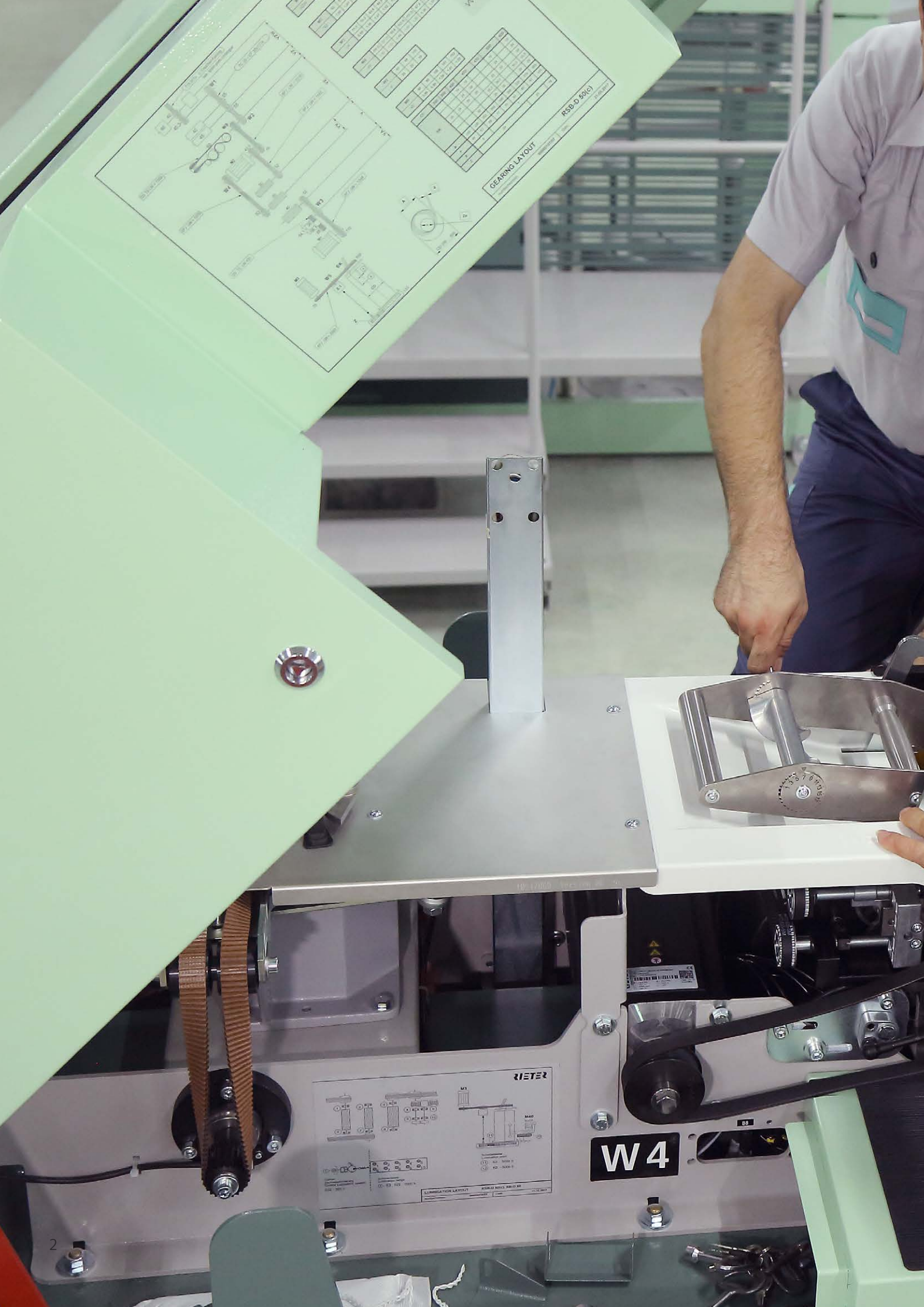
Draw Frame Maintenance Packages

Ensuring high productivity and consistent sliver quality

Restoring original machine performance


GEARING LAYOUT
RSB-D 50(C)
RIETER
W4

Machine Maintenance Packages

Three essential services to restore performance

Regular and precise maintenance is essential for stable and efficient machine operation. It protects the investment, prevents unexpected breakdowns and keeps yarn quality consistent. While maintenance appears to be an additional cost, it prevents far higher expenses caused by unplanned stoppages, rising energy consumption and premature wear. Effective maintenance improves machine performance and extends machine lifetime, helping spinning mills maintain profitability.

Rieter maintenance packages for draw frame provide a structured preventive approach.

They combine:

- **maintenance kits** with essential wear-and-tear, consumables and technology parts,
- **precision onsite repair and calibration** of key electrical and mechanical components and
- **professional installation** by certified Rieter service engineers.

These three essential services help spinning mills achieve:

- consistent yarn quality,
- reduced downtime,
- improved machine efficiency and
- longer machine lifetime.

Machine maintenance packages therefore contribute directly to higher productivity and improved profitability.

Draw Frame Maintenance for Long-Term Performance

Maximizing value through optimized maintenance investment

Irregular maintenance of draw frames often leads to inconsistent yarn quality, unstable machine behavior, higher energy usage and unplanned stoppages. Missing know-how or limited maintenance expertise can further increase the risk of extended downtime and rising operating costs.

With a strong understanding of customer challenges, Rieter has developed a best-in-class combination of maintenance services for draw frame models to keep machines operating at their highest level. The machine maintenance packages provide complete peace of mind by combining maintenance kits, precision onsite repair and calibration and professional installation by a Rieter service engineer to ensure reliable performance, longer machine life and improved efficiency.

