



Instruction manual

Version 11.02

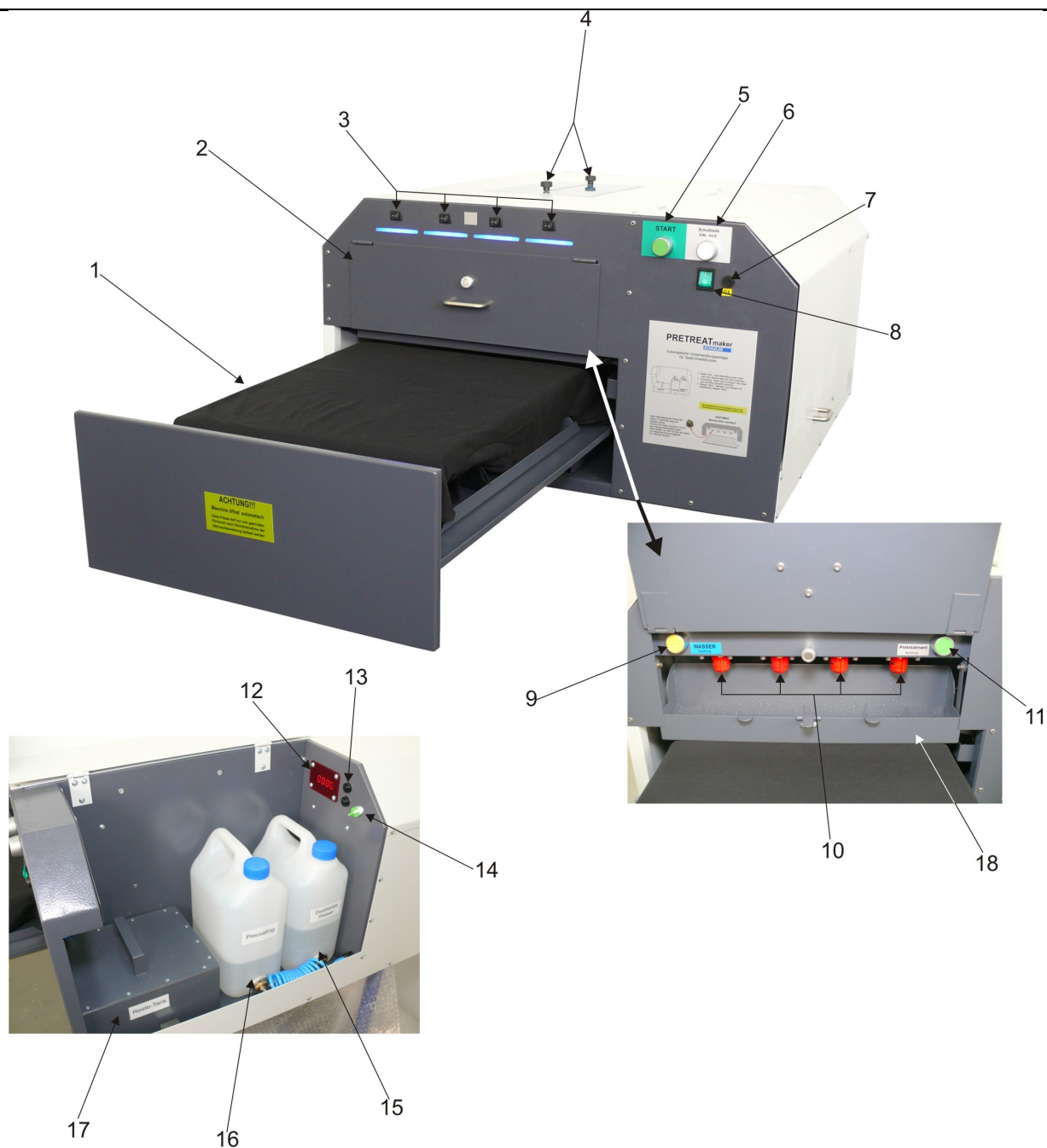
PRETREATmaker

1. Introduction

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1.2 Construction of PRETREATmaker



1. Drawer
2. Cover of nozzles
3. Range of pre-coat application – width (nozzles' switch-key)
4. Range of pre-coat application - length
5. START push-button
6. Drawer: pull in – pull out
7. Main safety catch
8. Main switch-key
9. Push-button for rinsing nozzles with water

10. Nozzles
11. Push-button for rinsing with pre-coating liquid
12. Display of electronics
13. Setting of nozzles' operation frequency
14. Push-button for dual reprint
15. Container with distilled water
16. Pre-coating
17. Container for waste-water
18. Pan

1.3 Technical Data

Dimension of the machine	860 x 770 x 440 mm
Dimension of the machine for transport	900 x 800 x 570 mm
Weight	60 kg
Weight for transport	78 kg
Hanging length drawers	60 cm
Supply voltage	230 VAC
Rated power	400 W
Power Consumption	2 A
Pressure nozzle	4,0 bar
Number of nozzles.....	4 pcs
Main fuse	12A

1.4 Protection of the device

In order to secure maximum safety of operation, the PRETREAT maker has been equipped with several independent protections.

