RSB-D 26
Double-Head Autoleveler Draw Frame RSB-D 26

The best sliver quality at highest productivity
RSB-D 26

Best Quality
Independent sides of the machine and precise autoleveling guarantee high sliver quality on both sides.
High Productivity
Depending on the fiber material, the double-head draw frame produces up to 33% more sliver compared to the previous model.
Energy-Efficient
The drive concept reduces the number of belts required by 23%. This, in turn, saves on energy costs.
OUTSTANDING ADVANTAGES

RSB-D 26

Low Energy Consumption
23% less belts and drive elements, energy-efficient drive ECOrized

Minimal Space Requirement
2, 3 and 4-row creels are possible

Consistent Quality Thanks to Efficient Suction
Frequency-controlled drive, automatic filter cleaning, lifting cleaning lips on top rollers

Outstanding Sliver Evenness
RSB autoleveling with maximum scanning precision and autoleveling dynamics, online check by Rieter Quality Monitor
Quality Through Specific Fiber and Sliver Guidance
Modern drafting system technology with improved fiber guidance, large top rollers with maintenance-free bearings

Efficient Operator Guidance
Touchscreen, LEDs visible from a distance, USB interface

Fast Lot Change
Expert system SLIVERprofessional on the machine

Maximum Production Time
Independent machine sides and autoleveling, delivery speed of up to 1 200 m/min per head

Clean, Consistent Coiling Quality
Individual drives, sliver sensor, coilers CLEANcoil and CLEANcoil-PES, coiler control CLEANtube
Outstanding Sliver Evenness
The RSB autoleveler with maximum scanning precision and autoleveling dynamics

Autoleveling begins with scanning precision

The quality of the autoleveler is important for outstanding sliver evenness. Perfect autoleveling begins with precise scanning of the feed slivers. Compared to other “tongue-and-groove” systems, the RSB-D 26 scans the sliver with tiny scanning disks. Thus, a short piece of sliver is always located between the disks. Precise autoleveling requires highly accurate measured values.

Thanks to the uncoupled machine sides, the autoleveling quality and sliver evenness of the RSB-D 26 are exactly the same as of the single-head draw frame RSB-D 50.

Autoleveling requires dynamics

The drive concept ensures that the precise scanning values are transmitted right into the drafting system. This requires a high dynamic level in the power transmission. This is achieved through fewer moving parts as well as a high dynamic level of the servomotors. This results in superb sliver evenness, even at maximum delivery speeds – from the first to the last centimeter.

The RSB autoleveling principle for even yarn

A digital signal processor processes the signals from the scanning disks on the basis of a sophisticated algorithmic calculation. The value is then precisely transmitted to the drive when the measured sliver piece is located at the drafting point of the main draft zone. Thus, the sliver or yarn always has a high degree of evenness.
Quality Through Specific Fiber and Sliver Guidance

Modern drafting system technology

Optimal fiber guidance

Conventional sliver guides in front of the drafting system pose a risk of incorrect adjustments. The most common consequence of this is non-centric guidance of the slivers and the resulting disturbing faults in the yarn. Rieter’s patented sliver guide guarantees centric guidance of the slivers at all times and ensures consistent sliver quality.

The web width is reproducible and is set by a simple turning of the guide elements. The geometry of the 4-over-3 drafting system allows narrow cylinder distances. This means that even short fiber lengths can be processed well. Additional fiber guides in the main draft zone prevent lateral slipping of the edge fibers. As result, there are fewer disturbing faults in the yarn.

Ensuring quality

If a lap occurs in the drafting system, the rapid load relief prevents the formation of hard laps even while the machine is still being stopped. The laps can be removed quickly and easily. This ensures the quality of the cots and thus the quality of the sliver.

Threading a sliver into the web nozzle is easy. The motors of the drafting system produce a finer sliver tip which is automatically threaded in by compressed air, quickly and reliably. The central setting of the drafting system distances without gauges allows rapid assortment change.

Innovative top roller technology

The large top rollers guarantee interruption-free operation without lap formation as well as a long service life. They keep the rotational speed, and so the temperature of the top roller cots, low. This is the basis for high delivery speeds combined with high quality.

