Automatic package winding
Autoconer X6 Multilink and Multilot

RIETER

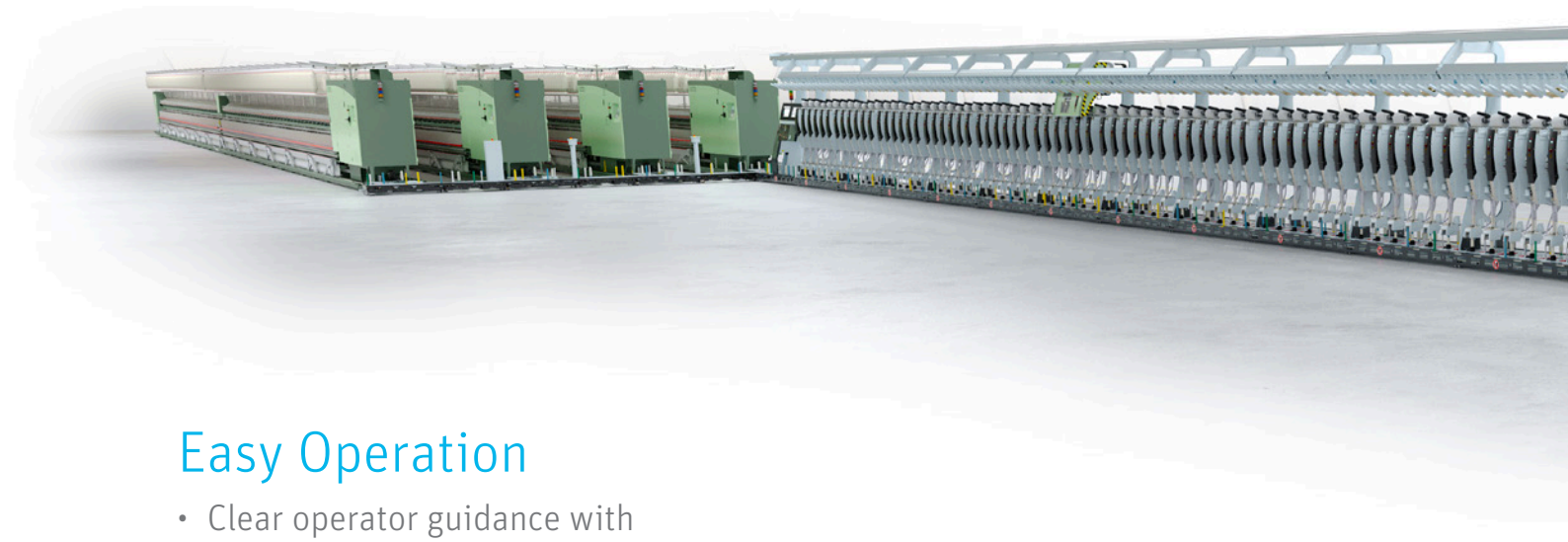
Autoconer X6 Multilink and Multilot

Flexible, cost-effective and space-saving spinning mill automation

OUTSTANDING ADVANTAGES

Multilink Multilot

With Multilink and Multilot, Rieter offers customers the most flexible automation solution on the market. With Multilink, customers can design the spinning layout according to their needs – even where space is limited. Thanks to Multilot, the processing of up to four different materials on one Autoconer is possible. These intelligent process automation solutions lead to maximum flexibility and efficiency.



Easy Operation

- Clear operator guidance with color-coded Smarttrays
- Easy adaption of lot ranges on the operating unit

High Process Reliability

- Secure lot differentiation with RFID technology

Highest Flexibility

- Flexible design of spinning mill layouts
- Processing of up to four different lots on one Autoconer
- Flexible adaptation of lot range sizes

Customized Configuration

- More than 500 possible layout variants
- Flexible with direct or underfloor link
- Positioning of the machines in series or parallel

High Productivity

- Highest cycle rates in the market
- Change of lot range without mechanical work and inefficient downtimes

High Quality Level

- Online quality monitoring as standard

Economic Automation

- Lower operating costs compared to a single link installation
- Optimum space utilization
- Both for replacement and new installations

Multilink:
Flexible Design of Spinning Mill Layouts

With Multilink, customers are flexible in creating a spinning mill layout according to their requirements. Up to four ring spinning machines can be linked to one Autoconer. The machines can be positioned parallel or in row and as direct or underfloor link.

