

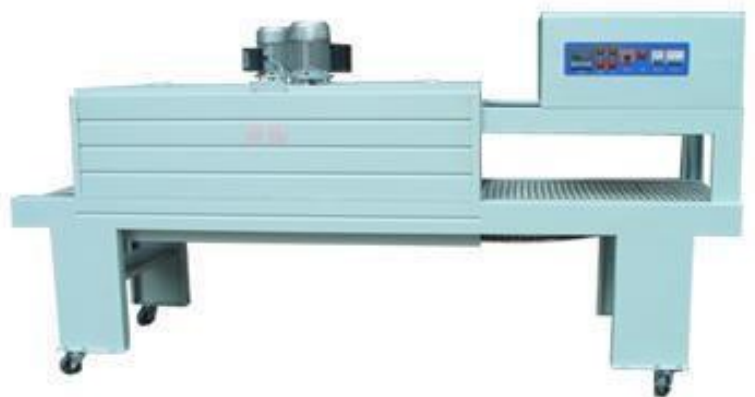


AN ISO 9001:2015 CERTIFIED COMPANY

USER MANUAL

SHRINK TUNNEL

QS 5540 STVLI



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1. FOREWORD

Thank you for choosing Sevana. You now belong to the Sevana family of over one million satisfied customers across the world. We are confident that you will have many years of complete satisfaction from this Sevana product.

We want you to derive maximum value from Sevana's reliable service and support infrastructure in India. We maintain Sevana's service mission of working continuously to provide customers with highest level of service, thereby ensuring mutually successful long term business association.

You can contact us through

Email	:	support@sevana.com	
Phone	:	+91-484-2680780	Monday to Saturday
Mobile	:	+91-9388180781	8.30 am – 5.00pm IST
Fax	:	+91-484-2680680	

We value your partnership

Yours sincerely

For Sevana Electrical Appliances Pvt. Ltd.

Manager in charge, Customer support

While contacting the support centre kindly provide the following information for a speedier support and service.

- Model
- Serial No
- The nature of problem

2. HOW TO USE THIS MANUAL

- ❖ Please read this manual carefully before installing and commissioning the machine.
- ❖ Please keep a copy of this manual for reference near the machine.

The information in this document is believed to be accurate and reliable. However, Sevana Electrical Appliances cannot accept any financial or other responsibilities that may result from the use of this information. No warranties are granted or extended by this document.

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3. SAFETY PRECAUTIONS

❖ Introduction

Machines of Sevana have been designed to provide extremely safe and dependable operation when properly used. Safety precautions must be observed during normal operation and when servicing the machines of Sevana.

❖ Warning

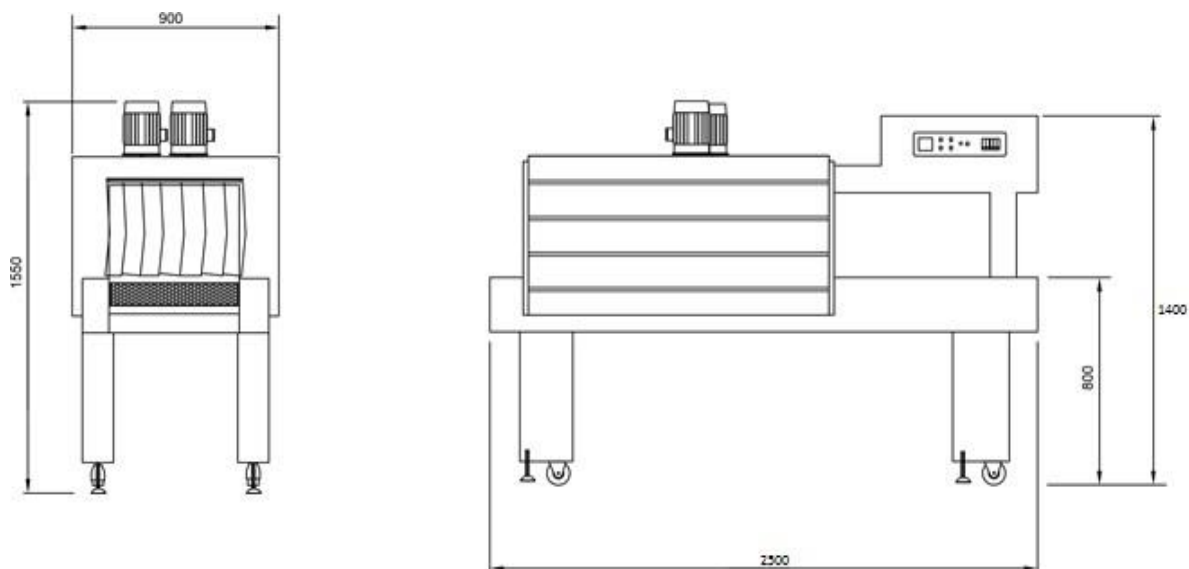
A warning describes safety hazards or unsafe practices which could result in personal injury or loss of life. A warning message is accompanied by a symbol as described in the following paragraphs and is also surrounded by a box to attract your attention.