Draw frame maintenance packages

Product mix

Precision onsite repair and calibration	Professional installation	Maintenance kits
• Electrical • Mechanical	• Rieter's certified engineers	• Consumables • Wear and tear parts • Technology parts

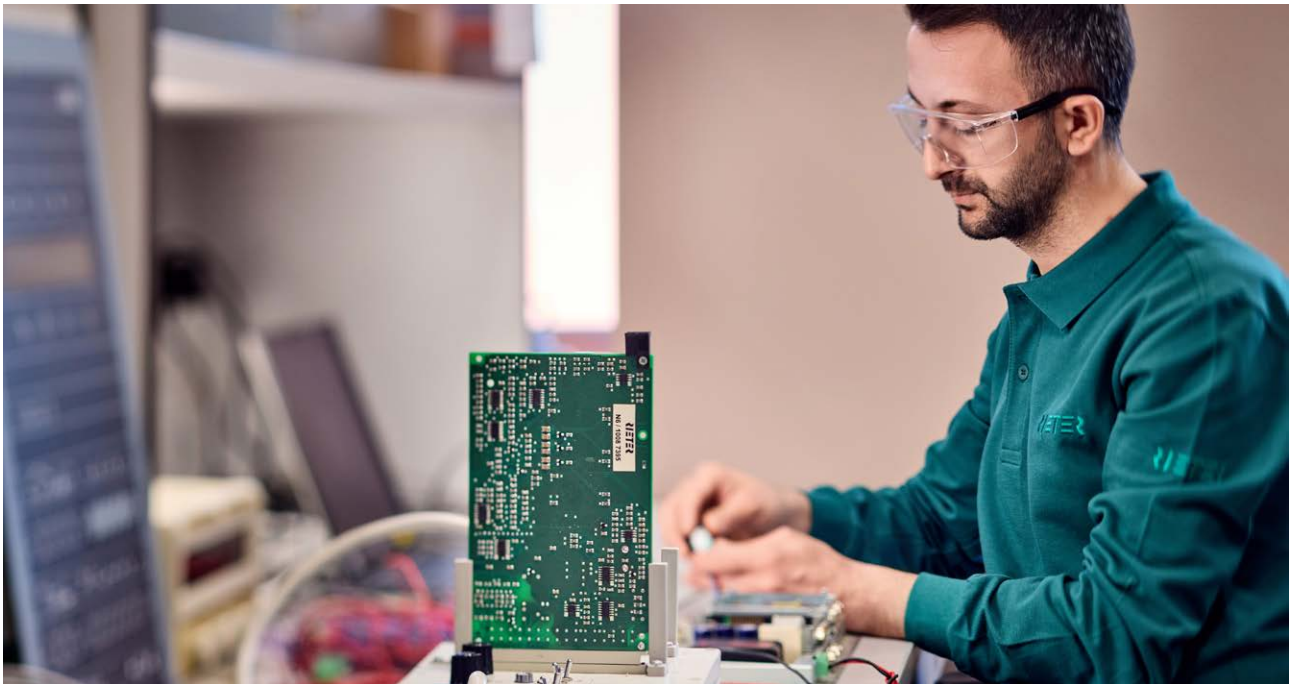
Customer benefits

Productivity
- reduced machine stoppages
- higher machine utilization
- stable and consistent production

Quality
- consistent sliver and yarn quality
- reduced variation and faults
- improved downstream performance

Energy and cost
- optimized energy and compressed air consumption
- lower total maintenance cost
- improved raw material utilization

Lifetime and reliability
- extended machine lifetime
- improved component reliability
- reduced risk of unexpected failures



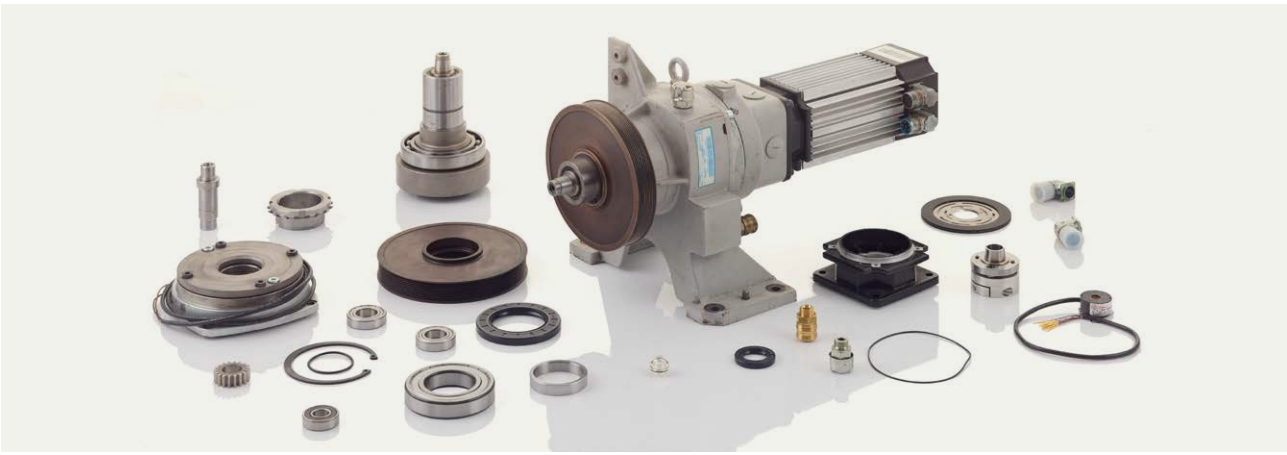
Precision On-Site Electrical and Mechanical Repairs for Draw Frame

The performance of draw frames depends on the precise functioning of electronic systems and mechanical components. Key elements such as auto-levelling systems, servo controllers, sensors and drive systems play a crucial role in ensuring consistent sliver quality and stable machine operation. Over time, these components are subject to wear and performance variations, influenced by operating hours, environmental conditions and maintenance practices that vary across mills.

