



NESCHEN HOTLAM 1650 DOUBLE H FOR LARGE FORMAT LAMINATORS

OPERATING INSTRUCTIONS

Version 07-2021

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1. INTRODUCTION

Dear customers,

We are pleased that you have chosen a Neschen laminator and hope that you will increase your productivity with this machine. This electrically driven device is equipped with rotating rollers and moving components, so safety principles relevant to occupational health and safety must be adhered to.

Before using the Neschen Laminator, the user (the company) must ensure that all operators of the unit, maintenance personnel and their supervisors are familiar with this operating instruction. Furthermore, it must be ensured that the generally binding regulations on occupational safety and the prevention of accidents in the user's country of origin are known. The operating instructions must be available at all times to the personnel using the laminator. Improper operation may result in damage not covered by the product warranty.

These operating instructions contain the technical specifications of the laminator as well as information on start-up and operation. The important information on occupational safety and maintenance should be considered as an integral part of the laminator. Production staff should be familiarized with and understand the information in this manual. In particular, information regarding safety measures must be observed. In order to ensure a satisfactory level of knowledge, regular refresher courses should be held after the initial training.

If you do not understand any of the information in this manual, please contact your local dealer. We recommend that you make a copy of this manual and keep the original in a safe place in case the copy is lost or damaged. While working on the machine, follow the safety precautions to avoid personal injury or injury to bystanders or damage to other equipment.

We assure you that we are careful and diligent in the production of the Neschen Laminator and we are convinced that you will be happy with your machine, provided that all the guidelines have been followed.

NESCHEN

2. APPLICATIONS

- 1.** The Neschen laminator for large formats is suitable for the application of laminating and carrier foils by pressure or heat on large format prints, plates, boards and similar products up to a width of 1650 mm.
- 2.** Although the laminator is designed for large formats it can also be used for laminating smaller formats starting from A5.
- 3.** The laminator design allows unlimited length of laminated prints.
- 4.** When processing larger formats (larger A0 or corresponding to the maximum working width of the machine) additional support by another person is required.
- 5.** The flexible use and easy handling of the Neschen Laminator allows working with cuts and rolls. The user chooses the appropriate laminating technology, e. g. sheet lamination or laminating from roll or reel to reel.
- 6.** Any changes made to this laminator without the manufacturer's permission will relieve the vendor from its liability for any damage or injury!
- 7.** If the laminator's features allow the device to be used for other purposes not listed here, the user must consult such applications with the vendor.
- 8.** Follow the safety precautions while working on the machine to avoid personal injury or injury to bystanders.
- 9.** Notes which require special attention are marked with the following safety symbol in these operating instructions:



3. DESCRIPTION OF MAIN PARTS OF THE NESCHEN LAMINATOR



4. CONTROLPANELS - LEFT

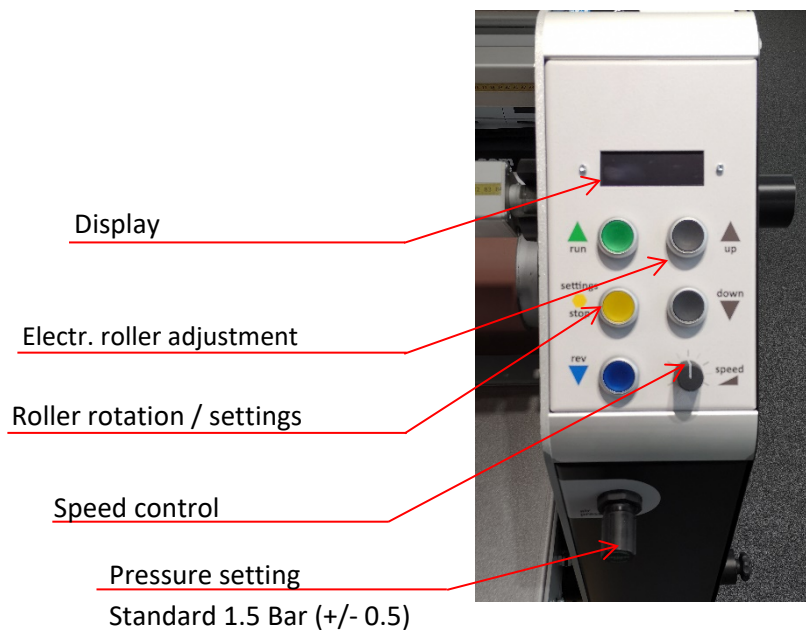


5. MAIN SWITCH – POSITIONS

OFF – the laminator is switched off.