- i.  This is a warning symbol indicating a hot surface.

- ii.  This is a warning symbol indicating moving parts.

1. The machine has to be grounded properly before using.
2. Never try to shrink wrap explosive or inflammable material.
3. Do not insert hand in the chamber when machine is in operation.
4. Do not allow any liquid to go in to the machine.
5. Do not keep Shrinkable film on the machine.

4. MACHINE DIMENSIONS



5. UNPACKING

Note: Please verify the items with the packing slip.

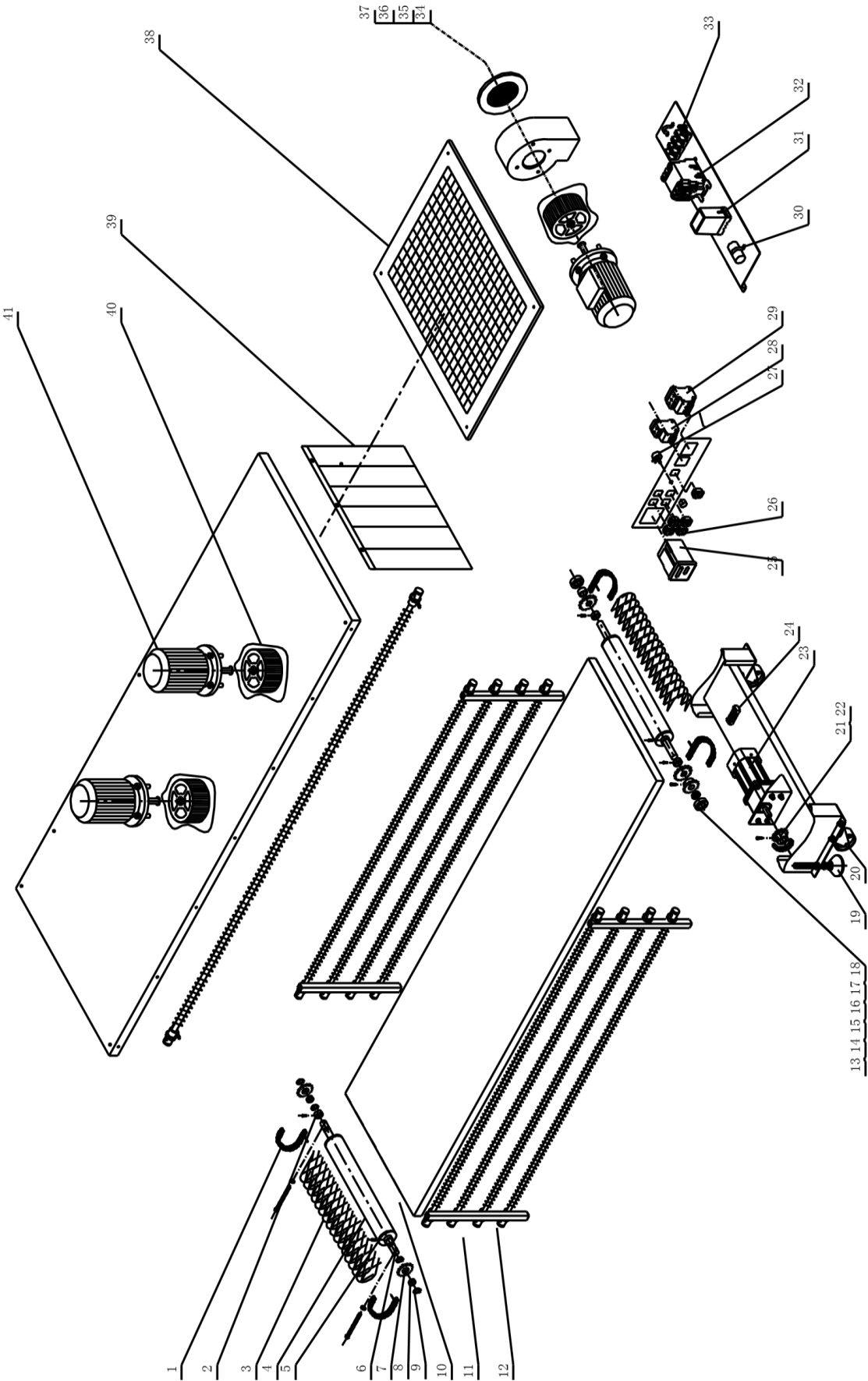
- ❖ Inspect for any transit damages. If there are any, notify your dealer/transporter/insurance company or us immediately.
- ❖ The machine is shipped well packed in a plywood box.
- ❖ Place the wooden box with the “TOP” marked to the top.
- ❖ Remove all the side panels and top panel of the box.
- ❖ Lift the machine with the crate using a pallet jack.
- ❖ Remove all packing materials.

