



Machine Use Training Advanced

The HMI is possibly the most important tool in your toolbox. For technicians like you, diagnostics and service screens are essential. By training with these tools, the down time of the machine can be reduced, problems can be found faster and optional settings can help keep the machine running in case of defective hardware. The scope of this training is to focus on options that go beyond the Machine Use Training Basic.

Training content

This training will start in a meeting room with a beamer, away from the loud machines to enable full attention. Via a runtime simulation the basic HMI functions will be explained effectively via a run-time simulation. Special procedures are explained, from starting the machine to setting the machine in service mode. When intelligent components are used, such as servo drives or vision camera's, the trainer will explain where attention needs to be paid if these systems have to be re-installed. The trainer also explains what not to do with the machine. Special machine messages are explained via cases, for instance; safety- system messages, hardware-generated messages and dedicated machines messages. Some interlocks are mentioned; such as for example the index table not being able to turn when the robot is in this zone.

After the theory the trainer starts showing the different hardware components to a small group of maintenance people. This makes the technicians aware of the complexity of the machine. The safety buttons, switches and sensors are shown in order to draw attention to the specific dangers and to explain how the machine is protected. All control buttons, switches and signals are explained during the powering up, re-setting and starting of the machine. From this point the special functions are shown. The trainer shows special options, like de-activating the process (mostly welding) and de-activating sensors and sometimes even sequences.

The effect of those options will be shown and will be followed up by using the service and teach functions. The technicians will learn how to use those functions effectively. Special techniques in the jig are handled, such as cylinders with product detection. The training will end with special diagnostic tools, like the mailbox viewer. During this training the machine manual will be used as a reference to indicate where the procedures are described. To give some flexibility for the planning, it is possible to hold the practical training on a different day.

Results

- Ability to power up, reset and start the machine
- Ability to set up special machine parameters
- Ability to use the service and teach mode
- Awareness of special solutions used in the jig, like analogue sensors or product detection on cylinders.

Preperation

The AWL trainer will send a personal invitation to every participant together with extracts from the machine manual.

The training covers subjects like:

- Where the safety components are
- Explanation of all controls and signals
- How to see where a clamping failure is
- Setting up the product variant
- Explanation of the NOK strategy
- What not to do
- How to move components via the service screen
- How to set the machine in teach mode
- How to make a diagnosis via the messages and mailbox viewer
- How to re-install intelligent components



Subject:	Machine Use Training Advanced
Target group:	Maintenance (electrical) Maintenance (process)
Duration:	2-4 hours theory, 2-4 hours practice
Max. participants:	4
Location:	On customer's premises (preferable AWL-Techniek
Scope:	The scope of this training is the explanation of all the machine functions
Other related training programs:	Machine Diagnose Training.
Pre knowledge:	Experience with controlling machines, HMI's, knowledge of safety, Profibus, Profinet and electrical drawings is strongly preferred
Requirements:	A meeting room with beamer is necessary for the presentation During the practical training the machine has to be operational and available
Spoken language:	English, German
Language of course material:	English

■ □ □ *Beginner*

■ ■ □ *Advanced*

■ ■ ■ *Expert*



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