

Draw frame maintenance kits
RSB series machines D 40, D 45, D 50, D 22, D 24, D 26

RIETER

Draw Frame Maintenance Kits

Maintain high productivity and superb sliver evenness



Restoring original machine
performance with maintenance kits





Machine Maintenance Concept

Effective maintenance prevents costly repairs

Machine maintenance is a crucial aspect of ensuring a smooth and efficient operation of spinning machinery. It safeguards investments and prevents unexpected breakdowns. The key target of each spinning mill is to maintain and reduce conversion costs to improve profitability. Buying spare parts might seem like an additional cost, but it has a positive impact on the machine's performance, lifetime and the profitability of a spinning mill.

Maintenance is usually not a preferred job. Nevertheless, it supports machine performance. In addition, a good maintenance routine can benefit the following:

- minimize machine downtime,
- reduce waste,
- reduce energy consumption,
- improve sliver quality and
- increase machine lifetime.

This results in a positive impact on the conversion cost.

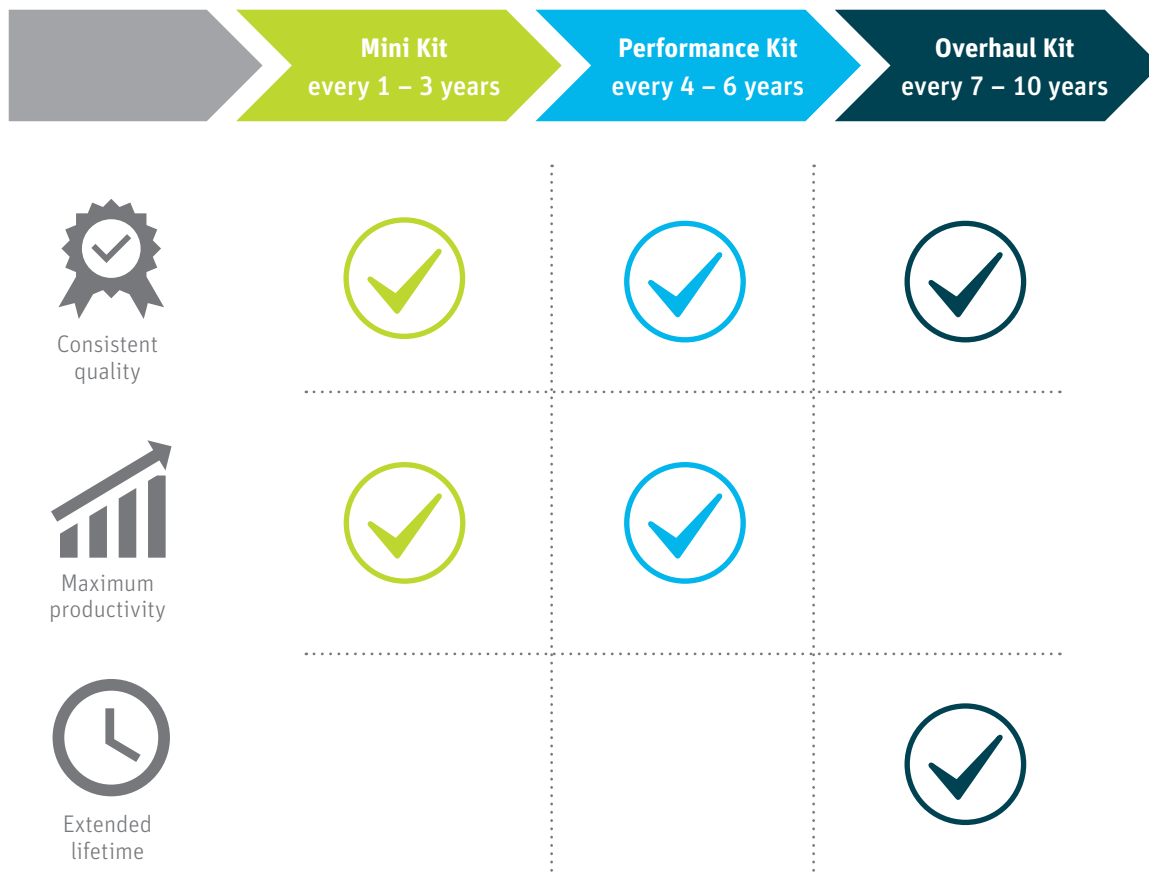
Maintenance Kits

A structured and simple approach

Maintenance budgets are tight and machine downtimes are costly. Rieter's modular maintenance concept enables spinning mills to follow a structured and simple maintenance approach throughout the product lifecycle. It helps plan the maintenance budget and prevents extended machine downtime. The maintenance kits consist of key spare parts with a high impact on machine performance and lifetime. Replacing those parts at the same time not only improves machine performance but also reduces the overall conversion cost. Regular maintenance ensures the key functionality of each machine and prevents costly repairs in the long term. The maintenance kits comprise:

