

**power-heat-set**

The perfect solution for every customer!

# Steamatic

Textile Yarn Steaming

## PHS STEAMING TECHNOLOGY

### HIGH QUALITY RESULTS

The unique PHS-steaming technology of the Steamatic produces high quality yarn for the textile industry. The treatment of the yarn with saturated steam in the negative pressure range achieves a gentle and good reduction of the yarn's curling tendency. The technical precision of the machine thus facilitates best quality for different yarn types (wool, cotton, fiber blends).

### INNOVATIVE INLINE STEAMING SYSTEM AS LINK BETWEEN SPINNING AND WINDING

The Steamatic is a fully automatic, computer controlled inline yarn steaming unit- designed as link between all spinning and winding machines. It allows integrated processing of materials that require steaming resp. moistening between spinning and winding.

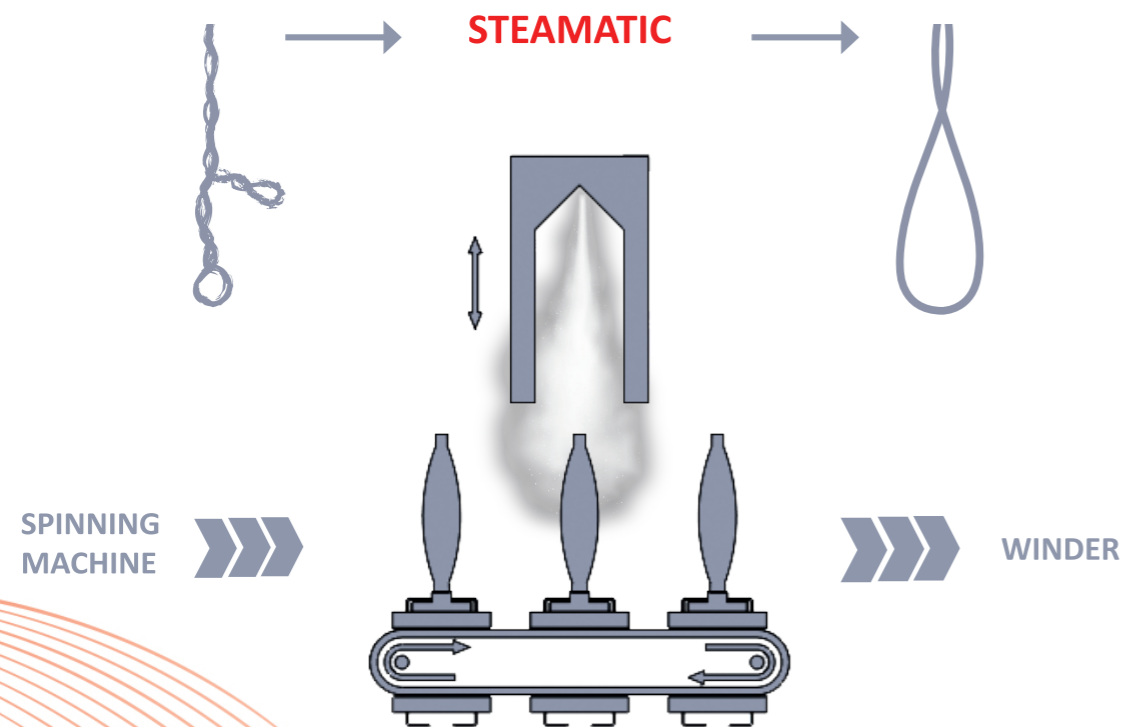
Depending on the assembly, the installation of the Steamatic can be done flexibly (intake from right or left) to the connecting machines.

### SYNCHRONIZED PROCESS

The Steamatic operates with a synchronized process. Depending on the machine size (E30) and peg tray diameter, between 11 and 32 cops are first steamed under a steam dome and then dried. Both operations are done in a precisely controlled vacuum and with saturated steam temperatures between 70- 95 °Celsius.

### EASY TO USE

An intuitive HMI with touch screen enables the user to easily go through all steps of the process and set the temperature.

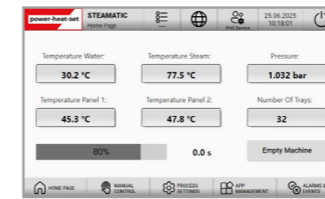


The Steamatic automatically takes over the cops (bobbins) on the peg trays directly from the exit of the spinning machine and transports them under the steam dome. After steaming, the cops are conveyed smoothly to the winding machine. This is done simultaneously, with one peg tray carrier being loaded, one being processed and one being emptied at the same time.

