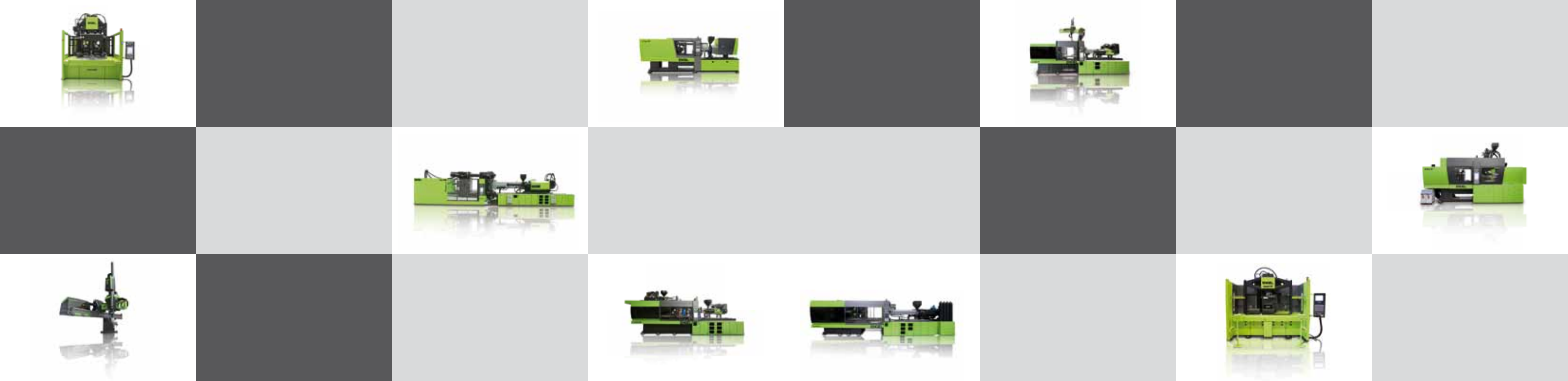


More efficiency in **injection moulding**.
ENGEL training





More knowledge. More productivity.
With **ENGEL** training.

Enhanced product quality, more stable processes and boosted output with maximum good parts – A thorough understanding of the injection moulding machine, the robot and interaction of individual process steps enables you to get more out of your injection moulding system. EN-GEL training assists you in achieving this goal with extremely comprehensive and practical training courses. These range from seminars and special workshops to certified training which can be tailored to your company's specific needs upon request.

Whether for beginners or the more advanced – ENGEL training will make you and your employees fit for the current injection moulding challenges.



Overview of the Seminar Program

Standard and specialist seminars

Standard seminars cover a large range of operational, maintenance and process technology topics. The following pages provide an overview of the training modules.

Special seminars are tailor-made to reflect the customer's individual requirements and are also available for older or custom-built machines - on your premises, using your own machines, or – thanks to the ENGEL e-trainer live – directly via the Internet.

SEMINAR OPERATING AND PROCESS ENGINEERING - LEVEL I									
ENGEL Process engineering									
Technology plastic basics (TPB) Basic knowledge about plastics technology for injection molders								16	
SEMINAR OPERATING AND PROCESS ENGINEERING - LEVEL II									
ENGEL Operation									
ENGEL operator basics (EOB) Basic skills for operating ENGEL injection moulding machines								11	
SEMINAR OPERATING AND PROCESSING ENGINEERING - LEVEL III									
ENGEL Operation		ENGEL Operation		ENGEL Processengineering		ENGEL Processengineering		ENGEL Processengineering	
ENGEL operator advanced (EOA) Operating of ENGEL injection moulding machines for advanced users	11	ENGEL robotics basics (ERB) Basic skills for operating ENGEL robots	12	Technology plastic advanced (TPA) Identifying and correcting surface and injection errors	16	Technology mould proving (TMP) Systematic mold trial and proving	17	Technology process and quality control (TPQ) Quality assurance at injection moulding	17
SEMINAR LEVEL IV									
ENGEL Operation									
ENGEL robotics advanced (ERA) Operating of ENGEL robots for advanced users	12								
SEMINAR LEVEL V									
ENGEL Operation									
ENGEL robotics expert (ERX) Expert skills for operating ENGEL robots	12								