Tools required to unpack
• Pry bar/Crowbar • Claw hammer

6. TECHNICAL SPECIFICATIONS

Model	QS 5540 STVLI
Window width (mm)	550mm
Window height (mm)	400mm
Voltage & Supply	415V/3P/50Hz
Power	21 kW
Machine's Dimensions (LxWxH)	2500mmx750mmx1400mm
Max Packaging size (LxWxH)	2620mmx890mmx1560mm
Temperature	0-200°C
Speed	0-10 m/min
Weight (Kg)	240

7. LIST OF PARTS



No.	Name
1	Chain I
2	Locating collar
3	Mesh-belt
4	Roller
5	End lid
6	Driven shaft
7	Driven chain wheel
8	Bearing
9	Bale spring
10	Coupling gap
11	Heating light tube with coolant
12	Heating tube fix bar
13	Bearing
14	Locating collar
15	Chain wheel
16	Driving chain wheel
17	Driving shaft
18	Locating collar
19	Underlay foots
20	Lion universal castor
21	Chain II
22	Chain wheel
23	Reduce guiding motor
24	Wiring base
25	Temperature regulator
26	Switch
27	Potentiometer
28	Control switch
29	Heating switch
30	Capacitor
31	AC electronic speed regulator
32	AC citatory
33	Wiring base
34	Fan
35	Fan leaf
36	Blower casing
37	Fan guard
38	Exhaust panel
39	Heat insulating bar
40	Fan leaf
41	Fan

8. INSTALLATION

1. Keep the machine on the ground.
2. Before starting the machine please ensure that,
 - (a) The chain is aligned with and rests on the chains sprocket the links of the conveyor chain properly engaged with the teeth of all the sprocket wheels.

9. POWER CONNECTION

Machine is provided with five core cable. The connection to be made as follows: Red to Phase1, Yellow to Phase2, Blue to Phase3, Black to Neutral and Gray/Green to Earth. Then switch on the MCB.

10. CONTROL PANEL



- ❖ Heater MCB
- ❖ Controller MCB
- ❖ Conveyor ON/OFF
- ❖ Conveyor speed knob
- ❖ Fan 1 ON/OFF
- ❖ Fan 2 ON/OFF
- ❖ Heater ON/OFF
- ❖ Cooling fan ON/OFF
- ❖ Temperature Control

11. STARTING THE MACHINE

Connect the machine to appropriate power supply (3 phase). Turn on the Controller MCB to start the machine. The Controller MCB is located at the right side of the machine. Then switch ON heater MCB, Heater switch, Fan1 , Fan 2 and Conveyor. The direction of blower as to be verified that it is to be in anti-clockwise direction. The conveyor speed is adjusted by rotating knob present on panel board. To set the temperature, firstly press SET key, then press UP or DOWN key, and at last press SET key after your confirmation.

12. SHUT DOWN/ SWITCHING OFF THE MACHINE

- Turn the Heater switch to OFF position.
- Keep the blower and conveyor still running.
- Leave the machine in above state for 30 minutes for cooling down.
- Now the power supply to machine can be switched OFF.

