

HIGH PERFORMANCE FIBERS  
TAPES / MONOFILAMENTS · COATING



# TWINSTAR II Series

Automatic Precision Cross Winders



WINDING SOLUTIONS



# TWINSTAR II

## The trusted industry leader

The first TWINSTAR model was introduced by SAHM to our customers 20 years ago. Since that time, the TWINSTAR has developed to become the top automatic winder for the production of High Performance Fibers across a wide range of applications.

Manufacturers value TWINSTAR for its compact and modular design, for the consistently outstanding operational performance it delivers, as well as for its 99.9% bobbin changeover reliability. Due to the electronic data input of all winding and process parameters, the TWINSTAR also provides unsurpassed flexibility in product changes and recipe handling.



No-waste automatic bobbin changeover as per selectable criteria



Parking position for continuous winding and convenient bobbin handling



Yarn caught and cut at the rear of the bobbin



Adjustable yarn reserve with minimum yarn tail



Ready for automation and advanced data communication via OPC UA



New option of Flexible Traverse system



## Top performance in diverse use scenarios:

### As Take-up Winder

Continuous yarn production/treatment processes.



### As Assembly Winder

Continuous/discontinuous rewinding of one or several assembled yarn ends from creel-loaded supply bobbins with/without intermingling or rewinding from a driven spindle.



### As Direct Spinning Winder

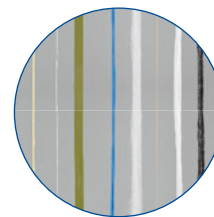
Implementation of winding positions into spinning plants for speeds up to 3,000 m/min. Also as a retrofit solution: replacement of manual winders in existing spinning plants.



# Flexible for multiple applications

TWINSTAR II is the flexible solution for all your winding needs. The state-of-the-art system lets you handle a wide range of winding materials and provides perfect winding performance for a broad array of yarn counts, package sizes and shapes.

The TWINSTAR II technology is designed to work seamlessly with cylindrical tubes made of many different materials, including paper, aluminium and steel.



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The TWINSTAR II provides high winding precision for a wide range of materials – from very thin to very coarse yarns.

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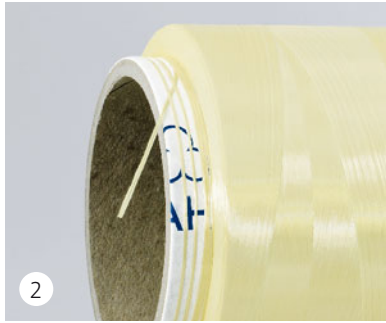
## APPLICATIONS

- High performance fibers
- Multifilaments
- Tapes and monofilaments
- Coated and twisted yarns
- Hollow fibers
- Hybrid materials

Others on request

# Design your own TWINSTAR II

For peak winding performance  
customized exactly to your needs



## Bobbin push-off device with parking position ①

During automatic bobbin changeover, the finished bobbin is pushed into a parking position while the next bobbin is already being wound. Perfect for automated doffing and higher flexibility for manual doffing.

## Yarn reserve ②

Adjustable yarn reserve with minimum yarn tail after automatic changeover.

## **NEW** Flexible Traverse ③

You get full adjustability for: traverse width, bobbin shape, bobbin positioning and yarn reserve choice.

## Pull roll (godet) ④

Godet per winding head pulling the yarn from the pre-process.

## Winding direction

TWINSTAR II series provides a winding head assembly for q-wind direction as a standard while a mirror-inverted assembly for p-wind direction is available as an option.

## Intermingling ④

Air entanglement of single or assembled multifilament yarns while the yarn length of several assembled ends is kept equal (low catenary effect) and the cumulative strength of the yarn is maintained.

## Quality sensor ⑤

Monitoring of yarn thickness to check for broken filaments and problems with material quality.

## Customized yarn guide assemblies

With/without knot deflector and/or melt catcher.

