SCHULZE

Instruction manual

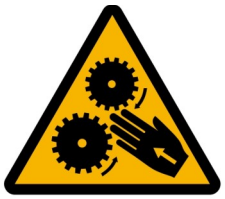
Heat press

SCHULZE Big Lite Pneu Press

1. Introduction

1.1 Content

1.2 Warning pictograms on the machine



ATTENTION! MOVING ELEMENTS

ACHTUNG! BEWEGLICHE TEILE
UWAGA! RUCHOME ELEMENTY

ATTENTION!
HAND CRUSH HAZARD

ACHTUNG! QUETSCHGEFAHR DER HAND
UWAGA! NIEBEZPIECZEŃSTWO ZGNIECENIA DŁONI

ATTENTION! DANGER

ACHTUNG! GEFAHR
UWAGA! NIEBEZPIECZEŃSTWO

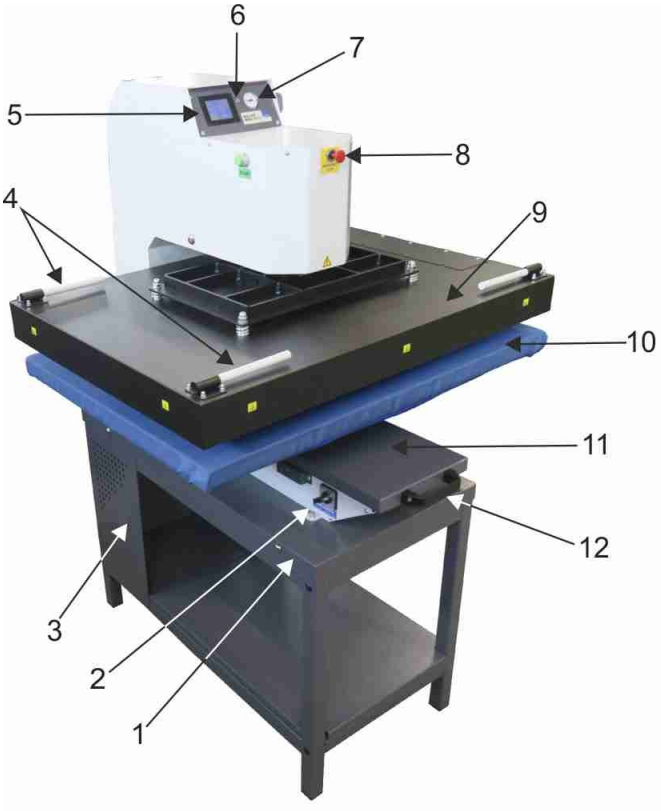
ATTENTION! HIGH VOLTAGE

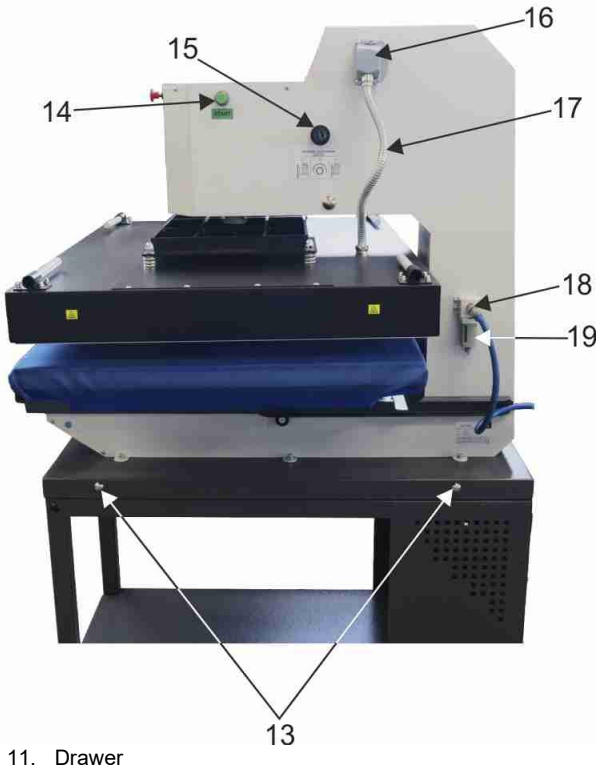
ACHTUNG! HOCHSPANNUNG
UWAGA! WYSOKIE NAPIĘCIE

ATTENTION! HOT SURFACE

ACHTUNG! HEIßE OBERFLÄCHE
UWAGA! GORĄCA POWIERZCHNIA

1.3 Illustration of the heat press





1. Base
2. Main switch
3. Metal table
4. Handles for carrying the heating plate
5. Display of the electronic device
6. Diode
7. Manometer
8. Emergency button
9. Heating plate
10. Base plate
11. Drawer
12. Handle for pulling out the base plate
13. Handles for carrying the heat press
14. START switch
15. Pressure adjustment knob
16. Heating plate plug
17. Spiral tube
18. Compressed air connection
19. Air filter with water separator

1.4 Technical data

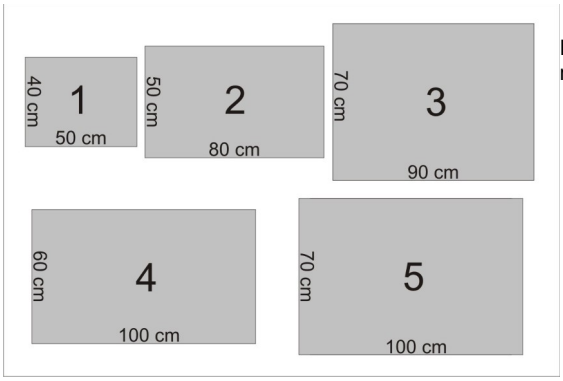
Technical data	**SCHULZE Big Lite Pneu Press 50 x 80 cm**	**SCHULZE Big Lite Pneu Press 70 x 90 cm**	**SCHULZE Big Lite Pneu Press 60 x 100 cm**	**SCHULZE Big Lite Pneu Press 70 x 100 cm**
Dimensions of the press	110 x 82 x 157 cm	110 x 92 x 157 cm	110 x 102 x 157 cm	110 x 102 x 157 cm
Dimensions of the press by extended drawer	180 x 82 x 157 cm	180 x 92 x 157 cm	180 x 102 x 157 cm	180 x 102 x 157 cm
Weight	195 kg	213 kg	209 kg	220 kg
Power supply voltage	230 VAC	230 VAC	230 VAC	230 VAC
Power	2,6 kW	3,4 kW	3,4 kW	3,4 kW
Main fuse	16 A	16 A	16 A	16 A
Max. temperature	220°C	220°C	220°C	220°C
Heating time	1 sec. - 99 min. 59 sec.	1 sec. - 99 min. 59 sec.	1 sec. - 99 min. 59 sec.	1 sec. - 99 min. 59 sec.
Pressure range	2 - 6 bar	2 - 6 bar	2 - 6 bar	2 - 6 bar
Air consumption	4,6 L per cycle	4,6 L per cycle	4,6 L per cycle	4,6 L per cycle
Noise	The machine generates noise less than 70 dB (A)			

