# Customer Training

SCA dispensing and metering technology

Atlas Copco

# *Welcome to our customer trainings!*

Dear customers,

Our SCA customer training courses provide you with genuine added value, which can contribute toward the productivity and efficiency of your processes. A basic requirement for using our innovative systems and facilities for the application of adhesive, sealing, and insulation materials is having expert operators. Our certified trainers and experienced service technicians teach participants the proper ways in which to operate these systems during our practice-based training sessions.

Due to our modular training concept, you can choose the training course that's best suited to your individual needs. All the important information about SCA training courses can be found in this brochure. Feel free to contact us if you are unable to find any of the information that you need. We'll be happy to prepare a tailor-made training concept just for you.

We believe it is extremely important for our customers to feel satisfied and benefit from a training course that will have long-lasting effects. As such, all our training rooms are equipped with automated application systems that can be largely adjusted to meet your individual requirements. It is important to us that you are able to understand the daily tasks set during our training courses, having both the time and peaceful environment needed to do so. We are able to provide such an environment at our SCA locations, or our trainers will be happy to come to you.

We usually offer training courses in closed customer groups. The workshops on application technologies

are an exception, as they aim to promote open communication between customers.

Why not take a took through this brochure and find out more about the varied training options we offer. Feel free to contact us regarding any individual challenges, questions, or requests.

Sincerely,

**Sven Benetti**
Global Training Manager

# Contents


Our Experience – Your Success ..... 7
Your Partner – Worldwide ..... 8
Our Training Courses – Tailor-made to Customer Requirements ..... 11

**SCA SYS 6000**
Basic Training System Operation – 1C ..... 13
Basic Training System Operation – 2C Static ..... 14
Follow-Up Training Electrics ..... 15

**SCA ASC 5000**
Basic Training System Operation – 1C ..... 17
Basic Training System Operation – 2C Static or Dynamic ..... 18
Follow-Up Training Electrics ..... 19

**SCA ASC 5000plus**
Basic Training System Operation – 1C ..... 21
Follow-Up Training Electrics ..... 23

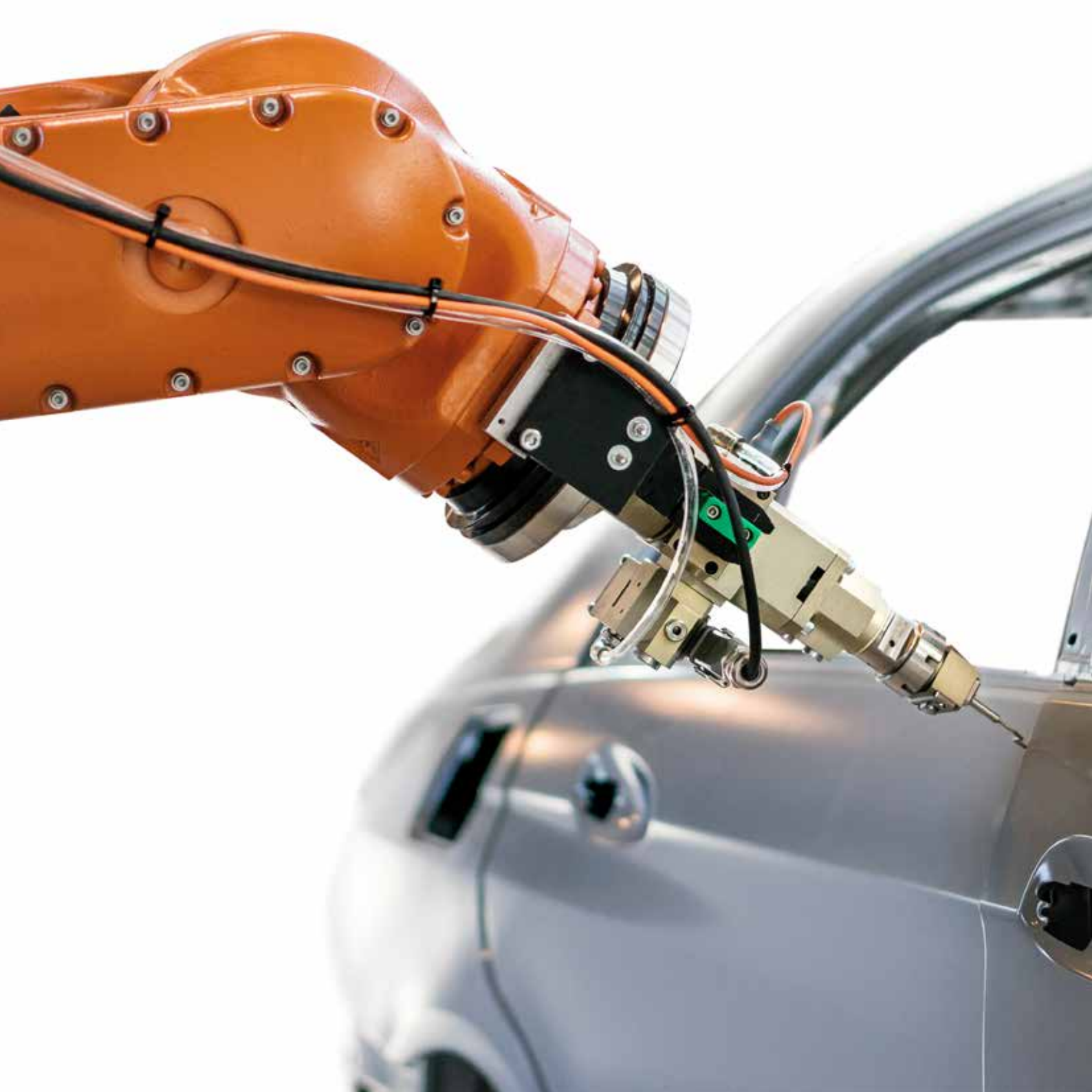
**Mechanics Special**
Follow-Up Training Mechanics ..... 25

**Specific Technologies**
Application Processes and System Interfaces ..... 27
QUISS Real Time Vision System ..... 29
E-Swirl Body Shop ..... 30
E-Swirl Paint Shop ..... 31
E-Swirl 2 AdX Body Shop ..... 32
E-Swirl 2 AdX Paint Shop ..... 33

**Workshops**
SCA SYS 6000 Application System Diagnostics ..... 35
SCA ASC 5000 Application System Diagnostics ..... 36

SCA SYS 6000 Application System Diagnostics ..... 37
SCA ASC 5000 Application System Diagnostics ..... 38

Customer Training and Order Numbers ..... 40
Attendees' Feedback ..... 41
Good to Know ..... 42
Getting to Bretten ..... 43



# *Our Experience – Your Success*

We have put all our efforts into preparing methods of training that enable your employees to achieve optimal results using our SCA systems.

You can gain a multitude of advantages from our modular concept: You can select training modules based on the individual needs of your employees. New topics can be seamlessly integrated into the concept as a whole. Or, do you have a particular issue arising from a real-life situation that you need to address?
No problem – we can quickly incorporate the topic into one of our workshops.

Our training methods focus on real-life situations. Practical exercises are tackled in small groups using our training rooms outfitted with automated training systems and state-of-the-art technology. Our training sessions are all based on a standardized concept. Trainers are provided with presentations and guides, as well as visual aids and exercise materials. As a result, we can guarantee that the quality of our training sessions is consistently high.

Our trainers are certified as "Industrial Trainer" by the Industrial Training Association (ITA) and regularly undertake didactic training.