## Diameter monitoring/control

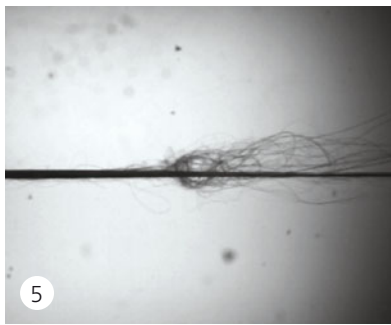
Online yarn diameter monitoring, with optional closed-loop system for control of the diameter regulated by the winding speed. Separation of the production whenever material leaves the tolerance range.

## Double cam

Double scroll cam for two different traverse lengths.



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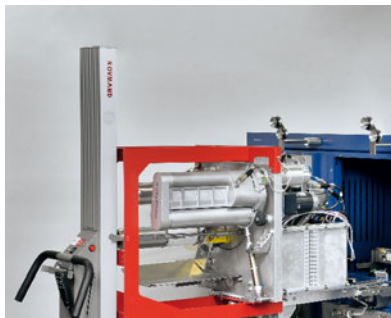
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### Yarn cutter

Automatically controlled pneumatic cutting device per winding position provides a clear shear cut of yarns during start-up and refeeding processes.

### Yarn suction device

Automatic yarn suction device per winding position for higher operator convenience during start-up and refeeding processes.

### Winding head change connector

Easy maintenance unit with and without Easy Change Connector (ECC), helps to quickly disconnect and remove the winding head for maintenance purposes.

### Lifting loader <sup>⑥</sup>

Exclusive SAHM maintenance feature for secure, quick removal of the complete winding head.

### NEW Smart View <sup>⑦</sup>

Monitoring application to track the production of each winder.

### Chill unit | Easy Storage Doffer (ESD) <sup>⑧</sup>

Yarn cooling and relaxing chamber helps avoid residual shrinkage and preserve material properties. Easy Storage Doffer enables automatic bobbin and tube changes and intermediate storage of finished bobbins.

### Automation

The TWINSTAR II can be adapted to different handling systems. From Easy Storage Doffers for individual winding stations to fully automated robotic solutions for large and complex production lines.

### HMI

Central process control unit (HMI touch screen) for input, display and storage of process and machine parameters.

### Interface

Interface to DCS (Distributed Control System) or OPC UA data exchange system.

### Remote support

Remote access and support for diagnosis and guidance during troubleshooting.

TWINSTAR II Series

# Top performance for multiple parameters

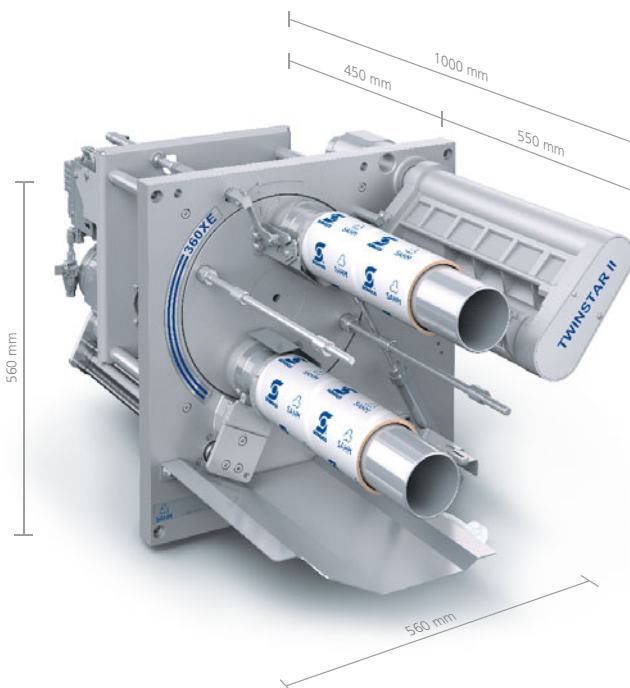
## MAIN TECHNICAL PARAMETERS

Winding speed	Up to 3,000 m/min
Yarn count range	30 to 20,000 dtex*
Traverse lengths	190.5, 200, 250, 260, 300, 305 mm*
Option: Changeable mechanical double traverse lengths	190.5 and 260 mm 190.5 and 250 mm*
Tube inside diameter	50, 69, 73, 75, 76.2, 82.55, 90, 94 mm*
Package diameter	Max. 320 mm*
Package weight	Max. 20 kg*
Yarn tension	30 to 1,200 cN*
Frame	1-tier, 2-tier, 3-tier – single frames and group frames; winding units without frame for implementation in customer's frame design

Combination of all maximum values is not possible.