ON – the laminator is switched on.

6. CONTROL PANELS – RIGHT



The upper roller can move up and down with distances from 0 to 40 mm.

Note: The height adjustment only works if the direction of rotation, forward or backward, has not been selected (the direction button does not light up). The height adjustment is controlled by the following buttons:

▼ **down** – the top roller moves downwards. The key must be held down. When released, the roller stops immediately. If the upper roller touches the material or the lower roller, it stops automatically, a warning signal sounds and lights go on and the machine cannot move further down - only an upward movement is still possible. If a light barrier is interrupted during downward movement, a warning signal sounds but the roller moves further downwards.

▲ **up** – The top roller moves upwards. The key must be held down. When released, the roller stops immediately. As soon as the roller reaches its maximum height of 40 mm, it stops automatically and can only be moved downwards.

Roller rotation – the lower roller is driven by an electric motor. With the ColdLam, the revolutions can be controlled continuously in the range from 0 to 8 m/min and the HotLam in the range from 0 to 12 m/min.

Rotary knob for rotation – Potentiometer for speed control. The desired speed is set in meters per minute.

▲ **run** – roller rotation for forward movement – The direction of rotation is indicated by the corresponding key light. The Neschen laminators have a modern, intelligent start function that allows the laminator to be started slowly and evenly until the speed set by the rotary knob is reached. The speed does not depend on the load. **Note:** If the roller speed is set to 0, the laminator does not start up but waits until the operator sets a speed other than 0.

If the machine is equipped with a footswitch and this is operated, the machine works in run direction with a speed of 1m/min and a signal tone is on. Light barriers are ignored.

△ **slow** – The rear panel works in the same way as the footswitch. When activated, the machine moves in run direction at a speed of 1m/min with a signal tone. Light barriers are ignored in the process.

▼ **rev** – Adjustment of the rollers in backward movement (same functions as forwards movement) ▲

● **stop / settings** – stops the rotation and the run direction. If the light barrier is interrupted while the machine is running, a signal sounds and the machine stops.

Note: If the operator changes the direction of rotation while the machine is running, he must first press the stop button and then select the desired direction of rotation.

● **stop / settings** – keep the button pressed for 3 seconds to get to settings



The first menu item is the temperature setting. The desired setpoint temperature is set by pressing the UP / DOWN buttons. Pressing the STOP button saves the setting and the user gets to the next menu.

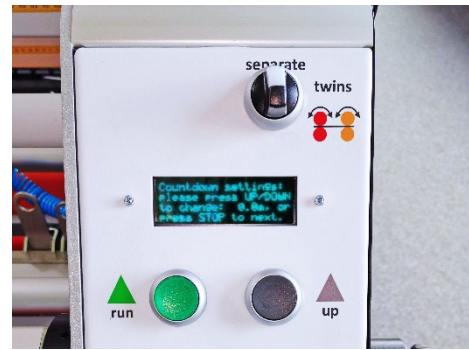


The next menu item is the meter counter. If the user wants to set it to zero, one of the UP / DOWN buttons must be pressed. Press the STOP button to get to the next setting.



In the countdown menu, the machine can be given a fixed meter value in full meters. The machine then stops automatically after the length has elapsed.

Important - to produce again without automatic stop, the value in the menu must be reset to zero.



BUTTON FOR PRESSURE REGULATION – to adjust the pressure of the main roller. In the lower position, the pneumatic system presses the main roller downwards with a force of 1000 to 4500N. In the upper position, the pneumatic system automatically reduces the pressure of the main roller to 500N.

As standard pressure setting for one-sided coatings (print and film) 1.5 bar (+/- 0.5 bar) should be used.