1.5 Application range and sample adjustments of the heat press

This press is used to put transfers and transfer films on textiles. It is also used to fix prints from a direct to garment printer. For best results, get in contact with the producer of the textiles. Here are some exsample settings:

Drying of DTG-printed T-shirts	160°C	time 90 – 150 seconds
Film Flex	150°C – 160°C	time 15 seconds
Film FlexS	155°C – 160°C	time 15 seconds
Film A-Flex	155°C – 160°C	time 15 seconds
Film Flock	160°C – 180°C	time 15 seconds
Sublimation	190°C – 205°C	time 50 seconds

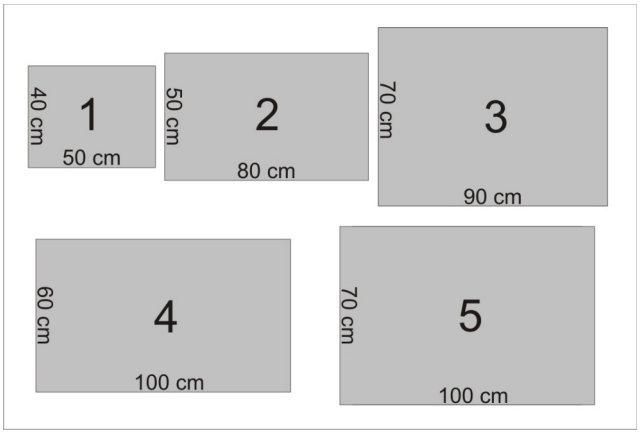
1.6 Replaceable heating plates



For the press there are several heating plates available. The instruction for the replacement of the heating plates can be found in chapter 3.8.

1. Heating plate 40 x 50 cm
2. Heating plate 50 x 80 cm
3. Heating plate 70 x 90 cm
4. Heating plate 60 x 100 cm
5. Heating plate 70 x 100 cm

1.7 Replaceable base plates



For the press there are several baseplates available. The instruction for the replacement of the base plates can be found in chapter 3.9.

1. Base plate 40 x 50 cm
2. Base plate 50 x 80 cm
3. Base plate 70 x 90 cm
4. Base plate 60 x 100 cm
5. Base plate 70 x 100 cm

1.8 Safety arrangements of the press

The SCHULZE Big Lite Pneu Press is equipped with different safety arrangements, to make a safe usage possibly.

Main fuse 16A
The main fuse is situated in the upper part of the press. In case of overcharge, the main fuse prevents the heat press from getting damaged. Once the fuse was switched off, it has to be activated. The instruction for activation of the main fuse can be found in chapter 4.3.

Thermal fuse
The thermal fuse is situated directly on the heating plate and it stops the power supply if the temperature exceeds 260°C. If the fuse is activated, the temperature sinks down to 90°C. After that, the power supply gets activated again and the temperature of the heating plate rises and it's possible to continue the work with the press. Over time the thermal fuse may wear out and cut off the power supply by lower temperature, for example by 180°C. In such case it's needed to replace the thermal fuse as soon as possible. The instruction for the replacement of the thermal fuse can be found in chapter 4.6.

Acoustic signal
3 seconds before the end of the pressing process an acoustic signal will sound.

Automatic switch-off
If the press doesn't get opened within 15 seconds after the pressing process is completed, the heating element switches off automatically, to avoid fire danger.

Safety valve 6 bar
The safety valve 6 bar is located at the pressure pipe in the press. If the pressure exceeds 6.0 bar, the valve will activate automatically.

Emergency button
Has been installed to eliminate the residual risks. In dangerous situations push the red emergency button. It is situated in the front of the press. The press will open automatically. To resume the work at the machine, pull the button back again.

1.9 Safety arrangements at the workspace

Set-up and installation of the heat press
The set up and installation of the press has to be done under supervision of an authorized person by the company owner. Depending on the model and weight of the heat press, the installation has to be done by 2 or more persons. The press should be situated on the flat, non-inflammable surface, in a room with constant temperature and constant moisture. Keep the machine away from dusty rooms, because dust could have a negative influence on some parts of the machine. Very important! The machine may be connected only to an installation equipped with a protection against electric shock. The machine is destined for industrial use only. Instruction for installation of the heat press can be found in chapter 2.2.

Testing the machine
After the correct installation of the machine it is important to ensure that the machine works properly, is not damaged after the transportation and has no safety defects. The testing can only be done by the employer or other authorized person. It is mandatory to guarantee a correct installation and safe usage of the machine. After receiving the machine, check the packaging. The testing should be

protocoled. If any irregularities regarding functionality or safety are found during the testing, these have to be noted and reported to manufactuer or distributor in written form within 7 days. Until the clarification the machine can not be used.

Information and education
According to §81 the industrial law and §14 employment protection law (german law), the advice from the producer and general safety arrangements at the workplace, the employer has to make arrangements to give all information about the safety, function and the range of application to the user. In particular the operator needs to be acquainted with the complete manual and be explicitly informed about the dangers of working with the machine. The details have to be explained in a coherent form and language.
Every user is obligated to a safe usage of the machine and to read the instruction manual precisely before start working with the machine. Using the machine means, that the operator has read the instruction and is aware of the possible risks of working with the machine.

