BoDo  The SAHM BobbinDoffer
Mobile, fully automatic doffing and transport system
Experience BoDo in operation:
www.sahmwinder.com/video-bodo
**BoDo** The SAHM BobbinDoffer

Next generation workflow

The mobile, fully automatic doffing and transport system BoDo is set to revolutionize bobbin and tube handling within your workflow. The handling robot picks up bobbins, transports them and stores them at the locations you define. At the same time, it loads your winders with empty tubes, ensuring a continuous, efficient workflow.

BoDo – Your reliable new service provider.

**Pioneering**
Precise, optical position sensing
BoDo’s laser scanner registers routes and positions quickly and precisely.

**Flexible**
Freely definable range of motion
Operating routes and the pick-up and storage points for bobbins and tubes can be freely programmed – making BoDo compatible with any production environment.

**Networked**
Your Industry 4.0 solution
Networked with SAHM winders, the BobbinDoffer supports logistically optimized workflows, enhanced with our optional RFID system.

**Safe**
Detects persons and objects
BoDo guarantees safe operation alongside personnel, vehicles and machines. Its safety laser scanner monitors the environment. As soon as it detects an obstacle, the robot reduces its speed. If the object is within its defined protected area, BoDo stops immediately, avoiding a collision.
BOBBIN DOFFING
Driving and positioning in front of the full bobbins. Waiting for the doffing signal. Bobbins are collected.

TUBE DEPOT
Waiting for doffing request, routing to tube depot, pick-up of empty tube(s).

OPTIONAL
Registration of the RFID tags for the collected tubes.

TUBE PLACEMENT
Placement of empty tube(s).

OPTIONAL
RFID tags are matched to the winding head.
Bobbin handling. Fully automatic.

The mobile BoDo is an innovative solution for fully automated bobbin and tube handling. It is easily integrated into existing processes and offers maximum flexibility. Physical strain on operators is reduced, processes are optimized – all with increased speed, efficiency, cost-effectiveness and ergonomic optimization.

**BOBBIN DELIVERY**
Transport and delivery of full bobbins to a suitable receiving system (e.g. creel trolley).

**OPTIONAL**
Automatic or manual checking of bobbin quality at a quality station. With the RFID option, the data of the current bobbin is shown on a monitor and can be saved there.

**CHARGING STATION**
Automatic navigation to the waiting position or – when the battery is low – to the charging station.
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Mobile, fully automatic doffing and transport system

APPLICATIONS

- Continuous processes in combination with automatic SAHM winding machines, e.g.:
  - TWINSTAR II
  - CarbonStar II
  - LinStar

FEATURES

- Simultaneous removal/placement of bobbins on two adjacent winding heads
- Safety laser scanner
- Creel trolley
- Tube depot
- Touch panel on vehicle
- SLAM process (main routes without lines)
- Remote control for teaching of the BobbinDoffer
- Second safety laser scanner at rear of the BobbinDoffer
- Possibility of integration with higher-level process control system

OPTIONS

- IntelliTexCORE RFID

1 Signal lamp
2 Emergency stop
3 Touch panel (manual mode, automatic mode, error messages and battery charge)
4 Bobbin uptake
5 Tube uptake
6 LED status strip
   - In operation
   - Alarm
   - Warning or protective field active
   - Chaser light/rotation direction
7 Safety laser scanner monitoring area in front of and next to the vehicle
8 Lane recognition with safety sensor edge and WiFi antenna
**TECHNICAL DATA**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Load capacity</td>
<td>50 kg</td>
</tr>
<tr>
<td>Speed</td>
<td>Max. 1 m/s</td>
</tr>
<tr>
<td>Battery runtime</td>
<td>4 hours, charging time 60 min.*</td>
</tr>
<tr>
<td>Changes</td>
<td>Max. 30 doffs per hour</td>
</tr>
<tr>
<td>Safety equipment</td>
<td>Safety laser scanner, audible warning signals</td>
</tr>
<tr>
<td>Tiers</td>
<td>2 (standard)*</td>
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<tr>
<td>Routing</td>
<td>Lines, bar codes; optional SLAM</td>
</tr>
<tr>
<td>Tube inside diameter</td>
<td>94 mm*</td>
</tr>
<tr>
<td>Tube outside diameter</td>
<td>100 - 108 mm*</td>
</tr>
<tr>
<td>Tube length</td>
<td>216 mm &amp; 290 mm*</td>
</tr>
</tbody>
</table>

*) Additional values available on request

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**Scalable**

Solutions for any production capacity

BoDo is a flexible, scalable system which offers a suitable solution for every production operation and for any output. Several handling robots can be interconnected to work as a team. The mobility of the system also enhances its scalability: Each robot’s operating range can be freely defined and extended.

This makes BoDo a future-oriented solution!

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**IntelliTexCORE RFID**

Total supply chain transparency

Today’s supply chains are global and increasingly complex. Together with our partner SONOCO, we have developed a flexible RFID system (radio-frequency identification) which enables traceability from production to final use.

IntelliTexCORE RFID enables automatic inventory localization as well as automatic data collection through the various production steps. Manual entry errors are eliminated and manual inventory control is reduced to a minimum.
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 cooperation arise pioneering technological developments which make our customers’ processes simpler and more efficient – thereby giving you a competitive edge.