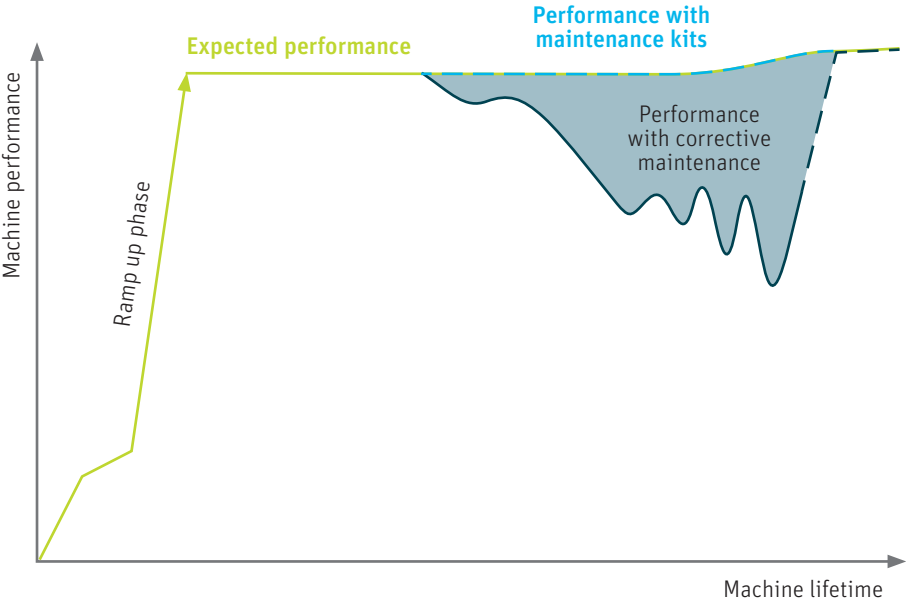
- Mini Kit
- Performance Kit
- Overhaul Kit

Overview of maintenance concept and its benefits



Maintenance is key to success

After a new machine is installed and working for several years, there will be some performance drop due to wearing of parts. Corrective maintenance can keep the machine running, but not to the expected or original level. Apart from reduced quality, the amount of sliver and yarn breaks increases, resulting in more manual labor and therefore overhead.



- Expected performance**
 - The newly installed machine operates at full efficiency
- Performance with corrective maintenance**
 - Production loss due to wearing / breaking parts and increased machine downtime
 - Quality loss
 - Money loss until expensive machine overhaul brings performance back on track
- Performance with maintenance kits**
 - Constant productivity and quality
 - Plannable maintenance = minimum downtime

Overview of Draw Frame Maintenance Kits

Restoring original machine performance with maintenance kits

Consistent sliver quality and improved performance of downstream machines

Draw frame is the final machine of quality improvement in each spinning mill. Maintaining the draw frame is of utmost importance to ensure highest sliver and yarn quality, as well as high machine productivity. Machines should run constantly at maximum efficiency and secure availability while requiring minimal maintenance.

Replacing individual parts can be expensive and time-consuming. Moreover, every stoppage for part replacement adds to the overall machine downtime.