The load on the top rollers can be set variably. The top roller bearings are lubricated for their entire lifetime.
High Productivity
High delivery speed with consistent quality

High delivery speeds

The RSB-D 26 produces sliver at a delivery speed of up to 1,200 m/min. Depending on the fiber material, the average speed is up to 33% higher than the previous model. And with consistently high sliver quality.

These technical solutions contribute to the high delivery speed:
- Excellent scanning precision by means of small scanning rollers
- Improved sliver and fiber guidance
- Leveling motor with maximum dynamics
- Precise sliver coiling thanks to coiler CLEANcoil

High efficiency

The draw frame has high production efficiency. The machine has two independent machine sides. When one machine side is at a standstill, the other side continues to run. The maintenance and cleaning requirements are low. Lot changes can be implemented quickly with the aid of the expert system SLIVER-professional. Due to the large top rollers and lifting cleaning lips, the machine runs with very few laps. The linear can changer has short change times.
Low Energy Consumption
New drive concept

Energy-saving drive concept

The draw frame RSB-D 26 requires 23% less belts and drive elements compared to the previous model. A patented drive concept with two servomotors drives the drafting system.

The individual drive of the coiler replaces the twisted belt thereby increasing its lifetime. The new separate drive for the can plates combines convenience and quality during sliver coiling. The low friction is the basis for the low energy consumption. Due to the frequency-controlled drive, additional energy costs can be saved.

Reducing energy costs

The draw frame is equipped with integrated energy monitoring as standard. This also supports preventive maintenance and can reduce the risk of machine failures. The new drive solution allows annual savings of up to 1 500 euros per machine. Over the lifetime of the machine, this means an extremely attractive return on the investment.

Sturdier in the event of power fluctuations

During a short power fluctuation, the control voltage is supplied from the drive converter. This energy store can compensate for short-term voltage interruptions and reductions – the draw frame keeps running. During longer interruptions, the draw frame with active autoleveler shuts down in a controlled manner. The web remains in the threaded state. This allows a quick and smooth restart of the machine.
Clean, Consistent Coiling Quality and Good Downstream Processing

Innovations in sliver coiling

Preventing deposits

CLEANcoil is the standard coiler for all fiber materials and therefore offers maximum flexibility. The spiral coiling tube ensures sliver coiling that is free of drafting faults, even at high delivery speeds. The honeycomb structure on the coiler underside reliably prevents deposits.

The patented new coiler CLEANcoil-PES has a new type of coating. Even with hard-to-process polyester fibers, the production time until the next cleaning cycle can be more than doubled. This ensures the high quality of the sliver.

Sliver coiling without accumulations of trash

With the processing of cotton or its blends with man-made fibers, trash particles and short fibers can accumulate during can filling in the sliver duct of the coiler (also known as a “mouse”). When the can fill quantity is reached, the draw frame stops. The “mouse” reaches the uppermost sliver layer.

CLEANtube, the optional control for the coiler drive, prevents trash particles and short fibers from accumulating in the sliver duct. Per year and per draw frame head, the use of CLEANtube saves up to 300 hours of work for the manual removal of the “mice” and prevents up to approx. 0.6% sliver waste. CLEANtube also avoids up to 200 000 defects in the sliver per year and draw frame head. Therefore, both the production efficiency in downstream processing and the yarn quality remain high.
Precise first sliver layers

A light barrier ensures controlled sliver coiling. It recognizes when the first sliver layers are on the coiler. Only then does it switch from the reduced to the full production speed. This ensures consistent sliver and yarn quality, even for cans with plates that are too low.

Precise sliver coiling from the very first meter prevents tangles in the subsequent processes and breaks when drawing the sliver out of the can. The cans therefore run without interruption until they are completely empty. This maintains high levels of machine efficiency, reduces operator intervention and reduces sliver waste.

Assuming 1% of the annual number of filled cans are affected, that means up to 8 000 cans for each draw frame. Despite difficult conditions, the sliver coiling sensor ensures faultless first sliver layers. This is a further step towards perfect quality without exceptions. A patent is pending for this Rieter innovation.