# *Your Partner – Worldwide*

**Atlas Copco IAS GmbH**
Bretten, Germany
**Sven Benetti**
Global Training Manager
Tel.: +49 7252 5560-4680
Mail: sven.benetti@atlascopco.com

**Henrob UK Ltd.**
Oxfordshire, Great Britain
**Paul Freeman**
Service & Training Manager
Tel.: +44 12 35810-400
Mail: paul.freeman@atlascopco.com

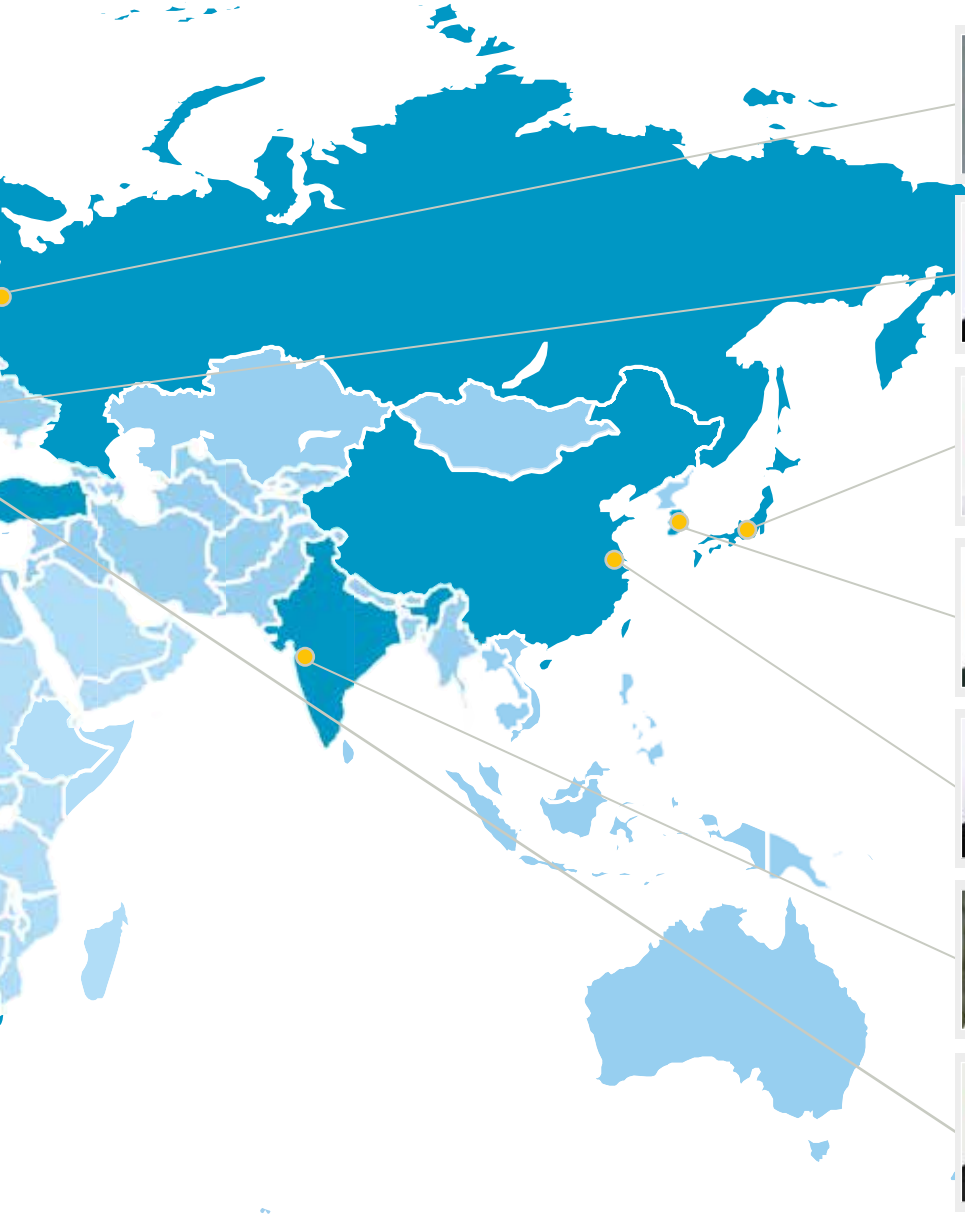
**Atlas Copco IAS LLC**
Auburn Hills, USA
**Mark Thomas**
Training Coordinator Service
Tel.: +1 248 377-9722
Mail: mark.thomas@atlascopco.com

**Atlas Copco Mexicana SA DE CV**
San Andres, Cholula, Mexiko
**Oscar Haro**
Product Specialist
Tel.: +52 222 225-2235
Mail: oscar.haro@atlascopco.com

**SCA Schucker GmbH & Co Oficina Comercial**
Barcelona, Spain
**Alberto Ventura**
Local General Manager
Tel.: +34 93 477-3535
Mail: alberto.venturo@atlascopco.com

**Atlas Copco Brasil Ltda.**
Curitiba, Brazil
**Thomas Müller**
Manager Planning and PM
Tel.: +55 41 3084-7658
Mail: thomas.h.mueller@br.atlascopco.com

**Jendamark**
Pretoria, South Africa
**Eugene du Preez**
Manager Gauteng Branch
Tel.: +27 12 548-1177
Mail: eugened@jendamark.co.za



**JSC Atlas Copco**
Khimki, Region Moskau, Russia
**Frederic Hervouet**
Business Line Manager IAS
Tel.: +7 495 933 55 53
Mail: frederic.hervouet@ru.atlascopco.com

**Atlas Copco Tools Eastern Europe**
Bratislava, Slovakia
**Tomáš pasovský**
Business Line Manager IAS
Tel.: +421 2 64 53 63 31
Mail: tomas.pasovsky@sk.atlascopco.com

**Atlas Copco KK**
Yokohama, Japan
**Hiroshi Miyake**
Service Business Line Manager
Tel: +81 (0) 45 931-0957
Mail: hiroshi.miyake@atlascopco.com