Safety arrangements
In order to ensure optimized safety, please read the instruction manual precisely. Only one person is allowed to work on the machine at the time. The machine has to be under supervision the whole time when it is working. Supervise the machine till it is switched off and the power plug is pulled out. Pressure adjustment has to be done when the press is open. There should be no unauthorized persons near the machine while it's working. Beware of the heating plate - risks of burns. The use of personal protective equipment (protective gloves) by the operator is permitted. Attention! The press opens automatically - keep the safety clearance. In case of emergency, please push the emergency stop switch, which is situated in the front of the press. The machine will stop immediately. The power plug has to be pulled out from the power supply, while maintenance. Using the press with certain materials may create a strong smell. That's why the user should evaluate the need for a ventilation system at the workplace. The type of ventilation should be used as needed and depends on the size of the room and used inks. The machine has to be installed at a place with enough space around the machine. The space in front of the machine has to be wide enough. Nothing can disturb the operator at work. Do not install the machine in doors, floors or busy places. All wires should be placed in a safe way, to make sure they will not pose a threat for the person working at the machine or passing it. In case of damages or untypical signals from the machine, please disconnect the machine from the power supply, contact the service and do not work with the machine, till the problem is solved. All repairs should be performed after consulting the service. Do not remove machine covers while the machine is working.

1.10 Environmental protection

The packaging of the device must be disposed of in accordance with the applicable rules. Do not dispose of the equipment marked with an  together with your household waste. No longer needed machines may be returned to the manufacturer or disposed of in an environmentally friendly manner by means of appropriate disposal systems.

2. Initiation

2.1 Notes regarding transportation

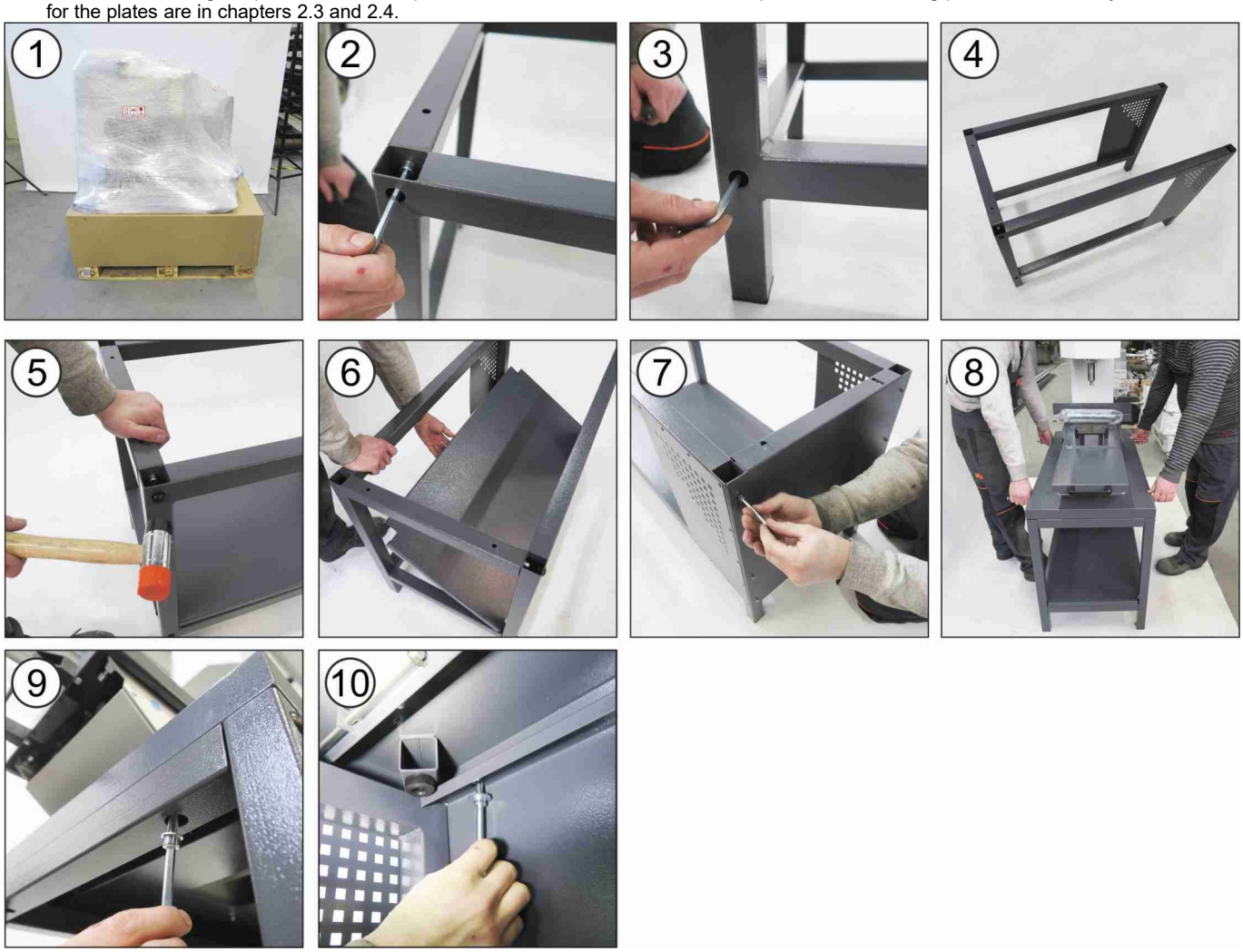
The SCHULZE Big Lite Pneu Press is covered with a protective film and fixed into the pallet for transportation. It should be checked right after receiving the goods if the packaging and the machine are in good condition without damages. If the machine has to be sent later somewhere else, it has to be packed in the same way as you received it. For the transport the machine has to be cold.

2.2 Installation of the heat press

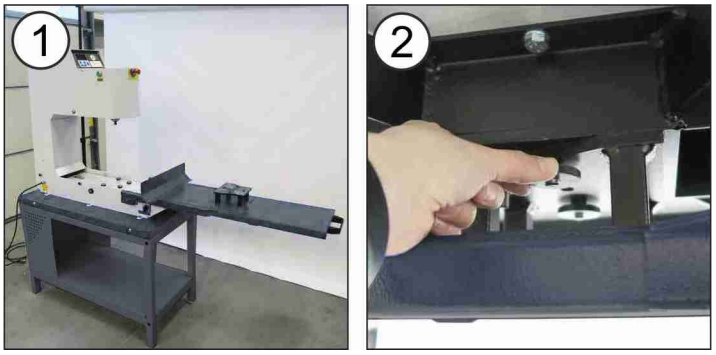
The press is situated on the base with handles which are making the transportation of the press easier. The unpacking and moving of the press has to be done by 2 or more persons. The machine has to be moved with care and attention has to be payed to keep the balance. The press should be placed on a special metal table, which should be assembled as described in the instruction below:

Assembly of the table:

1. Remove the table from the packaging and screw in the transverse connectors using an Allen key **(pictures 1-4)**
2. Put the caps on **(picture 5)**
3. Place the shelf on the metal arms at the base of the construction **(picture 6)**
4. Screw the metal wall of the table **(picture 7)**
5. When carrying the press by its handles in a minimum of two people, carefully place the press on the table and fix it with screws **(pictures 8-10).** This will protect the press from being moved.
6. After attaching the press to the table, proceed with the installation of the base plate and the heating plate. The assembly instructions for the plates are in chapters 2.3 and 2.4.



