

NOTE

This signal word indicates actions for preventing property damage. Observing this information prevents damage or destruction of the machine.



IMPORTANT

Indicates important information that must be observed.

2.1.2 Pictograms



IMPORTANT

Illegible pictograms must be replaced with new ones.



ATTENTION

Warning of hand injuries with gear drive.

2.2 Instructions and system reaction

Action steps to be executed by operating personnel are shown as numbered lists. It is necessary to adhere to the step sequence.

4. Operational step 1

Reaction of the system to operational step 1

2.3 Itemised lists

Itemised lists without a specific sequence are shown as lists marked with bullet points, e.g.:

- ☑ Point 1
- ☑ Point 2
 - Sub-point 1
 - Sub-point 2

3 Fundamental safety information

The machine complies with the Machinery Directive 2006/42/EC and has been designed, manufactured and safety tested in accordance with the currently valid safety regulations and laws, as well as current engineering practice. The machine is in a technically faultless condition.

However, the machine may be dangerous if it is

- ☑ operated by personnel without specialist training.
- ☑ used incorrectly or not as intended.
- ☑ not in faultless condition from a safety perspective.

3.1 Obligations of the operating company

The operating company is required to ensure that the health and safety protection of the operating personnel is constantly guaranteed when the machine is in use.

The operating company is required in particular to ensure that

- ☑ the machine is only used as intended (see section on intended use).
- ☑ the machine is only operated when in faultless and fully functional condition.
- ☑ all safety and warning information is attached to the machine and remains legible.
- ☑ the operating personnel have been warned of all dangers due to forklift transport, transport routes are marked and hazards due to industrial trucks are kept to an absolute minimum.
- ☑ suitable fire protection is available at the site of use.
- ☑ the working area around the machine is sufficiently illuminated. (There is a possibility of fitting lighting retrospectively).
- ☑ the safety equipment is kept constantly fully accessible and is checked regularly.
- ☑ only specially trained personnel operate, maintain and service the machine.
- ☑ the responsibilities of personnel deployed are stipulated and adhered to.
- ☑ the operating personnel have access to first aid (e.g. through first aid training and the requisite first aid equipment).
- ☑ the operating personnel have read the operating manual in full and know and understand the safety instructions and residual risks contained within it.
- ☑ personal protective equipment is made available to the operating and maintenance personnel and is used as prescribed.
- ☑ the operating personnel are not under the influence of drugs, alcohol or medication that affects their reactions.
- ☑ the safe and hazard-aware work of the personnel is checked on a regular basis.
- ☑ the prescribed maintenance and inspection work is carried out in a timely manner.
- ☑ the machine is checked once more for safety following major repairs and renovations.
- ☑ electrical work is carried out by trained electricians exclusively.

- ☑ the operating manual is available at the site of use of the machine at all times, in legible and complete form.

3.2 Qualification of the personnel

Personnel must possess the requisite qualifications for operation, maintenance and repair works.

The scope of responsibility, authority and supervision of personnel must be precisely stipulated by the operating company.

Any lacking knowledge on the part of personnel must be rectified through training and instruction.

3.3 Operating personnel requirements

The operating personnel are persons who have been commissioned by the operating company with operating the machine, and who are sufficiently trained with respect to its operation and function.

The operating personnel must be capable of detecting dangers in a timely manner and initiating the prescribed protective measures.

The operating personnel are obligated to immediately report to the operating company all changes to the machine that impair its safety.

The operating personnel must ensure that no objects lie in the working area that could cause an accident, e.g. tripping points on the floor.

Tasks of the operating personnel:

- ☑ Visual inspection of the machine
- ☑ Inserting paper rolls
- ☑ Operation and work with the machine
- ☑ Cleaning the machine

3.4 Maintenance and upkeep personnel requirements

Maintenance and upkeep personnel are persons (e.g. industrial mechanic, electrician). Maintenance and repair work may only be completed by the manufacturer's personnel or by persons who have been specially trained by the manufacturer.

Maintenance and upkeep personnel tasks:

- ☑ Cleaning the machine
- ☑ Changing replacement parts

3.5 Electrical equipment

Work on electrical equipment must be carried out exclusively by electricians.

With all work on electrical components it is necessary to observe the five safety rules:

- ☑ Disconnect from the electrical supply
- ☑ Safeguard against being reconnected
- ☑ Test to ensure a de-energised state
- ☑ Earth and short-circuit

- ☑ Cover or isolate neighbouring live parts

Carry out regular checks for insulation and housing damage.