Main safety catch - 12A

The main safety catch of 12A is located in frontal part of the machine. In case of overload, it protects the press against damage. If the safety catch has been damaged, it should be replaced. Instructions for replacement of the safety catch are given in chapter 4.3.

Installation - 12VAC

All control element of the machine are supplied with safe voltage of 12VAC. Voltage of 230 VAC is present only in the back part of the device.

Safety coupling

The drawer moves automatically. The motor is provided with a coupling ensuring safe operation of the machine. The drawer can be stopped manually – with hand.

1.5 Safety arrangements at the workspace

Set-up and installation of the machine

The set-up and installation of the machine has to be done under supervision of an authorized person. The installation has to be done by 2 or more persons following the instructions of this manual.

Testing the machine

After a correct installation of the machine it is important to ensure that the machine works properly, isn't damaged and has no safety defects. The testing can only be done by the employer or other authorized persons and is mandatory to guarantee correct installation and safe usage of the machine. The testing should be protocolled. If any irregularities regarding functionality or safety are found during the testing, these have to be noted and reported to Walter Schulze GmbH in written form within 7 days. Until clarification the machine can not be used.

Information and Education

According to § 81 industrial relations law and § 14 employment protection law the employer has to make arrangements to give all information about the function and the range of application to the user. In particular the user needs to be acquainted with the complete manual and be explicitly informed of the dangers of working with the machine. The details have to be explained in a coherent form and language.

Safety instruction

- The machine should only be used by trained personal after notice of this manual.
- Only one person is allowed to work on the machine at a time.
- The plug has to be pulled out of the power outlet while maintenance.
- **Caution:** please do not connect this machine to any other outlet (socket) than those equipped with *ground-fault protection* ELCB (earth leakage circuit breaker).

2. Initiation

2.1 Notes regarding transportation

The PRETREAT maker is packed with protective film and fastened to a pallet. Right after receipt of the machine, condition of the packaging and the machine itself should be controlled. If the machine is to be sent to another place later on, it should be packed and placed on the pallet in the same way. The device must be cleaned for further transportation and containers for water and pre-coating liquid – emptied.

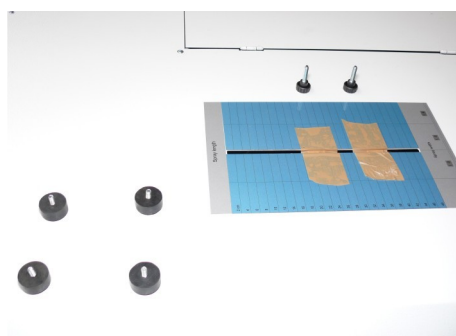
2.2 Supply voltage

The device is equipped with a plug. Special attention should be paid to good condition of a socket and presence of connected safety circuit inside.

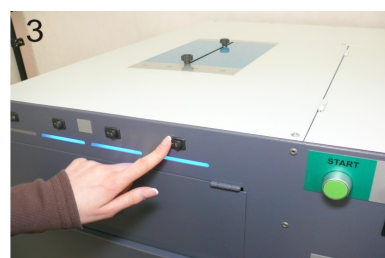
Very important! The machine may be connected only to an installation provided with a protection against electric shock.

2.3 Preparation of the machine for operation

The device may be operated by a person trained and acquainted with a service manual. After removing the machine from the palette and the removal of the protective film can be fastened to the ground four feet, and after removing the protective tape two knobs adjust the print range (**picture below**).



Prior to switching the machine on for the first time, one should check whether the protective cable is correctly connected. All containers (**picture 1**) should be controlled before starting operation. The container with pre-coating liquid should be shaken every day (**picture 2**).