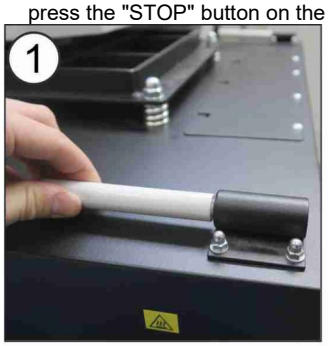
2.3 Installation of the base plate

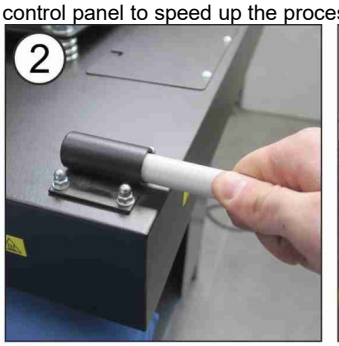


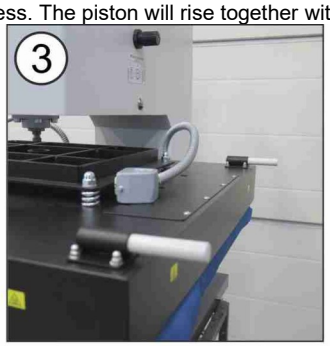
In order to install the base plate, the drawer must be pulled out **(picture 1).** Place and screw the base plate to the drawer using the fastening screws **(picture 2).** The fastening screws must be screwed upwards on the conical side.

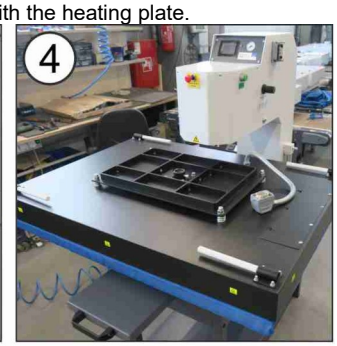
2.4 Installation of the heating plate

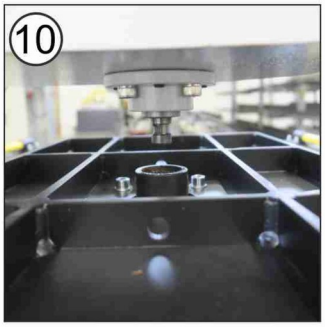
In order to install the heating plate, the carrying handles have to be unscrewed and tightened on the other side **(pictures 1-2).** Grasping the handles, move the heating plate in 2 or more people and lay it on the bottom plate making sure that it lies evenly with it **(pictures 3-4)**. Screw the handles back in place so that they do not protrude beyond the heating plate **(picture 4).** Connect the heating plate plug to the press **(picture 5)**. Connect the compressed air hose **(picture 6) (chapter 2.5).** Switch on the machine **(picture 7)**. Set the pressure to 2 bar **(pictures 8-9)**. Place the heating plate in the position in which the piston is situated exactly above the hole in the heating plate **(pictures 10-11).** Set the press time for around 3 minutes **(chapter 3.1).** Press and hold the green START buttons simultaneously. The piston will fall into the hole on the heating plate **(picture 12)**. If the plate is not placed correcly, the piston will not fall down to the end of the hole and will stop at the plate housing. In this case, lift it up using the "STOP" button on the control panel **(picture 13).** Correct the position of the plate. Press and hold the green "START" buttons again. The piston will fall into place. Screw the plate to the piston with an Allen key **(picture 14).** ATTENTION! If the time set on the machine runs out, the piston will rise, so it is important to set a sufficiently long time on the electronics, so that the machine does not make a movement during screwing. After tightening the plate, wait until the time has run out or press the "STOP" button on the control panel to speed up the process. The piston will rise together with the heating plate.

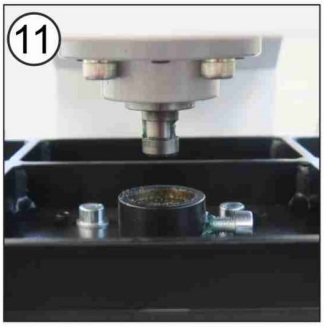


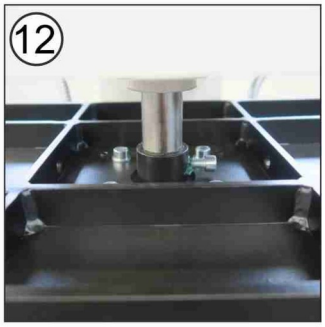


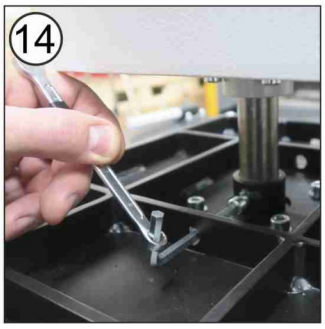






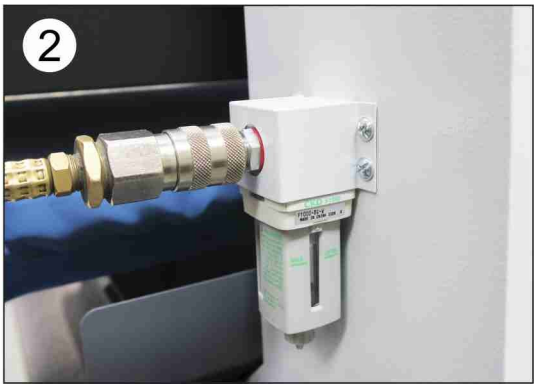






2.5 Connection of the press to the compressed air

The SCHULZE Big Lite Pneu Press is a pneumatic press, which has to be connected to the compressed air. The maximum pressure inside the press cannot exceed 6 bar. The air has to be dry and clear of oil. It is recommended to use a compressed air dryer. It eliminates moisture in the air and prevents corosion of pneumatic components. The port for the compressed air at the press is equipped with an air compressor connector DN 7,2 **(pictures 1-2)**. After finishing work, the compressed air has to be disconnected and the container of the filter emptied.
After disconnecting the compressed air, the tank empties automatically. There can be water in the container from the compressed air. The container needs to be checked every day during operation sequence. If in the container besides water there is also oil, the air compressor is not working properly. In this case the press has to be switched off and the compressor has to be repaired. The oil from the compressor can damage the pneumatic valves in the machine. If needed, please contact the service for help.