Flexible design of spinning mill layouts

- Linking of up to four ring spinning machines with one Autoconer X6 in various positions
- Direct or underfloor link
- Compatible with all common ring spinning machines
- Ideal for replacement or new installations

Maximum throughput rates

- Decentralized material flow with highest throughput rates
- Optic tube inspector with up to 100 cycles/min
- Interface feeding rates up to 60 cycles/min
- Efficient use of long winding machines up to 96 spindles in linked systems

Economic automation

- Efficient custom mill layouts possible
- Optimum space utilisation:
  - economic link of short ring-spinning machines
  - link installations for mills with limited space
- More economical than single link or manually operated mills:
  - reduction of energy and operator costs
  - less waste is generated than with manual feeding

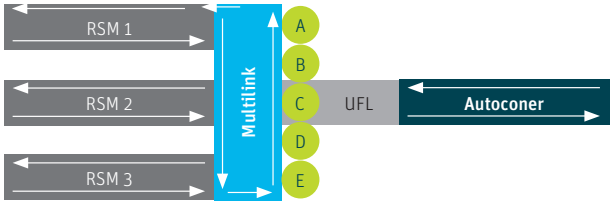
Guarantee of high quality level

- Integration of SPID (Spindle Identification System) to monitor the quality of each ring spinning spindle
- RFID technology as basis for SPID guarantees consistent quality

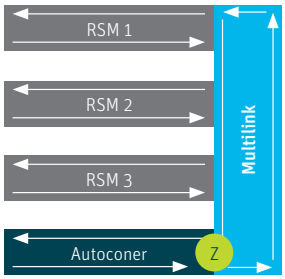
Economic automation – maximum throughput rates

The maximum possible throughput rates are decisive for the design and capacity calculation. Here the Autoconer has an enormous advantage: the patented optical infrared tube inspector allows material flow rates of up to 100 tubes/min, so that the interface capacity (up to 60/min) can be used to the maximum. More ring spinning positions can be assigned to an Autoconer X6 than to other winding machines. With Multlink the operating costs will be lower over the entire lifetime of a mill: up to 20% lower energy costs (compared to single-link) or up to 70% lower operator costs (compared to RM installations), depending on the configuration. Transport automation needs a lower number of one-off units, e.g. lifters, which makes it more appealing to increase the automation level.

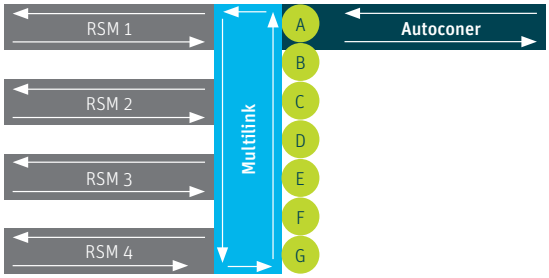
Sample: Underfloor link (3:1)



Sample: Parallel positioning (3:1)



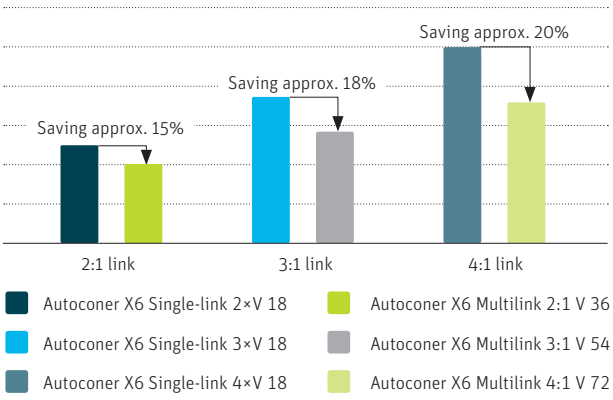
Sample: Positioning in row (4:1)



Quality boost with SPID

The integrated SPID (Spindle Identification System) allows online monitoring of the yarn quality at each individual ring spinning position, even when an Autoconer X6 is linked to up to four ring spinning machines. RFID technology avoids mixing up lots and prevents failures that can occur during manual feeding.