To address these challenges, Rieter offers comprehensive on-site repair services as part of the draw frame maintenance package. These services are designed to restore machine performance, improve reliability and prevent unexpected failures, ensuring continuous and efficient operation.

Rieter's on-site repair scope covers both electronic and mechanical systems, including SERVOcontroller, SERVOmotor, operating unit, distance measuring unit, as well as differential and scanning gearboxes. These elements are essential for precise machine control and consistent performance. The repair process involves the refurbishment of key assemblies through the replacement of essential parts such as sensing roller bearings, bearings, shafts, axles, encoders, capacitors, relays etc. All replacements are carried out directly at the customer's site, ensuring that worn or performance-critical components are addressed immediately. This targeted approach reduces the risk of unexpected breakdowns and enhances overall machine reliability.

Electrical on-site repair of autoleveller servo motor and servo controller drives



Mechanical on-site repair kit for draw frame RSB/SB-D 40 and RSB/SB-D 45 differential gearbox

Professional Installation

Professional installation activities are carried out by Rieter's certified engineers, who bring in-depth machine expertise and application know-how to ensure accurate maintenance and long-term machine performance.

Professional installation includes:

Installation service

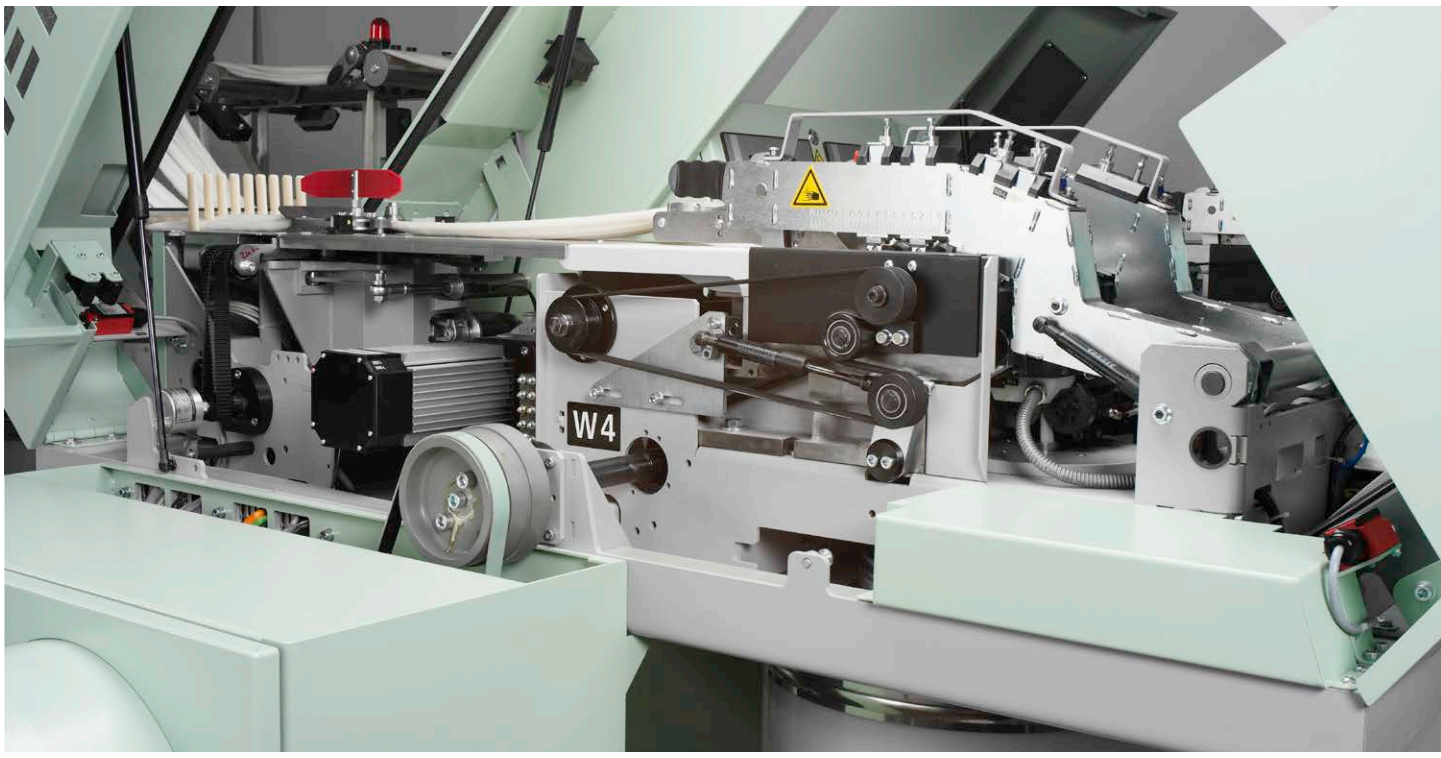
Rieter service technicians with many years of field experience ensure the correct installation and trouble-free commissioning of the machines.

On-site project management

On-site project management provides the right support at the right time through Rieter specialists who handle a wide variety of demanding projects.

Performance optimization

Performance optimization services boost productivity, enhance quality and unlock the full potential of people and machines while reducing key operational costs.