2.6 Power supply voltage

The SCHULZE Big Lite Pneu Press has to be connected to a voltage of 230VAC/50Hz.
The press is equipped with a power plug. Make sure that the power outlet is in the right condition and that the grounding is connected to the power outlet. **Caution:** Please do not connect this press to any other outlet (socket) than those equipped with ground-fault protection ELCB (earth leakage circuit breaker). In case of doubt ask your licensed electrician to check the wiring. Connecting the machine to a socket that is not earthed, or where the earthing does not work properly, is hazardous to health and dangerous for the machine. Any damages arising from an improper connection invalidates the warranty.

2.7 Initiation of the heat press

After unpacking the press, mounting the plates and connecting the machine to the power supply and the compressor, the SCHULZE Big Lite Pneu Press is ready for operation. The press has to be open while it's heating up.
In order to switch on the press, use the main switch situated on the side of the press **(picture 1)**.
When the main switch is on the position **"1"** the press heats up to the programmed temperature.
Start the pressing procedure by pushing and holding both green START buttons **(picture 2).** If the drawer with the bottom plate is not pushed all the way in - the heating plate will not lower and the red LED next to the display will light up.
After the time runs out, the press opens automatically. If the work is finished, the press has to be switched off and the plug has to be pulled out from the socket.
In order to stop the heating before the programmed time has elapsed, press the stop button on the electronics keypad. **(picture 3).**

3. Working with the heat press

3.1 Programming of the electronics

After turning the machine on, the display shows the current settings of the selected program and the current temperature of the heating plate **(picture 1).** The heat press is warming up to the settled temperature limit. To change the settings, press the field with the current temperature and time **(picture 2).** Use the arrows to adjust the settings and then confirm the changes **(picture 3). T**he SCHULZE Big Lite Pneu Press can store 8 programs. To select a program, press on the program name field in the main menu **(picture 4)**, then select the program by pressing on its name **(picture 5).** Press the Settings icon assigned to the program **(picture 6)** to change its parameters **(picture 7).** Press on the program name field to change its name **(pictures 8-9).** Save the changes by pressing the green icon **(picture 9).** Press the icon in the main menu **(picture 10)** to access the sound and language settings. Press the "Settings" field **(picture 11).** Change the language or sound settings using the arrows and then save the settings by pressing the green icon **(picture 12).**

3.2 Error reports

The heat press is equipped with an electronic, which is informing about incorrectly operating of the machine and shows up the error codes.

The error codes mean as follows:

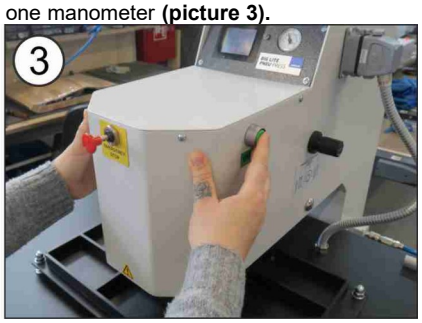
ERR.1 – No connection of the electronic devices to the temperature sensor, (Temperature sensor defect/ cable not connected)
ERR.2 – Connection of electronic devices and temperature sensor bypassed , (Temperature sensor defect/)
ERR.3 – Resistor of temperature sensor too low. The temperature range of the electronic devices is deceeded.
ERR.4 – Resistor of temperature sensor too high. The temperature range of the electronic devices exceeded.
ERR.5 – No temperature rise within 3 minutes even if heating element is switched on. (Temperature fuse is defect)
ERR.6 – No reduction of the temperature within 3 minutes even if heating element is turned off. (Power relay CRYDOM is defect)
ERR.7 – Temperature too high, over 230°C (Power relay CRYDOM is defect)
ERR.3 and ERR.4 can occur if the electronic devices are not programmed properly.

3.3 Pressure adjustment

The pressure force can be adjusted with the knob situated on the right side of the machine.

If the heat press gets damaged because of too big pressure, the terms and conditions of warranty are not more valid. The manufacturer does not response for damages caused by wrong adjustment of the pressure force.
The pressure force can be checked on the manometer which is situated in the front part of the machine.
The pressure can only be read when the press has been closed and a timer is running.

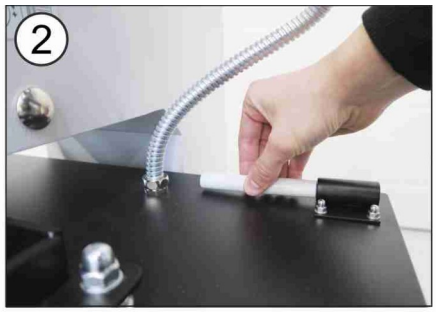
In order to adjust the pressure:
1. Take the pressure reading **(picture 1).**
2. Unlock the knob, by pulling it **(picture 2).**
   - Rotate the knob to the right to increase the pressure **(picture 2).**
   - Rotate the knob to the left to decrease the pressure **(picture 2).**
3. Block the knob by pushing it to the press.
4. Close the press by pushing both START buttons at a time, and check the new pressure one manometer **(picture 3).**

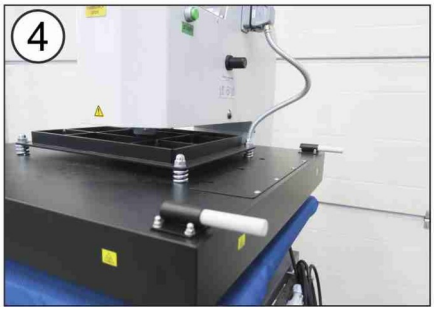


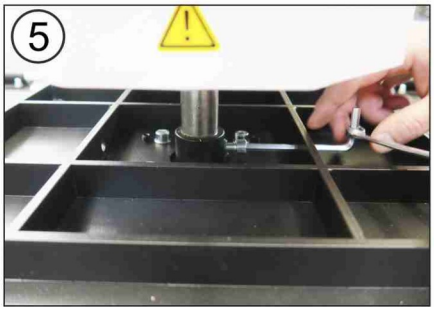
The pressure force has to be adjusted to the size of the base plate. The larger the surface area of the plates, the greater the pressure should be. The pressure should be set between 2-6 bar.

