

CONTROL SYSTEM UPGRADE MS & UMS MACHINES

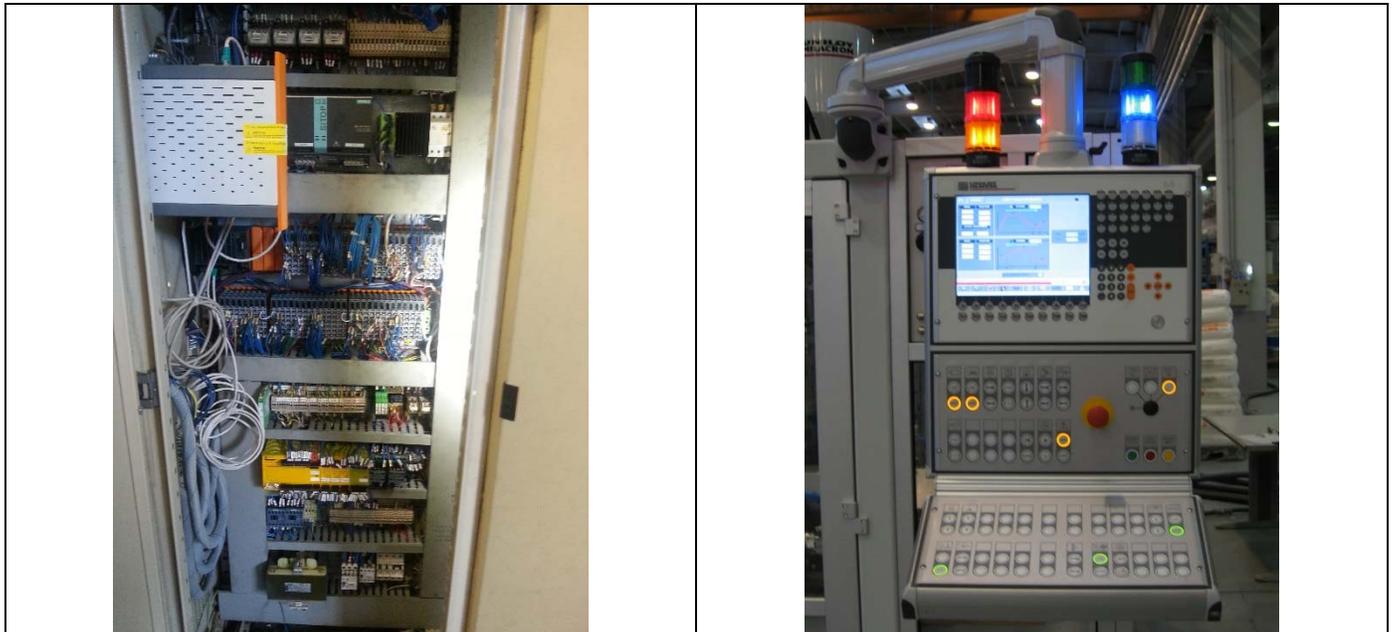
Product Description:

Replacement of present control system with the new B&R controls platform

Before:



After:



Advantages:

- Readily available components
- Faster scan rates result in improved process repeatability and subsequent parts quality
- Improved remote troubleshooting support through Teleservice feature

Features:

Operator control panel:

- The new component B&R will be installed into the main electrical cabinet to the place of the actual electronic cards.
- The operator control panel is located on a swivel arm at the clamp area with an additional keyboard with signal light and pushbuttons to operate on the machine.

Hardware structure:

- Programmable B&R Logic Controller located in the main electric cabinet;
- Operator interface including a B&R Industrial PC with colour monitor (touch screen type) and a membrane keyboard with pushbuttons for manual functions;
- Digital communication through Ethernet Powerlink Fieldbus and remote cards;
- Modem port to connect the control system to the telephone line for teleservice;
- USB port to load/download mould recipes.

Main functions:

- Selective access protection: different access levels with independent log-in and password set by the user with higher access level;
- Parison thickness profile: programmable on 100 points; adjustable base weight; different interpolation functions between master points; visualisation of the actual profile performed; “*purge*” function; simplified tools for profile editing (copy, shift, etc.);
- Temperature control: thermoregulation_ of the hydraulic oil and of all zones of the extruder and of the head; visualization of the set temperatures, the actual temperatures and the electric power percentage; independent upper/lower tolerance range for each zone, with safety interlock to prevent “*cold start*”; working temperature and stand-by temperature settings; weekly programme for automatic pre-heating; auto-tuning function system;
- Mould opening/closing: four (4) pathmarkers available to modify opening/closing speed or activate mould functions (ejectors mould slots, etc);
- Machine accessories: soft keys to easily enable/disable machine accessories or additional functions (such as: upper blowing, mould ejectors, needle blowing, deflashing, etc.);
- Mould library: all settings can be recorded and saved as a “*mould recipe*” either in the system hard disc or downloaded on a USB memory for external back-up; pages for “*production notes*” are available to record further information (die diameter, head position, etc.) as part of the mould receipt;

- Diagnostic pages: chronological sorting of the alarm occurred, with date, time and current status; visualisation of the current status of all digital and analogue I/O of the PLC, with clear description of each I/O and reference codes matching the schematic drawing ones; chronological record of all parameters modifications through the operator interface, with date, time, new and former values and log-in name.
- Teleservice: RLD sequence, PLC status and screens of the machine can be viewed (and modified) by Uniloy software engineers through the modem port; customer to provide a direct telephone line (via internet ADSL) to the machine for remote control diagnostic;
- Safety relay system
 - o Pilz main unit CPU;
 - o Pilz IN/OUT safety modules;
 - o Pilz safety magnetic switches;

New Transducer type:

- *Nr 2 kit of new transducers for carriage movement*
 - *Nr 2 kit additional electrical safety for carriage movement*
 - *Nr 2 kit of new transducer for mould movement*
 - *Nr 2 kit additional electrical safety for mould movement*
- All these new kit transducers and safety for transducer to respect the actual configuration on our standard machines.*

Melt Transducer:

- *Nr 1 Melt transducer*

Product Availability:

<i>MACHINES MS</i>	MSA	MSB	MSC	MSK	MSCK	MSL
Control system upgrade	X	X	X	X	X	X

<i>MACHINES UMS</i>	UMS 40	UMS 70	UMS 100	UMS 150	UMS 220	UMS 270	UMS 300
Control system upgrade	X	X	X	X	X	X	X