices are indicated in the schedule at the back 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 practice exercises are also included. All prices are to be understood exclusive of the current rate of VAT or any other tax. Travel, accommodation and any other costs of the trainees are not included in the course fee. Charges for accommodation and meals are to be settled directly with the hotel or restaurant. In Germany we can arrange free-of-charge transfer between the Munich airport / Regensburg train station, hotel and the KRONES Academy in Neutraubling and Rosenheim. As well as Hamburg airport / train station, hotel and the KRONES Academy in Flensburg.

Important information in brief

Cancellations
Cancellations received in writing up to two weeks from the start of training are accepted free of training charges.
Please note that cancellations after two weeks before the start of the training are subject to payment of all fees and costs.
Instead of cancelling, participants may send a replacement to take their place on the training course without incurring further charges.

The KRONES Academy reserves the right to cancel or 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 can customise our training offers to suit your own specific requirements. Please talk to your local KRONES Academy 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 01-2	Contiform operation	German	2 days	Oct 13 - 14, 2009	790 €	Neutraubling / DE
P 01-1		German	2 days	Feb 2 - 3, 2010	790 €	Neutraubling / DE
P 01-3		English	2 days	March 2 - 3, 2010	790 €	Neutraubling / DE
P 01-4		English	4 days	Jan 5 - 8, 2010	$ 2,100	Franklin / USA
P 01-5		English	4 days	June 8 - 11, 2010	$ 2,100	Franklin / USA
P 01-6		English	4 days	Sep 28 - Oct 1, 2010	$ 2,100	Franklin / USA
P 01-7		Chinese	3 days	Jan 19 - 21, 2010	on request	Taicang / China
P 02-8	Contiform basics + introduction Contiform electrics	English	4 days	Oct 12 - 15, 2009	1,580 €	Neutraubling / DE
P 02-9		English	4 days	Dec 14 -17, 2009	1,580 €	Neutraubling / DE
P 02-1		German	4 days	Oct 11- 14, 2010	1,580 €	Neutraubling / DE
P 02-2		English	4 days	Nov 22 - 25, 2010	1,580 €	Neutraubling / DE
P 02-3		English	4 days	Jan 12 - 15, 2010	$ 2,100	Franklin / USA
P 02-4		English	4 days	June 15 - 18, 2010	$ 2,100	Franklin / USA
P 02-5		English	4 days	Oct 5 - 8, 2010	$ 2,100	Franklin / USA
P 03-5	Contiform mechanical adjustments	German	2 days	Nov 9 - 10, 2009	990 €	Neutraubling / DE
P 03-6		English	2 days	Nov 23 - 24, 2009	990 €	Neutraubling / DE
P 03-1		German	2 days	March 8 - 9, 2010	990 €	Neutraubling / DE
P 03-2		German	2 days	Oct 7 -8, 2010	990 €	Neutraubling / DE
P 03-3		English	2 days	Aprll 22 - 23, 2010	990 €	Neutraubling / DE
P 03-4		on request	2 days	on request	990 €	Neutraubling / DE
P 03-7		English	4 days	Jan 19 - 22, 2010	$ 2,100	Franklin / USA
P 03-8		English	4 days	June 22 - 25, 2010	$ 2,100	Franklin / USA
P 03-9		English	4 days	Oct 12 - 15, 2010	$ 2,100	Franklin / USA
P 03-10		Chinese	3 days	March 23 - 25, 2010	on request	Taicang / China
P 03-11		Chinese	3 days	June 8 - 10, 2010	on request	Taicang / China
P 03-12		Chinese	3 days	Oct 19 - 21, 2010	on request	Taicang / China
P 04-3	Contiform overhaul	German	3 days	Oct 28 - 30, 2009	1,485 €	Neutraubling / DE
P 04-4		English	3 days	Nov 25 - 27, 2009	1,485 €	Neutraubling / DE
P 04-1		German	3 days	March 10 - 12, 2010	1,485 €	Neutraubling / DE
P 04-2		German	3 days	Oct 4 - 6, 2010	1,485 €	Neutraubling / DE
P 04-5		English	3 days	April 19 - 21, 2010	1,485 €	Neutraubling / DE
P 04-6		on request	3 days	on request	1,485 €	Neutraubling / DE
P 04-7		English	3 days	Feb 23 - 25, 2010	$ 1,575	Franklin / USA
P 04-8		English	3 days	Aug 3 - 5, 2010	$ 1,575	Franklin / USA
P 04-9		English	3 days	Nov 16 - 18, 2010	$ 1,575	Franklin / USA
P 05-2	Contiform S PET process technology	German	2 days	Nov 11 - 12, 2009	990 €	Neutraubling / DE
P 05-1		German	2 days	Jan 26 - 27, 2010	990 €	Neutraubling / DE
P 05-3		German	2 days	Oct 19 - 20, 2010	990 €	Neutraubling / DE
P 05-4		English	2 days	Nov 30 - Dec 1, 2010	990 €	Neutraubling / DE
P 05-7		English	3 days	Oct 28 - 30, 2009	$ 1,575	Franklin / USA
P 05-8		English	3 days	Dec 8 - 10, 2009	$ 1,575	Franklin / USA
P 05-5		English	3 days	Feb 2 - 4, 2010	$ 1,575	Franklin / USA
P 05-6		English	3 days	July 13 - 15, 2010	$ 1,575	Franklin / USA
P 05-9		English	3 days	Oct 26 - 28, 2010	$ 1,575	Franklin / USA

Course no.	Title	Language	Duration	Date	Price/participant	Location
P 05-10	Contiform S PET process technology	Chinese	3 days	on request	on request	Taicang / China
P 06-1	Contiform Air Recycling	German	1 day	Jan 28 , 2010	395 €	Neutraubling / DE
P 06-2		English	1 day	Oct 21, 2010	395 €	Neutraubling / DE
P 07-1	Contiform Heatset	English	3 days	Feb 9 - 11, 2010	$ 1,575	Franklin / USA
P 07-2		English	3 days	July 20 - 22, 2010	$ 1,575	Franklin / USA
P 07-3		English	3 days	on request	on request	customers location
P 08-1	Contiform process for supervisors and managers	English	3 days	Feb 16 - 18, 2010	$ 1,575	Franklin / USA
P 08-2		English	3 days	July 27 - 29, 2010	$ 1,575	Franklin / USA
P 08-3		English	3 days	on request	on request	customers location
P 09-1	PET Lab basic course: Function and operation	Chinese	1 day	on request	on request	Taicang / China
P 10-1	PET Lab advanced course: Testing	Chinese	1 day	on request	on request	Taicang / China
P 11-1	Top-ten blow moulder failures	German	1 day	Oct 15, 2010	395 €	Neutraubling / DE
P 11-2		English	1 day	Nov 26, 2010	395 €	Neutraubling / DE