Comparison of possible energy savings due to Multilink
Qualitative energy savings in %



Multilot: Intelligent Processing of up to Four Lots on One Autoconer

Multilot is the intelligent, flexible extension for Multilink. The Autoconer can process up to four different materials supplied by the ring spinning machines. Reliable lot differentiation and clear operator guidance are guaranteed.

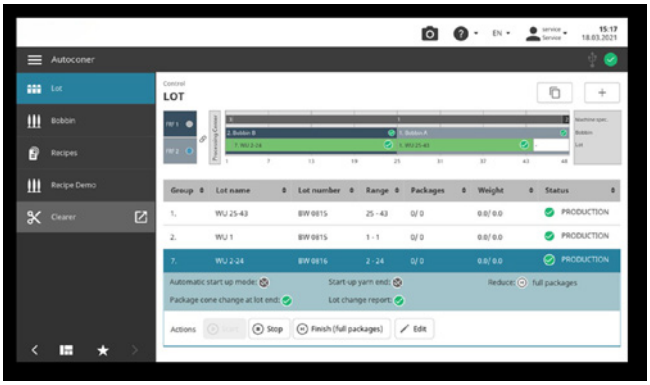
Flexibility on a new level

- Winding different material feeds simultaneously on one machine
- Each ring spinning machine linked through Multilink can supply a different type of yarn

Up to four different lots can be processed on one Autoconer with Multilot

Intelligent automation

- The feed areas can be flexibly adjusted at the touch of a button right down to the individual winding unit
- No limitation to one section size, as with other suppliers
- No downtimes for lot size adaptation, no laborious mechanical changeovers

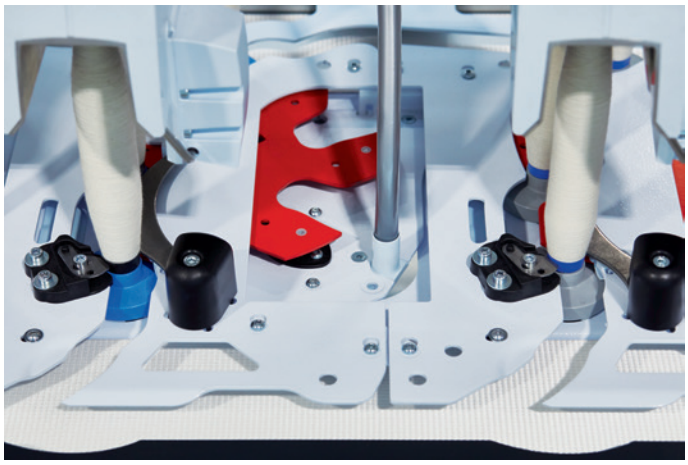


Central settings and easy adaption of working ranges at the touch of a button

Simple and clear operator guidance

- Each material feed from the ring spinning machines is differentiated by color-coded Smarttrays
- This color-coding is clearly indicated on the operating unit with a corresponding LED color

Corresponding LED color on the winding unit display



Simple and clear operator guidance by color-coded Smarttrays

Unique intelligent process automation

- There is no comparable material flow flexibility on the market
- If two ring spinning machines deliver the same material, one working area can be combined and operated by both
- Customized lot allocation of the cop preparation stations is possible:
  - either each cop preparation station works per lot or all preparation stations can process al lots

Highly flexible lot allocation and processing

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