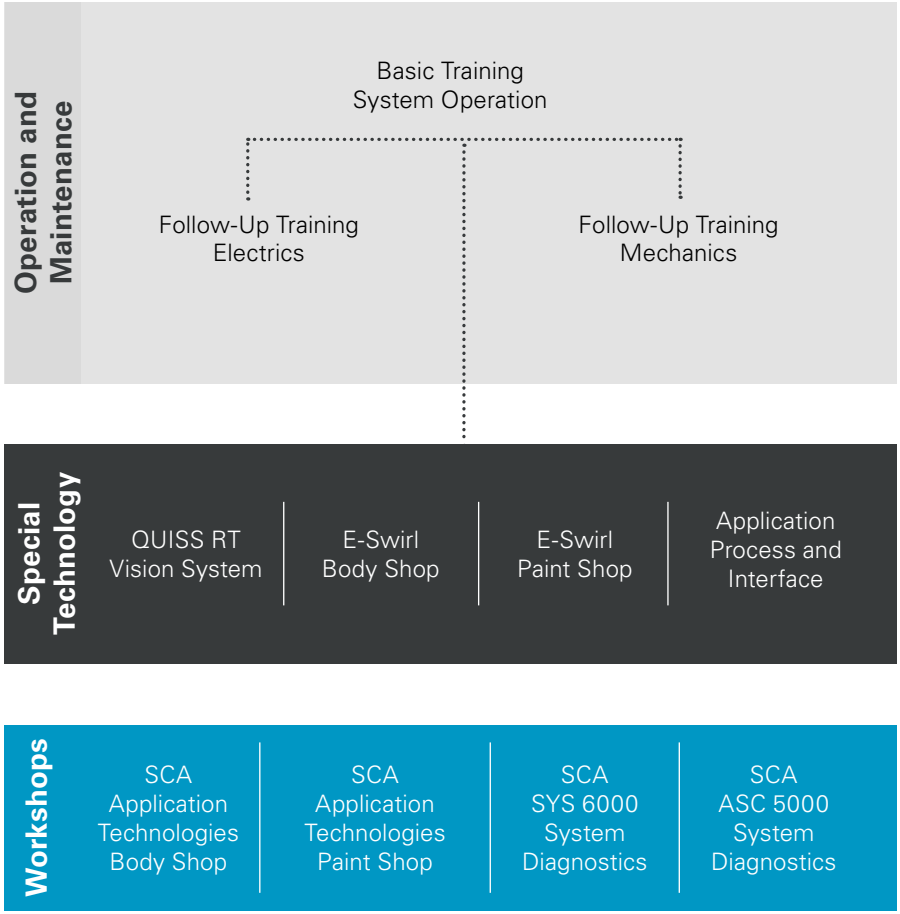
**Atlas Copco Korea**
Seoul, South Korea
**KyungHo Ok**
Business Line Manager
Tel.: +82328508440
Mail: kyungho.ok@kr.atlascopco.com

**Atlas Copco Industrial Technique (Shanghai) Co. Ltd.**Shanghai, China
**Jiajun Wang**
Trainer/ Service Engineer
Tel.: +86 21 5774-0623
Mail: jiajun.wang@atlascopco.com

**Atlas Copco (India) Ltd., Industrial Technique,** Pune, India
**Tushar Pawar**
Business Line Manager
Tel.: +91 20 39 39-5289
Mail: tushar.pawar@in.atlascopco.com

**Atlas Copco Makinalari Imalat A.S.**
Istanbul, Türkei
**Ali Jamehbozorg**
Business Line Manager IAS
Tel.: +90 216 581 05 81
Mail: ali.jamehbozorg@tr.atlascopco.com

# An Overview of our Module Structure




Our basic training sessions aimed at operating staff are complemented by our follow-up training for employees working in the different departments. Our offering is expanded by information on application processes.

We offer separate modules that specifically focus on special technical components.

Our customized workshops make our modular training concept complete.

# *SCA SYS 6000 System Operation and Maintenance*

## Basic Training System Operation – 1C

### Target Group
This training is aimed at people who perform basic operations with the SCA SYS 6000 system controller. Basic operations include daily operational tasks and maintenance work. The training serves as the basis for follow-up training.

### Your Benefit
During this course we describe how you can:

- Explain technical terms within the field of application technology
- Assess the risks involved in system operation and take the relevant precautions
- Name the components of an SCA application system and describe how they work
- Use controller buttons to operate the pump manually
- Perform a barrel exchange
- Explain how individual system components communicate with each other
- Interpret the information provided by the on-screen display on the SCA SYS 6000 system controller
- Configure the basic settings on the SCA SYS 6000 system controller
- Describe the primary function of a meter
- Back up data
- Perform maintenance work according to the maintenance schedule
- Interpret alarms and warnings and initiate measures for repair

### Contents

- Factors that influence the application
- SCA application system
- SCA SYS 6000 system controller

**Order Number**
EC00001

**Location**
SCA or customer premises

**Duration**
2 Days

**Participants**
Max. 6

**Languages**

- German
- English
- Weitere Sprachen auf Anfrage

**Training Methods**

- Tutorials
- Group work
- Hands-on exercises

**Information**
If the training is performed on customer premises, the following training equipment should be provided:

- Operable system to train on
- Projector
- Flip chart/white board

# SCA SYS 6000 System Operation and Maintenance

**Order Number**
EC00004

**Location**
SCA or customer premises

**Duration**
3 Days

**Participants**
Max. 6

**Languages**
- German
- English
- Weitere Sprachen auf Anfrage

**Training Methods**
- Tutorials
- Group work
- Hands-on exercises

**Information**
If the training is performed on customer premises, the following training equipment should be provided:
- Operable system to train on
- Projector
- Flip chart/white board

## Basic Training System Operation – 2C Static

### Target Group
This training is aimed at people who perform basic operations with the SCA SYS 6000 system controller for two component applications with a static mixer. Basic operations include daily operational tasks and maintenance work. The training serves as the basis for follow-up training.

### Your Benefit
During this course we describe how you can:
- Explain technical terms within the field of application technology
- Assess the risks involved in system operation and take the relevant precautions
- Name the components of an SCA application system and describe how they work
- Use controller buttons to operate the pump manually
- Perform a barrel exchange (optional)
- Explain how individual system components communicate with each other
- Interpret the information provided by the on-screen display on the SCA SYS 6000 system controller
- Configure the basic settings on the SCA SYS 6000 system controller
- Describe the primary function of a meter
- Back up data
- Perform maintenance work according to the maintenance schedule
- Interpret alarms and warnings and initiate measures for repair

### Contents
- Factors that influence the application
- SCA application system for two-component applications
- SCA SYS 6000 system controller

# *SCA SYS 6000 System Operation and Maintenance*

## Follow-Up Training Electrics

### Target Group
This training is aimed at people who perform maintenance work on electrical components of the SCA SYS 6000 system controller.

### Your Benefit
During this course we describe how you can:
- Explain the functions and interfaces of the electrical system components of the SCA SYS 6000 system controller
- Explain the functions and interfaces of the pump controller
- Optimize process parameters
- Understand how the SCA SYS 6000 system controller and the higher-level controller communicate with each other
- Use a measurement tool to analyze interface signals on the field bus
- Interpret the alarms and warnings of the SCA ASC 6000 system controller and perform troubleshooting
- Replace electrical system components
- Perform a back-up and restore backed-up data on the system

### Contents
- Electrical components of the SCA SYS 6000 system controller
- Electrical components of the SCA PCU 5000 pump controller
- Application and system parameters
- Troubleshooting

### Prerequisites
We recommend having completed the following training courses:
- EC00001 Basic Training SCA SYS 6000 System Operation – 1C and/or:
- EC00004 Basic Training SCA SYS 6000 System Operation – 2C

**Order Number**
EC00010

**Location**
SCA or customer premises

**Duration**
1,5 Days

**Participants**
Max. 6

**Languages**
- German
- English
- Additional languages available upon request

**Training Methods**
- Tutorials
- Group work
- Hands-on exercises

**Information**
If the training is performed on customer premises, the following training equipment should be provided:
- Operable system to train on
- Projector
- Flip chart/white board

SCA
SB-Valve

# SCA ASC 5000 System Operation and Maintenance

**Order Number**
EC00002

**Location**
SCA or customer premises

**Duration**
3 Days

**Participants**
Max. 6

**Languages**
- German
- English
- Additional languages available upon request

**Training Methods**
- Tutorials
- Group work
- Hands-on exercises

**Information**
If the training is performed on customer premises, the following training equipment should be provided:
- Operable system to train on
- Projector
- Flip chart/white board

## Basic Training System Operation – 1C

### Target Group
This training is aimed at people who perform basic operations on the SCA ASC 5000 system controller. Basic operations include daily operational tasks and maintenance work. The training serves as the basis for follow-up training.