13. SHRINKING OPERATION

- a. Special plastic films which shrink on application of heat are used for shrink wrapping. The temperature required for shrinking each film varies and this information can be obtained from the film manufactures. Shrink films commonly available are,
 - Low Density Poly Ethylene (LDPE)
 - Poly Vinyl Chloride (PVC)
 - Poly Olefin (POF)
- b. Insert the article in a preformed sleeve or tube of shrinkable film of suitable size. Seal the open ends & make a few holes on the film by pricking it with a pin. The corners of the film may also be sealed cut off for better appearance. If open ends are desired, the ends of the tube need not be sealed.
- c. Place the wrapped article on the conveyor at the inlet. The article will come out of the outlet properly shrunk. Inspect the article.
- d. If the shrinking is not sufficient increase the temperature setting or reduce the conveyor speed. If over shrunk, reduce the temperature setting or increase the conveyor speed. By manipulating the temperature and conveyor speed one could get the best result and productivity. Make final adjustment of speed and temperature after the temperature has reasonably stabilized.

14. MAINTENANCE

Caution: Isolate electric power supply before doing the maintenance.

A) Daily Maintenance

- ❖ Blow off the dust and film debris using a blower or compressed air.
- ❖ Remove any plastic leftover on the conveyor rods or sleeves

B) Weekly maintenance.

- ❖ Apply graphite grease on the chains
- ❖ Check the conveyor tension. Adjust if required
- ❖ Apply lubricant to other moving parts.

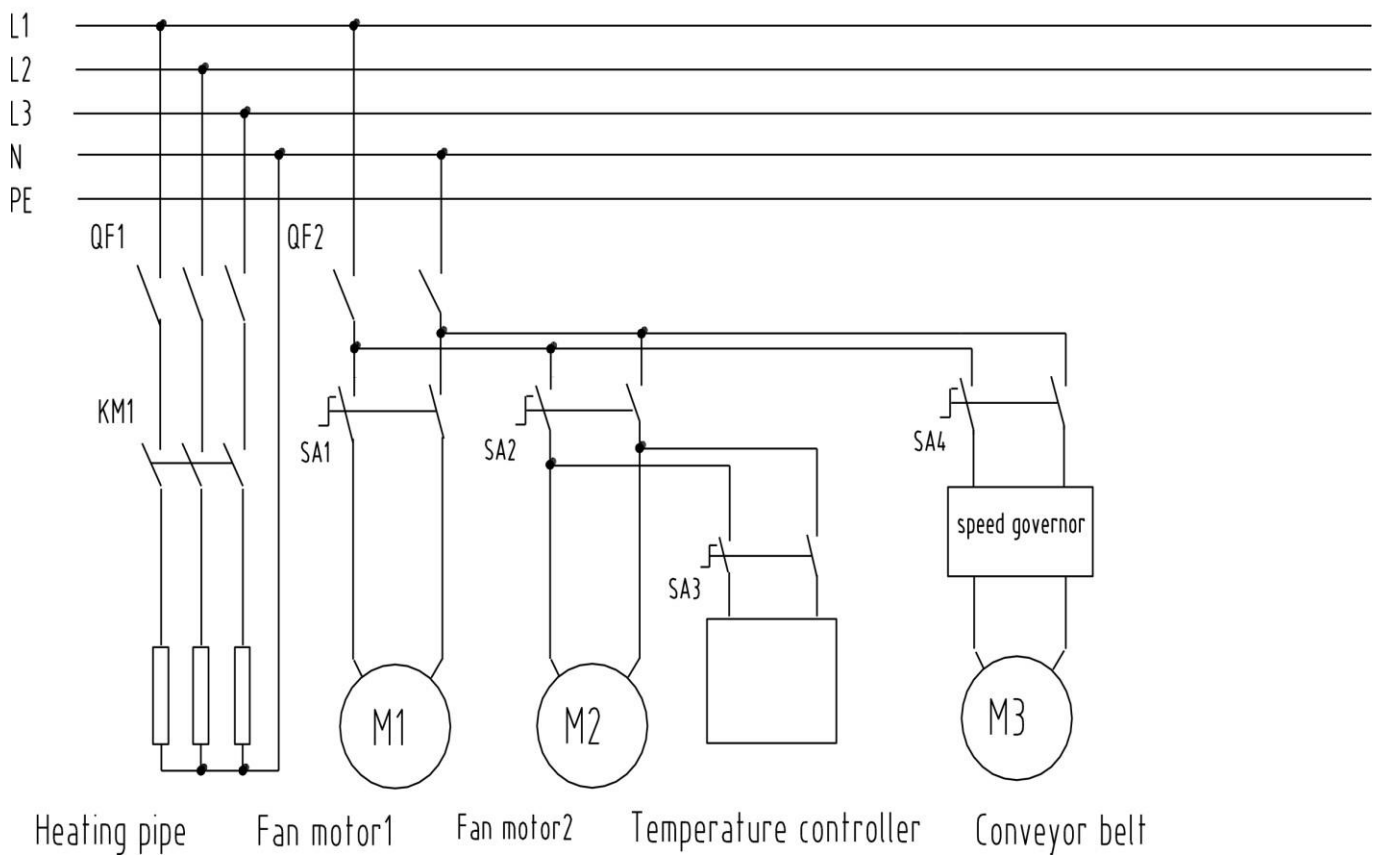
C) Monthly maintenance.