	Filling technology					
F 01-1	Volumetic VODM filler	German	4 days	Nov 24 - 27, 2009	1,580 €	Neutraubling / DE
F 01-4		English	4 days	Oct 20 - 23, 2009	1,580 €	Neutraubling / DE
F 01-2		German	4 days	Feb 8 - 11, 2010	1,580 €	Neutraubling / DE
F 01-3		German	4 days	Oct 18 - 21, 2010	1,580 €	Neutraubling / DE
F 01-5		English	4 days	March 15 - 18, 2010	1,580 €	Neutraubling / DE
F 01-6		English	4 days	Nov 22 - 25, 2010	1,580 €	Neutraubling / DE
F 01-7		English	2 days	Jan 26 - 27, 2010	$ 950	Franklin / USA
F 01-8		English	2 days	Oct 5 - 6, 2010	$ 950	Franklin / USA
F 01-9		Spanish	2 days	Feb 9 - 10, 2010	$ 950	Franklin / USA
F 01-10		Chinese	3 days	on request	on request	Taicang / China
F 02-2	Mecafill VKP filler	German	4 days	Dec 7 - 10, 2009	1,580 €	Neutraubling / DE
F 02-4		English	4 days	Nov 9 - 12, 2009	1,580 €	Neutraubling / DE
F 02-1		German	4 days	March 22 - 25, 2010	1,580 €	Neutraubling / DE
F 02-3		German	4 days	Sept 20 - 23, 2010	1,580 €	Neutraubling / DE
F 02-5		English	4 days	April 26 - 29, 2010	1,580 €	Neutraubling / DE
F 02-6		English	4 days	Oct 26 - 29, 2010	1,580 €	Neutraubling / DE
F 02-7		English	2 days	Jan 28 - 29, 2010	$ 950	Franklin / USA
F 02-8		English	2 days	Oct 7 - 8, 2010	$ 950	Franklin / USA
F 02-9		Spanish	2 days	Feb 11 - 12, 2010	$ 950	Franklin / USA
F 02-10		Chinese	3 days	on request	on request	Taicang / China
F 03-2	CAF (Cold Aseptic Filling) basics	German	2 days	Nov 2 - 3, 2009	790 €	Neutraubling / DE
F 03-4		English	2 days	Oct 5 - 6, 2009	790 €	Neutraubling / DE
F 03-1		German	2 days	Feb 22 - 23, 2010	790 €	Neutraubling / DE
F 03-3		German	2 days	Oct 4 - 5, 2010	790 €	Neutraubling / DE
F 03-5		English	2 days	May 3 - 4, 2010	790 €	Neutraubling / DE
F 03-6		English	2 days	Nov 29 - 30, 2010	790 €	Neutraubling / DE
F 03-7		English	2 days	Feb 2 - 3, 2010	$ 950	Franklin / USA

Course no.	Title	Language	Duration	Date	Price/participant	Location
F 03-8	CAF (Cold Aseptic Filling) basics	English	2 days	Oct 12 - 13, 2010	$ 950	Franklin / USA
F 03-9		Spanish	2 days	Feb 4 - 5, 2010	$ 950	Franklin / USA
F 03-10		Chinese	3 days	on request	on request	Taicang / China
F 04-2	CAF (Cold Aseptic Filling) advanced course - operation	German	2.5 days	Nov 4 - 6, 2009	1,185 €	Neutraubling / DE
F04-4		English	2.5 days	Oct 7 - 9, 2009	1,185 €	Neutraubling / DE
F 04-1		German	2.5 days	Feb 24 - 26, 2010	1,185 €	Neutraubling / DE
F 04-3		German	2.5 days	Oct 6 - 8, 2010	1,185 €	Neutraubling / DE
F 04-5		English	2.5 days	May 5 - 7 , 2010	1,185 €	Neutraubling / DE
F 04-6		English	2.5 days	Dec 1 - 3, 2010	1,185 €	Neutraubling / DE
F 04-7		Chinese	3 days	on request	on request	Taicang / China
F 05-2	CAF (Cold Aseptic Filling) advanced course - mechanics	German	2.5 days	Nov 4 - 6, 2009	1,185 €	Neutraubling / DE
F 05-4		English	2.5 days	Oct 7 - 9, 2009	1,185 €	Neutraubling / DE
F 05-1		German	2.5 days	Feb 24 - 26, 2010	1,185 €	Neutraubling / DE
F 05-3		German	2.5 days	Oct 6 - 8 ,2010	1,185 €	Neutraubling / DE
F 05-5		English	2.5 days	May 5 - 7 , 2010	1,185 €	Neutraubling / DE
F 05-6		English	2.5 days	Dec 1 - 3, 2010	1,185 €	Neutraubling / DE
F 06-1	CAF (Cold Aseptic Filling) general advanced	Chinese	3 days	on request	on request	Taicang / China
F 07-1	Mixer: Contiflow	German	1 days	on request	395 €	Neutraubling / DE
F 07-2		English	1 days	on request	395 €	Neutraubling / DE
F 07-3		Chinese	3 days	on request	on request	Taicang / China
F 08-1	Basic CAF filling process	Chinese	2 days	on request	on request	Taicang / China

	Cleaning technology					
C 01-2	Bottle washers, workshop (excluding Spiragrip)	German	4 days	Oct 12 - 15, 2009	1,580 €	Flensburg / DE
C 01-4		English	4 days	Nov 16 - 19, 2009	1,580 €	Flensburg / DE
C 01-1		German	4 days	Feb 23 - 26, 2010	1,580 €	Flensburg / DE
C 01-3		German	4 days	Nov 30 - Dec 3, 2010	1,580 €	Flensburg / DE
C 01-5		English	4 days	April 27 - 30, 2010	1,580 €	Flensburg / DE
C 01-6		English	4 days	Dec 6 -9, 2010	1,580 €	Flensburg / DE

	Process technology					
B 01-1	VarioClean CIP system	German	0.5 days	Feb 12, 2010	198 €	Neutraubling / DE
B 01-2		German	0.5 days	March 26, 2010	198 €	Neutraubling / DE
B 01-3		German	0.5 days	March 4, 2010	198 €	Neutraubling / DE
B 01-4		German	0.5 days	Oct 14, 2010	198 €	Neutraubling / DE
B 01-5		English	0.5 days	Nov 26, 2010	198 €	Neutraubling / DE
B 01-6		English	0.5 days	Oct 29, 2010	198 €	Neutraubling / DE
B 01-7		English	0.5 days	May 12, 2010	198 €	Neutraubling / DE
B 01-8		English	0.5 days	Dec 9, 2010	198 €	Neutraubling / DE
B 02-1	VarioDos hygiene centre	German	1 day	March 2, 2010	395 €	Neutraubling / DE
B 02-2		German	1 day	Oct 12, 2010	395 €	Neutraubling / DE
B 02-3		English	1 day	May 10, 2010	395 €	Neutraubling / DE
B 02-4		English	1 day	Dec 7 , 2010	395 €	Neutraubling / DE

Course no.	Title	Language	Duration	Date	Price/participant	Location
B 03-1	VarioFlash flash pasteuriser	German	1 day	Oct 22, 2010	395 €	Neutraubling / DE
B 03-2		German	1 day	Sept 24, 2010	395 €	Neutraubling / DE
B 03-3		German	1 day	March 3, 2010	395 €	Neutraubling / DE
B 03-4		German	1 day	Oct 13, 2010	395 €	Neutraubling / DE
B 03-5		English	1 day	March 19, 2010	395 €	Neutraubling / DE
B 03-6		English	1 day	April 30, 2010	395 €	Neutraubling / DE
B 03-7		English	1 day	May 11, 2010	395 €	Neutraubling / DE
B 03-8		English	1 day	Dec 8, 2010	395 €	Neutraubling / DE
B 04-1	Bottle and can + product treatment (pasteuriser)	German	1 day	Oct 16, 2009	395 €	Flensburg / DE
B 04-2		English	1 day	Nov 20, 2009	395 €	Flensburg / DE
B 04-3		German	1 day	April 20, 2010	395 €	Flensburg / DE
B 04-4		German	1 day	Dec 10, 2010	395 €	Flensburg / DE
B 04-5		English	1 day	Oct 12, 2010	395 €	Flensburg / DE
B 05-1	Beer production in practice	German	2 days	March 9 - 10, 2010	790 €	Neutraubling / DE
B 05-2		English	2 days	March 30 - 31, 2010	790€	Neutraubling / DE

