IMATRONIC 100/150

A system for the operation, programming, control and monitoring of individual edge processing systems up to complete edge processing lines.

A line can consist of one or more edge processing systems, transport and handling systems and additional machining systems.

The system consists of

- An industry-standard PC with system software for machine operation, programming, data management, communications, various special functions and options for expansion

- Separate PLC technology with a wide range of automation units and modules especially matched to the relevant machines

Main features

- User interface especially designed for edge banding machines systems and lines.

- Simple functions for programming and program data management.

- Setting-up of families of parts and variants.

- Display and evaluation of machine and operating statuses on screen.

- Various production modes to control the production sequence.

- A wide range of operating and control functions for all spectrum of machines.

- Special functions and options for automation.

- The hardware and software concept is designed such that it is easily possible to provide expansion capabilities and special solutions later.

IMATRONIC 150

PC in free-standing computer tower
- Main area of utilisation: Electronically machines

Up to 5 edge machining systems can be integrated for complex applications such as door production lines.
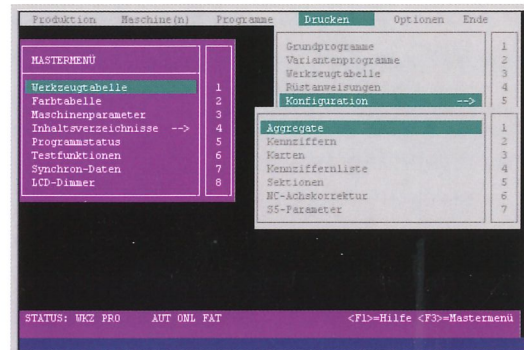
IMATRONIC 100

PC in machine control panel.
- Main area of utilisation: stand-alone machines

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Operation

- Menu-guided user interface
- Simple operation via function keys
- Context-sensitive help
- Window technology screen in screen
- Display texts in your language
- Password-protected areas
- Display of machine and operating conditions in plain text on screen as well as error analysis and diagnostics.
- Options for remote diagnostics for machine lines.

Production

- Select and start program
- Control the program of the part automatically and synchronously to the material (scanner/interface)
- Start the programs in the sequence of the job list
- Data preparation can be done through the IMATRONIC PC or a HOST system

Communication

- A wide variety of standard interfaces are available (serial / parallel interfaces, network, from BIT-level information up to complex data quantities) to integrate external / HOST systems.

PC controller

- Industry-standard PC (Pentium)
- Colour screen 14"
- Hard drive
- Floppy drive for data backup
- Dot-matrix printer (IMATRONIC 150)
- Multiuser/Multitasking operating system
- (possible to connect several terminals)

Expansion

- A wide spectrum of functions and additional units is available, such as
- Interfaces and barcode systems for automatic control of production
- Additional screens and displays to simplify the control of complex lines
- Printing, marking and labelling systems for marking direct onto the workpiece or onto additional accompanying papers
- option to add for an additional programming station

PLC controller

The main features are:
- Machine locking and control of units and function sequences
- A wide spectrum of automation units and modules designed for the relevant application
- 24V positive logic
- Programming in STEP5 mode

Programming

- For programming, parts are divided into part families and variable parts. Thus basic programs and variable programs can be created.
- In the basic programs, the profile form is defined (machine oriented programming).
- Variable programs include workpiece dimensions, variable data and the applicable basic program numbers. Algorithms and logic operations reduce the number of parameters. It is possible to create and manage variable programs externally
- With the help of additional algorithms and post-processors, programming can be facilitated even further.
- Customer-specific solutions, e.g.: chain dog optimisation, speed optimisation.

Tool management

- Tooling data is managed separately. This facilitats data handling after a tool change or tool sharpening.
- Direct connection to a tool measuring device workstation is possible.

Tape reel management

- The variable program includes the edging thickness and color, but does not indicate the reel where the desired edging tape is located.
- The individual edgings/colors are to be entered in the edging table thus defining different reel numbers respectively for each of the individual edgings.
- Additional displays on the tape magazines indicate a tape change whenever required.

Section control and setting time gap control

- During adjustments, the part-to-part gap required in the infeed area is determined and controlled via parameters, thus avoiding unnecessary waiting time. This is practical in particular for small batch volumes, i.e. many adjustments per unit time.

Note: Not all the functions described belong to the standard scope of supply

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Operation and handling via monitor match daily requirements

In the following example, the operator intervenes with ongoing production. That is, the groove on the back side (machine1, 3rd motor: milling FS) needs to be shifted by approx. 0.2 mm towards the left-hand or right-hand side of the component. This requires a change in the variable program.

1st step

Jump from the current list position (i.e. line 4) to the applicable variable program screen using a function key.

2nd step

Select machine sub-division 1, and call up the Basic program – Unit data screen via function key

Note: Using the left-hand screen, the individul variable programs (part programs) can be modified.

3rd step

Call up a unit, correct the horizontal axis adjustment value by 0.2mm, and save under the basic program number if required.

4th step

Jump back to the job list sccreen and start the modified program via function key.

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