Creel zone

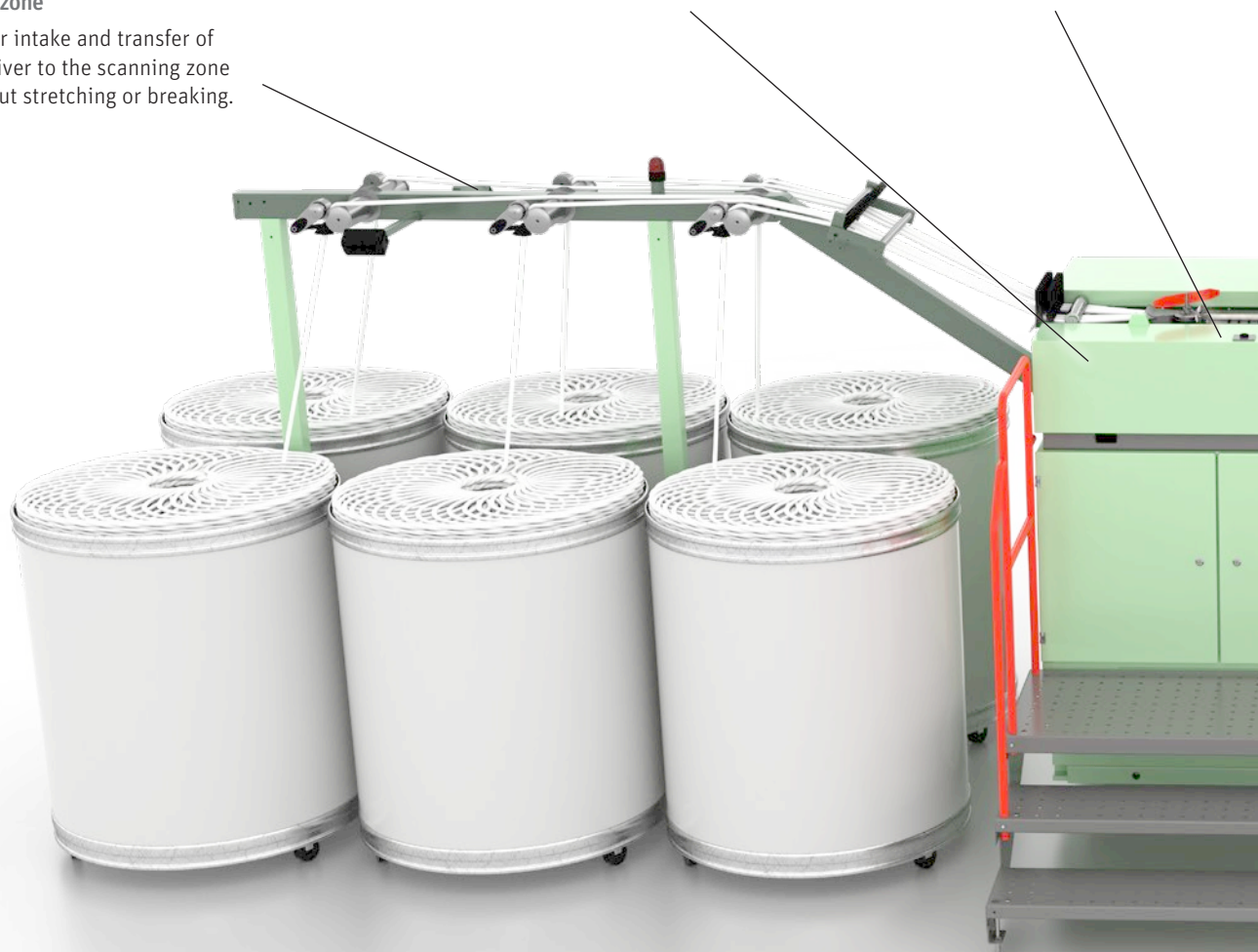
Proper intake and transfer of the sliver to the scanning zone without stretching or breaking.

Scanning zone

Precise scanning of the input sliver and applying draft accordingly.

Drafting zone

Ensures proper stretching and drawing of the sliver for highest quality.



These are the most important benefits that can be achieved by following proper maintenance:

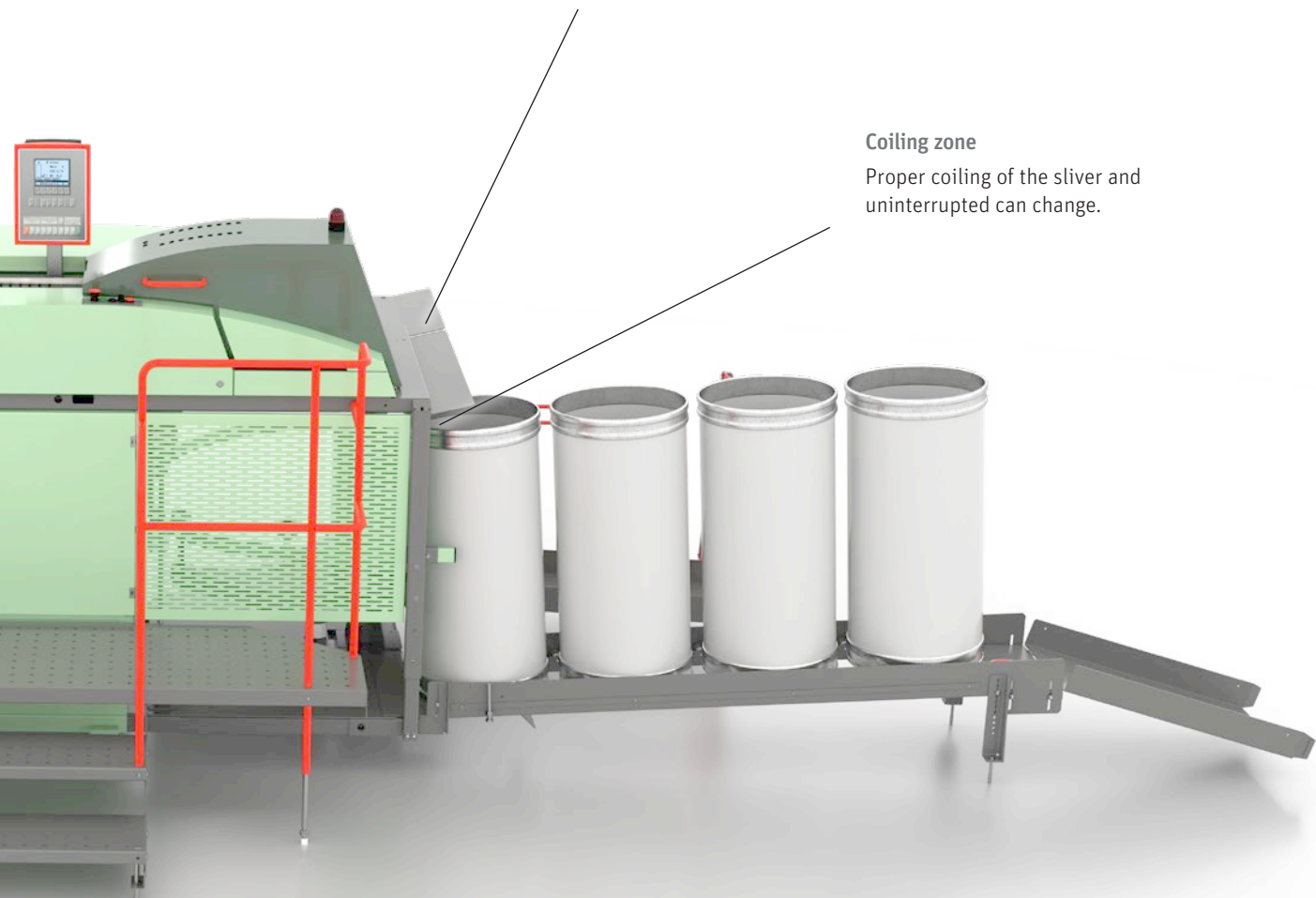
- Extended lifetime of the machine,
- enhanced machine performance in terms of productivity and output quality,
- reduced machine downtime,
- reduced issues and increased downstream machine productivity,
- improved reliability of the components,
- saved energy and
- enhanced safety.

Delivery zone

Effective sliver formation ensuring consistent sliver quality.

Coiling zone

Proper coiling of the sliver and uninterrupted can change.



Draw Frame Mini Kit

Supports higher and consistent yarn quality



A mini kit consists mostly of components with fiber contact and a lifetime of approximately one year - depending on the raw material, operating parameters and general maintenance schedule.

The aim of the Draw Frame Mini Kit is to improve the quality of the sliver as well as the productivity of the machine. While the top roller, belts and grease support an efficient power transmission, the clearer lips and clearer plate play a key role in achieving peak quality of the sliver. All additional items around it are required to support a proper function.

Most parts of the Draw Frame Mini Kit are part of the most important zones of the draw frame: scanning and drafting in which the quality is defined by a proper movement of drafting and scanning rollers.

Draw Frame Mini Kit key parts:

- Drive belts,
- clearer lips,
- top roller cots,
- clearer plate scanning roller,
- gas pressure spring and
- grease.

Changing the parts together will result in a minimization of spectrogram faults, classimat faults and good fiber loss. The reduction of machine downtime is an additional benefit.



Customer benefits



Productivity

- Reduced lap formation
- Reduced yarn breaks at rotor/winding



Quality

- Reduced IPI and classimat faults
- Reduced CV% variation
- Reduced spectrogram faults



