The card with the maximum active carding area
The combination of 1.5 m working width, largest active carding area and precision of the carding gap is the foundation for high production and the quality of the yarn produced.
No Other Produces More
Excellent Raw Material Utilization
Selective trash removal thanks to the adjustable knife on the licker-in, inserts on the Q-package and varying flat speeds optimize raw material utilization.
The unique IGS system guarantees consistent sliver quality during the lifetime of the clothings. In practice, this increases the service life by up to 20%.
Consistent Sliver Quality
Short Downtimes
Quick adjustment to raw materials due to modular design

AEROfeed
Supplies up to 10 cards in one line with 1200 kg/h line production

Largest Active Carding Area
Maximal production is derived from the largest active carding area

Consistent Sliver Quality
IGS – ensures permanently sharp clothings and increases the clothing service life

Excellent Raw Material Utilization
Selective trash removal in the carding process

Sophisticated Solutions from Start to Finish
Intervention-free machine operation due to absolutely uniform batt weight and web formation
Energy-saving
Compact design with small moveable masses

OUTSTANDING FEATURES

Everything under Control
High production and sliver quality with the reliable leveling of the card and controlled fiber guidance

Process Shortening
Quicker material throughput with draw frame modules
No Other Produces More

The combination – largest active carding area and precise carding gap – is the reason

Key factor carding area

Decisive for the yarn quality on the cards is the number of the card flats in contact across the working width. The C 70 with 32 flats in working position and 1.5 m working width has the largest active carding area and thereby differs significantly from other card models.

The active carding index (ACI) is a parameter for the effective carding area – the number of flats that engage is multiplied with the card working width. Based on the table, various card models are listed in the ACI and explain logically why the C 70 performs such good carding work.

Precise carding gap

Decisive for the carding result is still the precision of the carding gap over the whole machine width. The carding gap is set according to the production and the raw material processed. Due to the precise flats guidance, the tight tolerances and the material combination, cast-iron plate with cast-iron cylinder, the carding gap also adheres exactly to the predefined setting during operation.
Optimal Raw Material Utilization
Savings thanks to more selective trash removal

Savings with the selective trash removal

With the selective trash removal, you determine the economic success based on intelligent utilization of the raw fiber material and targeted quality of the end product. Potentials for saving are considerable, as is shown in the graph Savings potential with the C 70 depending on the cotton price and waste percentage (Basis 800 kg/h card line production).

Variable extraction width on the licker-in

The mote knife on the licker-in is quickly adjusted for optimal raw material utilization as well as flexible adaptation to various raw materials. The C 70 offers optimal configuration possibilities for every practical requirement. The manual adjustment allows adaptation of the mote knife. An automated version is optionally available which makes adjustment of the mote knife possible during production.

With the licker-in, the extraction width can be variably set according to the trash content of the cotton and the required waste amount.
Q-package in pre-and post-carding zone

Extremely profitable is the optimal raw material utilization resulting from the low-wear mote knife in the pre- and post-carding zone with differing extraction width. Inserts can be replaced in the shortest possible time, without using tools. For the different degrees of contamination, four designs are available – open, fine, medium and strong.

Variable flats speed

Via frequency converter, speed of the flats can be continuously adjusted to production and quality – independent of the cylinder speed. The card is thereby exactly aligned to the raw material being used.
Separate licker-in waste disposal

The separate disposal of the licker-in waste is an option of the C 70, which has an extremely short payback time. Hence the cleaner, more valuable flat waste is separated from the dirtier licker-in waste. This is either resold as valuable raw material, or is fed into the yarn production in the spinning mill by means of a recycling line.

Licker-in waste

<table>
<thead>
<tr>
<th>Example</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Production (12 C 70 with 95 kg/h)</td>
<td>1 140 kg/h</td>
</tr>
<tr>
<td>Yearly working hours</td>
<td>8 400 h</td>
</tr>
<tr>
<td>Total card waste</td>
<td>5.5%</td>
</tr>
<tr>
<td>Licker-in waste</td>
<td>1.5%</td>
</tr>
<tr>
<td>Mixed waste without separate licker-in waste disposal</td>
<td>USD/kg 0.72</td>
</tr>
<tr>
<td>Licker-in waste with separate licker-in waste disposal</td>
<td>USD/kg 0.43</td>
</tr>
<tr>
<td>Flats and card waste with separate licker-in waste disposal</td>
<td>USD/kg 0.97</td>
</tr>
</tbody>
</table>

Features of the separate licker-in waste disposal are:
- Very economical, intermittent waste disposal, that is integrated in the waste transport of the blowroom and therefore does not generate any additional air requirement.
- A visual assessment of the waste composition is possible at any time.
- The waste box on rollers allows easy handling with maintenance and repair work.
Unique Integrated Grinding System IGS
Ensuring consistency of quality and increasing the service life of the clothing by 20%

The continual wear of the card clothing gains in importance with highly productive cards. The integrated grinding system IGS – exclusive to Rieter – solves this problem from scratch by keeping the clothings constantly sharp.