Never operate the machine with electrical connections that are defective or not ready for operation.

With energy supply faults the machine must be switched off immediately.

It is essential to observe the maintenance intervals specified for electrical components.



WARNING

Some equipment (servo controllers, converters) with electrical intermediate circuits may store residual voltage for a certain time after being disconnected. Test for a de-energised state prior to starting work.

3.6 Intended use

- ☑ The machine serves exclusively for the generation of tubular packaging material from SpeedMan® paper rolls.
- ☑ It is only permissible to use the machine in compliance with the permissible technical data.
- ☑ It is only permissible to use the machine in enclosed and dry rooms.
- ☑ It is only permissible to connect the machine to electrical installations that are equipped with a residual current circuit breaker (RCD).
 - Minimum requirement: Type A (30mA)
- ☑ It is only permissible to use the machine in areas that are **not potentially explosive**.

Intended use also includes:

- ☑ observing all information in this operating manual.
- ☑ observing the technical data.
- ☑ the exclusive use of original parts.

3.7 Unintended use

Any use other than the use described under **intended use** or any use that exceeds this is considered unintended use.

3.8 Foreseeable erroneous use

The use of paper other than SpeedMan® paper is a foreseeable erroneous use and is therefore prohibited.

3.9 Modifications or changes

Unauthorised modifications or changes to the machine are prohibited and result in an immediate invalidation of any liability and warranty on the part of the manufacturer.

3.10 Spare and wearing parts

The use of spare and wearing parts from third-parties may lead to risks. Therefore only use original parts from Sprick GmbH & Co.

3.11 Safety and protective devices



WARNING

Operating the machine with non-functioning safety and protective devices.

Risk of serious injuries.

The safety and protective devices must not be bridged or switched off.

Operating the machine without protective devices or with faulty protective devices is prohibited.

The effectiveness of the safety and protective devices must be checked by the operator every day.

NOTE

After a protective device has triggered, it is necessary to check whether a fault is present or if mains fluctuations resulted in the trigger.

If no fault is present, put the machine back into operation.

If a fault is present, have the appropriate specialist personnel eliminate the fault.

3.11.1 Emergency stop button



The emergency stop button halts all machine movements.

Fig. 21 Emergency stop button

3.11.2 Control plug



Only when the control plug has been inserted and the contacts complete the electrical circuit can the machine be started up.

Fig. 22 Control plug

3.11.3 Safety circuit, swivel cover on the paper storage container


	<p>Only with a closed swivel cover on the paper storage container can the machine be started up.</p>
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Fig. 23 Safety circuit, swivel cover on the paper storage container

4 General description

The SpeedMan® paper filling system is an electrically operated machine. The SpeedMan® paper filling system forms a roll of SpeedMan® paper into tubular packaging by means of a folding and compression process. This can be used for example for filling hollow cavities in shipping boxes, in order to prevent the transport goods from shifting inside the shipping packaging.