Reliable sliver cutting

When processing fibers with high fiber-to-fiber friction, as is the case with man-made fibers, active sliver cutting is necessary for a trouble-free can change. The motors of the autoleveling drafting system create a thin place that is conveyed below the coiler. This breaks off during the can change.
Consistent Yarn Quality in Downstream Processing

Efficient suction

High sliver quality

Dust deposits in the drafting system can be avoided. Due to the intermittently lifting cleaning lips on the top rollers of the RSB-D 26, trash deposits enter directly into the suction system. Sliver funnel blockages are therefore demonstrably reduced. This improves yarn cleanliness. Imperfections and Classimat faults are reduced. In addition, the number of yarn clearer cuts is significantly reduced.

Easier to clean

Cleaning work and laps in the drafting system cause unwanted stops of the machine. The patented and optimally placed cleaning lips reduce the formation of deposits on the top rollers of the drafting system. This makes cleaning easier. Even challenging raw materials, such as cotton containing honeydew, can be easily processed thanks to the cleaning lips. This increases the productivity of the machine.

Changing parameters easily

Only on the Rieter draw frame can the operator set the suction intensity quickly and conveniently on the touchscreen. The setting is easy to reproduce. This not only makes changing the material easier, but also eliminates quality deviations, for instance when several draw frames are feeding sliver to the same assortment.

Automatic filter cleaning

The filter screen is kept clean using a wiper. A differential pressure measurement in the suction box controls the automatic cleaning cycle. The underpressure therefore remains absolutely consistent. The sliver and yarn quality is consistently high. This ensures good running behavior of the yarn in the subsequent process.

![Intermittently lifting cleaning lips to prevent dust deposits](image)

![Optimally placed cleaning lips](image)

![Easily reproducible settings on the touchscreen](image)

![Underpressure/Cleaning Efficiency](image)
Automatic Quality Monitoring
Reliability thanks to the Rieter quality monitor

Online quality monitoring

The Rieter Quality Monitor (RQM) continuously checks the sliver count of the delivered sliver using a movable calender roller. The RQM works independent of the autoleveler unit. It automatically stops the draw frame if the preselected limit values are exceeded. The spectrogram also visualizes shortest wavelengths and thus confirms the precision of the measurement. This reduces the number of sliver tests in the laboratory.

For more advanced analyses of the measured values, it is possible to connect the RQM to the mill management system ESSENTIAL.

Quality data output by RQM

- Sliver count A%
- Sliver evenness CV% and length variation values for 5 cm, 10 cm, 25 cm, 50 cm, 1 m, 3 m, 5 m
- Current spectrogram
- Presentation of quality diagrams from the last 20 days
- Recording of thick places > 2 cm

If the RQM detects thick places, measures such as the following may be necessary:
- Checking of the cleaning and maintenance services on the card, combor and draw frame
- Monitoring the sliver piecing

The thick place detection also helps with the optimization of spinning processes:
- Support with technological optimizations
- Improvement of the sliver and yarn quality
- Ensuring the high productivity of roving frames, end spinning machines and winding machines
Efficient Operator Guidance

Simple and intuitive

Touchscreen for intuitive operation

The RSB-D 26 features the latest control generation as well as a high-resolution color touchscreen. The operator is guided intuitively through the program.

Modern interfaces for fast lot changes

Data can be transferred quickly and easily to other machines via a USB interface. Errors when transferring the machine settings can thus be avoided.

Connection to the mill management system ESSENTIAL is possible. This simplifies data evaluation.

LEDs guide the operator

Clear notices are critical for the operator when it comes to keeping distances short. Therefore, LEDs that are visible from a distance indicate the status of the draw frame. This simplifies the work of the operator.

Meaningful data

The touchscreen not only displays data on production and sliver quality. It can also display helpful additional information: such as a logbook for the complete documentation of machine settings or detailed data of machine downtimes including cause and duration. These are helpful tools for problem analyses on shifts with few personnel, for instance at night.
Fast Lot Change
Easy access to know-how via the touchscreen

Helpful Information
Frequent personnel changes or a shortage of specialists are a challenge for spinning mills. Rieter helps its customers with excellent support directly on the touchscreen.