## MACHINE DESIGN

### HMI WITH TOUCH SCREEN

User friendly PLC to display, set and control the machine functions intuitively and effectively.



### INTAKE

The trays coming from the spinning machine are pushed in cycles onto the feed process panels.

### PEG TRAY CARRIERS

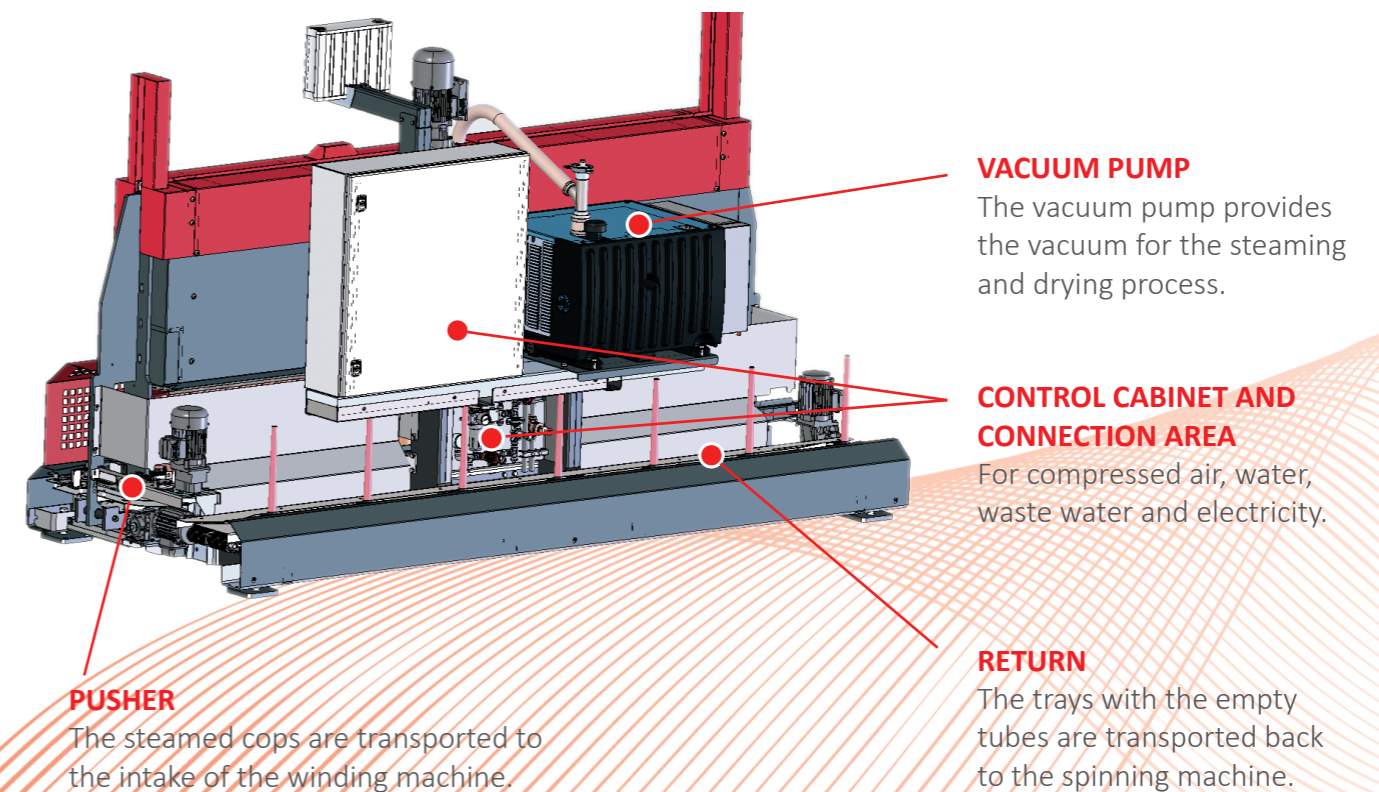
The cops coming from the spinning machine are loaded onto the six peg tray carriers and transported under the steam dome.

### STEAM DOME

The cops are steamed and dried under the steam dome.

### COPS ON TRAYS

The cops are steamed under the steam dome.



### PUSHER

The steamed cops are transported to the intake of the winding machine.

### VACUUM PUMP

The vacuum pump provides the vacuum for the steaming and drying process.

