



SPS BIG ↔ SPS SMALL



PLC-Automatic sequence control

- Input option of up to 100 heating programs*
- Alphanumeric input of the program name*
- Temperature profiles (set temperature, ramp rate, hold time, etc.)*
- Table speed for rotary workpieces*
- Inductor lifting speed for feed heating processes*
- Emulsion parameters to cool down the components*
- Parameter set for protective gas applications*
- Customer specific heating programs*

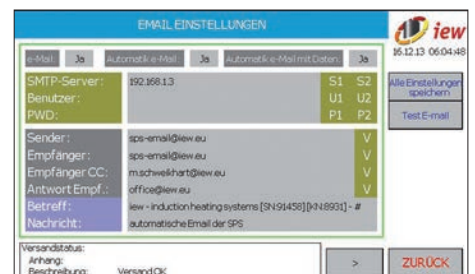
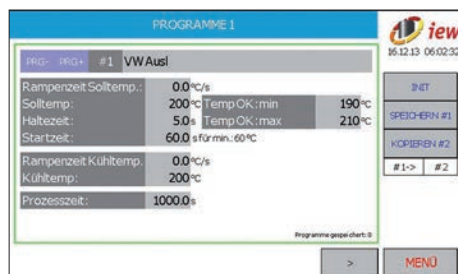
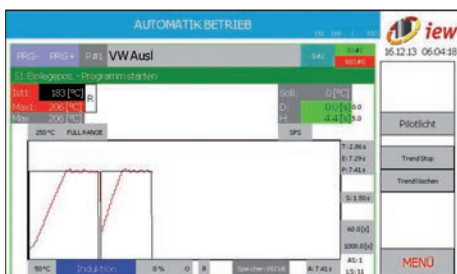
PLC-Automatic sequence control

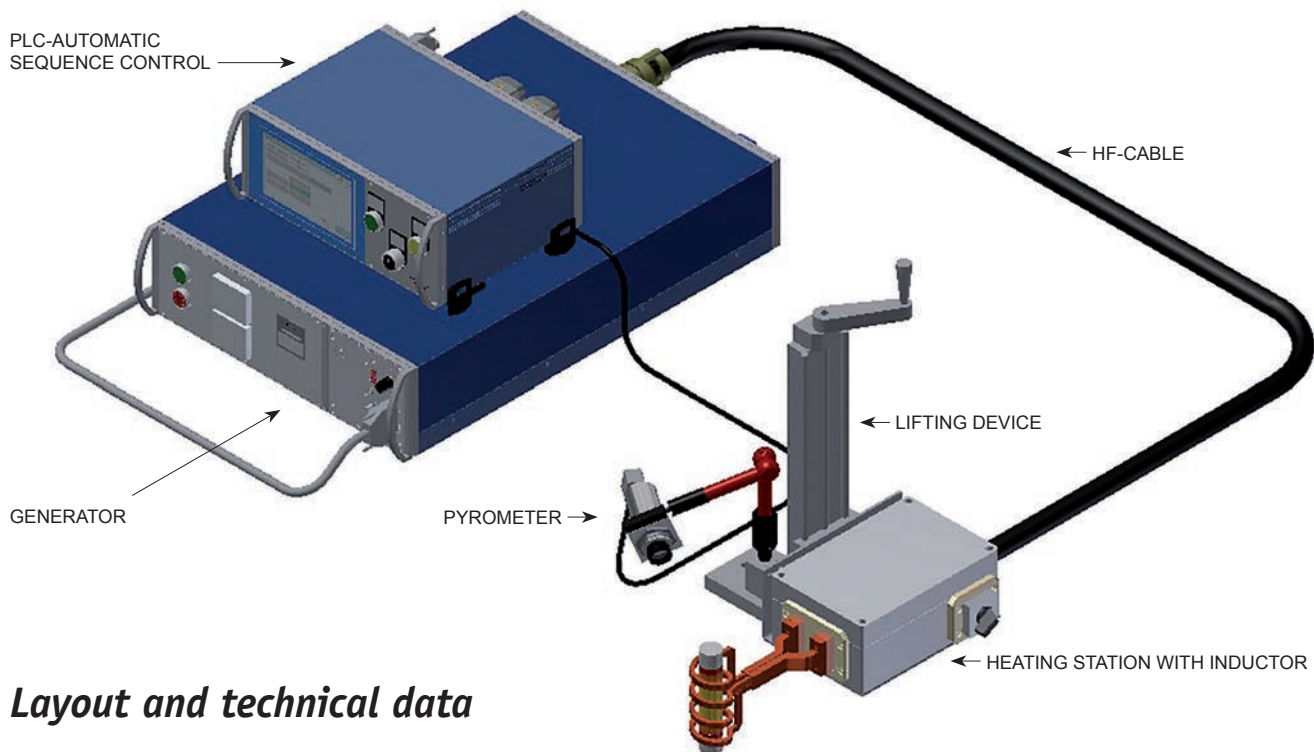
The automatic sequence control of the iew GmbH enables you to realize induction heating processes with up to 100 different programs with an alphanumeric input of the program name as well as the corresponding temperature profiles (set temperature, ramp rate, hold time, etc.).