3.4 Instruction for replacement of the heating plate

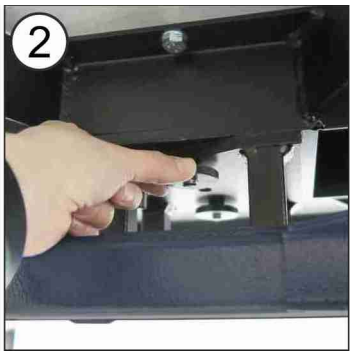
In order to replace the heating plate, the machine has to be disconnected from the electricity and cold. Then disconnect the plug of the heating plate (picture 1). Large heating plates are equipped with handles for carrying. they should be installed (pictures 2-4). Hold the heating plate by its handles in 2 or more people and unscrew the heating plate using an allen key. Put the heating plate carefully on a soft surface, so that the teflon doesn't get damaged. Install the new heating plate as described in chapter 2.4.







3.5 Instruction for replacement of the base plate



In order to replace the base plate, the drawer has to be pulled out **(picture 1).** Loosen the screws and remove the base plate. Install the new base plate and tighten it with the screws, making sure that the pointed sides of the screws are facing up **(picture 2).**

4. Maintenance

4.1 Daily maintenance

The surface of the heating plate and the base plate needs to be clean all the time. The heating plate has to be cleaned with a clean and dry cloth. Do not touch the heat plate **– danger of burns.** Use mild household cleaners. It is not allowed to use solvents or naphta.

At least once a day the compressed air filter has to be controlled. It is situated on the left side of the machine. If needed, remove its content. It can be done by rotating the knob situated under the container **(picture 1)** when the compressed air is connected. If the water still remains in the container, disconnect the machine from the compressed air, remove the container by rotating it **(pictures 2-3)** and pour the water from it. If there is oil in the container (compressor damage), switch off the press immediately and repair the compressor. Oil in the system may damaged the press.

4.2 Monthly maintenance

Before starting the maintenance procedure, **make sure that the machine is switched off and the heating plate is cold. Disconnect the machine from the electricity by pulling its plug from the socket.**
Some movable parts of the machine needs to be greased. Grease the elements every 200 hours of the machine's operation. Use simple lubricants, which are resistant to the temperature up to 160°C.

After the grease has been applied, move slowly the arm of the press up and down, and pull the drawer of the machine out and in to distribute the grease.

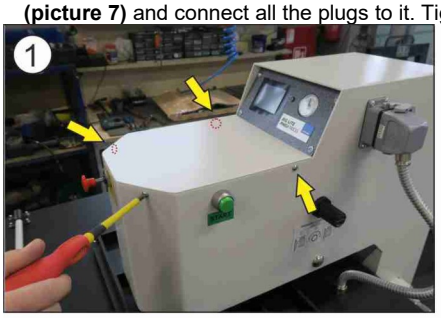
1. Under the base plate, grease both guide rails **(picture 1).**
2. Under the base plate, grease four pins **(picture 2).**

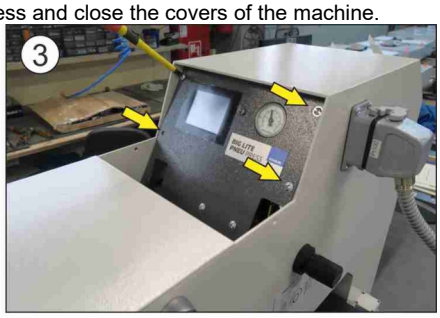
4.3 Instruction for activation of the main fuse

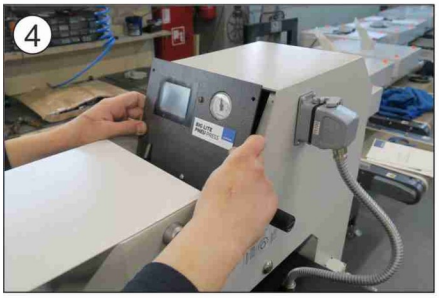
If the press does not work after switching it on, check the main fuse in the press. Activation of the main fuse can be done by an authorized person only, after consulting and confirming the failure with the supplier Before activating the main fuse, **turn off the heat press and remove the power plug from the socket.** The main fuse 16A is situated in the back part of the press **(picture 2)**. Remove the cover **(picture 1)**. Activate the main fuse bu pushing it's lever up **(picture 3)** and reassemble the press again **(picture 1)**.

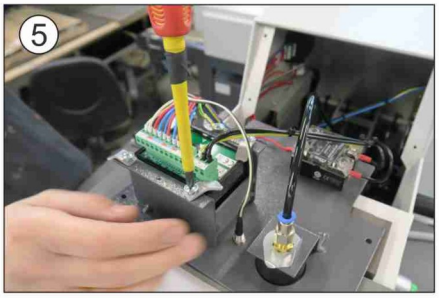
4.4 Instruction for replacement of the electronics

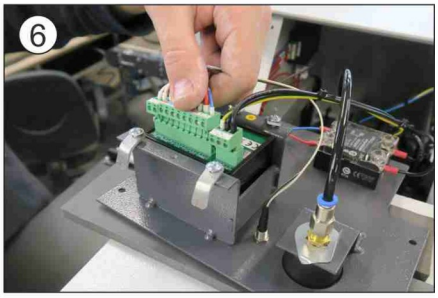
In the press there are electronics which control the temperature and time of the press. It is situated in the upper part of the machine. The replacement of the electronics can be done by an authorized person only, after consulting the failure with the supplier. **Before replacing the electronics, turn off the heat press and remove the power plug from the socket.** Remove the front covers **(pictures 1-4).** Loosen the screws **(picture 5).** Remove the green plugs from the electronics and remove the electronics **(picture 6)**. Install the new electronics **(picture 7)** and connect all the plugs to it. Tighten the electronics in the upper part of the press and close the covers of the machine.