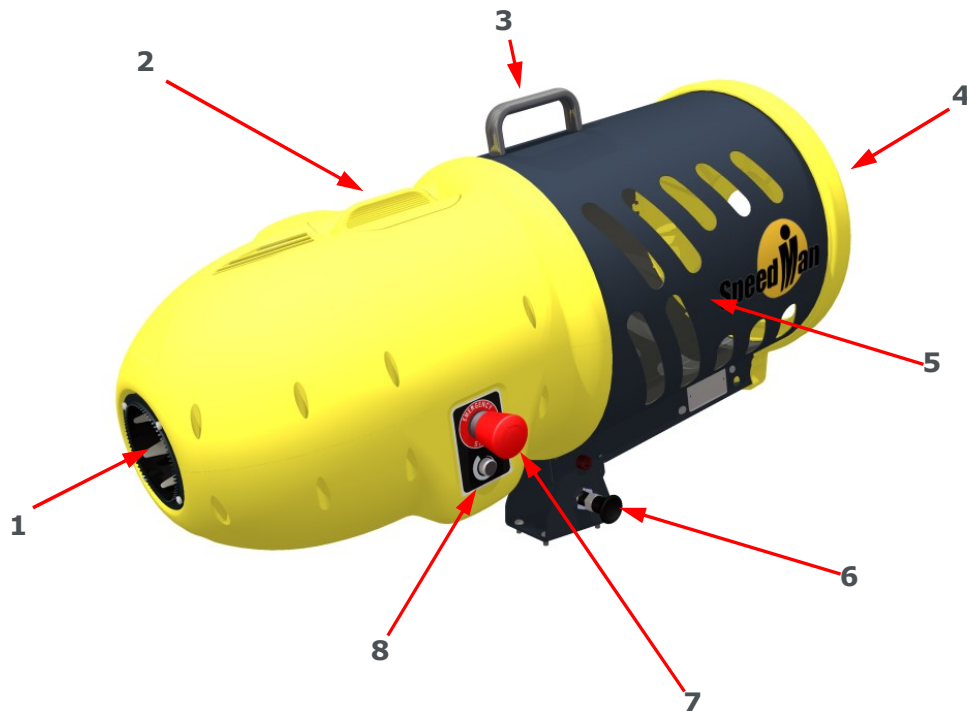


Fig. 5 General description

1	Paper outlet	2	Control plug	3	Handle
4	Swivel cover	5	Paper storage container	6	Locking bolt
7	Emergency stop button	8	Speed controller (potentiometer)		

4.1 Scope of supply




1		2	
3			

Fig. 24 Scope of supply

1	SpeedMan®	2	Foot switch	3	Frames
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4.2 Technical data



Machine type	Paper forming and feeding machine
Year of manufacture	2014
Machine head dimensions (L x W x H)	approx. 810 mm x 350 mm x 350 mm
Machine head weight	approx. 15 kg
Power supply	230 V
Power	200 W
Noise emissions	<79 dB(A)
Temperature range (operation)	+5 °C to +40 °C
Temperature range (storage)	-25 °C to +55 °C
Air humidity (relative)	30 % - 95 %
Application altitude	max. 3000 m above sea level

4.3 Type plate



Fig. 25 Type plate

4.4 Declaration of conformity

	Translation of the original EC declaration of conformity for a machine according to EC directive 2006/42/EC on machinery Annex II, 1B	
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Herewith we declare,

Sprick GmbH
Bielefelder Papier- und Wellpappenwerke & Co.
 Hanfstraße 23
 33607 Bielefeld
 Germany

that the machine

Commercial name **SpeedMan®**
 Serial number **122xxx**
 Model: -
 Type: **Paper filling system**

Function: **The machine forms a roll of SpeedMan® paper into tubular packaging material by means of a folding and compression process (e.g. for filling cavities in shipping packaging).**

complies with all relevant requirements of the Machinery Directive 2006/42/EC.

The following further directives and/or relevant regulations were applied:

- EMC Directive 2014/30/EU

The safety objectives set out in the Low Voltage Directive 2014/35/EU have been complied in accordance with Annex I, No. 1.5.1 of the Machinery Directive 2006/42/EC.

Applied harmonised standards:

EN ISO 12100:2010	Safety of machinery - General design principles - Risk assessment and reduction
EN 60204-1:2018	Safety of machinery - Electrical equipment of machines - Part 1: General requirements
EN ISO 13857:2019	Safety of machinery - Safety distances to prevent hazard zones being reached by the upper and lower limbs
EN ISO 13850:2015	Safety of machinery - Emergency stop - Design principles


Other applied standards and specifications:

Authorised party for the compilation of the technical documentation:

Sprick GmbH Bielefelder Papier- und Wellpappenwerke & Co., Hanfstraße 23, 33607 Bielefeld, Germany

Signatory of the declaration:

DE-33607 Bielefeld, dated 14.02.2022



(Mr. Bastian Schalk, Head of Special Machine Construction)

5 Assembly and commissioning

5.1 Assembly

5.1.1 Safety information for commissioning

The machine assembly must always be carried out by 2 people.



Laying the cables.

Risk of tripping due to incorrectly laid cables.

The cables must be laid such that they do not lie in walkways and in the working area, in order to avoid tripping points.

5.1.2 Commissioning

Assemble the machine according to the assembly instructions enclosed.

These are enclosed with the corresponding frame variant.