1. Fill the water container up with distilled water.
2. Fill the pre-coating container up with the liquid. This container must be shaken every day **(picture 2)**.
3. Make sure the waste-water container is empty.
4. Turn all nozzles on. All blue diodes must shine **(picture 3)**.
5. Push the outlet pan down **(pictures 4-5)**.
6. Press the PRETREATMENT push-button and hold it until the pre-coating liquid starts flowing from the nozzles **(picture 6)**.
7. Turn the first nozzle on the left on and press the PRETREATMENT push-button again.
8. Turn the first nozzle off and the second one – on. Press the PRETREATMENT push-button again.
9. Proceed with the nozzles no. no. 3 and 4 in similar way. This process removes air bubbles from the ducts.
10. If all nozzles don't work identically, the procedure given in points 7-9 should be repeated. The procedure given in point 7-9 must also be repeated if the pre-coating container has been empty, so the pump must fill in the ducts again.

2.4 Use and example of settings

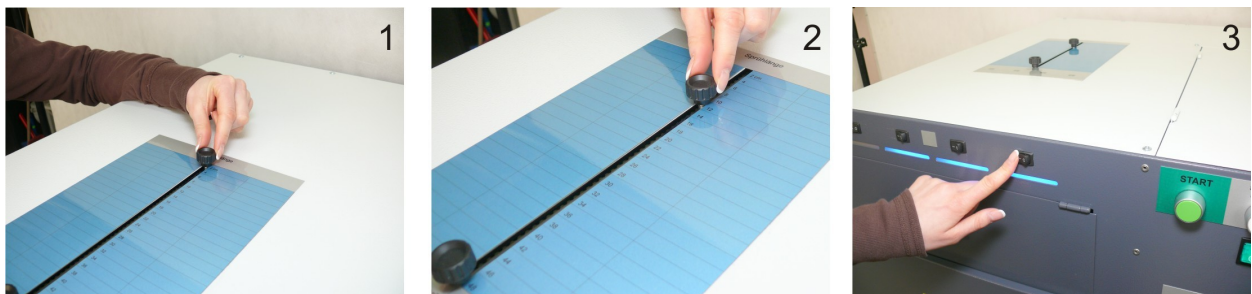
The PRETREAT maker is destined for automatic application of pre-coat for white ink in printers directly printing on fabrics. The device is equipped with 4 nozzles of 4-bar pressure each. Application of the pre-coat is executed directly over the fabric. The containers may not be filled with other liquids. Default setting for the nozzles is 4 milliseconds of operation and 4 milliseconds of break.

3. Work with the machine

3.1 Setting for the pre-coat application range

Prior to commencement of work with the device, range of the pre-coat application should be set. This range is set by means of hand-wheels and push-buttons **(pictures 2-3)**.

1. To set length of the pre-coat application, use adequately the two hand-wheels **(pictures 1-2)**.
2. To set width of the pre-coat application, press adequately the push-buttons 1, 2, 3 or 4 on **(picture 3)**.



Then, open the cover on the right side of the device **(picture 1)**. The “C” change-over switch allows selecting single or dual application of the pre-coat on the fabric **(picture 2)**. Select the right setting.



3.2 Example of settings for electronics

The electronics controls frequency of the nozzles' operation. The current setting may be checked or changed.

In order to check the electronics setting, press the “A” push-button (1 sec.) and the current time of the nozzles' operation shall be shown on the display, in milliseconds. Pressing the “B” push-button, shall result in displaying the current time of break between the nozzles' operation.



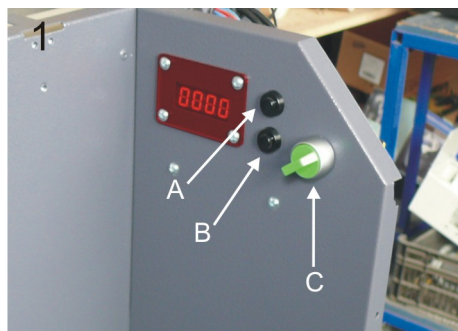
3.3 Setting of time and dual reprint

Frequency of the nozzles' operation may be set by means of the “A” and “B” push-buttons.

Press and hold the “A” push-button and the number on the display shall be changed. The number shall grow to the maximum value and then it shall return to the minimum value. This is the time of the nozzles operation given in milliseconds. After reaching the required time, just let the push-button go of. The change shall be saved (**picture 1**).

To change the break of the nozzles' operation time, press and hold the “B” push-button. The break time shall be shown on the display, given also in milliseconds. After reaching the required time, let the push-button go of and the change shall be saved (**picture 1**).

To switch the dual application of the pre-coat on, turn the “C” switch into position 2. The machine shall apply the pr-coat twice – first time when the drawer is pulled in, and the second time when the drawer is pulling out (**picture 1**).