### Your Benefit
During this course we describe how you can::
- Explain technical terms within the field of application technology
- Assess the risks involved in system operation and take the relevant precautions
- Name the components of an SCA application system and describe how they work
- Use controller buttons to operate the pump manually
- Perform a barrel exchange (optional)
- Explain how individual system components communicate with each other
- Interpret the information provided by the on-screen display on the SCA ASC 5000 system controller
- Configure the basic settings on the SCA ASC 5000 system controller
- Describe the primary function of a meter
- Back up data
- Perform maintenance work according to the maintenance schedule
- Interpret alarms and warnings and initiate measures for repair

### Contents
- Factors that influence the application
- SCA application system
- SCA ASC 5000 system controller

# SCA ASC 5000 System Operation and Maintenance

**Order Number**
EC00005

**Location**
SCA or customer premises

**Duration**
4 Days

**Participants**
Max. 6

**Languages**
- German
- English
- Additional languages available upon request

**Training Methods**
- Tutorials
- Group work
- Hands-on exercises

**Information**
If the training is performed on customer premises, the following training equipment should be provided:
- Operable system to train on
- Projector
- Flip chart/white board

## Basic Training System Operation – 2C Static or Dynamic

### Target Group
This training is aimed at people who perform basic operations with the SCA ASC 5000 system controller for two component applications with a dynamic mixer. Basic operations include daily operational tasks and maintenance work. The training serves as the basis for follow-up training.

### Your Benefit
During this course we describe how you can:
- Explain technical terms within the field of application technology
- Assess the risks involved in system operation and take the relevant precautions
- Name the components of an SCA application system and describe how they work
- Use controller buttons to operate the pump manually
- Perform a barrel exchange (optional)
- Explain how individual system components communicate with each other
- Interpret the information provided by the on-screen display on the SCA ASC 5000 system controller
- Configure the basic settings on the SCA ASC 5000 system controller
- Describe the primary function of a meter
- Back up data
- Perform maintenance work according to the maintenance schedule
- Interpret alarms and warnings and initiate measures for repair

### Contents
- Factors that influence the application
- SCA application system for two-component applications
- SCA ASC 5000 system controller

# SCA ASC 5000 System Operation and Maintenance

## Follow-Up Training Electrics

### Target Group
This training is aimed at people who perform maintenance work on electrical components of the SCA ASC 5000 system controller.

### Your Benefit
During this course we describe how you can:
- Explain the functions and interfaces of the electrical components of the SCA ASC 5000 system controller
- Explain the functions and interfaces of the SCA PCU 5000 pump controller (if applicable)
- Explain how additional components work, such as the SCA Peltier Conditioning System (PCS)
- Optimize process parameters
- Understand how the SCA ASC 5000 system controller and the higher-level controller communicate with each other
- Use a measurement tool to analyze interface signals on the field bus
- Interpret the alarms and warnings of the SCA ASC 5000 system controller and perform troubleshooting
- Replace electrical system components
- Perform a back-up and restore backed-up data on the system

### Contents
- Electrical components of the SCA ASC 5000 system controller
- Electrical components of the SCA PCU 5000 pump controller (if applicable)
- Application and system parameters
- Troubleshooting

### Prerequisites
We recommend having completed the following training courses:
- EC00002 Basic Training SCA ASC 5000 System Operation – 1C
  or:
- EC00005 Basic Training SCA ASC 5000 System Operation – 2C
  Static or dynamic:

**Order Number**
EC00011

**Location**
SCA or customer premises

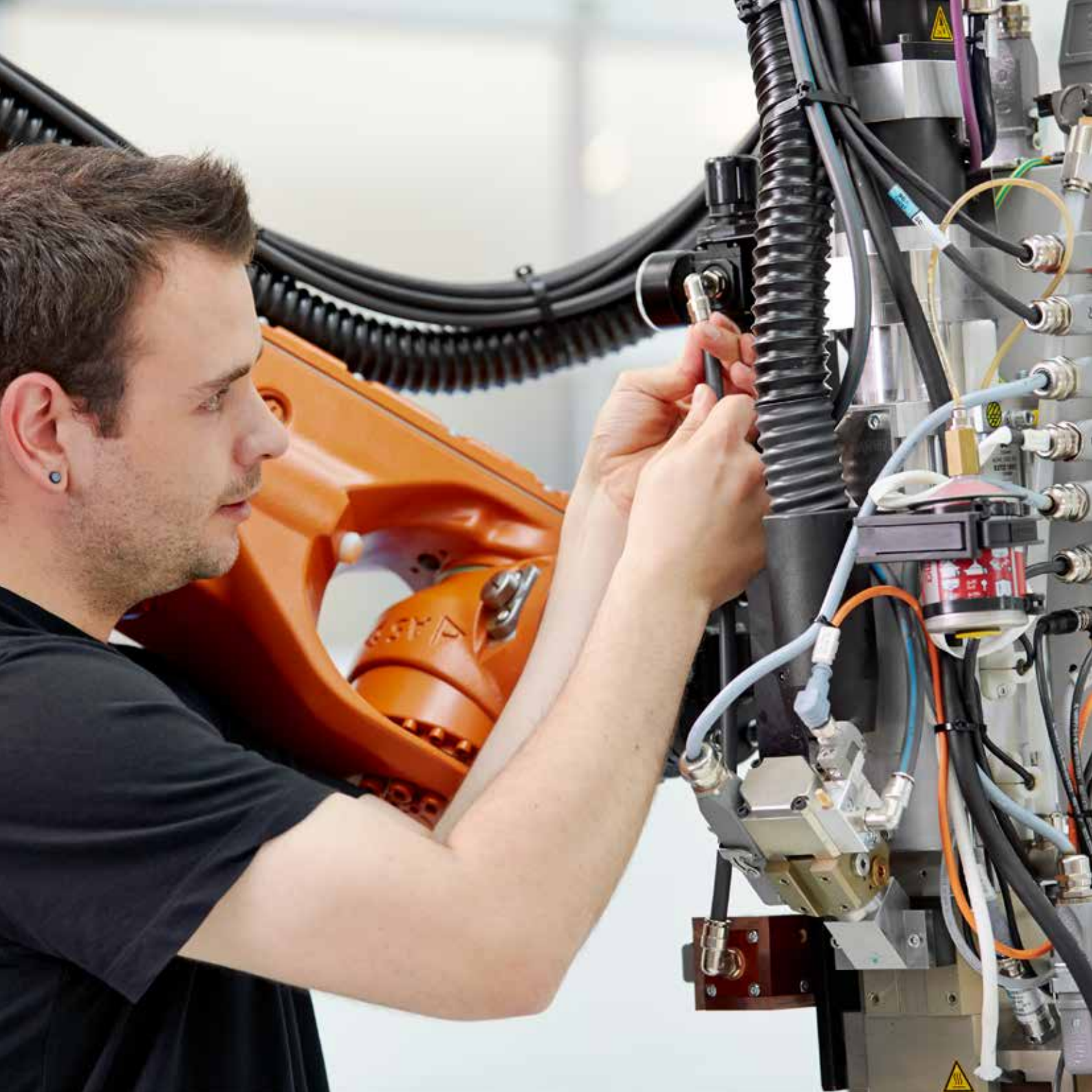
**Duration**
1,5 Days

**Participants**
Max. 6

**Languages**
- German
- English
- Additional languages available upon request

**Training Methods**
- Tutorials
- Group work
- Hands-on exercises

**Information**
If the training is performed on customer premises, the following training equipment should be provided:
- Operable system to train on
- Projector
- Flip chart/white board



# SCA ASC 5000plus System Operation and Maintenance

**Order Number**
EC00003

**Location**
SCA or customer premises

**Duration**
3 Days

**Participants**
Max. 6

**Languages**
- German
- English
- Additional languages available upon request

**Training Methods**
- Tutorials
- Group work
- Hands-on exercises

**Information**
If the training is performed on customer premises, the following training equipment should be provided:
- Operable system to train on
- Projector
- Flip chart/white board

## Basic Training System Operation – 1C

### Target Group
This training is aimed at people who perform basic operations with the SCA ASC 5000plus system controller. Basic operations include daily operational tasks and maintenance work. The training serves as the basis for follow-up training.