SEMINAR MAINTENANCE - LEVEL I									
ENGEL Maintenance									
ENGEL operator maintenance (EOM) Operating ENGEL injection moulding machines for maintenance staff								13	
SEMINAR MAINTENANCE - LEVEL II									
ENGEL Maintenance		ENGEL Maintenance		ENGEL Maintenance		ENGEL Maintenance			
ENGEL control basics (ECB) Basic knowledge of control technology and engineering	13	ENGEL maintenance victory (EMV) Maintenance of ENGEL injection moulding machines up to a clamping force of 4500 kN	15	ENGEL maintenance electric (EME) Maintenance of fully electric ENGEL injection moulding machines	15	ENGEL hydraulic basics (EHB) Basic knowledge of hydraulic components	14		
SEMINAR LEVEL III						SEMINAR LEVEL III			
ENGEL Maintenance					ENGEL Maintenance				
ENGEL control victory (ECV) Control technology and engineering for ENGEL injection moulding machines up to a clamping force of 4500 kN – for advanced users	14	ENGEL control electric (ECE) Control technology and engineering of fully electric ENGEL injection moulding machines	14	ENGEL robotics control (ERC) Control technology and maintenance of ENGEL robots	14	ENGEL hydraulic victory (EHV) Hydraulic systems on ENGEL injection moulding machines up to a clamping force of 4500 kN	15	ENGEL hydraulic ecodrive (EHE) Servohydraulic systems on ENGEL injection moulding machines	15
ONLINE TRAINING									
ENGEL e-trainer live									
Sequence programming positions ENGEL CC 200 (machine)								09	
Sequence programming positions ENGEL RC 200 (robot)								09	
Mask editor ENGEL CC 200								10	
Freely programmable inputs/outputs ENGEL CC 200								10	
Quality assurance programs ENGEL CC 200								10	
Customer-specific topics ENGEL CC 200								10	



Highest quality level for trainers and training centres. Worldwide.

Global corporations benefit from the worldwide availability of ENGEL Training Centres. Thanks to our sophisticated quality assurance system, ENGEL guarantees a uniformly high standard of our training programmes worldwide. This applies to both the trainers and the training centres.

Ongoing training is the key to ensuring that trainers can offer a consistently high level of quality: ENGEL trainers keep on top of the latest state-of-the-art thanks to workshops with the development department and product management and at train-the-trainer seminars.

And: We make training success measurable. For this reason, the trainers themselves undergo regular testing to assess their knowledge levels.

A newly developed quality assurance system ensures the highest possible **quality standards at all training centres around the world**. Centres that bear the Certified Training Centre logo, which symbolises this aspiration, have successfully participated in an annual process of auditing and certification.

Modular and compact

Fast track learning! **The modules of the ENGEL seminar programme never take more than three days.** This ensures that the participants can easily absorb and assimilate the new skills taught to them. Depending on previous knowledge, seminars are available for beginners, advanced learners, or experts.

Small groups. Great effect.

The groups are typically restricted to a maximum of eight participants: this gives trainers the ability to cater to the individual needs of every single seminar attendee and thus enhance each participant's learning experience to the max. This in turn ensures perfect pace of learning and a personal atmosphere in which participants can learn more effectively. Applications for seminars are dealt with on a first come, first served basis.

Hands-on: On the machine and the PC

Hands-on exercises on state-of-the-art injection moulding machines are an important part of our training programme. The theoretical knowledge taught at the ENGEL Training Centre is immediately put into **practice on real machines**, helping to reinforce acquired skills.

Additionally, injection moulding can be **trained on a PC with the ENGEL e-trainer**. For more details on the ENGEL e-trainer, see the next page.

Your company specific training. On your premises if so desired.

Are you looking to introduce training that is precisely tailored to your company's needs in the scope of your staff development program? **We would be pleased to help you develop individual training plans.** We start by collaborating in defining the target groups and then move on to test your staff's knowledge base. You decide the time, place, content and scope of the training.

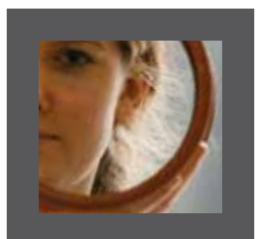
Special seminars **can also be held on your premises**, using your machines, your moulds and your peripheral technology. This saves your staff's travel time and expenses.

