High speed spindles
For all Rieter ring and compact-spinning machines

RIETER

Rieter Spindles

Premium high-speed spindles for achieving energy saving and higher output

Expanded range of product portfolio for every application

OUTSTANDING

ADVANTAGES

High-Speed Spindles

Increased Production

Maximum speed up to 30 000 rpm

Energy Saving

Due to optimal power transmission of spindle driving elements and reduction of spindle bearings

Industry Maximum operational lifetime

Thanks to effective multi-level damping system

Reduced Maintenance

Long lubrication cycles

Underwinding-free clamping crown

Flexible

Can be supplied with new machine or as an upgrade to existing one

Rieter Spindles

High precision for maximum output

Constantly rising spindle speeds and longer machines are significantly increasing the demands on technology components, which undoubtedly includes spindles for the ring and compact-spinning. High-precision processing, trouble-free bearings and wharve diameter adapted to the changed conditions are the distinguishing features of Rieter spindles. Rieter spindles offer perfect concentricity. Precision bearing ensures the smooth running of the spindle.

HPS spindle design

Revolutionary Novibra HPS design changed the classical ring spinning and opened new prospects for spinning at speeds of up to 30 000 rpm. This patented design has become the synonym for high-speed spindle technology.

The unique hydrodynamic two-level bearing system effectively absorbs imbalances occurring during spinning process which leads to industry maximum operational lifetime and long lubrication cycles. The wide range of spindles based on HPS design provides optimal answers to spinning mills both economic and quality requirements.

6.8 mm neck bearing allows minimal wharve diameter of 18.5 mm

Novibra patented spindle insert

Metal spring sleeve with oil for maximum absorption of radial load

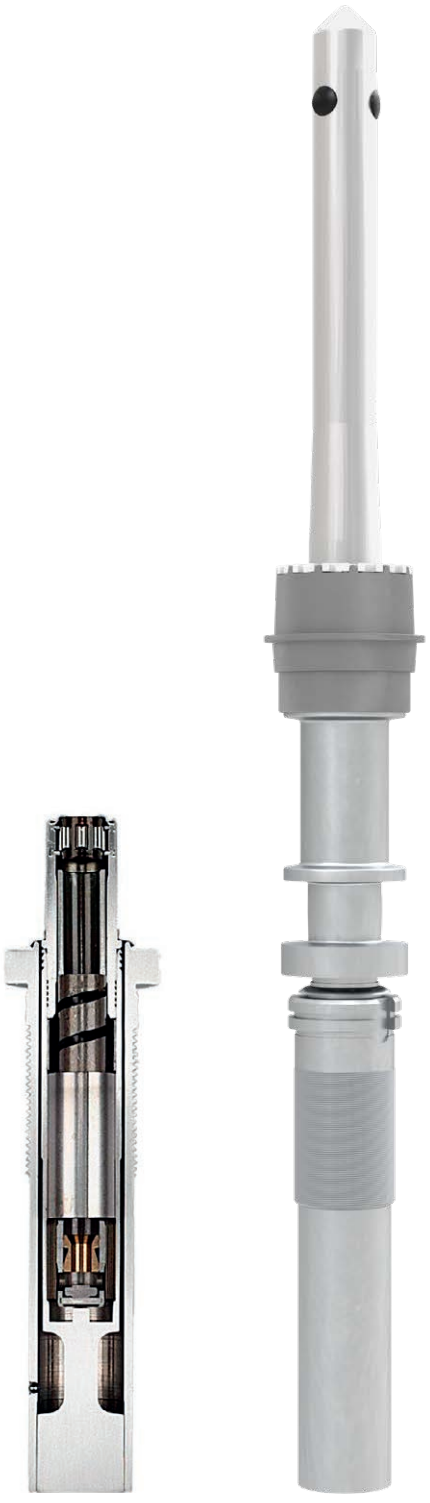
4.5 mm footstep bearing with sphero point reduces neck bearing load

Second damping system for effective noise reduction (with NASA and LENA only)

HPS 25 Spindle

First choice spindles for premium ring and compact-spinning machines
Spindle for highest speeds, noise level reduction and optimal energy consumption assembled with Noise Absorbing System Assembly that supports top performance and increased lifetime at high speeds.