### Your Benefit
During this course we describe how you can:
- Explain technical terms within the field of application technology
- Assess the risks involved in system operation and take the relevant precautions
- Name the components of an SCA application system and describe how they work
- Use controller buttons to operate the pump manually
- Perform a barrel exchange (optional)
- Explain how individual system components communicate with each other
- Interpret the information provided by the on-screen display on the SCA ASC 5000plus system controller
- Configure the basic settings on the SCA ASC 5000plus system controller
- Describe the primary function of a meter
- Back up data
- Perform maintenance work according to the maintenance schedule
- Interpret alarms and warnings and initiate measures for repair

### Contents
- Factors that influence the application
- SCA application system
- SCA ASC 5000plus system controller

SCA
SCA

# SCA ASC 5000plus System Operation and Maintenance

**Order Number**
EC00012

**Location**
SCA or customer premises

**Duration**
1,5 Days

**Participants**
Max. 6

**Languages**
- German
- English
- Additional languages available upon request

**Training Methods**
- Tutorials
- Group work
- Hands-on exercises

**Information**
If the training is performed on customer premises, the following training equipment should be provided:
- Operable system to train on
- Projector
- Flip chart/white board

## Follow-Up Training Electrics, Extended

### Target Group
This training is aimed at people who perform maintenance work on electrical components for the SCA ASC 5000plus system controller and who install software on these components.

### Your Benefit
During this course we describe how you can:
- Explain the functions and interfaces of the electrical components of the SCA ASC 5000plus system controller
- Explain the functions and interfaces of the pump controller
- Optimize process parameters
- Understand how the SCA ASC 5000plus system controller and the higher-level controller communicate with each other
- Use a measurement tool to analyze interface signals on the field bus
- Interpret the alarms and warnings of the SCA ASC 5000plus system controller and perform troubleshooting
- Replace electrical system components
- Install the latest software on SCA components, IPC, CPU, TCU, and PCU
- Perform a back-up and restore backed-up data on the system

### Contents
- Electrical components of the SCA ASC 5000plus system controller
- Electrical components of the SCA PCU 5000 pump controller
- Application and system parameters
- Troubleshooting

### Prerequisites
- We recommend having completed the following training courses:
- EC00003 Basic Training SCA ASC 5000 System Operation – 1C

# System Operation and Maintenance

## Follow-Up Training Mechanics

### Target Group
This training is aimed at people who operate SCA systems and provide support during maintenance work This includes changing complete components, such as applicators and meters, but not repairing, assembling, or disassembling them.

### Your Benefit
During this course we describe how you can:
- Perform maintenance work
- Replace the plasticizer
- Replace material hoses
- Grease the meter spindle or check the greasing
- Identify wear on mechanical components
- Identify mechanical errors and understand how they can impact the system

### Contents
- Mechanical components of the SCA application system
- Maintenance of mechanical components
- How to perform a barrel exchange (if applicable)

### Prerequisites
We recommend having completed the following basic system operation training for the relevant SCA application system.

### Additional Information
Safety shoes are required to attend this training course

**Order Number**
EC00013

**Location**
SCA or customer premises

**Duration**
1 Day

**Participants**
Max. 6

**Languages**
- German
- English
- Additional languages available upon request

**Training Methods**
- Tutorials
- Group work
- Hands-on exercises

**Information**
If the training is performed on customer premises, the following training equipment should be provided:
- Operable system to train on
- Projector
- Flip chart/white board

# Specific Technologies

## Application Process and Interface

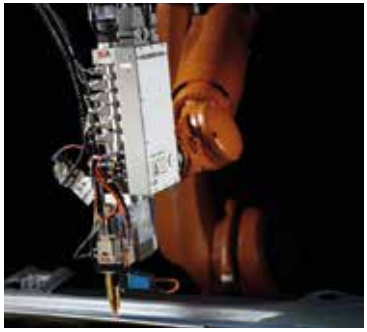
### Target Group
This training is aimed at robot programmers requiring a deeper insight into the application processes.

### Your Benefit
During this course we describe how you can:
- Optimize process parameters for an application with a specified application image
- Describe the interface signals on the field bus and their temporal sequence
- Optimize interface signals using a measurement report

### Contents
- Calculating the parameters required in order to achieve the targets set for the volume applied
- Optimizing parameters
- Optimizing the application cycle

### Prerequisites
Prior experience with programming industrial robots

### Additional Information
- This training course is specially adapted to the customer's system and interface.
- Training can be conducted with either a Kuka or Fanuc robot. Please specify the type of the robot that you would like when ordering the training
- Special modules for gluing/dispensing, such as those offered by robot manufacturers, are not covered during this training course



**Order Number**
EC00014

**Location**
SCA or customer premises

**Duration**
1 Day

**Participants**
Max. 6

**Languages**
- German
- English
- Additional languages available upon request

**Training Methods**
- Tutorials
- Group work
- Hands-on exercises

**Information**
If the training is performed on customer premises, the following training equipment should be provided:
- Operable system to train on
- Projector
- Flip chart/white board

# *Specific Technologies*

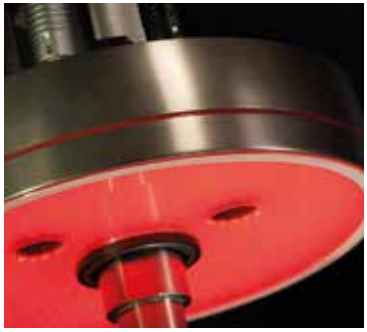
## QUISS Real Time Vision System

### Target Group
This training course is aimed at people who commission the QUISS Real Time Vision (RTVision.t) system in combination with an SCA application system.

### Your Benefit
During this course we describe how you can:
- Explain how QUISS RTVision.t works and describe its components
- Describe the sequence and scope of the bead inspection
- Explain and configure the parameters for the online bead inspection
- Record an image sequence
- Define areas for bead inspection and tolerances for bead evaluation
- Configure the application settings
- Analyze application errors and their triggers
- Back up/restore the QUISS processor

### Contents
- Construction and function of the QUISS RTVision.t system
- Visual application monitoring
- Commissioning the QUISS RTVision.t system combined with an SCA application system

### Prerequisites
We recommend having completed the following training courses:
- EC00001 Basic Training SCA SYS 6000 System Operation – 1C
  or:
- EC00002 Basic Training SCA ASC 5000 System Operation – 1C



**Order Number**
EC00018

**Location**
SCA or customer premises

**Duration**
3 Days

**Participants**
Max. 4

**Languages**
- German
- English
- Additional languages available upon request

**Training Methods**
- Tutorials
- Group work
- Hands-on exercises

**Information**
If the training is performed on customer premises, the following training equipment should be provided:
- Operable system with QUISS system to train on
- Projector
- Flip chart/white board

# Specific Technologies

**Order Number**
EC00019

**Location**
SCA or customer premises

**Duration**
1 Day

**Participants**
Max. 6

**Languages**
- German
- English
- Additional languages available upon request

**Training Methods**
- Tutorials
- Group work
- Hands-on exercises

**Information**
If the training is performed on customer premises, the following training equipment should be provided:
- Operable system to train on
- Projector
- Flip chart/white board

## E-Swirl Body Shop

### Target Group
This training course is aimed at people who commission electrical swirls (E-Swirls) and configure bead parameters for Body Shop specifications, such as bead fold gluing.