Sustainability

- Reusability of clearer lip holder
- Reduced waste



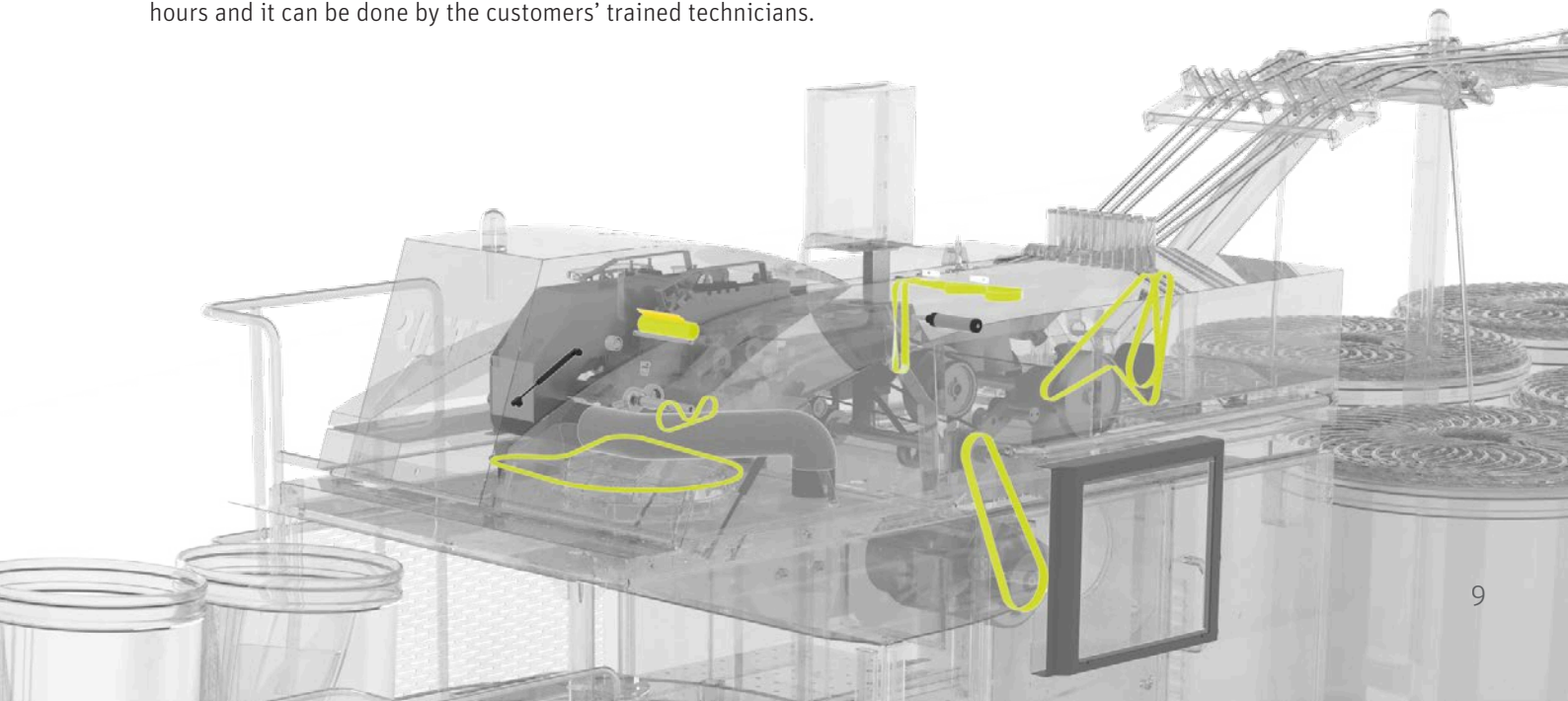
Lifetime

- Extended machine and parts time

Compatibility and installation

The Draw Frame Mini Kit is accompanied by an instruction manual and Rieter's recommendations on the parts that need replacement. This kit is compatible with RSB-D 50, RSB-D 45, RSB-D 40, RSB-D 26, RSB-D 24 and RSB-D 22.

The Draw Frame Mini Kit can be ordered via Rieter sales managers, Rieter agents or by using Rieter's webshop ESSENTIALorder. The installation time required is four to five hours and it can be done by the customers' trained technicians.



Draw Frame Performance Kit

Improved machine efficiency and utilization



The performance kit is designed to ensure trouble-free performance of the machine over the next four to six years. This kit consists of support parts that are not in direct fiber contact but provide the support frame to ensure the uninterrupted working of all parts that are in contact with fiber. Some of the key parts contributing to a high quality sliver are bearings, pneumatic cylinder, gas pressure springs, tension springs and many more to ensure the proper functioning of the drive elements. Changing the parts of the performance kit can be planned alongside the regular machine maintenance schedule. This minimizes machine downtime and maximizes productivity.

- Draw Frame Performance Kit key parts:**
- Gas pressure spring,
 - top roller complete,
 - pneumatic cylinder,
 - filter screen,
 - cogged belt wheel,
 - tension spring and
 - dust collector strip.

The performance kit not only helps to improve quality and maintain optimum productivity. It also helps to ensure low energy consumption and maintain a safe working environment.

Supporting the draw frames with a performance kit can help to not only reduce good fiber loss, but it can also support in minimizing the yarn breaks at the winding machine.