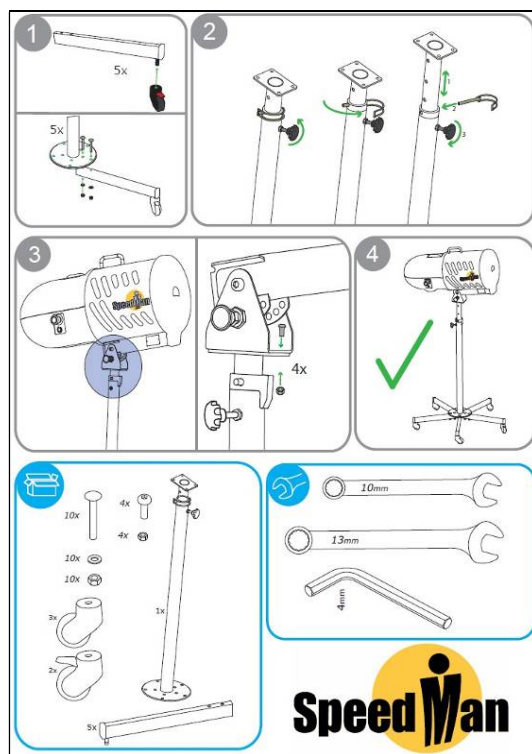


Fig. 26 Assembly instruction for roller frame

5. Secure the rollers on the foot tubes (plug-in connections).
6. Establish the desired connection (see frame height adjustment chapter).
7. Set the machine head in place and screw it on.

5.1.3 Machine angle adjustment



CAUTION

Machine angle adjustment.

Danger of crushing in the swivel range.

Angle adjustment should take place with two people.

Do not place hands and fingers in the swivel range of the machine.



IMPORTANT

No paper should be inserted during machine height and angle adjustment.

If the angle to the paper insertion is adjusted, it is essential to have assistance from a second person.



IMPORTANT

5. Have a second person hold the machine in place.

Fig. 27 Locking bolt



IMPORTANT


6. Draw the locking bolt out of the machine.
7. Adjust the tilt angle.
8. Allow the locking bolt to latch again.

Fig. 28 Angle adjustment

5.2 SpeedMan® Frame variants

Machine adjustment must be carried out with a second person.

The adjustment options are dependent on the frame variants.

	<p>IMPORTANT</p> <p>No paper should be inserted during machine height and angle adjustment.</p> <p>If the angle to the paper insertion is adjusted, it is essential to have assistance from a second person.</p>
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5.2.1 Height adjustment


	<p>8. Tighten the star screw (clamping screw).</p>
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Fig. 29 Star screw


	<p>9. Hold the inside tube of the frame firmly.</p> <p>10. Open the safety catch on the tube clip.</p>
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Fig. 30 Tube clip


	<p>11. Remove the tube clip.</p> <p>12. Release the star screw.</p> <p>13. Adjust the working height.</p>
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Fig. 31 Hold frame firmly

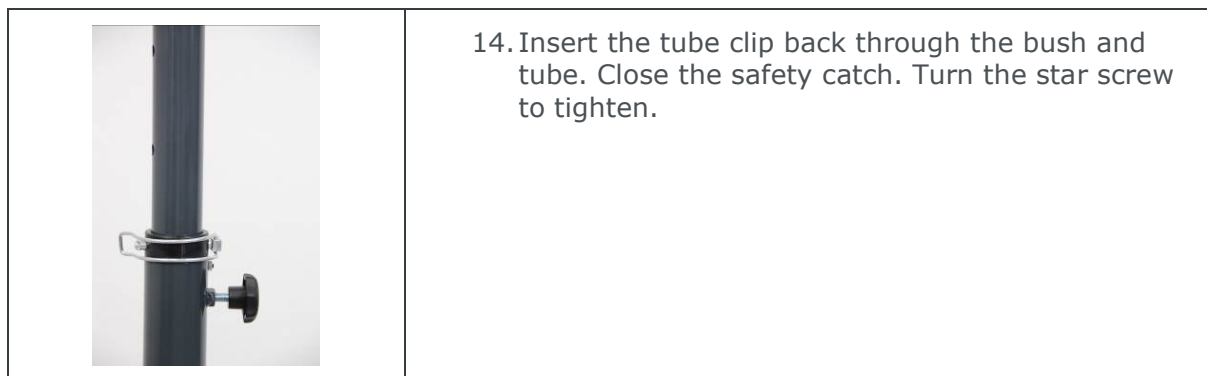


Fig. 32 Secure frame

5.3 Power supply

The SpeedMan® should be installed such that the emergency stop button and the foot switch are easy to reach at all times.