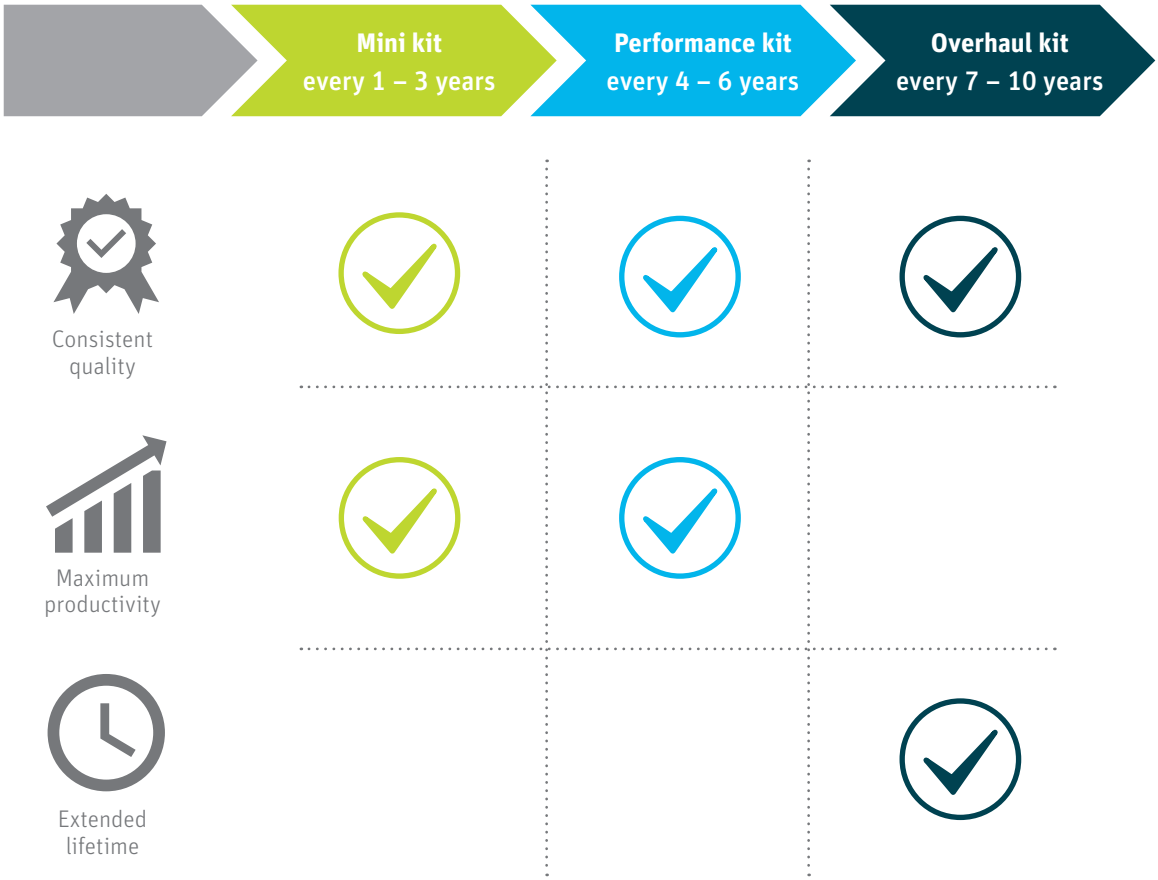
Maintenance Kits

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 supports budget planning and prevents extended machine downtime. The maintenance kits contain key spare parts with a high impact on machine performance and lifetime. Replacing these parts at the same time improves machine performance and reduces conversion costs. Regular maintenance ensures the key functionality of each machine and prevents costly repairs in the long term.

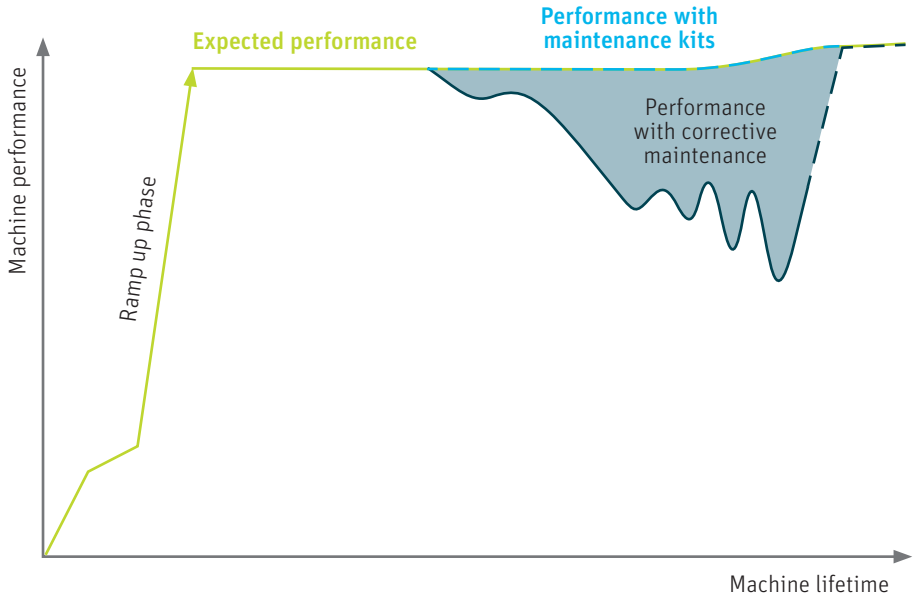
The maintenance kits comprise:
- mini kit
- performance kit
- overhaul kit

Maintenance concept and benefits



Maintenance is key to success

After several years of operation, the parts of a machine begin to wear and machine performance declines. 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