IGS-classic keeps the cylinder clothing sharp

With IGS-classic, a grindstone is automatically moved across the cylinder clothing during production. This operation is performed 400 times during the expected service life of the clothing. Spread over the service life of the cylinder clothing, the programming of the grinding plan calculates the optimal distribution of the grinding cycles.
IGS-top additionally sharpens the flat clothing

The IGS-top sharpens the flat clothing fully automatically. The control calculates the grinding cycles over the pre-selected service life of the flat clothing. Through the many small grinding operations, the quality remains more constant in comparison to that with fewer, aggressive manual grinding operations of a full grinding roller.

With IGS you save money

In practice, it has been shown that the life cycle of the cylinder clothing is extended by 10 – 20% in all applications through the use of IGS-classic. In addition, the savings gained from the lower maintenance requirements are evident. Furthermore, the machine downtimes necessary for manual grinding are eliminated.
The Recipe for Low Energy Consumption is Found in the Machine Design

Lower energy consumption than all other cards

Card C 70 – the green card

A large price factor with yarn manufacture is the energy consumption. With Rieter spinning machines, focus has always been placed on low energy consumption. With the introduction of the 1.5 m technology, the energy consumption of the cards has been drastically reduced. As a consequence of the innovations in the area of flats, the Card C 70 exhibits an energy consumption that is 20% lower (kW per kilogram of produced card sliver).

The lowest energy balance is based on:
• Maximal performance capacity
• Innovative machine geometry with small, moveable masses, as with the cylinder with larger working width
• Precise machine construction, e.g. exact flats distance

Energy consumption strongly reduced since 1992
With the same carding quality, the C 70 saves more than 40% energy compared to 1 m cards.

115% higher performance

42% lower energy consumption

Yearly savings 43 433 CHF

Details are based on comparable quality values, i.e. the C 70 produces an equal or better card sliver at higher production.
Modular Design

Minimal downtimes

Modular design

In addition to the modern and attractive appearance of the C 70, comprehensive ergonomic improvements are integrated. These guarantee the operator friendliness and minimal machine downtimes.

Modules increase the productivity

Replacement of the licker-in, flat and doffer clothing with conventional cards is a time-consuming maintenance operation. The modular construction of the C 70 reduces these downtimes to minimal values never before achieved. All three modules are even quicker to replace with prepared optional spare modules. Each of these operations requires just one person from the maintenance staff. For instance, the licker-in module can be completely replaced in less than 90 minutes. With the IGS-system and the modular machine concept, Rieter has taken an important step towards reducing the machine downtimes and at the same time maintaining consistently better sliver quality.
AEROfeed
Feeding up to 1 200 kg/h in a continuous line

AEROfeed

Up to 1 200 kg/h* tuft material can be most economically processed with 10 cards in a continuous line. In addition, it is possible to flexibly arrange the feeding of the card line which allows optimal utilization with various raw material lots.

*dependent on raw material
Sophisticated Solutions from Card Feed to Delivery
Uniform batt and smooth machine running

Patented pressure control

The patented pressure control (patent pending) in the card chute replaces the classical light barrier control. This functions by giving a precise batt weight at the card feed, taking into account the raw materials and their characteristics. The result is a minimal variation [CV%] of the batt weight.

Quickly removable web bridge – a reliable solution

Man-made fibers with strongly lubricating fiber finish or cotton with honeydew tend to contaminate fiber guide elements. Here the web bridge must be frequently cleaned to maintain the quality level. The solution for this time-consuming undertaking is the new, patented web bridge (patent pending). In the shortest possible time, it can be removed, cleaned and reinstalled. If there is an appropriate replacement component in the spinning mill, the downtime can be reduced to a few minutes. The new web bridge allows a perfect, uniform web and ensures continuous operation of the card. Thick places are substantially reduced.
From the Batt to the Sliver
Perfect control of the fibers for unequalled sliver quality

Sliver formation

The sliver formation takes place over a dynamically controlled web transport, that consists of two cross aprons and a pair of rollers. It is therefore possible to reliably produce fine slivers [4 ktex] at a high delivery speed.