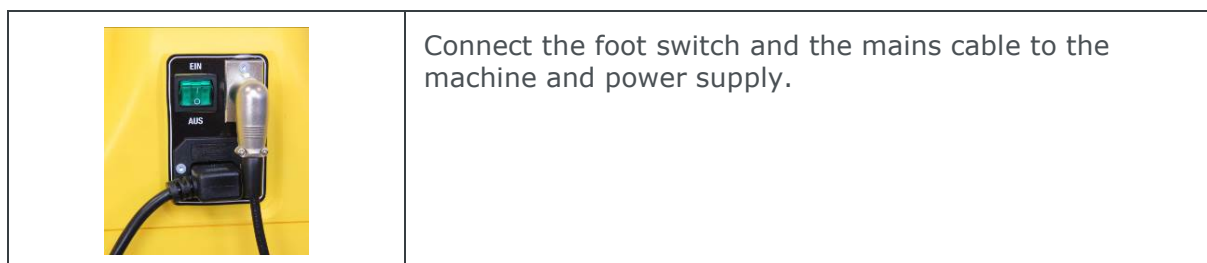


Fig. 33 Power connection

5.4 Insert paper roll.

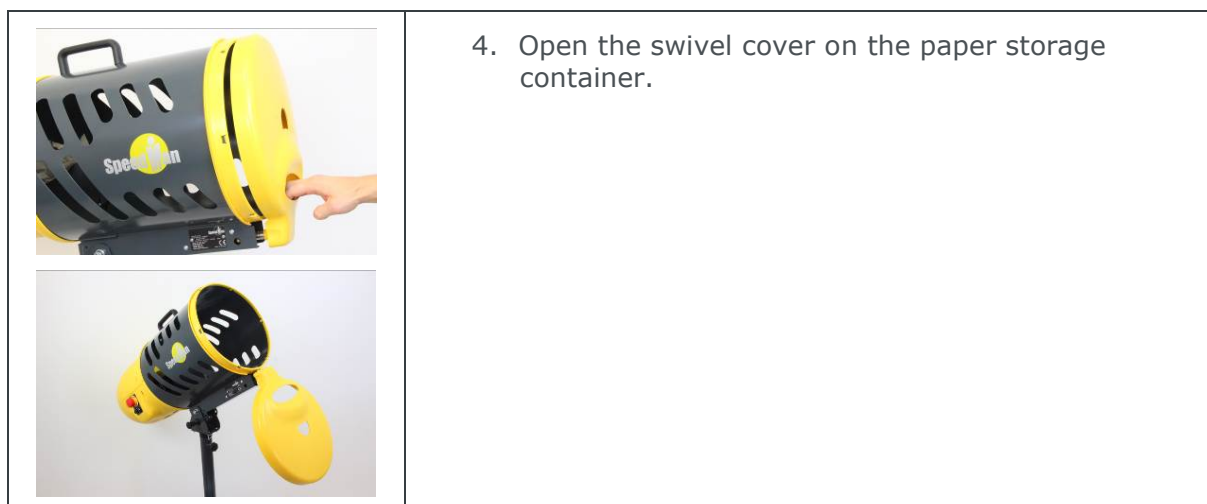


Fig. 34 Open swivel cover

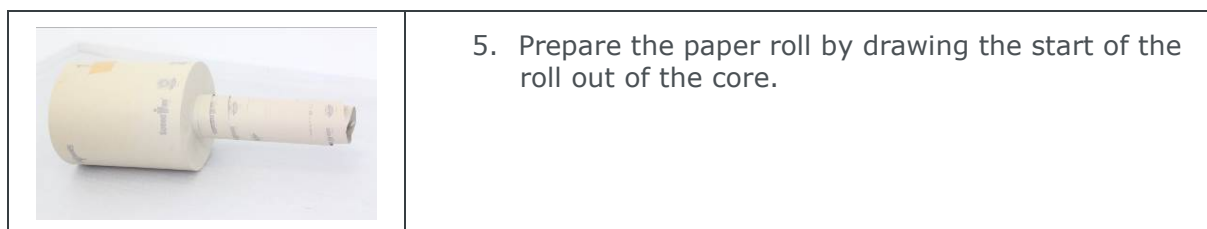


Fig. 35 Prepare the paper roll

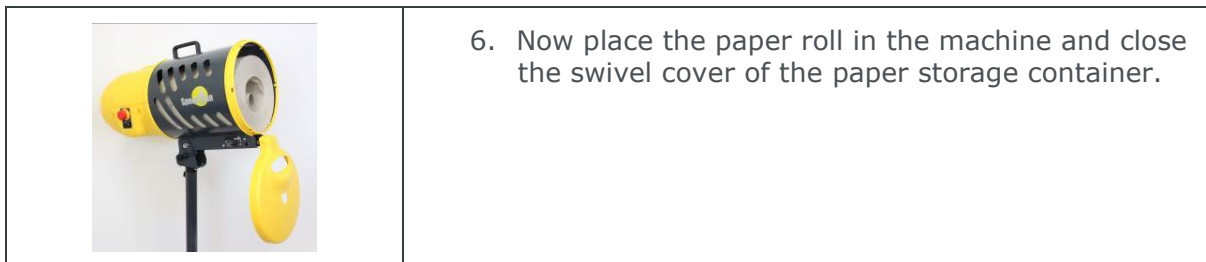


Fig. 36 Insert paper

6 Control and operation

6.1 Safety information for operation and control

- ☑ Never operate the machine with electrical connections that are defective or not ready for operation.
- ☑ The machine must only be operated with the parking brakes applied.
- ☑ The machine must only be operated with threaded connections firmly tightened.
- ☑ With energy supply faults the machine must be switched off immediately.
 - Actuate emergency stop button
 - Disconnect the mains plug



WARNING

Reaching into machine openings.