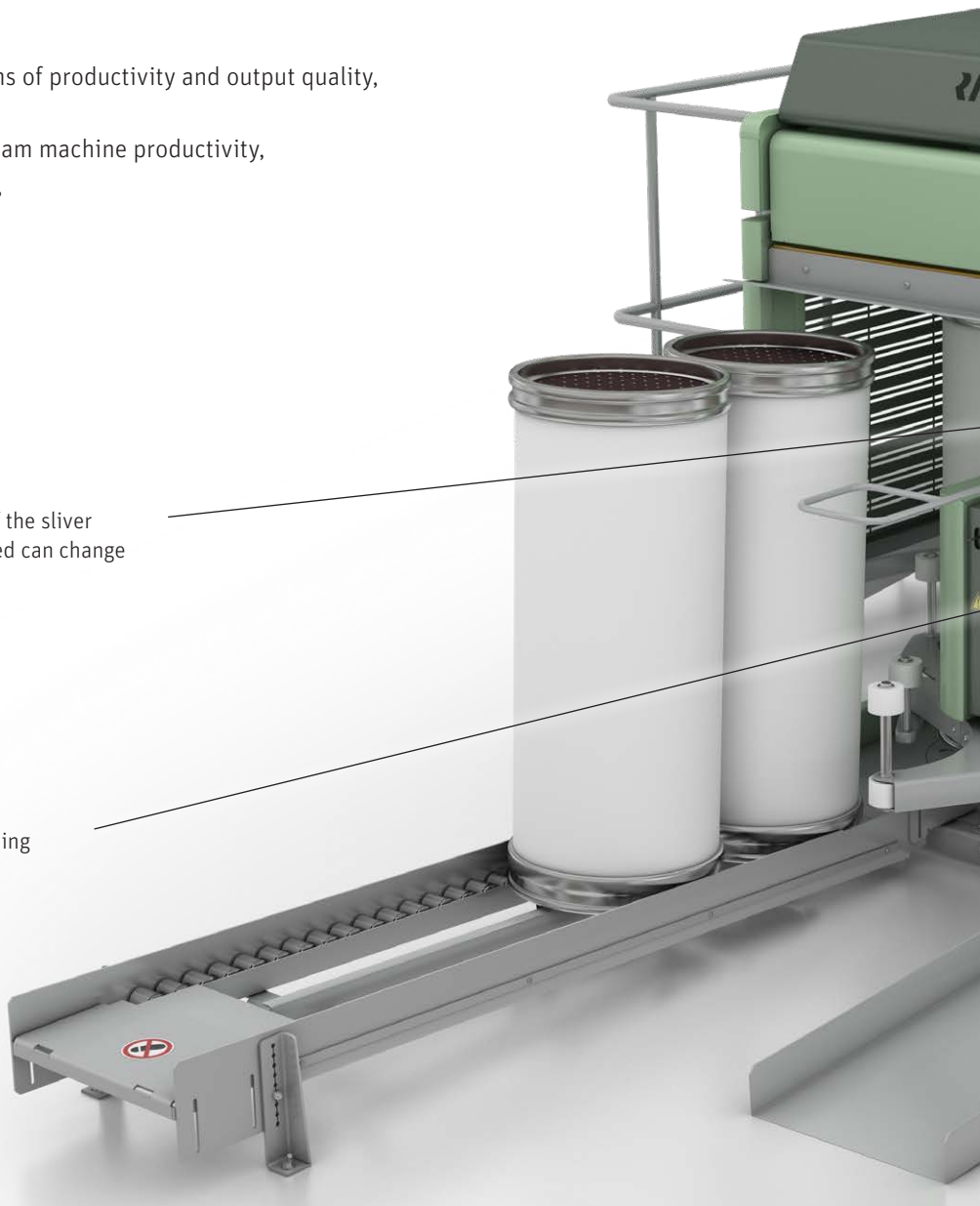
Restoring original machine performance with maintenance kits

Consistent sliver quality and improved performance of downstream machines

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

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.



Creel zone

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

Drafting zone

Proper stretching and drawing of the sliver for highest quality

Scanning zone

Precise scanning of the input sliver and applying draft accordingly

Draw Frame Mini Kit

Supports higher and consistent yarn quality

Daily maintenance	**Mini kit every 1 – 3 years**	Performance kit every 4 – 6 years	Overhaul kit every 7 – 10 years

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 best 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 where the quality is defined by the 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 reduction 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 spinning or winding machine

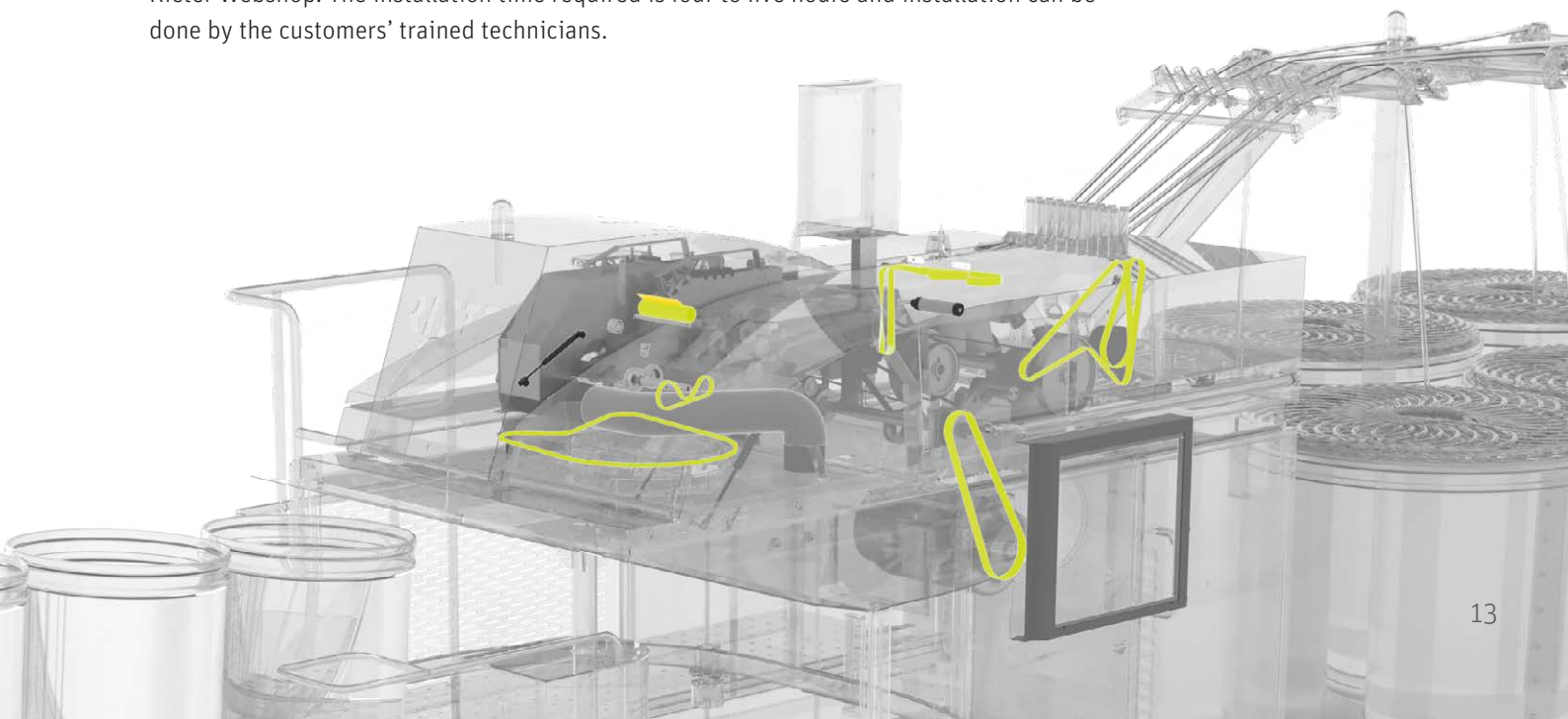
Quality
- reduced waste
- reduced imperfections and classimat faults
- reduced CV% variation
- reduced spectrogram faults

