COMPACTeasy
Compact spinning
COMPACTeasy

The new mechanical compacting solution
OUTSTANDING ADVANTAGES

Low Investment Costs
For customers with a restricted investment budget

No Additional Energy Required
Intensive double compacting thanks to invariable fiber guiding in the y-channel of the Compactor without additional energy consumption

Excellent Yarn Characteristics
Similar levels in the yarn values and parameters as in pneumatic compact-spinning

For Any Type of Ring Spinning Machine
New ring spinning machines can be equipped with the compacting device
Easy retrofit on machines that have already been installed
Consistent Yarn Quality
Same yarn quality from spindle to spindle thanks to the traverse motion support for yarn count ranges from Ne 20 to Ne 80

Reduction of Maintenance Work
Traverse motion of the Compactor leads to longer lifetime of cots

Processes All Standard Materials
For the most common applications, including the spinning of blends and 100% man-made fibers

Fast Plug on and Plug off
Quickly switching of production from ring yarn to compact yarn
Mechanical Compacting at Low Investment Costs

Real compacting with no additional energy

The compacting device COMPACTeasy is a mechanical compacting system which allows real compacting without additional energy consumption thanks to the y-channel in the Compactor. All standard raw materials such as cotton, man-made fibers and their blends can be processed with COMPACTeasy.

Less wear and tear

The device consists of the retainer holding the front top roller and the smaller COMPACTeasy Roller. The spring easy-Spring presses the COMPACTeasy Roller onto the bottom roller. Between the two top rollers there is the Compactor with the y-channel and the preceding Pin. The Compactor is pressed against the bottom roller by the Compactor spring with a low spring force. This causes considerably less wear on the Compactor than magnetically loaded compacting elements.

Reduction of maintenance work

Due to the traverse motion of the Compactor no grinding of the COMPACTeasy Roller is necessary. The cots are exchanged at the end of their service life. Depending on the fiber material spun, a lifetime of 1.5 years can be expected. This reduces the maintenance work significantly.
Consistent Yarn Quality

Constant yarn quality thanks to traverse motion system

Part of COMPACTeasy is the traverse motion support. The traverse motion of the standard rod in the ring spinning machine is transferred along the drafting plane directly to the Compactor. This enables a traverse motion of 6 mm at the COMPACTeasy Roller. This is a considerable advantage over the flipping of the front top roller usual in mechanical systems. It extends the lifetime of cots and ensures in particular a permanently constant yarn quality.

To support the traverse motion system in the ring spinning machine, pneumatic or electronic drives are installed at each machine end. Each device moves the right and left traverse motion rod simultaneously. The pulling of the traverse motion rods prevents them from buckling.
Excellent Yarn Characteristics

Improved yarn irregularity and increased yarn tenacity

The function of the Pin is similar to the PINspacer in conventional ring spinning. The yarn quality is determined not only by the Compactor, meaning the y-channel, but also by the integrated Pin. This Pin preceding the compacting channel takes effect in exactly that zone of the drafting system where the fibers have the least guidance. This process improves the yarn irregularity and increases yarn tenacity. Consequently, the yarn parameters reach a level similar to pneumatically spun compact yarns and a much better level to conventional ring yarn and other mechanical compacting systems.

![Compactor with y-channel and Pin](image)

<table>
<thead>
<tr>
<th>Ne 20</th>
<th>Ne 30</th>
<th>Ne 40</th>
<th>Ne 50</th>
<th>Ne 60</th>
<th>Ne 80</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS (black)</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>P4 (white)</td>
<td>P3 (green)</td>
<td>P2 (yellow)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P1 (red)</td>
<td></td>
<td></td>
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</tbody>
</table>

Four different Pin heights (1 – 4) and one without Pin (5) are assigned to yarn count ranges from Ne 20 to Ne 80

| Yarn values achieved with COMPACTeasy vs. conventional ring spinning resp. other mechanical compacting system for different yarn counts and materials |

- **Tenacity in cN/tex**
  - 100% CO, Ne 30: 24
  - PES/CO, Ne 40: 22
  - 100% CV, Ne 50: 18

- **Hairiness H**
  - 100% CO, Ne 30: 6
  - PES/CO, Ne 40: 5
  - 100% CV, Ne 50: 4

- **IPI**
  - 100% CO, Ne 30: 2500
  - PES/CO, Ne 40: 2000
  - 100% CV, Ne 50: 1500

- Conventional
- COMPACTeasy
- Other mech. systems
Intensive Mechanical Double Compacting

Positive effect on yarn parameters

The y-channel in the Compactor provides more intensive double compacting. This has a positive effect on the yarn parameters as it is real compacting. The y-channel in the Compactor is independent of the yarn count. The geometry of the channel is such to ensure an invariable fiber path, the closest passage of the Compactor being wider than the different channels of other mechanical compacting systems. Obstruction of the channel by trash or thick places is therefore excluded. Furthermore, the y-channel permits double compacting, because mechanical compacting is effected twice by the special shape of the channel and the S-shaped flow of the fiber strand in the channel. This more intensive compacting compared to other mechanical compacting systems has a positive effect on the yarn parameters.

Adaption to market needs

COMPACTeasy enables production to be quickly switched from ring yarn to compact yarn by simply plug on or plug off the compacting device on a ring spinning machine.

The compacting device produces yarns with excellent characteristics from all standard raw materials, such as cotton, man-made fibers and their blends.

COMPACTeasy can be added to the specifications for new ring spinning machines and supplied with the machines. Machines that have already been installed can be easily retrofitted.
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