Certified learning success: acknowledged certificate „Certified Training„

It is becoming increasingly important for training participants to receive objective feedback on how much knowledge is actually conveyed. This explains why ENGEL offers final exams for all regular courses worldwide. After passing the exam, successful participation is confirmed by **„Certified Training„ certificate, which is acknowledged throughout the industry.**



The benefits



ENGEL e-trainer

Developed for the CC 200 generation of control units, the ENGEL e-trainer provides a **unique simulation of an injection moulding machine on a CD** and has long established itself as a state-of-art extension to more traditional components of the ENGEL training concept. ENGEL e-trainer does not, and is not designed to replace the trainer, but it does complement taught sessions.

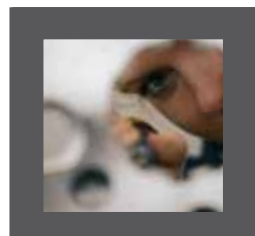
Like a dry cycle users can simulate setting up and operating a machine with an ENGEL CC 200 control unit. Seminar participants can experiment with and learn on the injection moulding machine at their own pace, in an intuitive manner and realistically, but without any risk.

ENGEL e-trainer removes inhibitions related to the use of expensive machinery – not only for inexperienced users. After all, **even fatal operator errors can't possibly damage the virtual machine.** This machine simulator visualises the control panel of the ENGEL machine, and the machine movements that result from operator input, on the PC screen. This gives participants even more time for practical trials on a real machine.

ENGEL e-trainer live

ENGEL also offers seminars on the web. This removes the need for travel and saves time. Each training session can be stored on disk and repeated as individual need arises. The participants can easily link up with trainers via their PCs and the Internet.

The benefits



e-trainer live

ENGEL e-trainer live



Online benefits. Instead of offline travel. ENGEL e-trainer live.

Expert knowledge at first hand. From the ENGEL Training experts at the Schwertberg centre. Without needing to travel a single mile. Online. Saving money and time. These are the features that the ENGEL e-trainer live „virtual classroom,, offers. Thanks to this practical service, you receive state-of-the-art training content for ENGEL injection moulding machines without even leaving your desk.

Your benefits: You don't need to leave your production facility and can save long trips and money. And: If needed, you can split up large-scale courses into bite-sized „chunks of knowledge,,. Simply book your individual training sessions. With your ENGEL Trainer at the Schwertberg centre. **Ideal for individual learners or smaller groups.**

Sequence programming positions ENGEL CC 200 (machine)

Seminar contents:

- **Module 1:** Structure and reading the sequence
- **Module 2:** Changing and reconfiguring the sequence

Module duration: 2 hours each - for topics with several modules in the order of dependency!

Technical requirements:

PC with Internet connection (broadband) and headset or microphone with loudspeaker

Prerequisites:

Seminar EOB or good working knowledge of the injection moulding process

Sequence programming positions ENGEL RC 200 (robot)

Seminar contents:

- **Module 1:** Structure and reading the sequence
- **Module 2:** Familiarisation with the pre-defined ENGEL sequences (variants)
- **Module 3:** Simple changes to the sequence
- **Module 4:** Sequence changes for advanced users

Module duration: 2 hours each - for topics with several modules in the order of dependency!

Technical requirements:

PC with Internet connection (broadband) and headset or microphone with loudspeaker

Prerequisites:

Seminar ERB or good knowledge of the robot

Operation

ENGEL Operation



Mask editor ENGEL CC 200

Seminar contents:

- Changing and creating specific screen pages

Module duration: 2 hours

Technical requirements:

PC with Internet connection (broadband) and headset or microphone with loudspeaker

Prerequisites:

Seminar EOB or good working knowledge of the injection moulding process

Freely programmable inputs/outputs ENGEL CC 200

Seminar contents:

- Integrating external signals into the machine sequence

Module duration: 2 hours

Technical requirements:

PC with Internet connection (broadband) and headset or microphone with loudspeaker

Prerequisites:

Seminar EOB or good working knowledge of the injection moulding process

Quality assurance programs ENGEL CC 200

Seminar contents:

- **Modul 1:** Micrograph
- **Modul 2:** Process data protocol
- **Modul 3:** Process data graphics

Module duration: 2 hours each - for topics with several modules in the order of dependency!