Lifetime
- reusable clearer lip holder
- extended machine and parts lifetime

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 series machines D 50, D 45, D 40, D 26, D 24, D 22, D 35, D 30.

The draw frame mini kit can be ordered via Rieter sales managers, Rieter agents or through Rieter Webshop. The installation time required is four to five hours and installation can be done by the customers' trained technicians.



Draw Frame Performance Kit

Improved machine efficiency and utilization

Daily maintenance | Mini kit every 1 – 3 years | **Performance kit every 4 – 6 years** | Overhaul kit every 7 – 10 years

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 structural frame to ensure the uninterrupted operation of all parts that are in contact with raw material. Some of the key parts contributing to a high sliver quality are bearings, pneumatic cylinders, gas pressure springs and tension springs, which 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.

The performance kit not only helps to improve quality but also maintains optimum productivity. The performance kit 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 also minimize the yarn breaks at the winding machine.

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

Customer benefits

Productivity
- reduced yarn breaks
- reduced lap formation

Quality
- reduced variation in quality parameters (imperfections, hairiness, CV%)
- reduced spectrogram faults

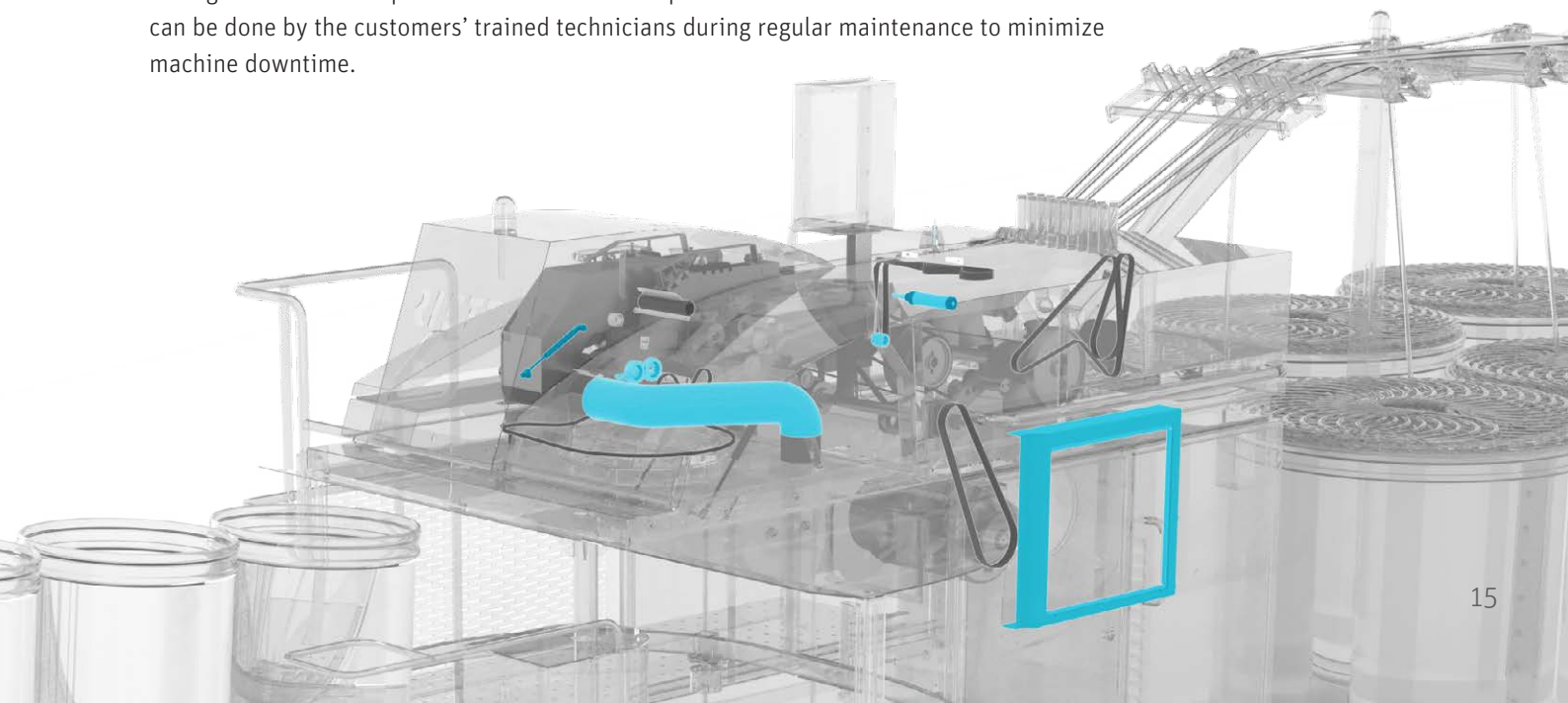
Energy
- extended machine and parts lifetime