Spindle type	HPS 25
Application	For all yarn counts Ne 20 and finer counts of all standard materials
Spindle speed (rpm)	up to 25 000
Wharve dia (mm)	18.5
DUI (mm)	18, 20
Tube length (mm)	up to 230
Machine compatibility	G 32, G 33, G 35, G 36, G 37, G 38, K 42, K 44, K 45, K 46, K 47, K 48



Noise absorption HPS 25 spindle with double damping arrangement

HPS 28 Spindle

High speed spindle for maximum productivity

The new HPS 28 spindles are designed for high-speed spinning, reaching up to 28 000 rpm. They feature a second damping system that significantly reduces bearing load and noise levels. With low vibration, minimal maintenance, and an extended service life, these spindles stand out for their superior performance.

As the spindle does not include the K block, it is suitable exclusively for new-generation of ring and compact spinning machines.

Spindle type	HPS 28
Application	For all yarn counts Ne 20 and finer counts of all standard materials
Spindle speed (rpm)	Up to 28 000
Wharve dia (mm)	18.5 mm
DUI (mm)	16, 18
Tube length (mm)	up to 190
Machine compatibility	G37, G 38, K 47, K 48 (V3 onwards)

Noise absorption HPS 28 spindle with double damping arrangement

LENA 25 Spindle

Low-Energy and Noise-Absorbing Spindle

LENA, was designed to meet market requirements for production increase, energy saving, longevity and improved overall in-mill environment and spindle maintenance. LENA spindle is suitable for all yarn counts Ne 40 and finer counts of all standard materials and can reach speeds up to 25 000 rpm.

Advantages

- Up to 4 to 6% average energy saving
- Long lifetime thanks to the patented one-piece spindle insert
- Special anti-corrosion treatment
- Noise reduction through second damping system

Spindle type	LENA 25
Application	For all yarn counts Ne 40 and finer counts of all standard materials
Spindle speed (rpm)	up to 25 000
Wharve dia (mm)	17.5
DUI (mm)	18
Tube length (mm)	up to 190
Machine compatibility	G 37, G 38, K 46, K 47, K 48

Energy saving LENA spindles with SERVOgrip suitable for DUI 18

LENA 28 Spindle

Raising the bar in achieving low yarn production costs

The selection of the optimum spindle is a key factor for high productivity with consistently uniform yarn quality. With the new LENA 28 spindle, revolutions of up to 28 000 rpm can be run. This spindle has a second damping system to remarkably reduce the bearing load and the noise level. Low vibration, low maintenance and a long service life are the distinguishing features of these spindles.

Compared to conventional spindles with a wharve diameter of 18.5 mm or 25 mm, the LENA spindle with 17.5 mm brings significant advantages for finer yarn counts. LENA has a neck bearing of 5.8 mm and a foot bearing of 3 mm. These bearing dimensions together with the wharve diameter of 17.5 mm, make LENA 28 fast and highly energy efficient. The high-precision LENA 28 spindle is available in two DUI dimensions (DUI 18 and DUI 16) and achieves the highest production values in practice. LENA stands for Low Energy Noise Absorption.

Advantages

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- Long lifetime thanks to the patented one-piece spindle insert
- Special anti-corrosion treatment
- Noise reduction through second damping system

Spindle type	LENA 28
Application	For all yarn counts Ne 40 and finer counts of all standard materials
Spindle speed (rpm)	Up to 28 000
Wharve dia (mm)	17.5
DUI (mm)	16, 18
Tube length (mm)	up to 190
Machine compatibility	G 37, G 38, K 47, K 48 (V3 onwards)

LENA 28 spindles with SERVOgrip suitable for DUI 16

HPS 18 and HPS 20 Spindles

Exclusively designed for economical solution for special market or applications
HPS 18 and HPS 20 spindles has been a technical revolution in the switch from conical types to spindles with a flat tip. Its unrivalled spindle insert constitutes a base for all Novibra spindles. It is designed for a lower spindle speeds which offers an economical option for the customers.