Customer benefits



Productivity

- Reduced yarn breaks
- Reduced lap formation



Quality

- Reduced variation in quality parameters (IPI, hairiness, CV%)
- Reduced spectrogram faults



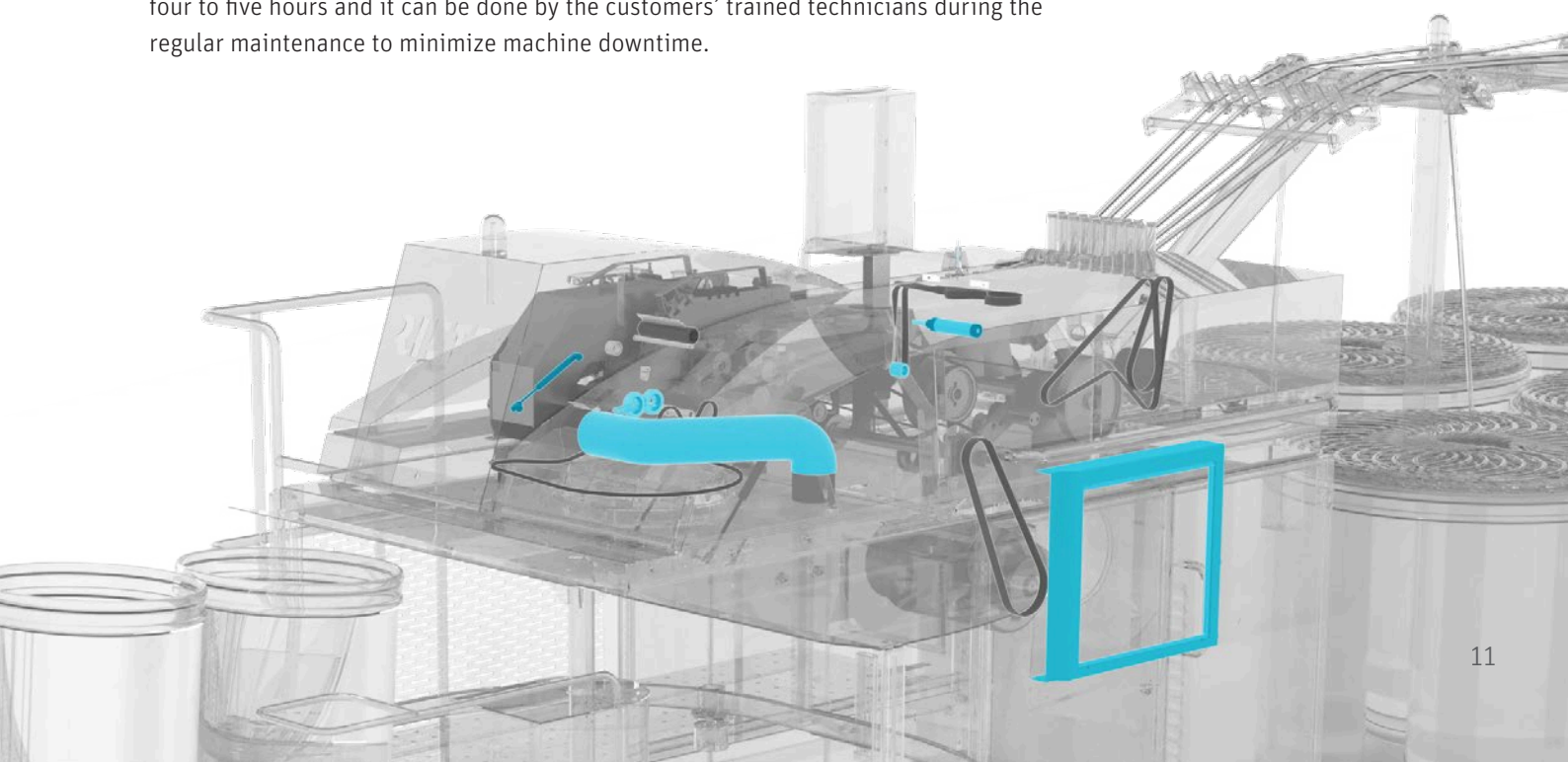
Sustainability

- Extended machine and parts
- Ensured consistently low energy consumption

Compatibility and installation

The Draw Frame Performance Kit is accompanied by an instruction manual and Rieter's recommendations on the parts that need replacement. This kit is compatible with the draw frame models RSB-D 50, RSB-D 45, RSB-D 40, RSB-D 26, RSB-D 24 and RSB-D 22.

The Draw Frame Performance Kit can be ordered via Rieter sales managers, Rieter agents or by using Rieter's webshop ESSENTIALorder. The installation time required is four to five hours and it can be done by the customers' trained technicians during the regular maintenance to minimize machine downtime.