Technical requirements:

PC with Internet connection (broadband) and headset or microphone with loudspeaker

Prerequisites:

Seminar EOB or good working knowledge of the injection moulding process

Customer-specific topics ENGEL CC 200

Seminar contents:

- The topics are tailored individually to meet the customer's needs.

Module duration: 2 hours each - for topics with several modules in the order of dependency!

Technical requirements:

PC with Internet connection (broadband) and headset or microphone with loudspeaker

Prerequisites:

None

ENGEL operator basics (EOB)

Basic skills for operating ENGEL injection moulding machines

Seminar Objective:

After the seminar, participants will be familiar with operating and setting up standard programs on ENGEL injection moulding machines. Participants will be capable of performing setup operations and production settings autonomously and effectively, taking ENGEL-specific controls into consideration.

Seminar contents:

- Components of an injection molding machine
- Components and operation of the machine control unit
- Components and setting of the clamping unit
- Components and setting of the injection unit
- Error signals
- Practical exercises:
 - Settings
 - Test injection
 - Simulation of error messages

Seminar duration: 2 days

Target group: Staff involved in setting up and operating machines

Prerequisites:

Basic knowledge of the injection molding process, seminar TPB

ENGEL operator advanced (EOA)

Operating of ENGEL injection moulding machines for advanced users

Seminar Objective:

Perfecting ENGEL injection moulding machine operating skills. After the seminar, participants will be able to set up more complex sequences quickly and effectively, and perform production and quality optimisation.

Seminar contents:

- Quality assurance programs (ENGEL micrograph, ENGEL microplast)
- ENGEL autoprotect
- Freely programmable machine sequence
- Practical exercises:
 - Setting up user-programmable sequences
 - Operating the programs under production conditions

Seminar duration: 2 days

Target group: Advanced operating staff: staff involved in setting up and operating machines, sampling staff, application technicians

Prerequisites:

Good knowledge of the injection molding process and of the machine operation, seminar EOB



ENGEL robotics basics (ERB)

Basic skills for operating ENGEL robots

Seminar Objective:

Basis operation of the ENGEL ERC robot systems. After the seminar the participant understands the mechanical components, the operating elements and masters the setting and application of the standard programs.

Seminar contents:

- Layout of a robot system
- Function, operation, standard programs
- Error signals
- Practical exercises:
 - Setting up a robot
 - Sequence settings under production conditions
 - Simulation of error messages

Seminar duration: 2 days

Target group: Staff involved in setting up and operating machines

Prerequisites:

Basic knowledge of injection moulding machines, Seminar EOB

ENGEL robotics advanced (ERA)

Operating of ENGEL robots for advanced users

Seminar Objective:

Advanced operating skills with the ENGEL ERC robot systems. After the seminar, the participants will be capable of programming ENGEL robot systems, of setting up more complex sequences quickly and effectively, and of performing production optimisation.

Seminar contents:

- Freely programmable sequence (Teach-In)
- Work area monitoring
- Creating complex programme sequences
- Practical exercises:
 - Participants will create various programme sequences under production conditions

Seminar duration: 3 days

Target group: Advanced operating staff: staff involved in setting up and operating machines, sampling staff, application technicians

Prerequisites:

Good working knowledge of ENGEL ERC robots, Seminar ERB

ENGEL robotics expert (ERX)

Expert skills for operating ENGEL robots

Seminar Objective:

Perfecting user programming skills. After the seminar, participants will be capable of programming ENGEL robot systems and of creating highly complex sequences and corresponding screens quickly and effectively.