Risk of serious crushing injuries.

Reaching into machine openings is prohibited when the machine is running.

Always disconnect the machine from the mains power before reaching into the machine openings.



WARNING

Machine movement.

Risk of injury due to machine movement.

Moving the machine whilst it is connection to the mains power is prohibited.



WARNING

Starting up the machine.

Risk of injury.

Before starting up/commissioning the machine it is always necessary to ensure that the starting machine will not endanger anyone.

Check the machine for externally visible damage and defects once per shift.

The machine may only be operated if all of the safety equipment is installed and functional.

6.2 Operating elements

6.2.1 On/off switch

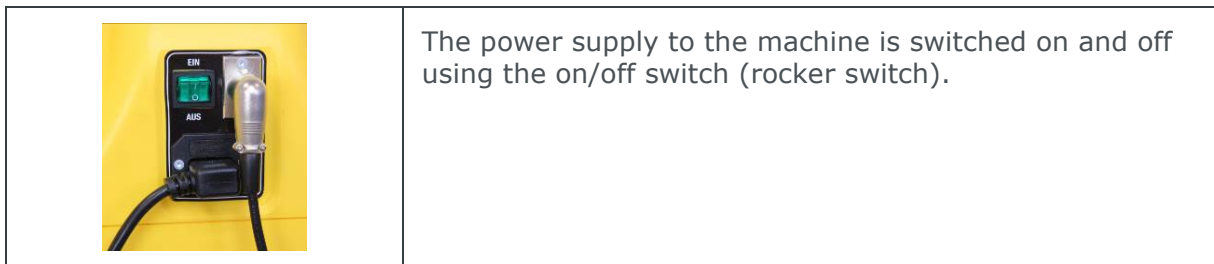


Fig. 37 On/off switch



WARNING

Reach inside the machine with the on/off switch switched off.

Risk of serious injuries.

Always additionally disconnect the machine from the mains power before reaching inside it.

6.2.2 Potentiometer

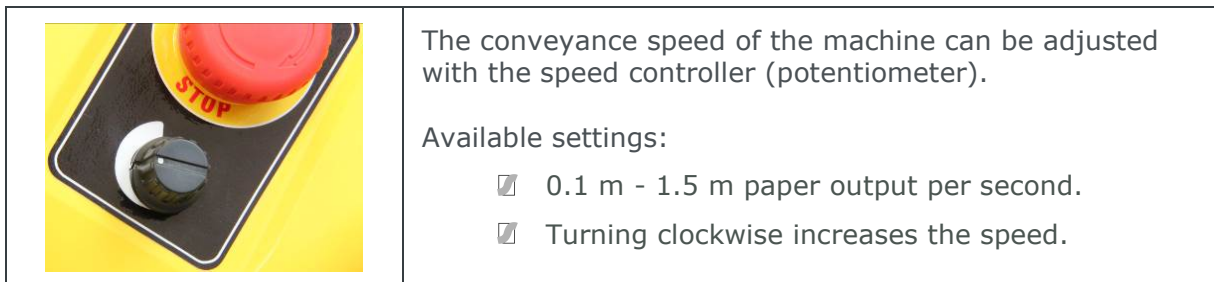


Fig. 38 Speed controller (potentiometer)

6.2.3 Foot switch

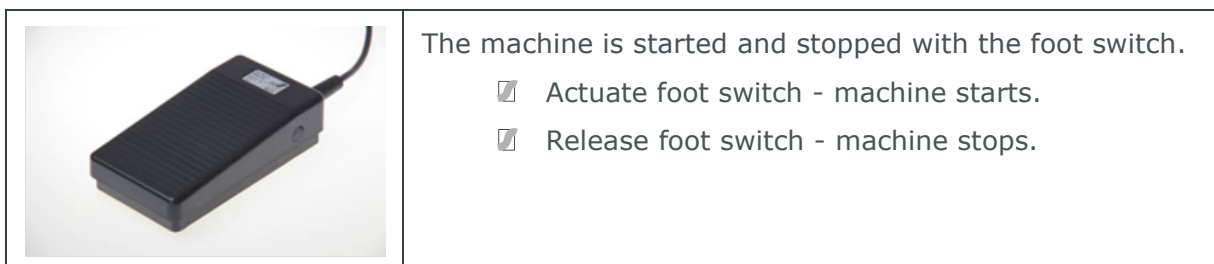


Fig. 39 Foot switch

6.3 Operation



CAUTION

Tearing paper.