	Labelling technology					
L 01-2	Cold glue technology	German	4 days	Oct 20 - 23, 2009	1,580 €	Neutraubling / DE
L 01-4		English	4 days	Nov 3 - 6, 2009	1,580 €	Neutraubling / DE
L 01-1		German	4 days	Jan 12 - 15, 2010	1,580 €	Neutraubling / DE
L 01-3		German	4 days	March 9 - 12, 2010	1,580 €	Neutraubling / DE
L 01-5		English	4 days	Sept 28 - Oct 1, 2010	1,580 €	Neutraubling / DE
L 01-6		English	4 days	Nov 2 - 5, 2010	1,580 €	Neutraubling / DE
L 01-7		English	4 days	April 13 - 16, 2010	1,580 €	Neutraubling / DE
L 01-8		German	4 days	Oct 26 - 29, 2010	1,580 €	Neutraubling / DE
L 01-9		English	3.5 days	Feb 23 - 26, 2010	$ 1,663	Franklin / USA
L 01-10		English	3.5 days	April 6 - 9, 2010	$ 1,663	Franklin / USA
L 01-11		English	3.5 days	Oct 19 - 22, 2010	$ 1,663	Franklin / USA
L 01-12		Spanish	3.5 days	May 18 - 21, 2010	$ 1,663	Franklin / USA
L 01-13		English	3 days	Jan 25 - 27, 2010	£ 795	Bolton / UK
L 01-14		English	3 days	Feb 22 - 24, 2010	£ 795	Bolton / UK
L 01-15		English	3 days	March 29 - 31, 2010	£ 795	Bolton / UK
L 01-16		English	3 days	April 26 - 28, 2010	£ 795	Bolton / UK
L 01-17		English	3 days	May 17 - 19, 2010	£ 795	Bolton / UK
L 01-18		English	3 days	June 21 - 23, 2010	£ 795	Bolton / UK
L 01-19		English	3 days	Aug 16 - 18, 2010	£ 795	Bolton / UK
L 01-20		English	3 days	Sept 20 - 22, 2010	£ 795	Bolton / UK
L 01-21		English	3 days	Oct 25 - 27, 2010	£ 795	Bolton / UK
L 01-22		English	3 days	Nov 22 - 24, 2010	£ 795	Bolton / UK
L 01-23		Spanish	2 days	Feb 15 - 16, 2010	on request	Bogotá / COL
L 01-24		Spanish	2 days	Aug 16 - 17, 2010	on request	Bogotá / COL
L 01-25		Chinese	3 days	on request	on request	Taicang / China
L 01-26		English	4 days	June 8 - 11, 2010	on request	Bangkok / THA

Course no.	Title	Language	Duration	Date	Price/participant	Location
L 02-2	Hotmelt technology, Contiroll	German	4 days	Oct 6 - 9, 2009	1,580 €	Neutraubling / DE
L 02-4		English	4 days	Dec 1 - 4, 2009	1,580 €	Neutraubling / DE
L 02-1		German	4 days	Jan 19 - 22, 2010	1,580 €	Neutraubling / DE
L 02-3		German	4 days	Oct 5 - 8, 2010	1,580 €	Neutraubling / DE
L 02-5		English	4 days	Feb 16 - 19, 2010	1,580 €	Neutraubling / DE
L 02-6		English	4 days	Sep 14 - 17, 2010	1,580 €	Neutraubling / DE
L 02-7		English	2 days	Jan 28 - 29, 2010	£ 575	Bolton / UK
L 02-8		English	2 days	Feb 25 - 26, 2010	£ 575	Bolton / UK
L 02-9		English	2 days	March 25 - 26, 2010	£ 575	Bolton / UK
L 02-10		English	2 days	April 29 - 30, 2010	£ 575	Bolton / UK
L 02-11		English	2 days	May 20 - 21, 2010	£ 575	Bolton / UK
L 02-12		English	2 days	June 24 - 25, 2010	£ 575	Bolton / UK
L 02-13		English	2 days	Aug 19 - 20, 2010	£ 575	Bolton / UK
L 02-14		English	2 days	Sept 23 - 24, 2010	£ 575	Bolton / UK
L 02-15		English	2 days	Oct 28 - 29, 2010	£ 575	Bolton / UK
L 02-16		English	2 days	Nov 25 - 26, 2010	£ 575	Bolton / UK
L 02-17		Spanish	2 days	Feb 18 - 19, 2010	on request	Bogotá / COL
L 02-18		Spanish	2 days	Aug 19 - 20, 2010	on request	Bogotá / COL
L 02-19		Chinese	3 days	on request	on request	Taicang / China
L 03-2	Hotmelt technology, Contiroll HS (High Speed)	German	4 days	Nov 24 - 27, 2009	1,580 €	Neutraubling / DE
L 03-4		English	4 days	Oct 13 - 16, 2009	1,580 €	Neutraubling / DE
L 03-1		German	4 days	Mar 29 - Apr 1, 2010	1,580 €	Neutraubling / DE
L 03-3		German	4 days	Oct 12 - 15, 2010	1,580 €	Neutraubling / DE
L 03-5		English	4 days	April 27 - 30, 2010	1,580 €	Neutraubling / DE
L 03-6		English	4 days	Nov 9 -12, 2010	1,580 €	Neutraubling / DE
L 03-7		Spanish	2 days	March 25 - 26, 2010	on request	Bogotá / COL
L 03-8		Spanish	2 days	Aug 23- 24, 2010	on request	Bogotá / COL
L 03-9		Chinese	3 days	on request	on request	Taicang / China
L 03-10		English	4 days	June 15 - 18, 2010	on request	Bangkok / THA
L 04-1	Self-adhesive technology	German	2 days	Feb 11 - 12, 2010	790 €	Neutraubling / DE
L 04-2		German	2 days	Nov 16 - 17, 2010	790 €	Neutraubling / DE
L 04-3		German	2 days	Oct 20 - 21, 2010	790 €	Neutraubling / DE
L 04-4		English	2 days	Feb 23 - 24, 2010	790 €	Neutraubling / DE
L 04-5		English	2 days	May 11 - 12, 2010	790 €	Neutraubling / DE
L 04-6		English	2.5 days	March 17 - 19, 2010	$ 1,188	Franklin / USA
L 04-7		English	2.5 days	Nov 10 - 12, 2010	$ 1,188	Franklin / USA
L 04-8		Spanish	2.5 days	June 9 - 11, 2010	$ 1,188	Franklin / USA
L 04-9		English	2 days	Jan 14 - 15, 2010	£ 575	Bolton / UK
L 04-10		English	2 days	Feb 11 - 12, 2010	£ 575	Bolton / UK
L 04-11		English	2 days	March 11 - 12, 2010	£ 575	Bolton / UK
L 04-12		English	2 days	April 15 - 16, 2010	£ 575	Bolton / UK
L 04-13		English	2 days	May 13 - 14, 2010	£ 575	Bolton / UK
L 04-14		English	2 days	June 10 - 11, 2010	£ 575	Bolton / UK
L 04-15		English	2 days	July 8 - 9, 2010	£ 575	Bolton / UK
L 04-16		English	2 days	Sept 9 - 10, 2010	£ 575	Bolton / UK

