



ONSET X SERIES TRAINING

Training Improves Performance



OVERVIEW

Thank you for requesting further information on the training courses available to support your Inca printer. Our industry-leading printers require skilled operatives to maximise the return on investment and our training courses are specially designed to improve the performance of your team and get the best from the hardware.

Our simple framework of structured, high quality training courses enables you to pick the right type of training for your team. Delivered on site, or at our dedicated training facility, all Inca training from basic operator through to more advanced programmes will improve your team's performance.

Inca training will help maximise the investment from your Inca printer. Tailored training courses, focused on specific people within your organisation, maintain productivity and ensure consistent output. Whether you are looking to add extra shifts with additional operators, or provide first line support with our Breakdown and Recovery course, Inca has the right course to help you increase productivity and allow your business to be self-sufficient.

To complement our training courses, Inca's Technical Publications department provide detailed technical documents that focus on the task in hand. Every document includes a list of requirements and parts needed to complete each training task. All technical documents go through a comprehensive approval process to certify technical accuracy and ensure every step is clear and concise.

Our courses emphasise skill development using the actual equipment in a high quality, professional training environment. Our training course structure requires the delegate to complete and sign a set of objectives based on a comprehensive training needs analysis. When the trainer and the delegate are both satisfied that the task can be performed correctly and within a realistic time frame, the objective is signed. On completion of all objectives, graduates are granted a Certificate of Achievement.



OPERATOR COURSES

#1 Operator - 3 to 4 Days¹

After the printer has been installed, our engineers will take operators through the operator training course, which is open to all. There are no prerequisite skills required to become an Inca trained operator, all we ask is for a 100% commitment to the course. The course is designed to build machine knowledge gradually, developing a thorough understanding of the machine and its systems. By the end of the course, all delegates will understand the basic principles of inkjet printing and feel confident to operate the machine, with our engineers close to hand to assist if required. Additional operator training can be scheduled at any time to provide additional shifts or train new operators after staff changes.

#2 Advanced Operator - 2 Days¹

After Inca trained operators have gained the #1 Operator Certificate, and have a minimum of six months' experience, you will be looking to further increase the capability and maintain the output of your machine. Advanced operator training enhances the skills and confidence of operators by providing a recap of printhead maintenance and recovery, but with additional detailed know-how to optimise printer performance.

#3 Printhead Replacement - 3 Days

Printhead replacement is the final course open to Inca machine operators who have completed courses #1 & #2. Operators will have gained the relevant knowledge and experience of printhead maintenance and have sufficient experience to know when the printheads are beyond recovery. This course will take delegates through not only printhead replacement but also complex alignment measurement procedures.

1. Duration dependent on machine configuration.

#1	#2	#3	
Operator	Advanced Operator	Printhead Replacement	
3 to 4	2	3	Duration (Days)
✓	•	•	Safety
✓	•	•	Component Location and Identification
✓	•	•	Maintenance
✓	•	•	Overview of Ink and Vacuum System
✓	•	•	Overview of UV Curing System
✓	•	•	Detailed Description of Control Screens
✓	•	•	Recovery and Basic Fault Finding
✓	✓	✓	Printhead Maintenance
•	✓	✓	Understanding Printhead Performance and Recovery
•	✓	✓	Basic Scanner Set-Up
•	✓	✓	Basic Printhead Alignment
•	✓	✓	Balancing and Time of Flight Measurement
•	•	✓	Printhead Replacement



SPECIALIST COURSES

#4 Breakdown & Recovery¹ - up to 5 Days²

This training course focuses on breakdown issues and trains maintenance or factory engineers to bring the machine back into production when problems occur. This is an invitation-only course, designed for highly qualified engineers who are capable of receiving in-depth levels of maintenance training.

- **EtherCAT Network Discovery & Fault Finding** - Detailed navigation around the machine to discuss the communication protocol.
- **Electrical & Pneumatic Schematics** - Building on existing experience and understanding of electrical and pneumatic systems, engineers are taken through the electrical systems and panels specific to the Inca machine.
- **Ink Delivery & Meniscus Vacuum** - The meniscus vacuum system is an important part of the machine's daily operation. In normal operation there should be no need for user intervention, however when things go wrong or become imbalanced, this part of the course will provide the skills to help identify problems and bring the system to a print-ready state.
- **Robot Recovery** - This part of the course enables the engineer or factory technician to switch to full manual control, safely recover the automation robot(s) and return the printer to a running state.
- **Fault Finding** - Engineers are guided through the first steps of fault finding on the machine. Whilst Inca machines provide a high level of fault reporting, this part of the course takes engineers through advanced system recovery.