Seminar contents:

- Sequence editor
- Mask editor
- Error signals
- Practical exercises:
 - Setting up robot sequences
 - Simulation of error messages

Seminar duration: 2 days

Target group: Advanced operating staff : staff involved in setting up and operating machines, sampling staff, foremen

Prerequisites:

Good working knowledge of sequence programming, Seminar ERA



Maintenance

ENGEL Maintenance



ENGEL operator maintenance (EOM)

Operating ENGEL injection moulding machines for maintenance staff

Seminar Objective:

The participants will understand the basic sequences in the injection moulding process. They will learn and understand the technical terms used in plastics engineering (mould protection, post injection pressure, back pressure, etc.). They will be able to more easily assess the consequences of their actions. Target and actual values can be changed and checked for troubleshooting purposes. Maintenance staff can autonomously perform manual functions and run a dry cycle, in coordination with commissioning staff.

Seminar contents:

- Basic knowledge of injection moulding technology
- Layout and function of an injection moulding machine
- The injection moulding process and its technical terms (mould protection, switchover point, etc.)
- Layout, operation and setup of the ENGEL control unit
- Working with the injection moulding machine's comprehensive help functions
- Hands-on exercises: Simple injection moulding machine set up and trial injection

Seminar duration: 1 day

Target group: Maintenance and repair staff mechanical/electrical systems

Prerequisites: None

ENGEL control basics (ECB)

Basic knowledge of control technology and engineering for ENGEL injection moulding machines

Seminar Objective:

Effective performance of maintenance tasks, and quick troubleshooting and error correction. After the seminar, participants will be familiar with the control elements and their functions, and with troubleshooting electrical systems.

Seminar contents:

- Reading of the electric schematic
- Explanations of the electric monitoring circuits
- System components of the machine control unit
- Electronics modules, troubleshooting tools
- Error messages and their elimination
- Practical exercises: Troubleshooting, exchange of components, loading machine programs, calibration of stroke transducers

Seminar duration: 2 day

Target group: Maintenance and repair staff electrical / electronic systems

Prerequisites:

Good working knowledge of electrical technology and machine operations, Seminar EOM

ENGEL control victory (ECV)

Control technology and engineering for ENGEL injection moulding machines up to a clamping force of 4500 kN – for advanced users

Seminar Objective:

Effective execution of maintenance work as well as quick recognition and elimination of malfunctions. After the seminar the participant knows the open loop and closed loop control systems and masters the calibration and adjustment of the closed loop controls.

Seminar contents:

- Function of the valves and pumps
- Pump closed loop control
- Heating closed loop control
- Practical exercises:
 - Adjusting pump controls
 - Optimisation of heating controls

Seminar duration: 1 day

Target groups: Maintenance and repair staff electrical / electronic systems

Prerequisites: Good working knowledge of electrical technology and machine operations, Seminars EOM and ECB

ENGEL control electric (ECE)

Control technology and engineering of fully electric ENGEL injection moulding machines

Seminar Objective:

The participants are familiarised with the layout of the fully electric injection moulding machine and explore the drive and sensor functions. They will understand the electrical and safety circuits. Armed with this knowledge, participants can quickly and effectively identify and remedy malfunctions and calibrate sensors and drives.

Seminar contents:

- System layout of the fully electric injection moulding machine
- Servodrive function
- Replacing servodrive components
- Calibrating drives and sensors
- Identifying and remedying errors
- Practical exercises:
 - Calibration
 - Troubleshooting

Seminar duration: 2 days

Target groups: Maintenance and repair staff electrical / electronic systems

Prerequisites: Good working knowledge of electrical technology and machine operations, Seminars EOM and ECB

ENGEL hydraulic victory (EHV)

Hydraulic systems on ENGEL injection moulding machines up to a clamping force of 4500 kN

Seminar Objective:

Effective and quick recognition as well as elimination of hydraulic problems. After the seminar the participant understands the hydraulic plant, its function sequences and the troubleshooting.

Seminar contents:

- Components of the hydraulics
- Reading of hydraulic schematics
- Functions of the control valves
- Possible malfunctions in the hydraulic plant and their elimination
- Practical exercises:
 - Troubleshooting
 - Adjusting the machine

Seminar duration: 1 day

Target groups: Maintenance and repair staff

Prerequisites: Good working knowledge of hydraulic components and machine operations, Seminars EOM and EHB

ENGEL hydraulic ecodrive (EHE)

Servohydraulic systems on ENGEL injection moulding machines

Seminar Objective:

Effective and fast troubleshooting and correction of hydraulic problems on servohydraulic systems. After the seminar the participants will understand the workings of the hydraulic system, its functional sequences and troubleshooting.