Risk of cutting injuries due to the paper tearing.

The paper must be torn carefully because the torn edge is sharp.

NOTE

Removal of the control plug.

Increased wear due to removal of the control plug with a running machine.

It is prohibited to remove the control plug when the machine is running.

NOTE

Opening the swivel cover on the paper storage container.

Increased wear due to opening the swivel cover on the paper storage container with a running machine.

It is prohibited to open the swivel cover when the machine is running.

Operate the machine according to the user manual enclosed.

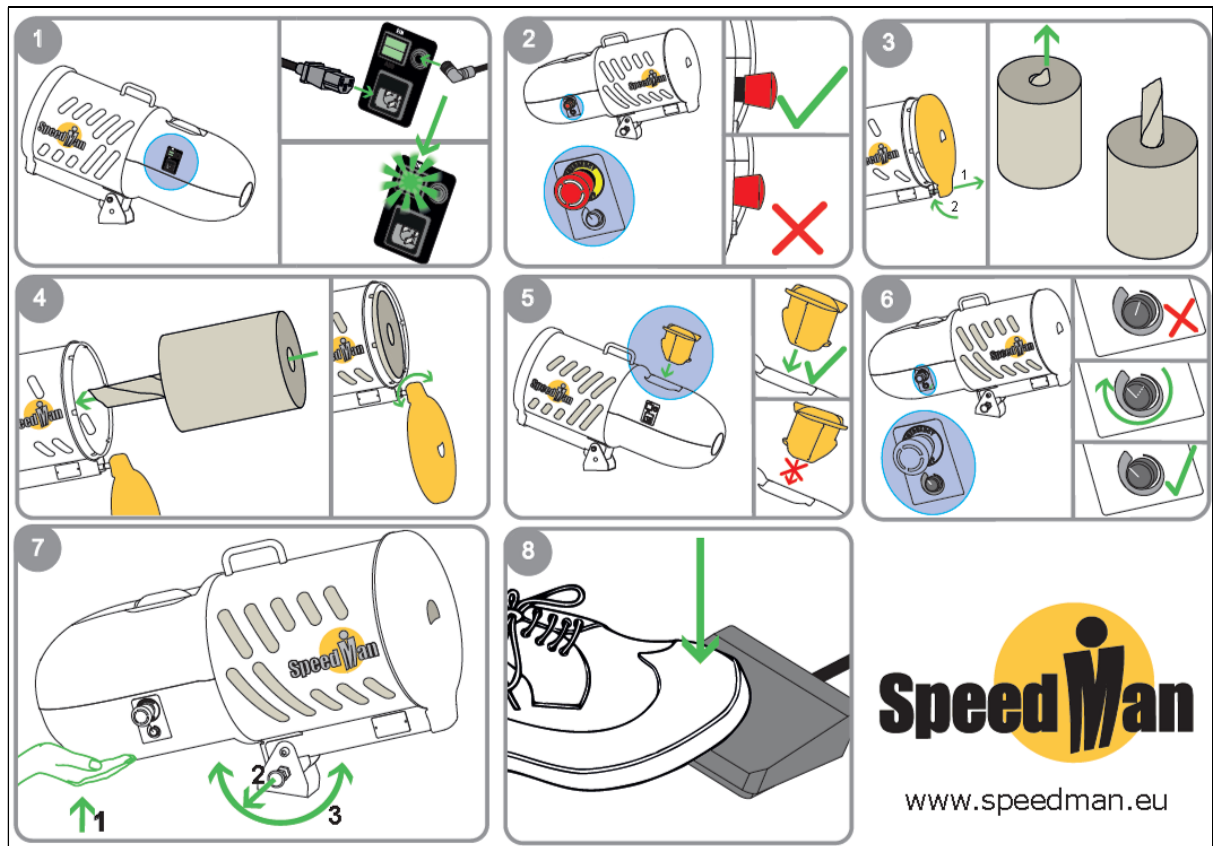


Fig. 40 User manual

9. Connect the foot switch and the power cable to the machine and power supply.
10. Check that the emergency stop button is disengaged.
11. Open the swivel cover on the paper storage container and prepare the paper roll.
12. Insert the paper roll in the machine and close the swivel cover.
13. Insert the control plug or check that the plug is correctly inserted.
14. Set the desired speed for the paper discharge.
15. Set the tilt angle of the machine, it is essential to have assistance from a second person during this process.
16. Actuate the foot switch in order to start the machine.
 - Padding is produced constantly whilst the foot pedal is depressed.
 - Only upon release of the foot pedal does the padding production stop.
 - The padding must be subsequently torn off.