### Your Benefit
During this course we describe how you can:
- Explain how an E-Swirl works and describe its components
- Describe the characteristic features of the E-Swirl application when highly-viscous material is used
- Configure parameters for an E-Swirl application according to specifications
- Determine which factors can influence the E-Swirl application and optimize the application
- Explain how an E-Swirl controller works
- Describe the principle of bead fold analysis with regard to local guidelines
- Perform basic maintenance work on an E-Swirl

### Contents
- E-Swirl components and function
- E-Swirl application
- E-Swirl routine maintenance

### Prerequisites
We recommend having completed the following training courses:
- EC00001 Basic Training SCA SYS 6000 System Operation – 1C

# Specific Technologies

## E-Swirl Paint Shop

### Target Group
This training course is aimed at people who commission electrical swirls (E-Swirls) and configure bead parameters for paint shop specifications in terms of bead sealing.

### Your Benefit
During this course we describe how you can:
- Explain how an E-Swirl works and describe its components
- Describe the characteristic features of the E-Swirl application when a material of medium viscosity is used
- Configure parameters for an E-Swirl application according to specifications
- Determine which factors can influence the E-Swirl application and optimize the application
- Explain how an E-Swirl controller works
- Perform basic maintenance work on an E-Swirl

### Contents
- E-Swirl components and function
- E-Swirl application
- E-Swirl routine maintenance

### Prerequisites
We recommend having completed the following training courses:
- EC00002 Basic Training SCA ASC 5000 System Operation – 1C

**Order Number**
EC00020

**Location**
SCA or customer premises

**Duration**
1 Day

**Participants**
Max. 6

**Languages**
- German
- English
- Additional languages available upon request

**Training Methods**
- Tutorials
- Group work
- Hands-on exercises

**Information**
If the training is performed on customer premises, the following training equipment should be provided:
- Operable system to train on
- Projector
- Flip chart/white board

# Specific Technologies

**Order Number**
EC00026

**Location**
SCA or customer premises

**Duration**
1 Day

**Participants**
Max. 6

**Languages**
- German
- English
- Additional languages available upon request

**Training Methods**
- Tutorials
- Group work
- Hands-on exercises

**Information**
If the training is performed on customer premises, the following training equipment should be provided:
- Operable system to train on
- Projector
- Flip chart/white board

## E-Swirl 2 AdX Body Shop

### Target Group
This training course is aimed at people who commission the electrical swirl (E-Swirl) 2 AdX with adjustable eccentric and configure bead parameters for Body Shop specifications, such as bead fold gluing.

### Your Benefit
During this course we describe how you can:
- Explain how an E-Swirl 2 AdX works and describe its components
- Describe the characteristic features of the E-Swirl application when highly-viscous material is used
- Configure parameters for an E-Swirl application according to specifications
- Determine which factors can influence the E-Swirl application and optimize the application
- Explain how an E-Swirl controller works
- Describe the principle of bead fold analysis with regard to local guidelines
- Perform basic maintenance work on the E-Swirl 2 AdX by replacing assemblies:
  - Pneumatic drive for eccentric adjustment
  - Mounted components: electrical drive with cam
  - Eccentric calibration

### Contents
- E-Swirl 2 AdX components and function
- E-Swirl 2 AdX application
- E-Swirl 2 AdX routine maintenance
- Replacing faulty components in the E-Swirl 2 AdX

### Prerequisites
Wir empfehlen vorab den Besuch der folgenden Schulung:
- EC00001 SCA SYS 6000 Basisschulung Systembedienung - 1K

# Specific Technologies

## E-Swirl 2 AdX Paint Shop

### Target Group
This training course is aimed at people who commission the electrical swirl (E-Swirl) 2 AdX with adjustable eccentric and configure bead parameters for paint shop specifications in terms of bead sealing.

### Your Benefit
During this course we describe how you can:
- Explain how an E-Swirl 2 AdX works and describe its components
- Describe the characteristic features of the E-Swirl application when a material of medium viscosity is used
- Configure parameters for an E-Swirl application according to specifications
- Determine which factors can influence the E-Swirl application and optimize the application
- Explain how an E-Swirl controller works
- Perform basic maintenance work on the E-Swirl 2 AdX by replacing assemblies:
  - Pneumatic drive for eccentric adjustment
  - Mounted components: electrical drive with cam
  - Eccentric calibration

### Contents
- E-Swirl 2 AdX components and function
- E-Swirl 2 AdX application
- E-Swirl 2 AdX routine maintenance
- Replacing faulty components in the E-Swirl 2 AdX

### Prerequisites
We recommend having completed the following training courses:
- EC00002 Basic Training SCA ASC 5000 System Operation – 1C