The automatic sequence control consists of a 7" TFT-Touch-Panel where the desired parameters can be set up. But this PLC is not only suitable for fully automated production facilities but also for small and manual workplaces where peripheral devices such as hoist cylinders and magnetic valves should be activated.

The iew program structure

Date:	dd.mm.yy	Cooling temperature:	650 [°C]
Time:	hh:mm:ss	Cooling ramp time:	0.0 [C/s]
Current programm number:	1 []	Cooling time:	0.0 [s]
Program:	BRAZING []	Component cooling:	0.0 [s]
Max. output	100 [%]	Process time:	10000.0 [s]
Max. output at start	0 [%]	Follow-up program:	FALSE []
Controller P:	3000.0 []	Follow-up program no.:	1 []
Controller I:	500 []	e-Factor:	100 [%]
Controller D:	0 []	Adjustment:	32 [Wdg]
Move:	FALSE []	Inductor designation:	INDUCTOR ? []
Preflood:	0.0 [s]	Graphic:	Picture []
Set temp.:	700 [°C]	Description1:	[]
Set temp. MIN:	690 [°C]	Description2:	[]
Set temp. MAX:	710 [°C]	Description3:	[]
Ramp up time:	0.0 [C/s]	Description4:	[]
Start time:	1000.0 [s]	Description5:	[]
Start time temp.:	0 [°C]	Protection gas on:	FALSE []
Hold time:	5.0 [s]	Gas amount1:	5.0 [l/min]
Start emulsion:	0.0 [s]	Gas amount2:	6.0 [l/min]
Duration emulsion:	0.0 [s]	Brazing wire:	FALSE []