Draw Frame Overhaul Kit

Increased lifetime of the components and the machine



The key task of the draw frame is to obtain a uniform and well-blended sliver through the doubling and drafting action, to parallelize and straighten the fibers. To achieve this it is essential to maintain a high level of precision of the critical parts like drafting roller bearing, needle roller bearing, sliver funnel and many others.

The Draw Frame Overhaul Kit includes key components to ensure high machine efficiency. The components which contribute to quality and production are replaced to ensure that the machine is ready for the next decade of operation.

All the bearings included in the kit are important as they prevent friction, heat generation and ultimately, the wear and tear of parts. Components like pressure bar and sliver funnel help to reduce classimat faults in the yarn by proper guiding of the short fibers there by reducing the yarn hairiness. This kit is perfect for revamping the machine its original productivity and quality.

While many parts consisting of polymer and movable items have a lifetime of one to seven years, some parts of the draw frame are completely of metal, are not-movable but still subject to wear.

Draw Frame Overhaul Kit key parts:

- Pressure bar,
- drafting bearing cylinder,
- sliver funnel,
- plastic foam,
- needle roller bearing and
- cogged belt wheel.

Since the draw frame is the last machine in the process that can improve the sliver quality, replacing those parts on a regular basis contributes highly to the yarn quality.



Customer benefits



Productivity

- Reduced yarn break
- Smooth cylinder run



Quality

- Reduced Cv% variation
- Reduced spectrogram faults



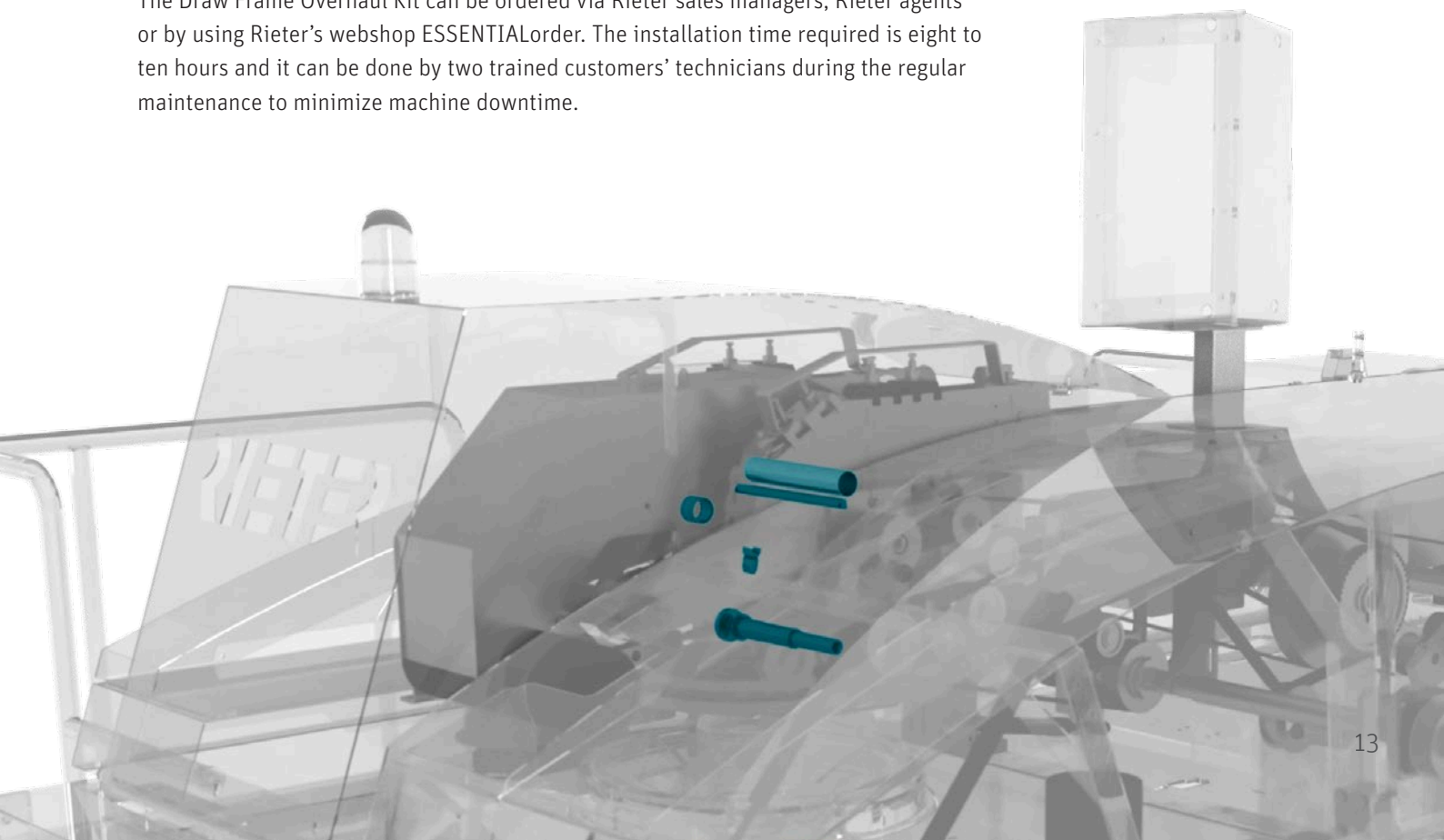
Lifetime

- Extended machine and parts lifetime
- Ensured consistently low energy consumption

Compatibility and installation

The Draw Frame Overhaul Kit is accompanied by an instruction manual and Rieter's recommendations on the parts that need replacement. This kit is compatible with the draw frame models RSB-D 50, RSB-D 45, RSB-D 40, RSB-D 26, RSB-D 24 and RSB-D 22.

The Draw Frame Overhaul Kit can be ordered via Rieter sales managers, Rieter agents or by using Rieter's webshop ESSENTIALorder. The installation time required is eight to ten hours and it can be done by two trained customers' technicians during the regular maintenance to minimize machine downtime.






Proactive Maintenance with Draw Frame Maintenance Kits

Rieter offers draw frame maintenance kits to replace worn-out parts ensuring the machine continues to run smoothly. These kits can be installed during regular maintenance schedules. The maintenance kits help minimize machine downtime and restore the machine’s original performance. In addition, customers can avoid costly repairs and extend the lifetime of their machines. This enables the machines to operate at the desired speed while consistently maintaining sliver quality.