7. SILIKON PAPER AND LAMINATED PRINTS

Shaft rotation – the shafts for silicone paper and laminated prints (end products) are driven by electric motors. The machine synchronizes their revolutions with the rotational speed of the main rollers. The resistance on all shafts can be changed by turning the brake. The stronger the brake, the greater the resistance of the shafts and vice versa.

8. FUSES AND FOOTSWITCH CONNECTOR

The Neschen laminators have three fuses. Their parameters and how to replace them is described in the Maintenance & Repair section.

9. ROLL CARRIER/SHAFT

Laminating and printing materials are rolled up on a paper tube with an inner diameter of 76.2 mm. The shafts of the Neschen Laminator are designed for these tubes.

If the material is unrolled too loosely or too tightly, the braking force can be adjusted by applying or releasing the brake on the right-hand side of the machine. By applying the brake, the braking force is increased and by loosening it is reduced.

The resistance of the shaft can be adjusted by adjusting the clutch on the right-hand side if silicone paper is not wound, or too tightly or loosely.

10. APPLYING A MATERIAL ROLL TO THE SHAFT

1. Remove the shaft from the laminator. Shafts are attached to the right side of the laminator. Turn the carrier until the lock is released. The positions for material underneath the feed table are secured with a twist lock. Before removing the shaft, loosen the lock. First remove the shaft located on the side of the lock.
2. Insert the roll of material into the shaft. Heavy rolls should be loaded by two persons.
3. Reattach the shaft in the machine by carrying out the procedure from point 1 in reverse order.

11. WORK SAFETY

SAFETY DEVICES ON THE NESCHEN LAMINATOR:



- Emergency-STOP-button – 1 unit plus main switch
- Light barriers

WHEN USING THE NESCHEN LAMINATOR THE FOLLOWING MUST BE OBSERVED:



- Do not use the laminator if there is a constructional or mechanical fault;
- Do not use the laminator under the influence of alcohol, drugs or medication, as your reactivity and alertness may be limited;
- Do not switch on the laminator if unauthorized persons are within the danger zone;
- Remove waste from the hazardous area while the laminator is in operation;
- Do not touch any moving parts;
- Always stay at the control panel while the laminator is in operation;
- Do not remove any safety devices from the laminator and do not interfere with their function;
- No maintenance or cleaning work during operation;
- Always observe the safety instructions - see under Safety instructions.

12. SAFETY GUIDELINES



Rotating or moving parts of the laminator and electrical parts can cause serious and even fatal injuries. Assembly, cabling and starting as well as maintenance and repairs should only be carried out by qualified and appropriately trained personnel.

- The laminator may only be operated by mentally and physically healthy persons over the age of 18 years who have been intensively trained (and tested) and are authorized to operate the laminator.
- Demanding repairs and work on the electrical system may only be carried out by qualified personnel or the manufacturer.
- Operators and maintenance personnel must be familiar with the contents of the operating instructions.
- Adjustments, maintenance and cleaning of the laminator must be carried out when the machine is idle. The main switch is switched off and the machine is disconnected from the mains.
- Only start the laminator when the covers are applied.
- Never touch any moving parts of the laminator.
- Apply Safety instructions - pictograms - to the laminator in a way that is easy to read.
- Work only under good lighting conditions.
- Before starting work, check the safety devices on the laminator and ensure that they are functioning correctly.
- Do not work at the laminator when tired.
- Have damaged parts of the laminator replaced by authorised personnel only. Use only original parts.
- Turn off the laminator in case of strong vibration, noise or other unusual signs and inform the supervisor.
- Do not wear loose clothing (e. g. tie) or long hair to avoid getting caught between the laminator rollers.
- When working at the laminator, always stand firmly on the ground.
- Special care must be taken after switching on the laminator and putting the rollers into operation.
- Immediately switch off the unit and inform the supervisor if damage to the insulation, smell of fire or a loud noise occurs during work at the laminator, if the machine jerks after switching on, if individual parts of the electrical system are overheated, if sparks occur or if current flow is present. .
- If such hazards occur or if there is a danger for the operator, switch off the laminator by actuating the emergency STOP switch.
- If someone recognizes that the operator of the laminator is at risk, they can activate the emergency STOP switch.
- After finishing work at the laminator, lift the top roller, switch off the laminator and disconnect the power supply.