2010 seminars

Course no.	Title	Language	Duration	Date	Price/participant	Location
L 04-17	Self-adhesive technology	English	2 days	Oct 14 - 15, 2010	£ 575	Bolton / UK
L 04-18		English	2 days	Nov 11 - 12, 2010	£ 575	Bolton / UK
L 04-19		English	2 days	Dec 9 - 10, 2010	£ 575	Bolton / UK
L 04-20		English	2 days	June 21 - 22, 2010	on request	Bangkok / THA
L 05-1	Sleevematic shrink labelling	German	2 days	March 23 - 24, 2010	790 €	Neutraubling / DE
L 05-2		English	2 days	Nov 18 - 19, 2010	790 €	Neutraubling / DE
L 05-3		Spanish	2 days	on request	790 €	Neutraubling / DE
L 06-1	Labeller main machine overhaul	German	4 days	Feb 2- 5, 2010	1,580 €	Neutraubling / DE
L 06-2		German	4 days	Sept 21 - 24 , 2010	1,580 €	Neutraubling / DE
L 06-3		English	4 days	March 16 - 19, 2010	1,580 €	Neutraubling / DE
L 06-4		English	4 days	Nov 2 - 5, 2010	1,580 €	Neutraubling / DE
L 06-5		English	4 days	on request	on request	Bangkok / THA
L 07-1	Labeller change-over workshop for teams	German	3 days	on request	on request	Neutraubling / DE
L 07-2		English	3 days	on request	on request	Neutraubling / DE
L 07-3		English	3 days	on request	on request	Bangkok / THA
L 08-5	Contiroll HS (High Speed) operator training	English	2 days	Oct 12 - 13, 2009	$ 950	Franklin / USA
L 08-6		English	2 days	Dec 14 - 15, 2009	$ 950	Franklin / USA
L 08-1		English	2 days	Jan 12 - 13, 2010	$ 950	Franklin / USA
L 08-2		Spanish	2 days	May 11 - 12, 2010	$ 950	Franklin / USA
L 08-3		English	2 days	Sept 21 - 22, 2010	$ 950	Franklin / USA
L 09-7	Contiroll HS (High Speed) maintenannce	English	3 days	Nov 2 - 4, 2009	$ 950	Franklin / USA
L 09-1		English	3 days	Jan 5 - 7, 2010	$ 1,425	Franklin / USA
L 09-2		Spanish	3 days	May 4 - 6, 2010	$ 1,425	Franklin / USA
L 09-3		English	3 days	Sept 14 - 16, 2010	$ 1,425	Franklin / USA
L 10-1	APS S4D	English	2 days	on request	£ 575	Bolton / UK
L 10-2		English	2 days	March 15 - 16, 2010	$ 950	Franklin / USA
L 10-3		English	2 days	Nov 8 - 9, 2010	$ 950	Franklin / USA
L 10-4		Spanish	2 days	June 7 - 8, 2010	$ 950	Franklin / USA
L 11-1	Canmatic labeller troubleshooting (operator)	English	2 days	March 8 - 9, 2010	$ 950	Franklin / USA
L 11-2		English	2 days	Nov 1 - 2, 2010	$ 950	Franklin / USA
L 11-3		Spanish	2 days	May 24 - 25, 2010	$ 950	Franklin / USA
L 11-4	Canmatic labeller troubleshooting (maintenance)	English	2.5 days	March 10 - 12, 2010	$ 1,190	Franklin / USA
L 11-5		English	2.5 days	Nov 3 - 5, 2010	$ 1,190	Franklin / USA
L 11-6		Spanish	2.5 days	May 26- 28, 2010	$ 1,190	Franklin / USA
L 11-7		Spanish	2.5 days	March 17 - 19, 2010	on request	Bogotá / COL
L 11-8		Spanish	2.5 days	Aug 25 - 27, 2010	on request	Bogotá / COL
L 12-1	Pressure sensitive & cold glue label specifications	English	2 days	Feb 23 - 24, 2010	$ 950	Franklin / USA
L 12-2		English	2 days	Nov 22 - 23, 2010	$ 950	Franklin / USA
L 12-3		Spanish	2 days	June 2 - 3, 2010	$ 950	Franklin / USA
L 12-4		English	2 days	on request	on request	customers location
L 13-1	Comp-Intense KRONES fundamental mech. labeller	English	5 days	Jan 4 - 8, 2010	8,750 ZAR	Johannesburg / ZA
L 13-2		English	5 days	March 8 - 12, 2010	8,750 ZAR	Johannesburg / ZA
L 13-3		English	5 days	May 3- 7, 2010	8,750 ZAR	Johannesburg / ZA
L 13-4		English	5 days	Sept 6 - 10, 2010	8,750 ZAR	Johannesburg / ZA
L 13-5		English	5 days	Oct 4 - 8, 2010	8,750 ZAR	Johannesburg / ZA