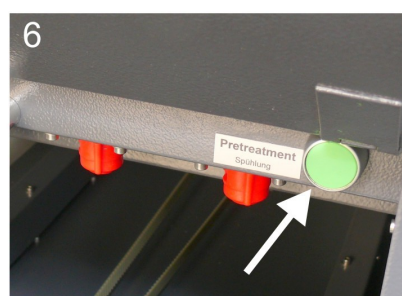


4. Maintenance

4.1 Maintenance

The device should be cleaned with a dry cotton cloth every day. The containers must be controlled many times during operation of the machine.

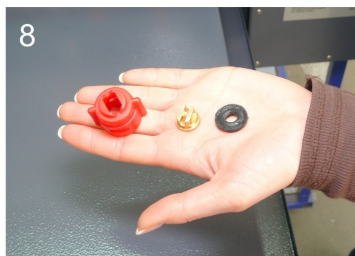
1. Don't let the liquid flow over the waste-water container. The container should be emptied if the need arises (**pictures 1-3**).
2. The container with pre-coating liquid should be shaken every day and filter in the container must always be immersed in the liquid (**picture 4**).
3. Check the container with distilled water every day.
4. The nozzles must be kept clean. Instructions for cleaning of the nozzles are given in chapter 4.2.
5. The outlet pan must be lowered every day after completion of the work. Press and hold (6 sec.) the WATER (WODA) push-button. This shall rinse the valves and nozzles with water (**picture 5**).
6. After rinsing, disassemble the nozzles. Instruction – in chapter 4.2.
7. Prior to commencement of the work, install the nozzles and lower the outlet pan.
8. Press and hold (6 sec.) the PRETREATMENT push-button until the nozzles start working at a uniform rate (**picture 6**).
9. Then, raise the outlet pan once again.
10. Definitely, after completion of the work, dry the drawer, table and interior of the machine.
11. Make sure there are no effluents in the chamber with the containers.



4.2 Instructions for replacement and cleaning of the nozzles

To replace the nozzle, turn the machine off and pull the plug out of the socket. Then, proceed in accordance with the following instructions:

- 1) Press the white push-button to pull out the drawer (**picture 1**).
- 2) Open the front cover (**picture 2**).
- 3) Lower the outlet pan (**pictures 3-5**).
- 4) Turn the nozzle left and then pull it out down (**pictures 6-8**).
- 5) Place a new nozzle and fix it in the machine.
- 6) The nozzle may be cleaned in an ultrasonic cleaner (**picture 9**).
- 7) The nozzle should be cleaned with distilled water.



4.3 Instructions for replacement of the main safety catch

If the machine does not work after it has been turned on, the main switch-key shines and the display does not show any values, check the main safety catch.

The main safety catch of 12A is located in front of the machine, right close to the main switch-key (**picture 1**). To replace the safety catch, turn the machine off and pull the plug out of the socket.

Then, unscrew the safety catch keeper (**picture 2**). Pull out the safety catch (picture 3). Replace the safety catch (picture 4) and again screw the safety catch keeper in.



4.4 Instructions for replacement of the filter

If the dosage precoat or water is not smoothly carried out, check the filter, and if necessary it must be replaced. Open the cover. The filter is in a container with liquid (**picture 1**). Remove the dispenser from the container (**picture 2-3**) and replace the filter (**picture 4**).



4.6 Testing Report

final check of the PRETREATmaker:

- | | |
|---|--|
| <ul style="list-style-type: none">○ - base, paint○ - nozzles x 5 pcs.○ - the pre-coat application○ - electronic connection, safety wire, power cable | <ul style="list-style-type: none">○ - electronic○ - test on a shirt○ - caution labels○ - ultrasonic cleaner○ - filter x 2 pcs. |
|---|--|

Serial number: Date Signature

4.7 EC- Conformance declaration

The Walter Schulze GmbH
Schmalenbachstraße 15
12057 Berlin

as European representative of the manufacturer company ROMANIK hereby declares that the following machine:

PRETREATmaker Serial number

is compliant with the specifications of the following EC directives:

Machinery (2006/46)
Low Voltage (2006/95)
EMC (2004/108)

used norms and technical specifications:

EN ISO 12100-1 EN ISO 12100-2 safety of machines
EN 60204-1 electrical equipment of machines

Berlin ,

Peter Meidinger
President

All SCHULZE machines are exempt from the waste disposal law under reg. no. DE 231060054.