#5 Six Month Service¹ - 2 Days²

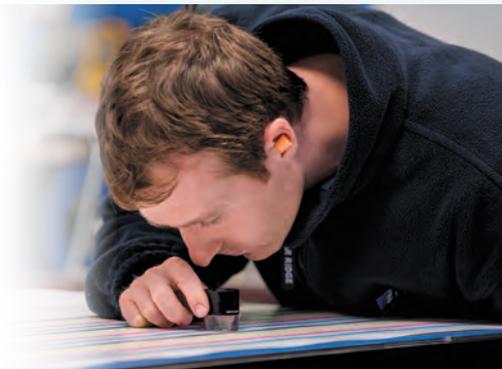
This training course, designed for factory technicians, is aimed at customers who rely on their own team of highly skilled technicians to repair machines and schedule routine maintenance when required. The course allows machine services to be scheduled at a time that fits with production schedules, making it perfect for customers running shift patterns that may not comply with standard engineer visiting hours. Topics within the training course include:

- Filter changes (including ink filters)
- Peristaltic pump change
- De-gassing system service
- Cleaning station service
- UV system checks
- Vacuum hose replacement
- Table vacuum pump filter change
- Bearing lubrication and inspection
- Automation system checks (if fitted)

The training course will be delivered on-site by an Inca-trained engineer, with your technician in attendance. Due to the nature of the course, access to the machine will be required without interruption for the duration of the service.

On completion of the course, the technician will be able to perform the six month service for the lifetime of the machine. However, if the machine is upgraded during this time and additional components are added, supplementary training may be required (subject to additional charge). Software updates are not included within the course.

1. Please see SR0071 Master Terms for information (available from the Inca website).
2. Duration dependent on machine configuration.



TRAINING COURSES - WHAT YOU NEED TO KNOW

Courses Delivered at Inca Digital Premises

The training day runs from 9.00am until approximately 4.30pm with regular breaks throughout the schedule. Inca will provide beverages and a light lunch. Delegates will be trained in a group, the size of which depends on the type of course but is limited to ensure that all delegates have the opportunity to complete hands-on training on the machine. When the training course is completed, all delegates will be asked to sign a Training Course Completion form to confirm that all course content has been understood; we will also use this information to generate a Certificate of Achievement that will be supplied to each delegate.

#1 Operator Training

The Operator Training course is open to all, the only prerequisite is that the delegate is fully committed to the course. Content is delivered at a pace dictated by the delegate to ensure that they have a sound knowledge of machine operation after the course is completed.

#2 Advanced Operator Training and #3 Printhead Replacement Training

Delegates must have at least six months' machine experience and be 100% confident in its operation. Inca reserves the right to refuse this level of training if the delegate does not have the required experience or has not completed an Inca operator training course for the printer.

#4 Breakdown and Recovery Training and #5 Six Month Service (courses are invitation only)

Due to the complex nature of these training courses, delegates must be experienced in industrial electrical maintenance or installation, and will be familiar with electrical schematic diagrams, pneumatic systems and components. All delegates should have excellent fault finding skills and be able to work under pressure. Training staff will assume that delegates have good general engineering skills and be comfortable working both individually or as part of a group. Inca reserves the right check delegate suitability before the course is offered. Six month service training is not available for machines within any warranty period.

TRAINING COURSES ON-SITE - WHAT WE NEED TO KNOW

Before scheduling any training course on a customer's machine, Inca will need to gather the following information:

- The age and condition of the machine. This may require an engineer visit to perform an audit and may be subject to additional charge(s).
- Engineer visit history and service record.
- Any outstanding or unresolved issues.
- Table scanner configuration and recent score card information.
- Up-to-date Nozzle Mapping details.
- Up-to-date Nozzle Finder/Check test patterns.

Depending on the course type, uninterrupted access to the machine may be required. This must be confirmed by the customer before the course start date.

ABOUT INCA DIGITAL PRINTERS

Inca Digital Printers, part of SCREEN Graphic Solutions Co. Ltd, is one of the world's leading pioneers and manufacturers of flatbed inkjet printing technology. The Eagle and Columbia printers set the early standards in UV inkjet flatbed printing.

Inca's facility in Cambridge, UK, incorporates R&D, customer service, machine assembly and commissioning, a dedicated training facility and a cleanroom for printhead assembly and refurbishment. With approximately 25% of staff involved in R&D, a significant investment here helps the company maintain its position at the forefront of machine productivity, innovation, quality and reliability.

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