Course no.	Title	Language	Duration	Date	Price/participant	Location
	Inspection technology					
I 01-3	Linatronic M2 basic course	German	4 days	Oct 27 - 30, 2009	1,580 €	Neutraubling / DE
I 01-5		English	4 days	Oct 20 - 23, 2009	1,580 €	Neutraubling / DE
I 01-1		German	4 days	Jan 12 - 15, 2010	1,580 €	Neutraubling / DE
I 01-2		German	4 days	Nov 9 - 12, 2010	1,580 €	Neutraubling / DE
I 01-4		German	4 days	Oct 19 - 22, 2010	1,580 €	Neutraubling / DE
I 01-6		English	4 days	Feb 16 - 19, 2010	1,580 €	Neutraubling / DE
I 01-7		English	4 days	Dec 7 - 10, 2010	1,580 €	Neutraubling / DE
I 01-8		French	4 days	on request	1,580 €	Neutraubling / DE
I 01-9		Dutch	4 days	on request	1,580 €	Neutraubling / DE
I 01-10		Spanish	4 days	on request	1,580 €	Neutraubling / DE
I 01-11		Spanish	4 days	March 2 - 5 , 2010	on request	Bogotá / COL
I 01-12		Spanish	4 days	Aug 31 - Sept 3, 2010	on request	Bogotá / COL
I 01-13		Chinese	3 days	Jan 5 - 7, 2010	on request	Taicang / China
I 01-14		Chinese	3 days	May 11 - 13, 2010	on request	Taicang / China
I 01-15		Chinese	3 days	Sept 7 - 9, 2010	on request	Taicang / China
I 02-2	Linatronic M2 advanced course	German	4 days	Nov 24 - 27, 2009	1,580 €	Neutraubling / DE
I 02-3		English	4 days	Dec 1 - 4 , 2009	1,580 €	Neutraubling / DE
I 02-1		German	4 days	Jan 19 - 22, 2010	1,580 €	Neutraubling / DE
I 02-4		German	4 days	Nov 16 - 19, 2010	1,580 €	Neutraubling / DE
I 02-5		English	4 days	Oct 26 - 29, 2010	1,580 €	Neutraubling / DE
I 02-6		French	4 days	on request	1,580 €	Neutraubling / DE
I 02-7		Dutch	4 days	on request	1,580 €	Neutraubling / DE
I 02-8		Spanish	4 days	on request	1,580 €	Neutraubling / DE
I 02-9		Chinese	3 days	March 12 - 14, 2010	on request	Taicang / China
I 02-10		Chinese	3 days	July 6 - 8, 2010	on request	Taicang / China
I 02-11		Chinese	3 days	Nov 2 - 4, 2010	on request	Taicang / China
I 03-2	PET-View: maintenance and troubleshooting	English	3 days	Sept 29 - Oct 1, 2009	1,185 €	Neutraubling / DE
I 03-1		German	3 days	Jan 27 - 29, 2010	1,185 €	Neutraubling / DE
I 03-3		English	3 days	Dec 1 - 3, 2010	1,185 €	Neutraubling / DE
I 03-4		French	3 days	on request	1,185 €	Neutraubling / DE
I 03-5		Dutch	3 days	on request	1,185 €	Neutraubling / DE
I 03-6		Spanish	3 days	on request	1,185 €	Neutraubling / DE
I 04-1	Inspection systems technology	German	2 - 4 days	on request	790 € - 1,580 €	Neutraubling / DE
I 04-2		English	2 - 4 days	on request	790 € - 1,580 €	Neutraubling / DE
I 04-3		Spanish	2 - 4 days	on request	790 € - 1,580 €	Neutraubling / DE
I 04-4		Chinese	3 days	Feb 2 - 4, 2010	on request	Taicang / China
I 04-5		Chinese	3 days	April 6 - 8, 2010	on request	Taicang / China
I 04-6		Chinese	3 days	June 15 - 17, 2010	on request	Taicang / China
I 04-7		Chinese	3 days	Aug 10 - 12, 2010	on request	Taicang / China
I 04-8		English	2 - 4 days	on request	on request	Bangkok / THA
I 05-1	Checkmat 731	German	3 days	May 18 - 20, 2010	1,185 €	Neutraubling / DE
I 05-2		English	2 days	April 22 - 23, 2010	$ 1,050	Franklin / USA
I 05-5		English	2 days	Dec 16 - 17. 2010	$ 1,050	Franklin / USA
I 05-3		English	3 days	Oct 13 - 15, 2009	£ 795	Bolton / UK

Course no.	Title	Language	Duration	Date	Price/participant	Location
I 05-4	Checkmat 731	English	3 days	Dec 8 - 10, 2009	£ 795	Bolton / UK
I 05-6		English	3 days	on request	£ 795	Bolton / UK
I 05-7		Chinese	3 days	Oct 12 - 14, 2010	on request	Taicang / China
I 05-8		Chinese	3 days	Dez 1 - 3, 2010	on request	Taicang / China
I 05-9		English	3 days	June 28 - 30, 2010	on request	Bangkok / THA
I 06-1	Checkmat 707	German	2 days	May 4 - 5, 2010	790 €	Neutraubling / DE
I 06-2		English	2 days	April 29 - 30, 2010	$ 1,050	Franklin / USA
I 06-3		English	2 days	Dec 14 - 15, 2010	$ 1,050	Franklin / USA
I 06-5		English	2 days	Oct 12 -13, 2009	£ 575	Bolton / UK
I 06-6		English	2 days	Dec 7 - 8, 2009	£ 575	Bolton / UK
I 06-4		English	2 days	on request	£ 575	Bolton / UK
	Packaging and palettising technology					
D 01-1	Convenience packaging technology	German	2 days	April 12 -13, 2010	790 €	Rosenheim / DE
D 01-2		English	2 days	Sept 14 - 15, 2010	790 €	Rosenheim / DE
D 01-3		French	2 days	on request	790 €	Rosenheim / DE
D 01-4		Spanish	2 days	on request	790 €	Rosenheim / DE
D 01-5		Chinese	3 days	on request	on request	Taicang / China
D 02-1	Palletising technology	German	2 days	April 26 - 27, 2010	790 €	Rosenheim / DE
D 02-2		English	2 days	Oct 18 - 19, 2010	790 €	Rosenheim / DE
D 02-3		French	2 days	on request	790 €	Rosenheim / DE
D 02-4		Spanish	2 days	on request	790 €	Rosenheim / DE
D 02-5		Chinese	3 days	on request	on request	Taicang / China
D 03-1	Packaging technology	German	1 day	April 28, 2010	395 €	Rosenheim / DE
D 03-2		English	1 day	Oct 20, 2010	395 €	Rosenheim / DE
D 03-3		French	1 day	on request	395 €	Rosenheim / DE
D 03-4		Spanish	1 day	on request	395 €	Rosenheim / DE
D 03-5		Chinese	1 day	on request	on request	Taicang / China
	Electrotechnology					
E 01-1	KRONES electrotechnology for non-electricians	German	2 days	Feb 23 - 24, 2010	790 €	Neutraubling / DE
E 01-2		English	2 days	May 4 - 5, 2010	790 €	Neutraubling / DE
E 01-3		Spanish	3 days	on request	R$ 3,210	São Paulo / Brazil
E 01-4		Portuguese	3 days	March 10 - 12, 2010	R$ 3,210	São Paulo / Brazil
E 01-5		Portuguese	3 days	April 7 - 9, 2010	R$ 3,210	São Paulo / Brazil
E 01-6		Portuguese	3 days	May 12 - 14, 2010	R$ 3,210	São Paulo / Brazil
E 01-7		Portuguese	3 days	June 16 - 18, 2010	R$ 3,210	São Paulo / Brazil
E 01-8		Portuguese	3 days	July 21 - 23, 2010	R$ 3,210	São Paulo / Brazil
E 01-9		Portuguese	3 days	Aug 4 - 6, 2010	R$ 3,210	São Paulo / Brazil
E 01-10		Portuguese	3 days	Sept 8 - 10, 2010	R$ 3,210	São Paulo / Brazil
E 01-11		Portuguese	3 days	Oct 20 - 22, 2010	R$ 3,210	São Paulo / Brazil
E 01-12		Portuguese	3 days	Nov 17 - 19, 2010	R$ 3,210	São Paulo / Brazil
E 01-13		Portuguese	3 days	Dec 1 - 3, 2010	R$ 3,210	São Paulo / Brazil