High availability thanks to SLIVERprofessional
The expert system SLIVERprofessional is integrated directly into the touchscreen. It provides valuable technological support. SLIVERprofessional provides recommended settings for the entire machine after entering the raw material data. These can be transferred to the machine as a data record. The data record is stored in the machine's internal database and can be activated at any time.

In addition, SLIVERprofessional analyzes spectrogram errors such as periods and draft waves. The operator can correct the error quickly. This way, the machine always has high availability.

Accessing the operating instructions quickly
Printed operating instructions are often not readily available. All the important chapters from the operating manual are therefore accessible on the touchscreen of the RSB-D 26. This greatly reduces the time required for the lot changes.

The following settings can be changed quickly and easily on the touchscreen:
- Coiler speed
- Can plate speed
- Suction intensity
- Total draft
- Delivery speed
High Machine Availability Reduces Costs
Sophisticated service and maintenance concept

Independent maintenance of machine sides

With the RSB-D 26, both sides can be maintained independently of each other. This allows service tasks to be performed on one side of the machine while the other side continues to produce, which improves the efficiency of the draw frame.

Long service life

Overpressure in the interior of the machine forces the heat outward. This leads to a long service life of electronic and mechanical components. All major fiber-guiding elements have a resistant Rieter coating. This ensures a long service life.

Self-setting autoleveler autoset

For lot changes, the leveling action point is the most important setting value of the autoleveler. The self-setting autoleveler AUTOset determines the leveling action point automatically, which saves valuable time.
Convenient lubrication

The RSB-D 26 offers two lubrication options. The machine is fitted with a central lubricating strip as standard. This is easily accessible and ensures that no lubricating point is forgotten. Optionally, the draw frame is also available with one central lubricating point, which offers even greater convenience.

Videos support the staff training

Rieter supports its customers with electronic operating instructions on DVD, which includes training videos. The videos describe how to set and maintain the machine correctly. Having well-trained staff keeps service costs low. Productivity and sliver quality remain permanently at a high level.

Preventive maintenance through energy monitoring

The standard equipment includes the display of energy consumption on the machine’s touchscreen. The active power [kW] and the active energy [kWh], as well as graphical and shift analysis, are displayed. This data screen is a helpful tool that also enables preventive maintenance.
The combination of the double-head draw frame SB-D 26 without autoleveler and the RSB-D 26 forms the most compact draw frame line on the market. Especially in limited spaces, this combination of machines is the first choice for a spinning mill.

Optimal layout

The RSB-D 26 can be both mounted onto the mill floor and recessed into the floor. With the latter variant, the transfer height of the can on the empty can magazine is lower. This is more comfortable for the operator. The full cans are pushed out directly onto the floor of the spinning mill. Thus reducing the dimensions of the machine.
Product Range
The right draw frame for your individual needs

Rieter offers the right draw frame for every requirement in respect of sliver quality, productivity, operator convenience and space requirements. This gives Rieter customers competitive advantages.

_all autoleveler draw frames from Rieter use the highly dynamic RSB autoleveling technique. As a result, the draw frames produce high quality sliver. The yarns spun from it have excellent running characteristics in the subsequent production stages._

<table>
<thead>
<tr>
<th>SINGLE-HEAD DRAW FRAMES</th>
<th>DOUBLE-HEAD DRAW FRAMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autoleveler draw frame</td>
<td>Autoleveler draw frame</td>
</tr>
<tr>
<td><strong>RSB-D 50(c)</strong></td>
<td><strong>RSB-D 26(c)</strong></td>
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<tr>
<td>Draw frame without autoleveling</td>
<td>Draw frame without autoleveling</td>
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<tr>
<td><strong>SB-D 50</strong></td>
<td><strong>SB-D 26</strong></td>
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Machine Data
Double-head autoleveler draw frame RSB-D 26

<table>
<thead>
<tr>
<th>Power creel (driven)</th>
<th>Coiling with can changer</th>
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<tr>
<td>---------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>600</td>
<td>2</td>
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<td>600</td>
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<td>1 200</td>
<td>3</td>
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Technological data