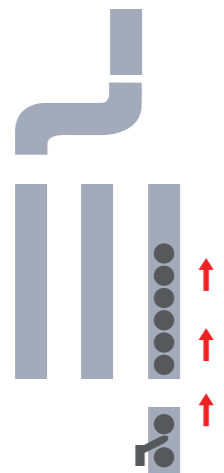
### CONTROL CABINET AND CONNECTION AREA

For compressed air, water, waste water and electricity.

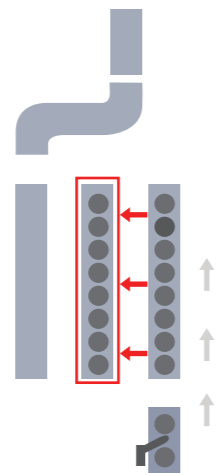
### RETURN

The trays with the empty tubes are transported back to the spinning machine.

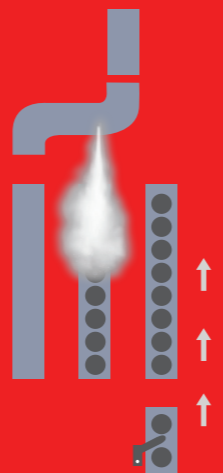
# STEAMATIC YARN PROCESSING



Single-row longitudinal positioning of the cops by means of peg tray carriers. Guide rails prevent cops tipping over.



Cops are positioned under the steam dome. The dome sealing is pressed against the carrier surface, thus sealing the steam dome hermetically.



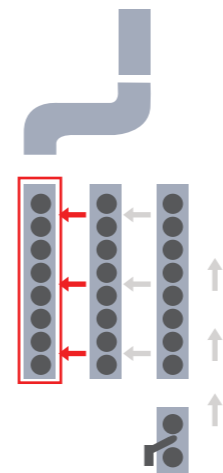
**1 | GENERATION OF VACUUM**  
The steam area is steamed and emptied several times to reach the required vacuum / remaining oxygen content.

**2 | STEAM FLOWS INTO DOME**  
The set saturated steam which has been generated by heated water in the boiler area of the steam dome, flows in.

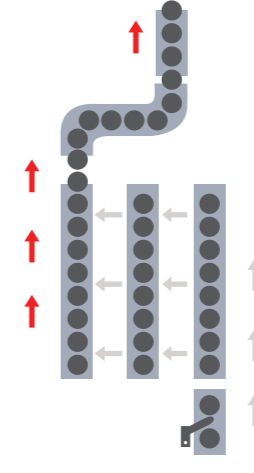
**3 | STEAMING OF THE COPS**  
To achieve the optimal effect, the temperature and the duration of the steaming process are adjusted depending on the yarn type. Due to the vacuum the steam reaches the yarn not only superficially, but penetrates between the fibres, too.

**4 | DRYING OF YARN**  
After the steaming process the vacuum pump extracts the built-up steam or condensate which allows the yarn to be dried. The preset duration determines the residual humidity content with high accuracy.

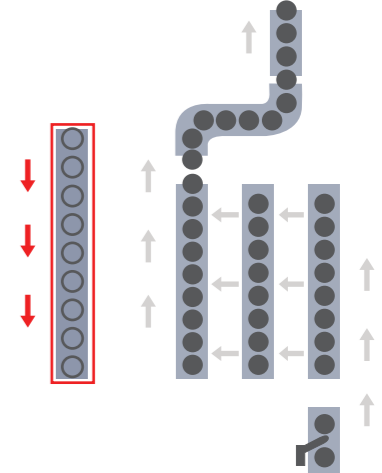
**5 | OPENING OF STEAM DOME**  
After the steam dome has been vented to atmospheric pressure it is lifted to the upper position and the machine is ready for the next steaming cycle.



The peg tray carrier with the steamed cops is moved over to the exit position.



The carrier is unloaded by pushing out the steamed cops. Thus, they are transported on to the winder still on their peg trays.



Independent of the process, the empty tubes on peg trays are returned on a conveyor belt in longitudinal direction at the rear of the machine.

Note: Machine is available in left-to-right or right-to-left configuration to optimally meet customer's individual setup preferences.