Card leveling

Short-term leveling

The feed trough measures the thickness of the supplied batt. The speed of the card feed roller adjusts automatically according to the values determined, so that a uniform sliver fineness is achieved.

Long-term leveling

The sliver fineness is measured by a disc roller pair at the sliver delivery. The measured signals are processed and used to control the feeding system.

Can change without loss of production and quality

The sliver coiler CBA is extremely space-saving and optimally adapted to the C 70. A compact sliver separation integrated in the calender unit operates reliably at full production. The sliver weight remains the same from start to finish of can filling.
Process Shortening by Process Integration

Draw frame module based on long established know-how

Rieter drafting technology

The integration of draw frame improves the economy and the productivity. In certain cases, application of the direct process with the rotor spinning process can optimize the yarn quality. The draw frame module is available in two versions:
- C 70 SB without leveling system.
- C 70 RSB with the proven Rieter leveling system.
According to the yarn count, raw material and spinning technology, the number of conventional drafting passages can be reduced.

The draw frame module of the C 70 is based on decades of unrivalled Rieter expertise concerning automatic leveling systems and the several ten thousand high-performance draw frames sold.

Process shortening

According to the yarn count and material used, the process can be shortened by application of draw frame modules on the card. Consultation on the optimal production process is a core competence of Rieter as system supplier.
Technology

The C 70 RSB is equipped with a digital short-term leveling system. The uniformity of the Card C 70 sliver is recorded using the well-proven principle of tongue-and-groove scanning rollers. Through the application of pneumatic load on the scanning roller, complete scanning is guaranteed. Based on the measured values, the digital signal processor calculates a nominal value for the highly dynamic servo-drive. This value is transferred at the very moment when the measured piece of card sliver reaches the leveling point in the main drafting zone.

Maximal leveling quality

In contrast to conventional products, the RSB module uses exact sliver scanning. This guarantees a 100% leveling of the sliver, both in the normal production process and in can change mode. The resulting advantages with the draw frame module are:

- Shorter and quicker production process.
- 100% leveled sliver with the C 70 RSB thanks to genuine draw frame scanning.
- Genuine parallelization of the fibers by up to 5-fold drafting.
- Increased productivity with lower space requirements.
Card C 70 for All Applications
Natural or man-made fibers – the C 70 processes them

From cotton to man-made fibers

All the features described make the Card C 70 the ultimate, universal card, which is at home in every area of application. It is equipped for every requirement profile. Whether it be man-made fibers, finer or coarser cotton or blends with man-made fibers.
The C 70 for man-made fibers

The advantage of the C 70 as a modular designed card is that it can be quickly adapted to new and familiar challenges of man-made fibers, without high-performance carding having to be reinvented. Compared to the version for cotton, several differences are visible and others can only be recognised when taking a closer look:

• Fiber guiding components are made of chromium (specially coated sheet metal).
• Licker-in, cylinder, flats and doffer clothings are specifically designed for man-made fibers produced from natural or synthetic polymers.
• The pre- and post-carding zone is accordingly equipped with carding elements (see graph).

The latest development CLEANcoil-PES with a new type of coating offers unique advantages in coiling. Even with critical polyester fibers, the cleaning cycle can be extended by at least 100%. This also leads to more consistent sliver and yarn quality.
Machine Data
Card C 70

Technological Data
- Raw material: Cotton and man-made fibers up to 65 mm
- Production: up to 280 kg/h
- Sliver fineness: 4 – 20 ktex
- Batt weight: 350 – 900 g/m

Technical Data (C 70 without Sliver Coiling)
- Installed power**: 21.3 – 29.8 kW
- Delivery speed: up to 300 m/min
- Compressed air: 0.7 Nm³/h
- Exhaust air: 1.20 m³/s
- Waste disposal: Central suction device, separate licker-in waste disposal
- Cylinder speed: 600 – 900 rpm

Machine Data
- Machine length (with standard chute): 3 325 mm
- Machine width: 2 380 mm
- Machine weight (with standard chute): 5 775 kg
- Working width: 1 500 mm

* JUMBOfeed
** incl. chute
Card C 70 with CBA coiler

CBA mounted on the floor, insertion from the side

<table>
<thead>
<tr>
<th>CBA Coiler</th>
<th>Measurements [mm]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cans Ø [mm]</td>
<td>A</td>
</tr>
<tr>
<td>600</td>
<td>1 100</td>
</tr>
<tr>
<td>750 / 800 / 1 000</td>
<td>1 500</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CBA Technical Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installed power</td>
</tr>
<tr>
<td>Compressed air</td>
</tr>
<tr>
<td>Exhaust air</td>
</tr>
</tbody>
</table>
Card C 70 with SB module