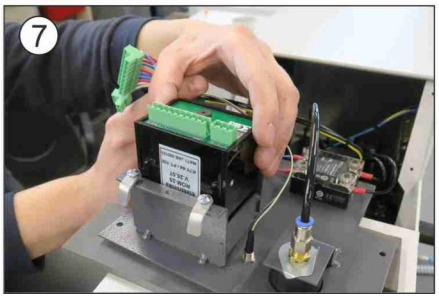






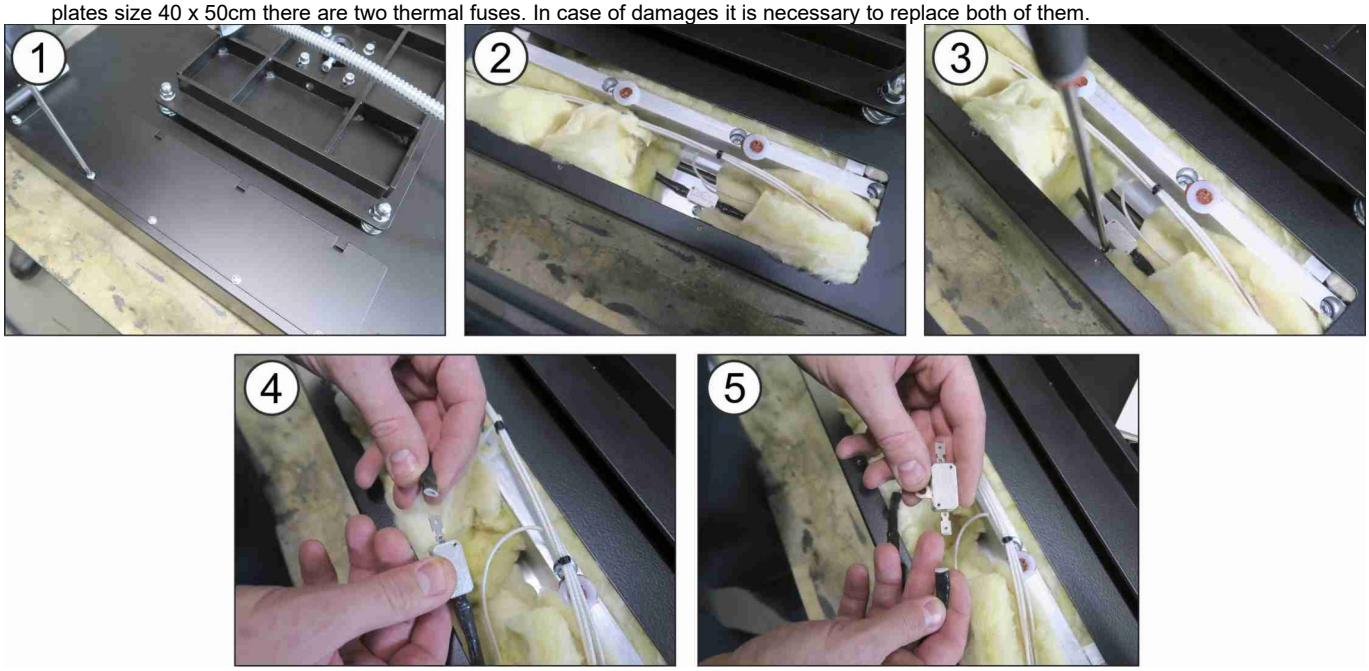






4.5 Instruction for replacement of the thermal fuse

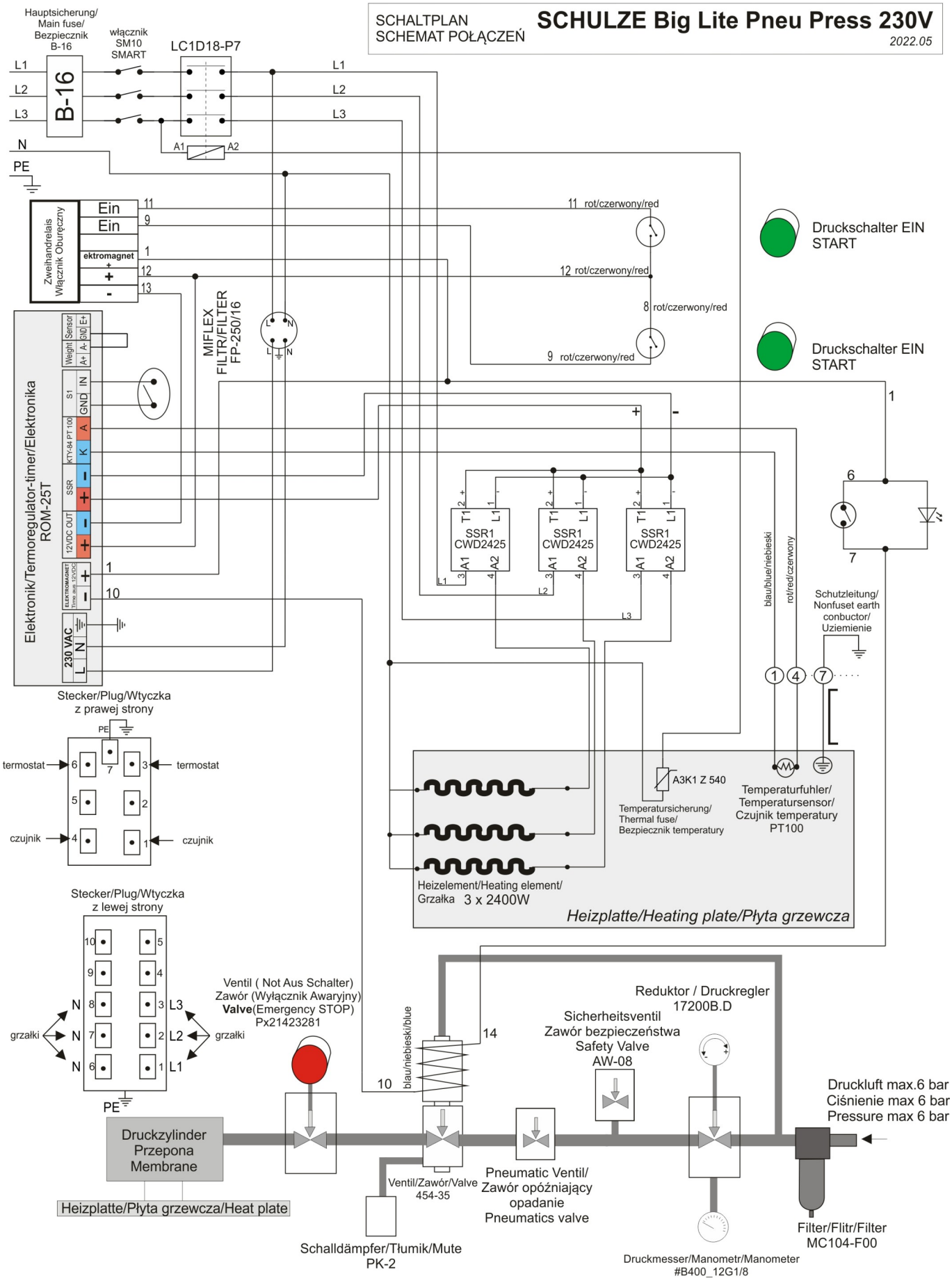
The thermal fuse has to be replaced by an authorized person only, after confirming the failure with the supplier of the machine. In order to replace the thermal fuse, **first turn off the press, remove the power plug from the socket and wait till the heating plate gets cold.** Unscrew the cover of the heating plate and remove the insulation **(pictures 1-2)**. Unscrew the thermal fuse **(picture 3)** and install the new one **(pictures 4-5)**. Fix the thermal fuse to the heating plate. Put the insulation and set the cover back on the heating plate. In the heating plates size 40 x 50cm there are two thermal fuses. In case of damages it is necessary to replace both of them.