## TECHNICAL DATA

Dimensions: 2800 mm x 1170 mm x 1600 mm (L x W x H)

Compressed Air	6 bar
Power Supply	480 V - 60 Hz
Power Consumption	7 kWh
Throughput Cops	900 cops/h
Compressed Air Hose	Hose 1/2 "
Water	Hose 1/2 "
Waste Water	1/2 " at zero pressure

## ADVANTAGES OF THE STEAMATIC

- Easy installation and start-up
- Possibility of inline steaming
- Suitable for all spinning and winding machines
- Compact installation length, thus shorter connection length
- Light weight, thus easier to transport
- Easy to use, thus user friendly operations
- Available with variable track widths from 680 to 850 mm
- Short heat-up phase, fast readiness for operation
- No separate boiler required
- Vacuum steaming with 100% saturated steam (70°C - 95°C)
- Optimal, stable steaming results
- Even spread of humidity (level of humidity can be set)
- No hot spots, thus no yellowing of the yarn
- No mechanical damage to the yarn
- No repositioning of cops
- No sealing on the trays
- Fast vacuum drying going easy on the yarn
- Lower investment, low maintenance costs
- Low energy and water consumption
- Abolition of expensive steam pipes

## THE COMPANY

The German company Power-Heat-Set GmbH supplies the carpet and textile industry all over the world with machines and components for yarn treatment. Power-Heat-Set stands for field expertise, innovation, service and quality. For over fifty years the products of Power-Heat-Set have been considered worldwide as a guarantee for high quality and efficient production in the field of yarn finishing and have established Power-Heat-Set as a successful player in the global carpet and textile industry.

All of Power-Heat-Set's equipment is manufactured by highly-qualified technicians at the German based headquarters in Töging. There is a team of mechanics and technicians available worldwide for installations and service. Power-Heat-Set's Research & Development department continuously works on optimizations to bring the machines to the next level. The team focuses on bringing advantages to the customer's production process regarding quality, runability, productivity, energy saving and handling.



*"Over 40 years of experience in the carpet yarn and textile industry and over 1.000 machines installed so far: This is Power-Heat-Set. With the knowledge and the experience of the inventors of inline-steaming between ringspinning and winding we offer the products to fit your specific needs."*

*CEO, Mr. Marcus Köhler*



*"Our engineers are constantly improving quality, operability, productivity, sustainability and handling to provide innovative technology and customized solutions which means our equipment is always state-of-the-art and meets the highest standards."*

*CTO, Mr. Kurt Frank*

## SPECIAL SERVICE OFFER



### Consulting

Analyzing your specific needs, planning customized machine layouts, consulting you on process optimizations or financing... Whatever you need, we are happy to offer a comprehensive carefree package for you.



### Worldwide Support

Our consultants and service technicians operate worldwide to ensure the best possible long-term support for your production and equipment, from machine building and installation to maintenance and operation.



### Technical Online Support

We are not only your machine and spare parts supplier, but we are also your best source for technical support. Our technical support is available to you by phone or e-mail for any questions and problems.



### 24/7 Support Hotline

Excellence in customer service is of paramount importance to us. Consequently we have established a service hotline which is available 24 hours a day, seven days a week.



### Repair & Refurbishment

To reduce downtime and costs, we offer a special exchange and repair program. Simply send in your broken machine part and we'll take care. In some cases, we offer refurbished machine parts in an exchange program.



### OEM Spare Parts

We have a wide range of spare parts in stock with a high availability for standard machines. Our OEM parts have been developed exclusively for our machines and customers and thus are specially fitted to your needs.



### Online Training

Online training helps to improve and optimize your operation and manpower. Technical issues can be solved in a practical way.

## CONTACT US

For more information on Power-Heat-Set's Steamatic or in case of any other questions don't hesitate to get in touch with us!

**phone +49 86 31 / 393 - 480**  
**mail@power-heat-set.com**



### **Power-Heat-Set GmbH**

Amperstraße 4  
84513 Töging am Inn  
GERMANY

Phone: +49 (0) 8631 393 - 480  
Fax: +49 (0) 8631 393 - 580  
E-Mail: [mail@power-heat-set.com](mailto:mail@power-heat-set.com)  
Internet: [www.power-heat-set.com](http://www.power-heat-set.com)



### **Power-Heat-Set of America, Inc.**

409 North Park Drive / Suite D  
Dalton, Georgia, 30720-2625  
USA

Phone: +1 (706) 5297199  
Fax: +1 (706) 5297351  
E-Mail: [mail@power-heat-set.com](mailto:mail@power-heat-set.com)  
Internet: [www.power-heat-set.com](http://www.power-heat-set.com)

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**Technology**