SB Module

<table>
<thead>
<tr>
<th>Cans Ø [mm]</th>
<th>Measurements [mm]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A</td>
</tr>
<tr>
<td>600</td>
<td>1 100</td>
</tr>
<tr>
<td>750 / 800 / 1 000</td>
<td>1 500</td>
</tr>
</tbody>
</table>

SB Module Technical Data

- Installed power: 4.0 kw
- Compressed air: 0.13 Nm³/h
- Exhaust air: 0.25 m³/s

SB module coiler mounted on the floor
Card C 70
with RSB module

Empty Can Magazine, Cans with Castors

<table>
<thead>
<tr>
<th>Cans Ø [mm]</th>
<th>Number of empty cans</th>
<th>Measurements [mm]</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>420</td>
<td>5</td>
<td>4 790</td>
<td>1.825</td>
<td>800</td>
<td></td>
</tr>
<tr>
<td>450</td>
<td>4</td>
<td>4 590</td>
<td>1.825</td>
<td>800</td>
<td></td>
</tr>
<tr>
<td>470</td>
<td>4</td>
<td>4 590</td>
<td>1.825</td>
<td>800</td>
<td></td>
</tr>
<tr>
<td>500</td>
<td>4</td>
<td>4 790</td>
<td>1.825</td>
<td>800</td>
<td></td>
</tr>
<tr>
<td>600</td>
<td>4</td>
<td>5 430</td>
<td>1.995</td>
<td>970</td>
<td></td>
</tr>
</tbody>
</table>

Empty Can Magazine, Cans without Castors

<table>
<thead>
<tr>
<th>Cans Ø [mm]</th>
<th>Number of empty cans</th>
<th>Measurements [mm]</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>420</td>
<td>5</td>
<td>3 900</td>
<td>1.825</td>
<td>800</td>
<td></td>
</tr>
<tr>
<td>450</td>
<td>4</td>
<td>3 700</td>
<td>1.825</td>
<td>800</td>
<td></td>
</tr>
<tr>
<td>470</td>
<td>4</td>
<td>3 900</td>
<td>1.825</td>
<td>800</td>
<td></td>
</tr>
<tr>
<td>500</td>
<td>4</td>
<td>3 700</td>
<td>1.825</td>
<td>800</td>
<td></td>
</tr>
<tr>
<td>600</td>
<td>4</td>
<td>4 350</td>
<td>1.995</td>
<td>970</td>
<td></td>
</tr>
</tbody>
</table>

RSB Module Technical Data

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Installed power</td>
<td>8.1 kw</td>
</tr>
<tr>
<td>Compressed air</td>
<td>0.08 Nm³/h</td>
</tr>
<tr>
<td>Exhaust air</td>
<td>0.25 m³/s</td>
</tr>
</tbody>
</table>
The Comfort of Competence

Put your confidence in Rieter’s competence and enjoy the comfort of partnership!

Rieter is the leading supplier of installations for manufacturing yarns from short staple fibers. As a competent partner, Rieter makes customers’ lives easier. It provides advice and support from the initial investment discussions to the successful operation of their spinning mills. Rieter’s comprehensive know-how from fiber through yarn to the finished textile is the basis for innovative machines and consistent yarn quality.

Settle back and relax thanks to Rieter.
Valuable Systems

Rieter is the only textile machine manufacturer to offer four spinning technologies and to advise customers competently, independently and with tailor-made solutions. Investments in Rieter machines are exceptionally attractive due to the outstanding price/performance ratio, the low conversion costs and the longevity of the products, which remain competitive by means of retrofits. Rieter has developed high quality standards since the company was established in Switzerland in 1795. All manufacturing facilities are ISO 9001 certified.

Convincing Technology

Rieter possesses comprehensive textile and technology expertise and covers the four spinning processes through to the textile end product. Alongside the most sophisticated machines and plants, Rieter offers extensive services in the field of textile technology. Customers profit from examinations and tests in Rieter’s spinning centers and laboratories and thus ensure the excellent quality of their yarns at high production capacity.

Supportive Partnership

Numerous sales and service centers support customers throughout the world. For decades, customers have enjoyed the advantages of one responsible contact partner for the entire spinning operation.
The data and illustrations in this brochure and on the corresponding data carrier refer to the date of printing. Rieter reserves the right to make any necessary changes at any time and without special notice. Rieter systems and Rieter innovations are protected by patents.