Lifetime
- 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 through Rieter Webshop. The installation time required is four to five hours and installation can be done by the customers' trained technicians during regular maintenance to minimize machine downtime.



Draw Frame Overhaul Kit

Increased lifetime of the components and the machine

Daily maintenance | Mini kit every 1 – 3 years | Performance kit every 4 – 6 years | **Overhaul kit every 7 – 10 years**

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 such as drafting roller bearings, the sliver funnel and other critical components.

The draw frame overhaul kit includes key components to ensure high machine efficiency. The components that 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 the pressure bar and sliver funnel help to reduce classimat faults in the yarn by proper guiding of the short fibers thereby reducing the yarn hairiness. This kit is perfect for revamping the machine to 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 non-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 sliver quality, replacing those parts on a regular basis contributes significantly to yarn quality.

Customer benefits

Productivity
- reduced yarn breaks
- smooth cylinder run

Quality
- reduced CV% variation
- reduced spectrogram faults

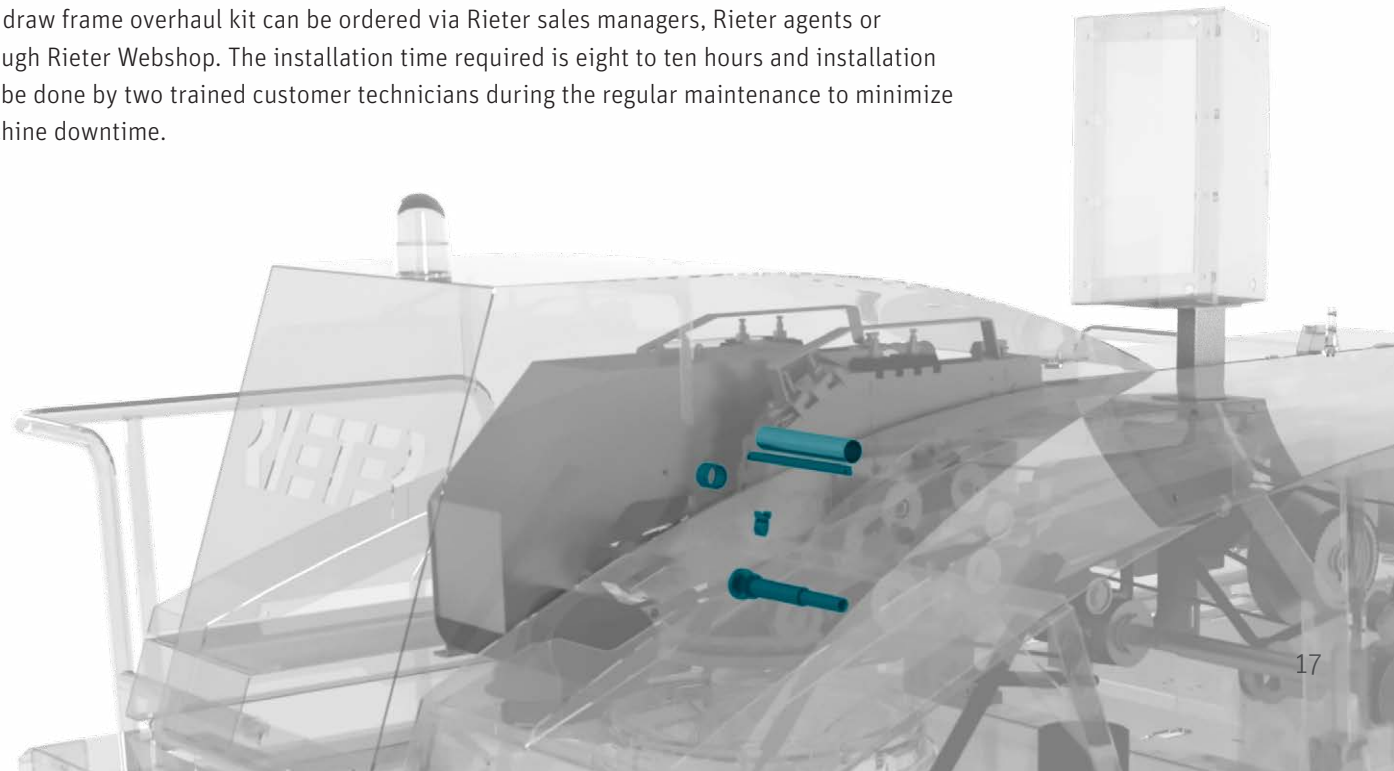
Energy
- ensured consistently low energy consumption

Lifetime
- extended machine and parts lifetime

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 through Rieter Webshop. The installation time required is eight to ten hours and installation can be done by two trained customer 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 maintenance approach 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	• belts • gas pressure spring	• gas pressure spring • creel brush sensor • plunger • spring	• needle roller bearing • infeed, middle, delivery cylinder • cogged belt wheel
Quality	• top roller cots • cleaner plate scanning roller • special grease	• top roller • pneumatic cylinder • filter screen • draw-off pulley	• pressure bar • sliver funnel • plastic foam
Sustainability	• wear & tear and technology parts		

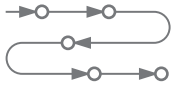
Regular maintenance is the key to success

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

The table outlines the key process and machine-related indicators that support the selection of appropriate maintenance kits over time. By monitoring these parameters, mills can identify performance deviations, wear patterns and efficiency losses at different stages of machine life. Each kit is aligned with specific operating conditions and maintenance needs.