- ❖ Inspect window curtains for damage.

D) Annual maintenance.

- ❖ Inspect the conveyor chains. If they are elongated beyond adjustable limits remove two links from either side.

15. ELECTRICAL SCHEMATIC



16 TROUBLE SHOOTING CHART

No.	Complaint	Reasons	Remedy
1.	Machine does not work	1.No power supply. 2.MCB tripped.	1.Restore power supply. 2.Check the wiring for any short circuit. If satisfactory, reset the MCB. 3.Check and replace if defective.
2.	Air blower is not working	1.Defective blower motor. 2.Defective capacitor. 3.No supply at motor end.	1.Replace the blower motor. 2.Replace the capacitor. 3.Check and restore the supply.
3.	Blower motor works , but the blower does not rotate freely	1.Shaft fitting Allen screw loose.	1.a. Check the fan shaft assembly. b. Ensure free rotation of the shaft and a little axial play. c. Refit the Fan Assembly Mounting Plate.
4.	Conveyor is moving at constant speed	1.Defective speed controller.	1.Replace the speed controller.
6.	Conveyor chain slips from the guides	1.Lower conveyor tension. 2.Misalignment of sprockets.	1.Increase the tension by adjusting the conveyor tension adjusting bolt. 2.Align the sprockets and chain rails.
7.	Insufficient shrinking	1.Low temperature setting. 2.Temperature is not building up	1.Increase the temperature setting. 2.Refer to complaint no. 7
8.	Temperature is not building up.	1.Electric heater connection loose. 2.Electric heater failure. 3.Low temperature setting. 4.Defective contactor for electric heaters.	1.Make proper connections. 2.Replace the defective electric heater. 3.Increase temperature setting. 4.Replace the defective contactor
5.	Conveyor is not moving	1.Conveyor speed set to zero. 2.Conveyor motor stalling. 3.Defective conveyor motor. 4.Conveyor chain disengaged from the sprockets. 5.Conveyor chain breakage. 6.Defective conveyor drive sprocket. 7.Defective AC variable speed drive.	1.Increase the conveyor speed. 2.Reduce load on the conveyor. Install the machine with a slope towards the direction of the conveyor movements to increase the load carrying capacity of the conveyor. 3.Rectify/replace the conveyor motor. 4.Engage the conveyor chain with the sprocket. 5.Replace both chain together to avoid the mismatching of chains. 6.Replace the conveyor drive sprockets. 7.Replace AC variable speed drive.

9	Excessive Shrinking	1.High temperature setting. 2.Low conveyor speed. 3.Defective Temperature sensor. 4.Defective contactor for electric heaters due to contact welding.	1.Reduce the temperature setting. 2.Increase the conveyor speed. 3.Replace the defective part. 4.Replace the defective contactor.
10	Shrinking is not uniform	1.Blower is not working or loose. 2.All the electric heaters are not working.	1.Refer complaint 4 and 5. 2.Identify the defective electric heaters and replace.
11.	Abnormal sound and vibration	1.Blower loose. 2.Motor bearing failure. 3.Machine is not installed on a level surface.	1.Tighten the nut with which the Air Turbulence Fan is attached to the blower motor 2.Replace the defective bearing. 3.Correct the level the machine.

17. SERVICE LOG

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