7 Maintenance and repair

The machine must be maintained, serviced and repaired exclusively by personnel of the manufacturer and by persons who have been trained by the manufacturer.



DANGER

Maintenance work.

Risk of serious injuries due to contact with live parts.

The mains plug must be disconnected and secured during all maintenance work.

8 Cleaning



WARNING

Reaching into the machine.

Risk of injury due to an unexpected machine start-up.

Prior to cleaning, the machine must be switched off and the mains plugs must be disconnected and secured.

NOTE

Paper residue in the machine.

An increased risk of fire exists due to paper residue in the machine.

Paper residue must be removed when required and at least weekly.

- ☑ Do not use aggressive or abrasive cleaning agents or excessive water.
- ☑ Examples of cleaning agents:
 - Isopropanol
 - Compressed air
- ☑ Use fibre-free cloths
- ☑ Before cleaning the machine with water or other cleaning agents, cover all openings in which no water/cleaning agent is permitted to penetrate for safety reasons or reasons of function.
- ☑ Remove the covers after cleaning.
- ☑ Observe the safety data sheets for the cleaning agent.
- ☑ After cleaning, examine all lines for leaks, loosened connections, chafing points or damage.

9 Maintenance

Check the following points before each shift starts:

- Loose connectors
- Contamination

	Machine operator/users (trained people)	Personnel trained by the manufacturer (with suitable electrical or technical training)	Sprick GmbH & Co. service technician
Transport	x	X	x
Remove paper jam/paper tear	x	x	x
Change mains connector/foot switch	x	x	x
Cleaning		x	x
Service		x	x
Change replacement parts defined by the manufacturer		x	x
Specially trained maintenance		x	x
Other untrained maintenance, especially fault correction involving controls and drive technology			x

10 Faults and trouble-shooting

10.1 Removing a paper jam

If the machine has a paper jam, clear this as follows:

9. Turn the machine off.
10. Remove the paper roll.
11. Remove the control plug.
12. Remove the jammed material.
13. Remove the paper residue from the machine.
14. Feed the paper in anew.
15. Insert the control plug again.
16. Switch the machine on.

10.2 Trouble-shooting

Fault	Cause	Remedy
Machine does not start working.	7. Main switch in off position.	Switch main switch to ON position (lights up green).
	8. Power cable not plugged in.	Check power cable/plug in.
	9. Faulty/defective cable connection.	Check the connectors and lines.
	10. Emergency stop pushbutton actuated.	Disengage emergency stop button ($\frac{1}{4}$ turn clockwise).
	11. Speed controller (potentiometer) set to 0.	Turn up speed controller.
	12. Control plug not inserted.	Check that the control plug is in place.
	13. The control plug is not seated in the correct position.	Check the position of the control plug.
	14. Open swivel cover on the paper storage container.	Close the swivel cover on the paper storage container.
	15. Swivel cover on the paper storage container not correctly closed.	Check the swivel cover on the paper storage container.
Machine functional (transport wheels turning) but paper not	16. Paper store empty.	Insert a new roll.
	17. Paper torn	Remove control plug and control shaft and check that

being transported.		the paper web is being grasped by the drive wheels. If not, feed the paper in anew.
	18. Paper not inserted correctly	Insert paper anew. Slide in sufficiently that the drive wheels grasp the paper. If necessary, open the control shaft and bring the paper start right to the drive wheels.
	19. Paper jam in the drive wheels	20. Remove remaining paper. 21. Remove control plug. 22. Remove jammed material. 23. Free up drive wheels and conveyance channel of paper residue. 24. Reinsert control plug. 25. Insert paper anew.

11 Extended standstill

Clean the machine thoroughly prior to an extended standstill.

12 Decommissioning

The machine is returned to the manufacturer for final decommissioning.

13 Further applicable documents

The following documents are supplied with the machine:

- ☑ Assembly instructions for frame
- ☑ User manual
- ☑ Declaration of conformity

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