	Mini kit every 1 – 3 years	**Performance kit every 4 – 6 years**	**Overhaul kit every 7 – 10 years**

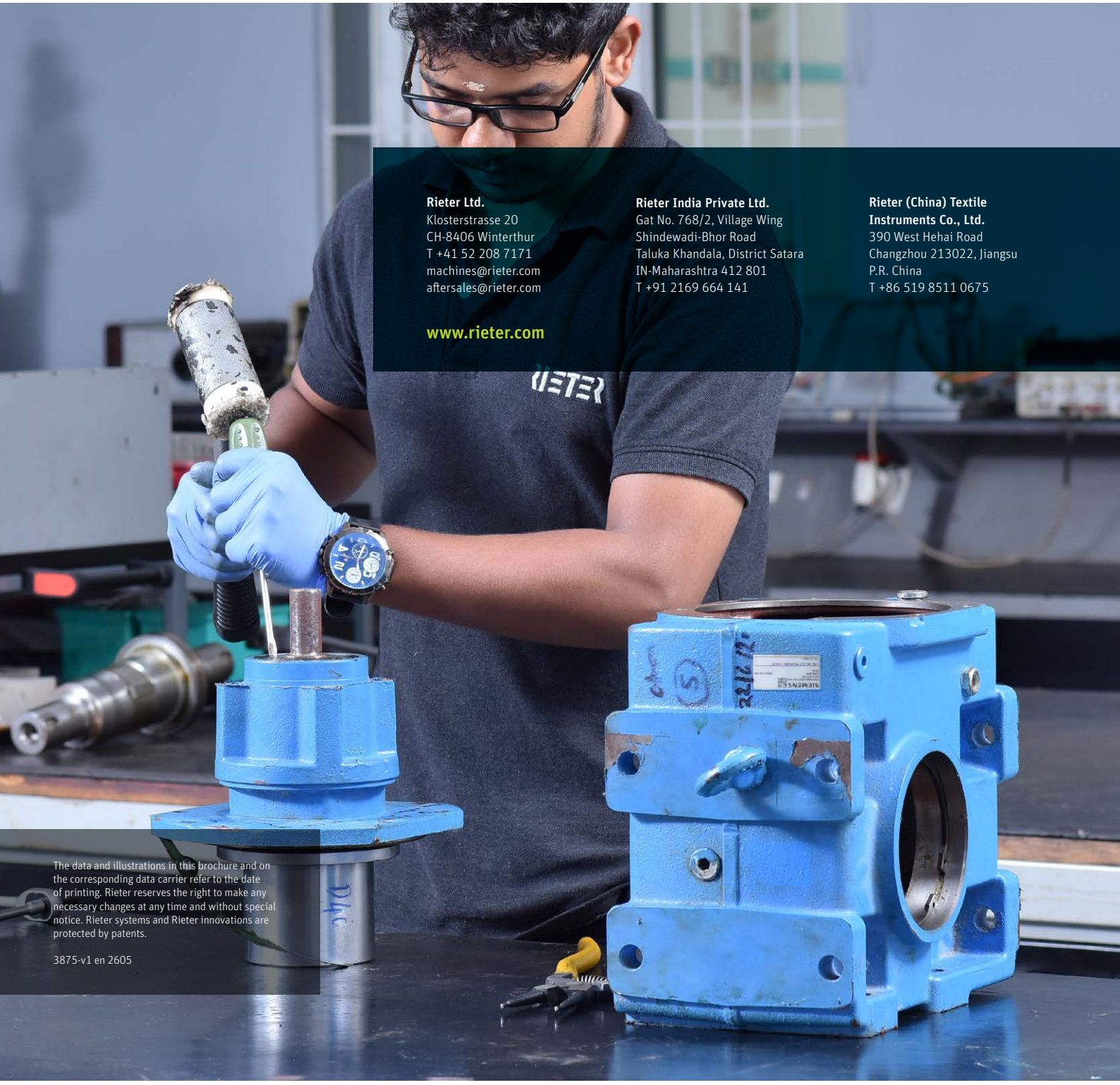
 Process related	increased:
	• IPI
	• classimat faults
	• CV%
	• spectrogram faults
	• power consumption
		• variation in CV%
		• increased
		  • good fibers in waste
		  • yarn breaks in winding machine
		  • peaks in spectrogram
			• variation in CV%
			• slippage of belts
			• increased
			  • good fibers in waste
			  • yarn breaks in winding machine

 Machine related	• worn-out clearer lips • cracked or worn belts • high amount of micro dust in drafting zone • noises/corrosion at roller bearings	• 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	• 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



Rieter Ltd.
Klosterstrasse 20
CH-8406 Winterthur
T +41 52 208 7171
machines@rieter.com
aftersales@rieter.com

Rieter India Private Ltd.
Gat No. 768/2, Village Wing
Shindewadi-Bhor Road
Taluka Khandala, District Satara
IN-Maharashtra 412 801
T +91 2169 664 141

Rieter (China) Textile Instruments Co., Ltd.
390 West Hehai Road
Changzhou 213022, Jiangsu
P.R. China
T +86 519 8511 0675

www.rieter.com

3875-v1 en 2605