Course no.	Title	Language	Duration	Date	Price/participant	Location
E 01-14	KRONES electrotechnology for non-electricians	Spanish	3 days	March 9 - 11, 2010	on request	Bogotá / COL
E 01-15		Spanish	3 days	Sept 7 - 9, 2010	on request	Bogotá / COL
E 01-16		English	2 days	June 17 - 18, 2010	on request	Bangkok / THA
E 02-1	Contiform electrics	German	2 days	March 2 - 3, 2010	790 €	Neutraubling / DE
E 02-2		German	2 days	Sept 14 - 15, 2010	790 €	Neutraubling / DE
E 02-3		English	2 days	April 27 - 28, 2010	790 €	Neutraubling / DE
E 02-4		English	2 days	Nov 16 - 17, 2010	790 €	Neutraubling / DE
E 02-5		English	4 days	Jan 26 - 29, 2010	$ 2,100	Franklin / USA
E 02-6		English	4 days	June 28 - July 1 , 2010	$ 2,100	Franklin / USA
E 02-7		English	4 days	Oct 19 - 22, 2010	$ 2,100	Franklin / USA
E 02-8		Chinese	3 days	on request	on request	Taicang / China
E 03-1	Filler electrical technology (with LCT 3 / KFS 3 controller)	German	3 days	Feb 16 - 18, 2010	1,185 €	Neutraubling / DE
E 03-2		English	3 days	Oct 5 - 7, 2010	1,185 €	Neutraubling / DE
E 03-3		Chinese	3 days	on request	on request	Taicang / China
E 04-1	Filling machine electrics (with FVC controller)	German	3 days	May 10 - 12, 2010	1,185 €	Neutraubling / DE
E 04-2		English	3 days	Oct 11 - 13, 2010	1,185 €	Neutraubling / DE
E 04-3		Spanish	3 days	on request	1,185 €	São Paulo / Brazil
E 04-4		Portuguese	3 days	March 24 - 26, 2010	1,185 €	São Paulo / Brazil
E 04-5		Portuguese	3 days	April 14 - 16, 2010	1,185 €	São Paulo / Brazil
E 04-6		Portuguese	3 days	May 26 - 28, 2010	1,185 €	São Paulo / Brazil
E 04-7		Portuguese	3 days	June 23 - 25, 2010	1,185 €	São Paulo / Brazil
E 04-8		Portuguese	3 days	July 7 - 9, 2010	1,185 €	São Paulo / Brazil
E 04-9		Portuguese	3 days	Aug 18 - 20, 2010	1,185 €	São Paulo / Brazil
E 04-10		Portuguese	3 days	Sept 22 - 24, 2010	1,185 €	São Paulo / Brazil
E 04-11		Portuguese	3 days	Oct 27 - 29, 2010	1,185 €	São Paulo / Brazil
E 04-12		Portuguese	3 days	Nov 24 - 26, 2010	1,185 €	São Paulo / Brazil
E 04-13		Portuguese	3 days	Dec 8 - 10, 2010	1,185 €	São Paulo / Brazil
E 04-14		Chinese	3 days	on request	on request	Taicang / China
E 05-1	Cold-glue labeller electrics	German	2 days	March 22 - 23, 2010	790 €	Neutraubling / DE
E 05-2		English	2 days	May 6 - 7, 2010	790 €	Neutraubling / DE
E 05-3		German	2 days	Oct 14 - 15, 2010	790 €	Neutraubling / DE
E 05-4		English	2 days	March 2 - 3, 2010	$ 1,050	Franklin / USA
E 05-5		English	2 days	Oct 26 - 27, 2010	$ 1,050	Franklin / USA
E 05-6		English	2 days	on request	£ 575	Bolton / UK
E 05-7		Spanish	2 days	March 15 - 16, 2010	on request	Bogotá / COL
E 05-8		Spanish	2 days	Sept 13 - 14, 2010	on request	Bogotá / COL
E 05-9		Chinese	3 days	on request	on request	Taicang / China
E 05-10		English	2 days	June 14 - 15, 2010	on request	Bangkok / THA
E 06-1	Contiroll and Contiroll HS (High Speed) electrics	German	3 days	Feb 3 - 5, 2010	1,185 €	Neutraubling / DE
E 06-2		English	3 days	April 21 - 23, 2010	1,185 €	Neutraubling / DE
E 06-3		English	2 days	Jan 19 - 20, 2010	$ 1,050	Franklin / USA
E 06-4		English	2 days	Sept 28- 29,2010	$ 1,050	Franklin / USA
E 06-5		Spanish	3 days	March 22 - 24,2010	on request	Bogotá / COL
E 06-6		Spanish	3 days	Sept 20- 22,2010	on request	Bogotá / COL

Course no.	Title	Language	Duration	Date	Price/participant	Location
E 06-7	Contiroll and Contiroll HS (High Speed) electrics	Chinese	3 days	on request	on request	Taicang / China
E 06-8		English	3 days	June 21 - 23, 2010	on request	Bangkok / THA
E 07-1	Contiroll 745 with LCT 3 controller - electrics	German	3 days	Jan 26 - 28, 2010	1,185 €	Neutraubling / DE
E 07-2		English	3 days	March 24 - 26, 2010	1,185 €	Neutraubling / DE
E 07-3		Spanish	3 days	March 29 - 31, 2010	on request	Bogotá / COL
E 07-4		Spanish	3 days	Sept 27 - 29, 2010	on request	Bogotá / COL
E 08-1	Modul 1 - Labeller - electrical system	German	3 days	Feb 8 - 10, 2010	1,185 €	Neutraubling / DE
E 08-2		English	3 days	April 13 - 15, 2010	1,185 €	Neutraubling / DE
E 08-3		English	2.5 days	March 3 - 5, 2010	$ 1,315	Franklin / USA
E 08-4		English	2.5 days	Oct 27 - 29, 2010	$ 1,315	Franklin / USA
E 08-5		English	3 days	on request	£ 795	Bolton / UK
E 09-1	Modul 2 - Labeller - electrical system	German	3 days	March 9 - 11, 2010	1,185 €	Neutraubling / DE
E 09-2		English	3 days	Sept 28 - 30, 2010	1,185 €	Neutraubling / DE
E 10-1	Comp-Intense KRONES fundamental electrical labeller	English	5 days	Jan 11 - 15, 2010	8,750 ZAR	Johannesburg / ZA
E 10-2		English	5 days	March 15 - 19, 2010	8,750 ZAR	Johannesburg / ZA
E 10-3		English	5 days	May 10 - 14, 2010	8,750 ZAR	Johannesburg / ZA
E 10-4		English	5 days	Sept 13 - 17, 2010	8,750 ZAR	Johannesburg / ZA
E 10-5		English	5 days	Oct 11 - 15, 2010	8,750 ZAR	Johannesburg / ZA
E 11-1	Electrical components for packing and palletising tech.	German	2 days	April 14 - 15, 2010	790 €	Rosenheim / DE
E 11-2		German	2 days	April 29 - 30, 2010	790 €	Rosenheim / DE
E 11-3		English	2 days	Sept 16 - 17 , 2010	790 €	Rosenheim / DE
E 11-4		English	2 days	Oct 21 - 22, 2010	790 €	Rosenheim / DE
E 11-5		Chinese	3 days	May 18 - 20, 2010	on request	Taicang / China
E 11-6		Chinese	3 days	Aug 17 - 19, 2010	on request	Taicang / China
E 11-7		Chinese	3 days	Nov 16 - 18, 2010	on request	Taicang / China
E 12-1	Comp-Intense KRONES fundamental electrical	English	10 days	Jan 18 - 22, 2010 Jan 25 - 29, 2010	2,700 €	Nairobi / Kenya
E 12-2		English	10 days	March 15 - 19, 2010 March 22 - 26, 2010	2,700 €	Nairobi / Kenya
E 12-3		English	10 days	Sept 6 - 10, 2010 Sept 13 - 17, 2010	2,700 €	Nairobi / Kenya
E 12-4		English	10 days	Nov 15 - 19, 2010 Nov 22 - 26, 2010	2,700 €	Nairobi / Kenya
E 13-1	Bottle conveyor with Glideliner and bloc synchronisation	Spanish	3 days	Feb 23-25, 2010	on request	Bogotá / COL
E 13-2		Spanish	3 days	June 16- 18, 2010	on request	Bogotá / COL
E 14-1	General KRONES electrical system	Chinese	3 days	on request	on request	Taicang / China
E 15-1	Advanced course: control and electronic	Chinese	3 days	on request	on request	Taicang / China