**Order Number**
EC00027

**Location**
SCA or customer premises

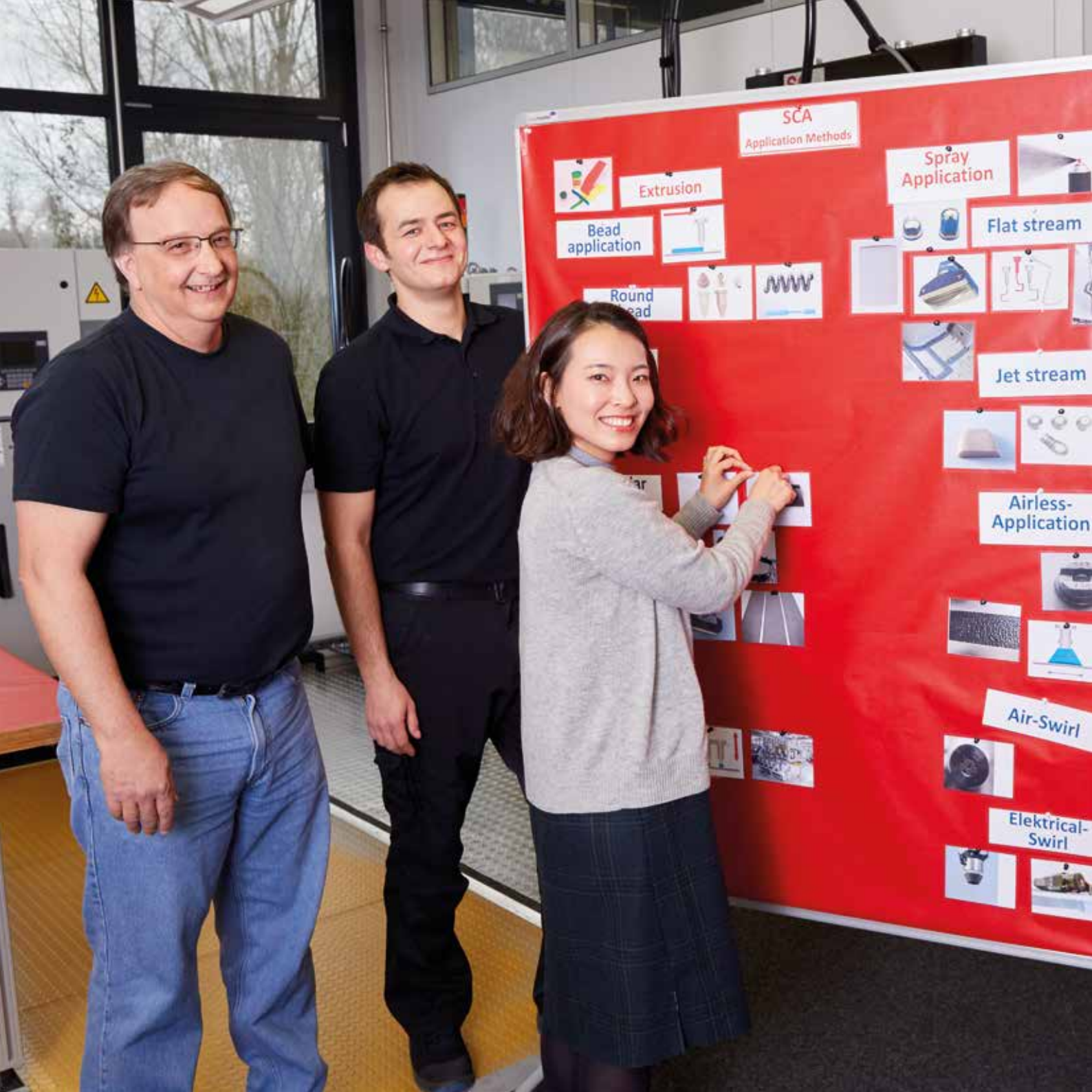
**Duration**
1 Day

**Participants**
Max. 6

**Languages**
- German
- English
- Additional languages available upon request

**Training Methods**
- Tutorials
- Group work
- Hands-on exercises

**Information**
If the training is performed on customer premises, the following training equipment should be provided:
- Operable system to train on
- Projector
- Flip chart/white board


SCA
Application Methods
Extrusion
Bead application
Round
Spray Application
Flat stream
Jet stream
Airless-Application
Air-Swirl
Elektrical-Swirl

# *SCA SYS 6000 Workshop*

## System Diagnostics

### Target Group
This workshop is aimed at people who perform service work and trouble-shooting on SCA SYS 6000 application systems.

### Your Benefit
This workshop provides the opportunity for employees to use simulated error patterns in order to practice how to reduce the number of errors by means of error patterns and system notifications.
As an introduction to the workshop, the participants are given the opportunity to complete their knowledge of system components. During this workshop, you'll learn how to identify the following error categories:

- Process errors
- Electrical component failures
- Mechanical component failures

- Analyze error patterns, as well as alarm and error messages
- Pinpoint defect components and replace them where necessary

### Contents
- Electrical and mechanical system components
- Error analysis strategy
- Error analysis practice using case studies

### Prerequisites
We recommend this course for anyone with a sound knowledge of SCA application systems

**Order Number**
EC00021

**Location**
SCA locations

**Duration**
1 Day

**Participants**
Max. 6

**Languages**
- German
- English
- Additional languages available upon request

**Training Methods**
- Tutorials
- Group work
- Hands-on exercises

**Information**
This training course is exclusively conducted at our SCA locations equipped with training booths, as the system is manipulated for troubleshooting.

# SCA ASC 5000 Workshop

**Order Number**
EC00022

**Location**
SCA locations

**Duration**
2 Days

**Participants**
Max. 6

**Languages**
- German
- English
- Additional languages available upon request

**Training Methods**
- Tutorials
- Group work
- Hands-on exercises

**Information**
This training course is exclusively conducted at our SCA locations equipped with training booths, as the system is manipulated for troubleshooting.

## System Diagnostics

### Target Group
This workshop is aimed at people who perform service work and trouble-shooting on SCA ASC 5000 application systems.

### Your Benefit
This workshop provides the opportunity for employees to use simulated error patterns in order to practice how to reduce the number of errors by means of error patterns and system notifications. As an introduction to the workshop, the participants are given the opportunity to complete their knowledge of system components.
During this workshop, you'll learn how to identify the following error categories:
- Process errors
- Electrical component failures
- Mechanical component failures

- Analyze error patterns, as well as alarm and error messages
- Pinpoint defect components and replace them where necessary

### Contents
- Electrical and mechanical system components
- Error analysis strategy
- Error analysis practice using case studies

### Prerequisites
We recommend this course for anyone with a sound knowledge of SCA application systems

# *Workshop*

## SCA Application Technologies in the Body Shop

### Target Group
This workshop is aimed at people who need an overview of application technologies. It focuses on the applications in the body shop, the application process, and those factors occurring during production that have an impact on the application. This workshop also offers a platform for participants to share their experiences.

### Your Benefit
During this workshop you'll learn how to:
- Describe the various application technologies used in the paint shop
- Describe the characteristics of application technologies
- Understand the application process
- Identify the factors influencing the application process and their effects

### Contents
- Application technologies in the Paint Shop
- Process-relevant parameters
- Influencing factors

### Prerequisites
None

This workshop is open to everyone.
Please contact us for further information:
Email: sca.training@atlascopco.com

**Order Number**
EC00023

**Location**
SCA Bretten, Germany

**Duration**
2 Days

**Participants**
Max. 6

**Languages**
- German
- English

**Training Methods**
- Discussions
- Group work
- Application system demonstrations

# Workshop

**Order Number**
EC00024

**Location**
SCA Bretten, Germany

**Duration**
2 Days

**Participants**
Max. 6

**Languages**
- German
- English

**Training Methods**
- Discussions
- Group work
- Application system demonstrations

## SCA Application Technologies in the Paint Shop

### Target Group
This workshop is aimed at people who need an overview of application technologies. It focuses on the applications in the paint shop, the application process, and those factors occurring during production that have an impact on the application. This workshop also offers a platform for participants to share their experiences.

### Your Benefit
During this workshop you'll learn how to:
- Describe the various application technologies used in the paint shop
- Describe the characteristics of application technologies
- Understand the application process
- Identify the factors influencing the application process and their effects

### Contents
- Application technologies in the Paint Shop
- Process-relevant parameters
- Influencing factors

### Prerequisites
None

This workshop is open to everyone.
Please contact us for further information:
Email: sca.training@atlascopco.com

# An Overview of Customer Training and Order Numbers

| Training | | Duration | Order Number |
|---|---|---|---|
| **SCA SYS 6000** | Basic Training System Operation – 1C<br>Basic Training System Operation – 2C Static<br>Follow-Up Training Electrics | 2 Days<br>3 Days<br>1,5 Days | EC00001<br>EC00004<br>EC00010 |
| **SCA ASC 5000** | Basic Training System Operation – 1C<br>Basic Training System Operation – 2C Static or Dynamic<br>Follow-Up Training Electrics | 3 Days<br>4 Days<br>1,5 Days | EC00002<br>EC00005<br>EC00011 |
| **SCA ASC 5000plus** | Basic Training System Operation – 1C<br>Follow-Up Training Electrics | 3 Days<br>1,5 Days | EC00003<br>EC00012 |
| **Mechanics Special** | Follow-Up Training Mechanics | 1 Day | EC00013 |
| **Specific Technologies** | Follow-Up Training Application Process and System Interface<br>QUISS Real Time Vision System<br>E-Swirl Body Shop<br>E-Swirl Paint Shop<br>E-Swirl 2 AdX Body Shop<br>E-Swirl 2 AdX Paint Shop | 1 Day<br>3 Days<br>1 Day<br>1 Day<br>1 Day<br>1 Day | EC00014<br>EC00018<br>EC00019<br>EC00020<br>EC00026<br>EC00027 |
| **Workshops** | SCA SYS 6000 Application System Diagnostics<br>SCA ASC 5000 Application System Diagnostics | 1 Day<br>2 Days | EC00021<br>EC00022 |
| | SCA Application Technologies in the Body Shop<br>SCA Application Technologies in the Paint Shop | 2 Days<br>2 Days | EC00023<br>EC00024 |