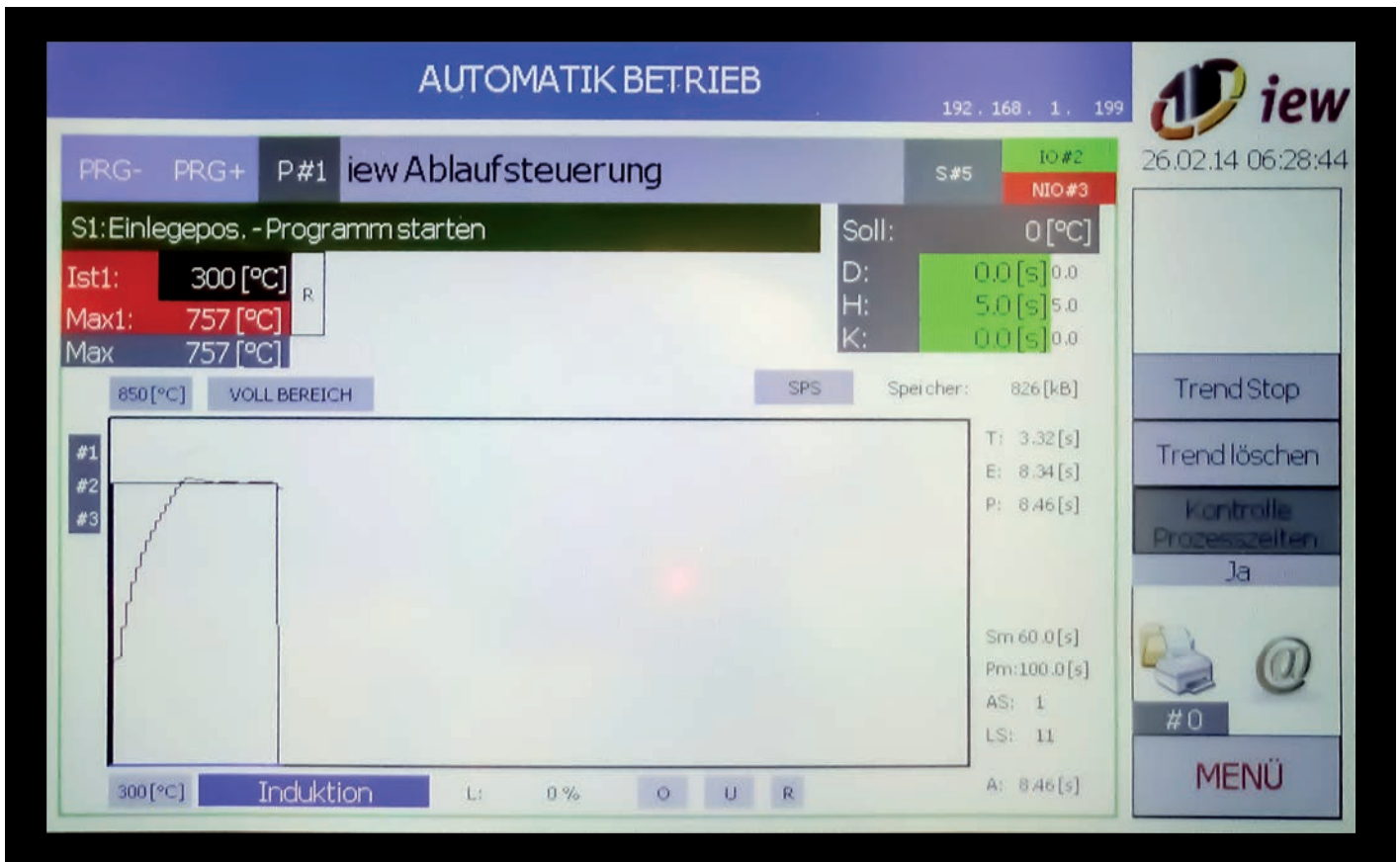
Layout and technical data

Technical data	
Power supply	24V ± 10%
Digital input	24V
Digital output	24VDC mit 0.5A
Display	7" WVGA Touch Display TFT 800 x 480 Dots with graphics capabilities
RAM	32 MB
Flash	16 MB
Retain memory	2 MB
Connections	1x USB (optional) 1x Ethernet TCP/IP (optional) 1x SD memory card slot (optional)
Ambient temperature	-5 ... +40° C
Humidity	up to 85%
Degree of protection	IP 20

Inputs	
Analog inputs	10
Digital inputs	16
Inputs already occupied by the induction unit	<ul style="list-style-type: none"> • Pyrometer input 4...20mA • Input for error of lifting system • Input for error of rotary table

Outputs	
Analog outputs	4 x 0...10V 2 x 0(4)...20mA
Digital outputs	16
Outputs already occupied by the induction unit	<ul style="list-style-type: none"> • Output for power transmission at the inductor • Allowed induction unit power 0...100% • Switch-on of lifting system and rotary table • Lifting system & rotary table speed demand 0...100% • Switch-on output for air drying • Switch-on output for cooling emulsion

The Automatic Screen



PRG+	The next program is loaded into the control unit
PRG-	The previous program is loaded into the control unit
P # 1	Info text of the current channel number (#1)
S # 1	Quantity of the finished parts
OK / NOT OK	Quantity of good and/or bad parts
Workpiece photo	The assignment of the displayed image with the image size 300x250 pixels is done in the menu „Programs“
Display	Information about the current process step e.g. actual temperature, hold time, etc.
Trend display	Display of the current workpiece temperature with target- and actual value. The target temperature is displayed in black colour. The measured curve changes its colour during heating. If the actual temperature is lower than the target temperature the curve is displayed in blue and if the target temperature is lower than the actual temperature, the curve is displayed in red
Operator	Assignment of the operators name; it is possible to change between 6 preset names
Serial Number	Displays the actual serial number of the corresponding work order
Outputs	Display the current status of the individual machine components. The green display signalizes that the corresponding component is currently switched on. For single components, the default value is displayed as an information (e.g. Induction power with 25%)

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