Course no.	Title	Language	Duration	Date	Price/participant	Location
	Automation and IT solutions					
A 01-2	LDS – KRONES operation data recording	German	3 days	Oct 12 - 14, 2009	1,185 €	Neutraubling / DE
A 01-4		English	3 days	Nov 16 - 18, 2009	1,185 €	Neutraubling / DE
A 01-1		German	3 days	Feb 8 - 10, 2010	1,185 €	Neutraubling / DE
A 01-3		German	3 days	Oct 4 - 6, 2010	1,185 €	Neutraubling / DE
A 01-5		English	3 days	March 15 - 17,2010	1,185 €	Neutraubling / DE
A 01-6		English	3 days	Oct 18 - 20, 2010	1,185 €	Neutraubling / DE
A 01-7		Chinese	1 day	on request	on request	Taicang / China
A 02-2	Strategic maintenance and planning system -SIPS	German	2 days	Oct 15 - 16, 2009	790 €	Neutraubling / DE
A 02-4		English	2 days	Nov 19 - 20, 2009	790 €	Neutraubling / DE
A 02-1		German	2 days	Feb 11 - 12, 2010	790 €	Neutraubling / DE
A 02-3		German	2 days	Oct 7 - 8, 2010	790 €	Neutraubling / DE
A 02-5		English	2 days	March 18 - 19, 2010	790 €	Neutraubling / DE
A 02-6		English	2 days	Oct 21 - 22, 2010	790 €	Neutraubling / DE
A 03-1	Spare parts management system - SPMS	German	2 days	on request	790 €	Neutraubling / DE
A 03-2		English	2 days	on request	790 €	Neutraubling / DE
A 04-1	KRONES asset management - KAM	German	4 days	on request	1,580 €	Neutraubling / DE
A 04-2		English	4 days	on request	1,580 €	Neutraubling / DE
A 05-1	Line management system - LMS	German	2 days	on request	790 €	Neutraubling / DE
A 05-2		English	2 days	on request	790 €	Neutraubling / DE
A 06-1	KRONES IT workshop for experts	German	2 days	on request	790 €	Neutraubling / DE
A 06-2		English	2 days	on request	790 €	Neutraubling / DE
A 07-1	KRONES web reporting (ReportKit)	German	1 day	on request	395 €	Neutraubling / DE
A 07-2		English	1 day	on request	395 €	Neutraubling / DE
A 08-4	Siemens S7 basic course for KRONES machinery	German	4 days	Nov 3 - 6, 2009	1,580 €	Neutraubling / DE
A 08-8		English	4 days	Nov 10 - 13, 2009	1,580 €	Neutraubling / DE
A 08-1		German	4 days	Jan 19 - 22, 2010	1,580 €	Neutraubling / DE
A 08-2		German	4 days	March 29 - April 1, 2010	1,580 €	Neutraubling / DE
A 08-3		German	4 days	Sept 7 - 10, 2010	1,580 €	Neutraubling / DE
A 08-5		German	4 days	Nov 9 - 12, 2010	1,580 €	Neutraubling / DE
A 08-6		English	4 days	Feb 23 - 26, 2010	1,580 €	Neutraubling / DE
A 08-7		English	4 days	May 4- 7, 2010	1,580 €	Neutraubling / DE
A 08-9		English	4 days	Oct 19 - 22, 2010	1,580 €	Neutraubling / DE
A 08-10		English	4 days	Nov 23 - 26, 2010	1,580 €	Neutraubling / DE
A 08-11		English	4 days	May 4 - 7, 2010	on request	Johannesburg / ZA
A 08-12		English	4 days	Feb 23 - 26, 2010	on request	Bangkok / THA
A 08-13		English	4 days	June 29 - July 2, 2010	on request	Bangkok / THA
A 09-2	Siemens S7 advanced course for KRONES machinery	German	4 days	Dec 8 - 11, 2009	1,580 €	Neutraubling / DE
A 09-4		English	4 days	Dec 15 - 18, 2009	1,580 €	Neutraubling / DE
A 09-1		German	4 days	Feb 9 - 12, 2010	1,580 €	Neutraubling / DE
A 09-3		German	4 days	Sept 21 - 24, 2010	1,580 €	Neutraubling / DE
A 09-5		English	4 days	April 13 - 16, 2010	1,580 €	Neutraubling / DE
A 09-6		English	4 days	Nov 16 - 19, 2010	1,580 €	Neutraubling / DE
A 10-3	KRONES visualisation technology – zenOn	German	2 days	Oct 20 - 21, 2009	790 €	Neutraubling / DE
A 10-4		German	2 days	Dec 1 - 2, 2009	790 €	Neutraubling / DE

Course no.	Title	Language	Duration	Date	Price/participant	Location
A 10-8	KRONES visualisation technology – zenOn	English	2 days	Dec 8 - 9, 2009	790 €	Neutraubling / DE
A 10-1		German	2 days	March 15 - 16, 2010	790 €	Neutraubling / DE
A 10-2		German	2 days	April 20 - 21, 2010	790 €	Neutraubling / DE
A 10-5		German	2 days	Sept 27 - 28 , 2010	790 €	Neutraubling / DE
A 10-6		German	2 days	Nov 30 - Dec 1, 2010	790 €	Neutraubling / DE
A 10-7		English	2 days	Jan 25 - 26, 2010	790 €	Neutraubling / DE
A 10-9		English	2 days	May 18 -19, 2010	790 €	Neutraubling / DE
A 10-10		English	2 days	Oct 25 - 26, 2010	790 €	Neutraubling / DE
A 10-11		English	2 days	Dec 14 - 15, 2010	790 €	Neutraubling / DE
A 10-12		English	2 days	May 10 - 11, 2010	on request	Johannesburg / ZA
A 10-13		English	2 days	March 1 - 2, 2010	on request	Bangkok / THA
A 10-14		English	2 days	July 5 - 6, 2010	on request	Bangkok / THA
A 11-3	Installation: zenOn emergency package	German	1 day	Oct 22, 2009	395 €	Neutraubling / DE
A 11-4		German	1 day	Dec 3, 2009	395 €	Neutraubling / DE
A 11-8		English	1 day	Dec 10, 2009	395 €	Neutraubling / DE
A 11-1		German	1 day	March 17, 2010	395 €	Neutraubling / DE
A 11-2		German	1 day	April 22, 2010	395 €	Neutraubling / DE
A 11-5		German	1 day	Sept 29, 2010	395 €	Neutraubling / DE
A 11-6		German	1 day	Dec 2, 2010	395 €	Neutraubling / DE
A 11-7		English	1 day	Jan 27, 2010	395 €	Neutraubling / DE
A 11-9		English	1 day	May 20, 2010	395 €	Neutraubling / DE
A 11-10		English	1 day	Oct 27, 2010	395 €	Neutraubling / DE
A 11-11		English	1 day	Dec 16, 2010	395 €	Neutraubling / DE
A 11-12		English	1 day	July 7, 2010	on request	Bangkok / THA
A 12-1	IT systems technology basic	German	2 days	March 18 - 19, 2010	790 €	Neutraubling / DE
A 12-2		German	2 days	Sept 30 - Oct 1, 2010	790 €	Neutraubling / DE
A 12-3		English	2 days	Jan 28 - 29, 2010	790 €	Neutraubling / DE
A 12-4		English	2 days	Oct 28 - 29, 2010	790 €	Neutraubling / DE
A 12-5		English	2 days	on request	£ 575	Bolton / UK
A 13-3	IT systems technology workshop	German	2 days	Oct 13 - 16, 2009	790 €	Neutraubling / DE
A 13-4		English	2 days	Nov 23 - 24, 2009	790 €	Neutraubling / DE
A 13-1		German	2 days	March 23 - 24, 2010	790 €	Neutraubling / DE
A 13-2		German	2 days	Oct 12 - 13, 2010	790 €	Neutraubling / DE
A 13-5		English	2 days	Feb 2 - 3, 2010	790 €	Neutraubling / DE
A 13-6		English	2 days	Nov 3 - 4, 2010	790 €	Neutraubling / DE