# *Attendees' Feedback*

**Training rooms at SCA are very well-equipped, meaning the training courses are very demonstrative.**
FFT Produktionssysteme Fulda | QUISS Vision System | March 2016

**All topics were explained in a descriptive and easy-to-understand manner. The course had good practical relevance.**
GROB-Werke Mindelheim | Follow-Up Training, Application Process and System Interface | July 2015

**My questions were addressed perfectly. Topics were always explained extremely well and the atmosphere remained positive throughout the entire training course.**
VW AG Wolfsburg | ASC 5000 Follow-up, Mechanics | March 2016

**Really varied, a great mix of theory and practice. Great insights into technical aspects. We were shown a lot of useful tips and tricks for assembling equipment.**
Audi AG Neckarsulm | ASC 5000 Follow-up, Mechanics | February 2015

**The practical exercises using the robot were great, as they were extremely relevant to our work.**
Opel AG Rüsselsheim | Electrical Swirl | February 2015

**The course is very practice-oriented. There is enough time for all questions to be answered.**
Audi AG Ingolstadt | ASC 5000 Follow-up, Electrics | March 2015

# Good to Know

**Registration**
If you would like to register for our courses, please contact your local SCA partner or our training department in Bretten:
Email: sca.training@atlascopco.com

**Certificate of Attendance**
Each participant will receive a certificate of attendance upon completing the course.

**Closed Training Courses**
We normally tailor our training courses to the systems used by our customers. As such, courses are offered to each individual customer on a closed basis. We also offer "Application Technologies" workshops, which cater for groups of customers from different companies. These workshops take place on specific dates.

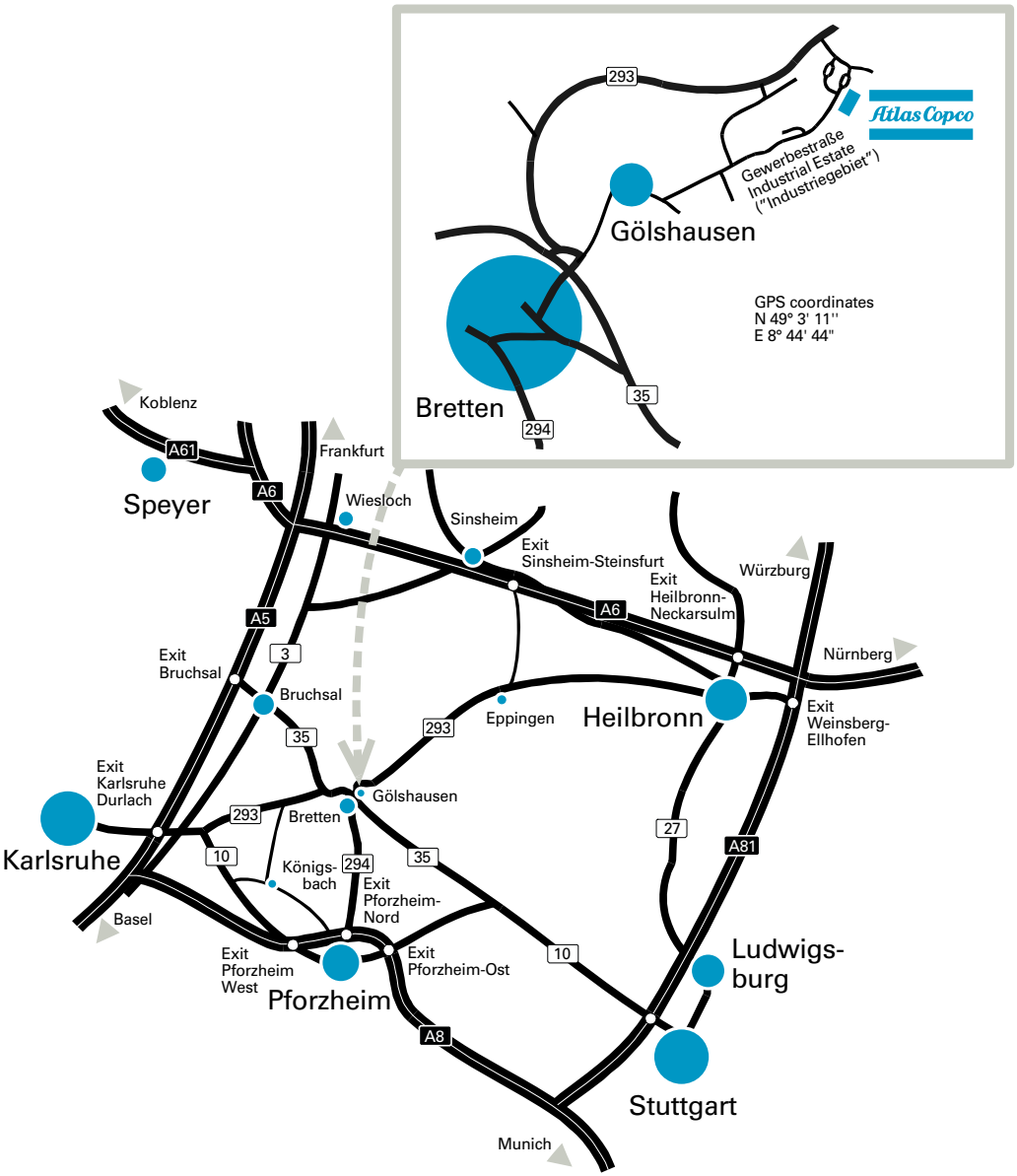
**Food and Accommodation**
Course fees include drinks during training times and lunch for all-day training courses. If need be, we would be happy to help you reserve suitable accomodation. It is the participant's responsibility to pay for their accommodation.

**Locations**
Training courses can either be conducted at SCA locations or on customer premises, if requested. If training courses take place on the customer's premises, it is the customer's responsibility to provide the required training equipment. Information regarding the required equipment can be found in the relevant training course description.

**AGB**
Our current terms and conditions can be found on our homepage: www.sca-solutions.com

**Training Times**
Training usually takes place from 8 a.m. to 4 p.m. If need be, you can also request other training times.

# Getting to Bretten



## Your Notes

## *Your Notes*

**Customer Training IAS**
**We are looking forward to hear from you!**

Edition 2 / March 2018
by Atlas Copco IAS GmbH

# *Committed to sustainable productivity*

Competence in Training

**Atlas Copco IAS GmbH**
Gewerbestrasse 52
75015 Bretten, Germany
Phone: +49 7252 5560-0
sca.info@atlascopco.com
www.sca-solutions.com

© Atlas Copco IAS GmbH

Atlas Copco