Seminar contents:

- Servohydraulic layout
- Reading of hydraulic schematics
- Component functions
- Possible malfunctions in the hydraulic plant and their elimination
- Practical exercises:
 - Troubleshooting
 - Adjusting the machine

Seminar duration: 1 day

Target groups: Maintenance and repair staff

Prerequisites: Good working knowledge of hydraulic components and machine operations, Seminars EOM and EHB

ENGEL robotics control (ERC)

Control technology and maintenance of ENGEL robots

Seminar Objective:

Effective performance of maintenance tasks on ENGEL ERC and VIPER robot systems, and quick troubleshooting and error correction. After the seminar participants will be familiar with the robot control elements and their functions, and with troubleshooting procedures.

Seminar contents:

- System components
- Control modules, drive calibration
- Robot setup
- Error messages and their elimination
- Practical exercises:
 - Adjusting and calibrating
 - Troubleshooting

Seminar duration: 2 days

Target groups: Maintenance and repair staff

Prerequisites: Good working knowledge of electrical technology and machine operations, Seminars EOM and ECB

ENGEL hydraulic basics (EHB)

Basic knowledge of hydraulic components on ENGEL injection moulding machines

Seminar Objective:

Participants will acquire basic hydraulics skills and prepare for seminars EHV and EHE. After the seminar, participants will be familiar with the functions of the individual hydraulics components on an ENGEL injection moulding machine.

Seminar contents:

- Basics of the hydraulics
- Function of the individual hydraulic components
- Practical exercises:
 - Getting to know a machine's hydraulics system

Seminar duration: 1 day

Target groups: Newcomers, maintenance and repair staff

Prerequisites: Good working knowledge of machine operations, Seminar EOM

ENGEL maintenance victory (EMV)

Maintenance of ENGEL injection moulding machines up to a clamping force of 4500 kN

Seminar Objective:

Execution of preventive work for increasing the machine availability. After the seminar the seminar participant knows the mechanical components of the injection molding machine, the regular maintenance of the machine and of the safety devices.

Seminar contents:

- Mechanical and hydraulic maintenance
- Error messages in connection with maintenance
- Check of the safety equipment
- Optimization of a heating closed loop control
- Practical exercises:
 - Mechanical and hydraulic maintenance tasks

Seminar duration: 1 day

Target groups: Maintenance and repair staff

Prerequisites: Good working knowledge of machine operations, Seminar EOM

ENGEL maintenance electric (EME)

Maintenance of fully electric ENGEL injection moulding machines

Seminar Objective:

Performance of preventative work to improve machine availability. After the seminar participants will be familiar with the mechanical layout of the fully electric injection moulding machine, regular machine maintenance, and safety equipment.

Seminar contents:

- Mechanical maintenance
- Error messages in connection with maintenance
- Check of the safety equipment
- Layout and function of the automatic lubricating systems
- Practical exercises:
 - Performing maintenance work

Seminar duration: 1 day

Target groups: Maintenance and repair staff

Prerequisites: Good working knowledge of machine operations, Seminar EOM

Process engineering

ENGEL Process engineering



Technology plastic basics (TPB)

Basic knowledge about plastics technology for injection molders

Seminar Objective:

This seminar gives newcomers to the industry and career changers the necessary tools to understand the injection moulding process. Besides theoretical explanations participants will receive an introduction to the world of plastics and injection moulding technology based on practical exercises to prepare them thoroughly for work in plastics production.

Seminar contents:

- Basic knowledge of plastics: Structure and properties
- Fundamentals of the injection molding technology: Components and method of operation of an injection molding machine
- The processing process: Plasticizing, injection, pressures, cooling phase
- Continuing fundamentals of the plastics: Processing properties
- Continuing fundamentals of the injection molding technology: Process setting, molded part error

Seminar duration: 2 days

Target group: Newcomers and career changers entering the plastics industry

Prerequisites: None

Technology plastic advanced (TPA)

Erkennen und Beheben von Oberflächen- und Spritzfehlern

Seminar Objective:

To enable seminar participants to recognise and classify defects in injection moulded parts. They will be familiarised with the methods and steps required to rectify these defects.