The chart below shows an overview of the key components of each maintenance kit.

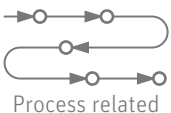

Key parts per kit and their impact

	Mini Kit every 1 – 3 years	Performance Kit every 4 – 6 years	Overhaul Kit every 7 – 10 years
 Productivity	<ul style="list-style-type: none"> • Belts • Gas pressure spring 	<ul style="list-style-type: none"> • Gas pressure spring • Creel brush sensor • Plunger • Spring 	<ul style="list-style-type: none"> • Needle roller bearing • Incoming, middle, exit cylinder • Cogged belt wheel
 Quality	<ul style="list-style-type: none"> • Top roller cots • Cleaner plate scanning roller • Special grease 	<ul style="list-style-type: none"> • Top roller • Pneumatic cylinder • Filter screen • Draw-off pulley 	<ul style="list-style-type: none"> • Pressure bar • Sliver funnel • Plastic foam
 Sustainability	<ul style="list-style-type: none"> • Material savings (clearer lips) 		

Regular maintenance is the key to success

A well-established machine maintenance is indispensable for the success and sustainability of modern businesses. By investing in regular and systematic machine maintenance, customers can enjoy the benefits of increased operational efficiency, reduced conversion cost and improved quality. It also contributes to a safer and more efficient working environment.

Impact parameters of each kit onto parts and process indicators

	Mini Kit every 1 – 3 years	Performance Kit every 4 – 6 years	Overhaul Kit every 7 – 10 years
 <p>Process related</p>	<ul style="list-style-type: none"> Increased IPI Classimat faults Cv% Spectrogram faults Power consumption 	<ul style="list-style-type: none"> Variation in Cv% Increased <ul style="list-style-type: none"> Good fibers in waste Yarn breaks in winding machine Peaks in spectrogram 	<ul style="list-style-type: none"> Variation in Cv% Slippage of belts Increased <ul style="list-style-type: none"> Good fibers in waste Yarn breaks in winding machine
 <p>Machine related</p>	<ul style="list-style-type: none"> Worn-out clearer lips Cracked or worn belts High amount of micro dust in drafting zone Noises/corrosion at roller bearings 	<ul style="list-style-type: none"> Gas pressure spring failure Blunt edge of the cogged wheel Cut marks on wiper or dust collector strip Marks on belt or reduced belt life 	<ul style="list-style-type: none"> Bearing failure Blunt edge of cogged wheel Marks on sliver funnel

Compatibility overview

RSB-D 50	■ ■ ■
RSB-D 45	■ ■ ■
RSB-D 40	■ ■ ■
RSB-D 26	■ ■ ■
RSB-D 24	■ ■ ■
RSB-D 22	■ ■ ■
RSB-D 35	*
RSB-D 30	*

■ Mini Kit
 ■ Performance Kit
 ■ Overhaul Kit
 * on request



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