13. SAFETY SIGNS AT THE NESCHEN LAMINATOR

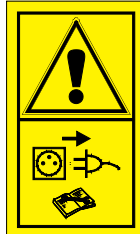


The pictograms must be affixed to the laminator in a clearly legible manner at all times. Damaged pictograms must be replaced.

Pictograms and their meaning. Safety pictograms on the laminator indicate risks, as do the warnings in this manual.



The operator must read the safety instructions.



Disconnect the laminator from the power supply before carrying out any repair work, adjustments, cleaning and maintenance.



Close all covers correctly before starting.



Do not touch any moving parts on the laminator.



Risk of burns due to hot components

14. FIRE PROTECTION



Since the laminator is not factory-fitted with fire extinguishers, the user must ensure that fire extinguishers are installed in the building.

- Never extinguish a burning or live laminator with a water or foam extinguisher. There is danger of electric shock!
- Never extinguish burning electrical parts with a water extinguisher!
- Recommended fire extinguishers: powder extinguishers, snow extinguishers and halon extinguishers.
- In case of fire, follow the instructions for the relevant workplace.

15. DISPOSAL OF THE MACHINE OR INDIVIDUAL PARTS

- For disposal of the laminator at the end of its service life, the applicable environmental protection guidelines must be followed and available recycling options must be used.
- Separate plastic parts and recycle them.
- Separate and sort metal parts and dispose of them as scrap metal.

16. MAINTENANCE

MAINTENANCE

Neschen Laminators are stable and resistant and require little maintenance. For trouble-free operation and a long service life, the following must be observed:

- 1.** Use isopropyl alcohol to clean the roller surfaces. Clean other surfaces with a diluted cleaning solution and a damp cloth. Never use solvents or abrasives.
- 2.** Disconnect the laminator from the power supply before any cleaning or maintenance.
- 3.** Protect the roller surfaces from damage caused by sharp objects (cutting blades, scissors, sharp edges, penetration of solids, tools, etc.) and dust. The laminator runs for many years without any problems with perfect roller surfaces.
- 4.** Do not press the rollers unnecessarily against each other to avoid pressure marks.
- 5.** The external compressor must be drained at least once a month. If this is not dewatered, the impression cylinders may be damaged.

17. WARRANTY TERMS AND CONDITIONS

- 1.** The manufacturer grants a warranty period of 12 months from the date of purchase for Neschen products.
- 2.** Contact your seller for detailed warranty terms and conditions.
- 3.** Damage to the product caused by improper handling or non-compliance with the operating instructions is not considered to be a product defect.
- 4.** Damage to the product caused by improper handling or non-compliance with the operating instructions is not considered to be a product defect.
- 5.** Normal wear and tear due to the use of the machine is also not considered a product defect.
- 6.** Please address product liability claims directly to your seller.

18. TECHNICAL SPECIFICATIONS

| | |
|------------------------------------|--|
| Maximum Working Width | 1650 mm |
| Maximum Speed | 8 m/Min. |
| Nip pressure | 3.1 N/mm ² |
| Maximum Substrate Thickness | 40 mm |
| Roller Heating | heated top- & bottom roller |
| Maximum Roller Temperature | 160 °C |
| Width | 2175 mm |
| Height | 1390 mm |
| Depth | 850 mm |
| Depth (incl. In-feed table) | 1275 mm |
| Table Height | 870 mm on casting wheels, adjustable up to 950 mm |
| Machine Weight | 820 kg |
| Shipping Weight | 900 kg |
| Shipping Dimensions | Width 2300 mm |
| | Height 1750 mm |
| | Depth 950 mm |
| Electrical Requirements | 3P+N/PE 400VAC/50-60 Hz; 9000W 32A 1P+N/PE 208VAC/50-60 Hz; 9000W 50A |
| Ambient Temperature | 05-40 °C |
| Atmospheric Humidity | >80 % |
| Altitude | max. 2000 m |