Course no.	Title	Language	Duration	Date	Price/participant	Location
	Management training					
M 01-10	Leading people and line efficiency for team leaders	German	4 days	Nov 3 - 6, 2009	2,380 €	Neutraubling / DE
M 01-1		German	5 days	Feb 1 - 5, 2010	2,975 €	Neutraubling / DE
M 01-2		English	5 days	Sept 6 - 10, 2010	2,975 €	Neutraubling / DE
M 01-3		English	4 days	June 22- 25, 2010	on request	Bangkok / THA
M 01-4		English	4 days	April 20 - 23, 2010	26,040 ZAR	Johannesburg / ZA
M 01-5		English	4 days	Nov 16 - 19, 2009	$ 2,999	Orlando / USA
M 01-6		English	4 days	Oct 19 - 22, 2010	$ 2,999	Franklin / USA
M 01-7		Portuguese	4 days	July 19 - 22, 2010	R$ 6,440	São Paulo / Brazil
M 01-8		Portuguese	4 days	Aug 24 - 27, 2010	R$ 6,440	São Paulo / Brazil
M 01-9		English	4 days	May 3 - 6, 2010	2,380 €	Dubai / UAE
M 02-5	Systematic troubleshooting	English	3 days	Nov 11 - 13, 2009	1,785 €	Neutraubling / DE
M 02-1		German	2 days	Feb 2 - 3, 2010	1,190 €	Neutraubling / DE
M 02-2		English	2 days	Sept 28 - 29, 2010	1,190 €	Neutraubling / DE
M 02-3		English	2 days	on request	on request	Bangkok / THA
M 03-2	KRONES technology for team leaders	English	4 days	Oct 19 - 22, 2009	2,380 €	Neutraubling / DE
M 03-1		German	4 days	April 12 - 15, 2010	2,380 €	Neutraubling / DE
M 03-3		English	4 days	Oct 11 - 14, 2010	2,380 €	Neutraubling / DE
M 04-1	Packaging and palletising technology for team leaders	German	1 day	April 16, 2010	595 €	Neutraubling / DE
M 04-2		English	1 day	Oct 15, 2010	595 €	Neutraubling / DE
M 05-2	Competent employee management	German	3 days	Oct 26 - 28, 2009	1,785 €	Neutraubling / DE
M 05-1		German	3 days	Feb 22 - 24, 2010	1,785 €	Neutraubling / DE
M 05-3		English	3 days	Sept 27 - 29, 2010	1,785 €	Neutraubling / DE
M 06-2	How to run an effective employee training	English	2 days	Oct 14 - 15, 2009	1,190 €	Neutraubling / DE
M 06-1		German	2 days	Feb 22 - 23, 2010	1,190 €	Neutraubling / DE
M 06-3		German	2 days	Oct 18 - 19, 2010	1,190 €	Neutraubling / DE
M 06-4		English	2 days	March 1 - 2, 2010	1,190 €	Neutraubling / DE
M 06-5		English	2 days	Nov 22 -23, 2010	1,190 €	Neutraubling / DE
M 07-7	Leading people and line efficiency for plant managers	German	5 days	Nov 23 - 27, 2009	3,275 €	Neutraubling / DE
M 07-1		German	3 days 3 days	Sept 20 - 22, 2010 Nov 8 - 10, 2010	3,930 €	Neutraubling / DE Neutraubling / DE
M 07-2		English	3 days 3 days	Jan 25 - 27, 2010 March 8 - 10,2010	3,930 €	Neutraubling / DE Neutraubling / DE
M 07-3		English	3 days 3 days	May 5 - 7, 2010 June 21 - 23, 2010	on request	Dubai /UAE Bangkok / THA
M 07-4		English	4 days	April 26 - 29, 2010	28,590 ZAR	Johannesburg/ ZA
M 07-5		English	4 days	Oct 26 - 29, 2010	$ 2,999	Franklin / USA
M 07-6		Portuguese	3 days 3 days	July 14 - 16, 2010 Aug 23 - 25, 2010	R$ 9,990	São Paulo / Brazil São Paulo / Brazil
M 08-2	Maintenance Management	German	2 days	Oct 21 - 23, 2009	1,310 €	Neutraubling / DE
M 08-1		German	2 days	March 15 - 16, 2010	1,310 €	Neutraubling / DE
M 08-3		English	2 days	Nov 8 - 9, 2010	1,310 €	Neutraubling / DE

Course no.	Title	Language	Duration	Date	Price/participant	Location
M 09-2	More flexible production and warehouse logistics	German	2 days	Oct 5 - 6, 2009	1,310 €	Regensburg / DE
M 09-1		German	2 days	March 1 - 2, 2010	1,310 €	Regensburg / DE
M 09-3		English	2 days	Oct 4 - 5, 2010	1,310 €	Regensburg / DE
M 10-1	Water and energy optimisations in industrial companies	German	1.5 days	March 15 - 16, 2010	983 €	Neutraubling / DE
M 11-2	KRONES technology for decision makers	German	3 days	Oct 28 - 30, 2009	1,965 €	Neutraubling / DE
M 11-1		German	3 days	March 15 - 17, 2010	1,965 €	Neutraubling / DE
M 11-3		English	3 days	Nov 15 - 17, 2010	1,965 €	Neutraubling / DE
M 12-2	Aseptic and sterile-process technology	English	2 days	Nov 18 - 19, 2009	1,190 €	Neutraubling / DE
M 12-1		German	2 days	Feb 8 - 9, 2010	1,190 €	Neutraubling / DE
M 12-3		German	2 days	Oct 5 - 6, 2010	1,190 €	Neutraubling / DE
M 12-4		English	2 days	April 12 - 13, 2010	1,190 €	Neutraubling / DE
M 12-5		English	2 days	Nov 8 - 9, 2010	1,190 €	Neutraubling / DE
M 13-1	Financial business rating	German	1 day	March 1, 2010	850 €	Neutraubling / DE
M 14-1	Project management	German	3 days	on request	on request	Neutraubling / DE
M 14-2	Project management	English	3 days	on request	on request	Neutraubling / DE
M 15-1	Workshop: training trends	German	1 day	Oct 7, 2010	95 €	Neutraubling / DE
M 15-2		English	1.5 days	Sept 16-17, 2010	95 €	Neutraubling / DE
M 15-3		English	1 day	June 28, 2010	on request	Bangkok / THA
M 15-4		English	1 day	April 30, 2010	1000 ZAR	Johannesburg / ZA
M 15-5		English	1 day	Oct 25, 2010	$ 100	Franklin / USA

Notes