Seminar contents:

- Identifying and correcting surface and injection defects
- Classification of defects
- Physical causes and remedial steps
- Practical exercises

Seminar duration: 2 days

Target group: Experienced operating personnel, quality assurance staff, sampling staff, foremen

Prerequisites:

Good working knowledge of plastics and injection moulding technology, Seminar TPB and EQB

Technology mould proving (TMP)

Systematic mold trial and proving

Seminar Objective:

This seminar teaches the steps required to prepare moulds for production. Besides the fundamental mould data, the seminar focuses on finding and implementing the correct machine parameters depending on the mould and material deployed. The focus will be on process parameters and on optimising moulded part quality and the cycle time.

Seminar contents:

- Necessary components and advance information
- Material and mold preparations
- Finding the basic settings
- Cycle and parts optimization under consideration of the parameter influences on the molded part quality

Seminar duration: 2 days

Target group: Advanced operating staff: staff involved in setting up and operating machines, sampling staff, application technicians

Prerequisites: Good working knowledge of plastics and injection moulding technology, Seminar TPB and EOB

Technology process and quality control (TPQ)

Quality assurance at injection moulding

Seminar Objective:

Imparting of the necessary steps to the optimum quality assurance during injection molding. After the seminar the participant can carry out process and sequence optimizations independently under the aspects of the quality assurance. He masters the programs necessary for this purpose and understands the quality-relevant process data as well as their documentation.

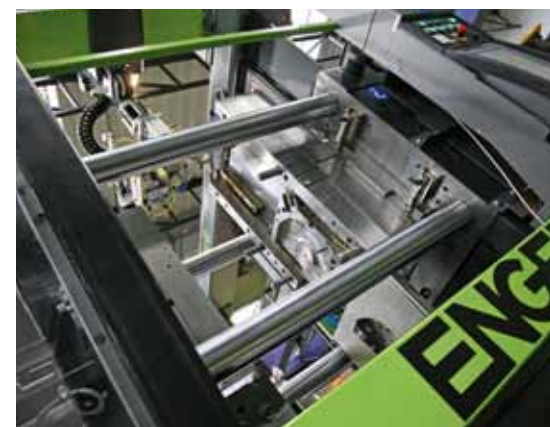
Seminar contents:

- Strategies for optimizing the injection molding process
- Identifying and remedying the most important surface and injection errors
- Molded part properties, machine optimization and relevant process parameters
- Optimisation using ENGEL micrograph, ENGEL microplast and ENGEL microflow
- Quality monitoring with ENGEL micrograph, process data graphics and process data protocols
- Practical exercises:
 - Optimisation and quality monitoring of an injection moulding process with ENGEL programs

Seminar duration: 2 days

Target group: Foremen, heads of production, quality assurance staff, sampling staff

Prerequisites: Good working knowledge of plastics and injection moulding technology, Seminars TPB and EOB



ENGEL training. A prize winning concept.

2005 Initiative Prize.

ENGEL's e-trainer was accoladed as one of the seven most innovative training concepts by the Otto-Wolff Foundation and DIHK, Germany's Assembly of Chambers of Industry and Commerce.

2007 International German Training Prize Gold award.

for ENGEL's training philosophy by BDVT (Berufsverband Deutscher Verkaufsförderer und Trainer e.V. - Professional Association of Sales Promoters and Trainers in Germany) in the face of competition from many other international training concepts.

2009 and 2010: ENGEL offers certified training.

The high standard of training and quality established over many years was examined by external auditors and certification bodies for adult education. The positive results: IBE and CERT certification in Austria (2009/10) AZWV certification in Germany (2009).

2011: Worldwide roll-out of ENGEL Training Centre certification. All ENGEL Training Centres are assessed and certified in line with a uniformly high standard.



*If the seminar schedule and registration details are missing, **please contact your local ENGEL dealer.***

For detailed information of ENGEL training and to register for a seminar online, please visit:

www.engelglobal.com/training



ENGEL training

ENGEL AUSTRIA GmbH | A-4311 Schwertberg | tel: +43 (0)50 620 0 | fax: +43 (0)50 620 3009
e-mail: sales@engel.at | www.engelglobal.com

ENGEL
the first.