\* Others on request

## Compact and modular design – Peak performance with minimum space



## Standard features

- HMI (Human Machine Interface)
- Electronically controlled winding ratio
- Automatic and waste-free bobbin changeover on reaching one of the following criteria: yarn length, winding time, package weight, package diameter, periodic cycle or external signal
- Bobbin push-off device with parking position
- Pneumatic mandrel
- Alarm management and alarm history
- Yarn reserve

## Options

- Double cam
- Easy Storage Doffer (ESD)
- Flexible Traverse
- Pull roll (godet)
- Intermingling
- Quality sensor
- Diameter monitoring/control
- Winding head change connector – ECC
- Yarn cutter
- Customized yarn guide assemblies
- Lifting loader
- Interface
- Smart View
- Remote support
- Winding direction
- Yarn suction device
- Automation

# Ready for automation



SAHM offers scalable automation solutions for TWINSTAR II winder lines ranging from an Easy Storage Doffer for single winding positions to AGV fleet integration with robotic options and temporary bobbin storage for lines with several winding positions.

SAHM provides comprehensive winder and automation solutions for one-stop support. You have the convenience of a single design, engineering and service partner.

## TWINSTAR II

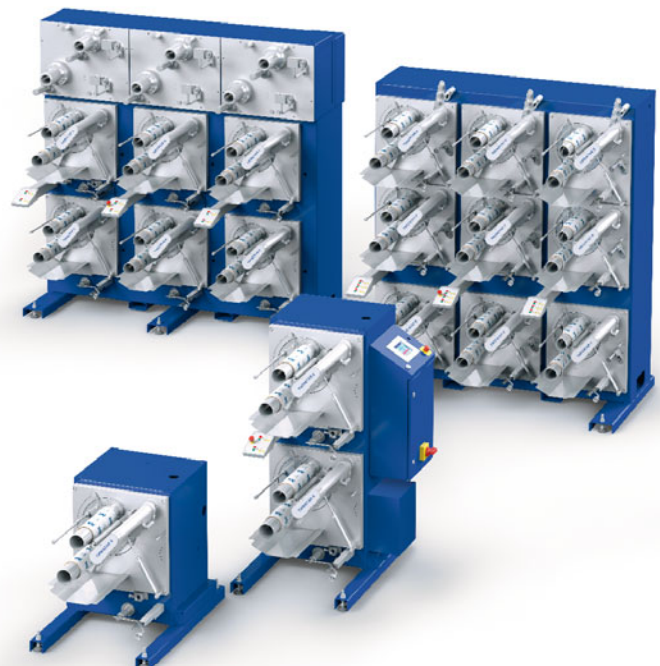
**"You provide the task – we provide the solution!"**

Whether a single head in a spinning mill or a complete production line with hundreds of winding heads – the TWINSTAR II fits almost everywhere.

In addition to the listed standard parameters and options for the SAHM TWINSTAR II family, many other customer-specific features are available.

Please contact us with your requirements so that we can offer you the most suitable TWINSTAR II model to fit your individual needs.

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Enlarging our focus.  
For exciting solutions.

Constructing winders that are among the world's best requires a comprehensive approach to systems and processes. This know-how is a special strength of SAHM. Our sales team, our partners, our agents and, not least, our development department engage in direct dialogue with our customers, seeking to work out the best possible solutions for their individual requirements.

The mutual exchange of know-how and experience, always on an equal footing, opens up new perspectives and new possibilities for all parties involved. Out of this trusting co-operation arise pioneering technological developments which make our customers' processes simpler and more efficient – thereby giving you a competitive edge.



Design, configuration and scope of supply are subject to change without notice and errors are excepted. Drawings/photos not binding.



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