4.6 Troubleshooting

Problem	Possible reason	Solution
The press does not work The display does not work The press doesn't heat The main switch is on position "1"	1. Main fuse B16 is deactivated	1. Activate the main fuse B16
	2. Failure of electronics	2. Replace the electronics
The display shows Err. 5	Thermal fuse is damaged	Replace the thermal fuse
The display shows Err. 1	Temperature sensor is damaged or the wires are broken.	Replace the temperature sensor
The display shows Err. 2	The temperature sensor is damaged	Replace the temperature sensor
The display shows Err. 3 The display shows Err. 4	1. Resistance of the temperature sensor is too low or too high 2. Failure of the electronics	1.Replace the temperature sensor 2. Reset the electronics. Contact the service
The display shows Err. 6 The display shows Err. 7	The CRYDOM relay is damaged	Replace the CRYDOM relay. Contact the service.
Buttons on keyboard are not working. It is impossible to set the temperature or time.	The keyboard is damaged	Replace the keyboard
Time does not count down after closing the press	Microswitch failure	Replace the microswitch
The press heats up very slowly	One of the two heating elements is damaged	Replace the heat plate or send it to repair
No acoustic signal	Acoustic signal is broken or switched off.	Switch on the acoustic signal Replace the electronics
The press opens as soon as it closes	The working material is too thick Microswitch failure	Adjust the microswitches to the thicker material. Replace the microswitches.
The heating plate doesn't go down	1. Emergency stop switch is not fully pulled out (it is slightly pushed)	1. Pull out the emergency stop switch
	2. No pressure (or too low pressure)	2. Adjust the air pressure
	3. The base plate is not in the right position	3. The heating plate must be located above the base plate
	4. Defective microswitch of the extreme position	4. Replace the microswitch
The press does not open after the preset time.	Pneumatic valve failure	Replace the pneumatic valve

4.7 Wiring diagram



4.8 Spare parts

Nr	Specifications	Symbol
1	Electronics ROM25	MAT1.JAB.000075
2	Switch green SP22-WZ-10	MAT1.POZ.001379
3	Cam switch ŁK SM 10A <0-1,4P> bez obudowy	MAT1.MOR.000080
4	Filter Miflex FP 250/16 wykonanie G	MAT1.POZ.000034
5	Relay CWD2425P	MAT1.DAC.000061
6	Microswitch V15H22-CZ100A06	MAT1.TME.000041
7	Two-hand switch	MAT1.JAB.000008
8	Temperature sensor PT100	PRA.UNI.000990
9	Temperature fuse	AKC800969

4.9 Warranty terms and conditions

Schulze heat presses and machines have a warranty for 24 months.
This warranty includes the whole construction of the machine, mechanical elements, electronic device and covers.
The heaiting element has a warranty for 12 years.
Thermo fuses, temperature sensor, switches and buttons and all springs in the machines have a warranty for 6 months.
Wearing parts such as fuses, silicone rubbers, protective covers and heating sleeves are excluded from the warranty.

Warranty does not cover:

1. Components which have been damaged by external factors such as water, electrostatic discharge and others.
2. Components and parts which have been damaged as a result of using unsuitable consumables.
3. Damages caused by improper transport or use inconsistent not regarding with the operating conditions specified in this manual, caused by the fault or ignorance of the purchaser.
4. Usage or damage to consumables such as heating sleeves, Teflon tape, silicone mats, air cushions in membrane plates, lamps or glass.
5. Warranty rights do not include the purchaser's right to claim reimbursement of lost profits and costs incurred as a result of equipment failure..

CONFORMANCE DECLARATION

nr BIGLite/11/23/01

Manufacturer ROMANIK Andrzej Romanik ul. Przemysłowa 10 84 - 240 Reda, Poland hereby declares that the following machine:

Heat press SCHULZE Big Lite Pneu Press

is compliant with the specifications of the followings EC directives:

Machinery (2006/42/EC)
Low Voltage (2014/35/EU)
EMC (2014/30/EU)
Directive 2011/65/EU and Directive 2015/863

used norms and technical specifications:

PN-EN ISO 12100:2012
PN-EN 60204-1:2018-12
PN-EN 61000-6-1:2019-03
PN-EN 61000-6-3:2008/A1:2012
PN-EN ISO 13850:2016-03
PN-EN IEC 6300:2019-01

Applied quality system: testing report / 2023

Reda, 28.11.2023 r.

Company owner:
Andrzej Romanik

Manufacturer:
Romanik Andrzej Romanik
ul. Przemysłowa 10
84-240 Reda
Polen

Distributor and representative:
Gröner - Schulze GmbH
Sarirstraße 5
12529 Schönefeld
Deutschland
www.groener-schulze.com

Entity authorized to prepare technical documentation and declaration of conformity: ROMANIK Andrzej Romanik
ul. Przemysłowa 10, 84-240 Reda, tel. 58 6780-700, e-mail: sprzedaz@romanik.pl

The technical construction file (TCF) for this product is retained at the above manufacturer's location.

The manufacturer reserves the right to make constructional and technological changes.