<table>
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<tr>
<th>Type</th>
<th>RSB-D 26</th>
<th>RSB-D 26c</th>
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<tbody>
<tr>
<td>Material</td>
<td>Cotton, man-made fibers, blends, fiber lengths up to 60 mm</td>
<td></td>
</tr>
<tr>
<td>Doubling [fold]</td>
<td>up to 8</td>
<td>up to 8</td>
</tr>
<tr>
<td>Feed [ktex]</td>
<td>12 – 50</td>
<td>12 – 50</td>
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<tr>
<td>Draft [fold]</td>
<td>4.0 – 11.6</td>
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<tr>
<td>Delivered sliver weight [ktex]</td>
<td>1.25 – 7</td>
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Technical data

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<th>Delivery</th>
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<tbody>
<tr>
<td>Delivery speed [m/min]</td>
<td>up to 2 x 1 200</td>
<td>up to 2 x 600</td>
</tr>
<tr>
<td>Main motor [kW]</td>
<td>2 x 3.90</td>
<td>2 x 3.90</td>
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<tr>
<td>Feed motor [kW]</td>
<td>2 x 3.90</td>
<td>2 x 3.90</td>
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<tr>
<td>Suction motor [kW]</td>
<td>1.50</td>
<td>1.50</td>
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<tr>
<td>Machine control [kW]</td>
<td>0.50</td>
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<tr>
<td>Coiler motor [kW]</td>
<td>2 x 1.10</td>
<td>2 x 1.10</td>
</tr>
<tr>
<td>Can table motor [kW]</td>
<td>2 x 0.20 / 2 x 0.37</td>
<td>2 x 0.20 / 2 x 0.37</td>
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<tr>
<td>Can changer [kW]</td>
<td>2 x 0.12</td>
<td>2 x 0.12</td>
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<tr>
<td>Compressed air/consumption [m³/h] min. 6 bar</td>
<td>2 x 0.05</td>
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</table>

Standard equipment

- Energy-saving drive concept ECOrized (patented)
- Max. delivery speed 2 x 1 200 m/min (RSB-D 26c: 2 x 600 m/min)
- Frequency-controlled drives for coiler, can plate, suction, draft and delivery speed
- Rieter’s spring-loaded 4-over-3 drafting system
- Drafting system suction with cleaning lips on top and bottom rollers
- Automatic filter cleaning
- Rapid top roller load relief in the event of a standstill or lap formation
- Central drafting system setting without gauges
- Pneumatic web threading with sliver refinement
- Coiler CLEANcoil with honeycomb structure (standard)
- Sensor for sliver coiling
- Sliver cutter by means of draw frame draft
- Automatic can changer
- Empty can feed with two spare cans per head
- Highly dynamic autoleveler system with “tongue and groove” scanning discs
- Self-setting autoleveler AUTOset
- Quality monitoring Rieter Quality Monitor RQM
- Central lubricating strip
- Lifetime-lubricated top roller bearings
- Quick-tensioning device for belts
- Touchscreen for intuitive operation
- Operating instructions integrated in the machine display
- LEDs for operator guidance, visible from a distance
- USB interface
- Connection port to mill management system ESSENTIAL
- Operating instructions (digital)

Variants

- Can format at feed: diameter up to 1 200 mm, height up to 1 520 mm
- Can format at delivery: diameter 400 – 600 mm, height up to 1 520 mm
- Can discharge onto floor or can trolley
- Power creel: 2-, 3- and 4-row creel
- Integrated suction (exhaust air into room or duct)
- Central suction
- Machine mountable on floor or recessed into floor

Options

- CLEANtube – sliver coiling without trash and short-fiber deposits
- Coiler CLEANcoil-PES (100% PES)
- Central lubrication (central nipple)
- Up to two additional spare cans per head
- Docking unit for can trolleys
- Can brake for cans with castors
- Expert system SLIVERprofessional integrated in operating unit
Rieter Double-Head Autoleveler Draw Frame RSB-D 26
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