Minimum wharve diameter of 18.5 mm for highest spindle speeds at minimum speeds of driving elements.

Spindle type	HPS 18
Application	Suitable for yarn count Ne 20 and finer counts of all standard materials
Spindle speed (rpm)	up to 18 000
Wharve dia (mm)	18.5
DUI (mm)	18, 20
Tube length (mm)	up to 230
Machine compatibility	G 32, G 33, G 35, G 36, G 37, G 38, K 42, K 44, K 45, K 46, K 47, K 48

Spindle type	HPS 20
Application	Suitable for yarn count Ne 20 and finer counts of all standard materials
Spindle speed (rpm)	up to 20 000
Wharve dia (mm)	18.5
DUI (mm)	18
Tube length (mm)	up to 210
Machine compatibility	G 37

HPS 20 with SERVOgrip for specific application

L HPS 18 Spindle

Suitable for coarse count process and special market or applications
L HPS 18 are special spindles designed for coarse counts and larger tubes ensures harder damping due to lowered and prolonged damping sleeve.

L HPS 18 spindles can reach speeds up to 20 000 rpm (depending on the yarn count). The wharve diameter of 18.5 and 25 are offered depends on the process and material.

Spindle type	L HPS 18
Application	Suitable for yarn count Ne 10 and finer counts of all standard materials
Spindle speed (rpm)	up to 20 000
Wharve dia (mm)	18.5, 25
DUI (mm)	20
Tube length (mm)	up to 250
Machine compatibility	G 32, G 33, G 35, G 36, G 37, G 38

L HPS 18 with harder damping for coarse count process

SERVOgrip

Controlled doffing without underwinding using Rieter spindles

In combination with Rieter's patented SERVOgrip clamping crown, Rieter spindles guarantee a smooth doffing process with little fiber fly. This results in more pleasant working conditions in the spinning mill, reduced operator effort and improved running behavior of the ring spinning machine.

Rieter spindles in combination with the SERVOgrip clamping crown result in significant savings in maintenance effort and raw material. Together with the energy savings, this generates clear economic advantages.

SERVOgrip: replaceable, genuine doffing without underwinding, for Rieter ring and compact-spinning machines

SERVOgrip parts	Part number and description
Knife 1	11177018 – Knife DUI 18 30,5-0,3 11177019 – Knife DUI 20 30,5-0,3
Slide ring 2	11240298 - Slide ring R36 11176956 – Slide ring 36 – 40 11176957 – Slide ring 42 – 45 11176947 – Slide ring 48 – 51 11176948 – Slide ring 54
Clamping crown 3	11194035 – Clamping crown complete DUI 16 10110204 – Clamping crown complete DUI 18 10089568 – Clamping crown complete DUI 20

The SERVOgrip knife reliably cuts the yarn during doffing and prevents ends down during startup. Rieter has developed a technology that reduces yarn twisting before doffing. When combined with the SERVOgrip knife, even high-strength yarns or core yarns can be cut properly when doffing.

LUBRICO L15

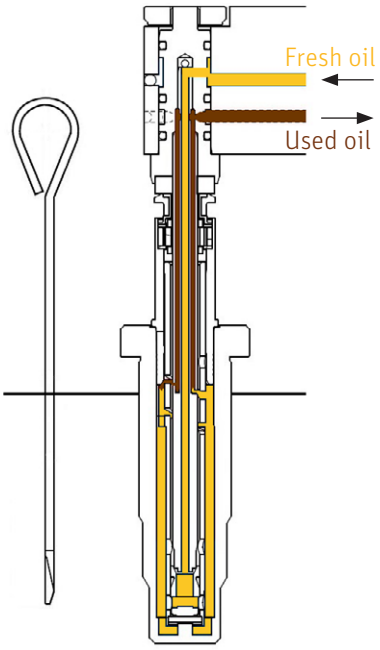
Maintenance device for lubrication of high-speed spindles

To easily maintain all kinds of spindle bolsters, Rieter provides LUBRICO L15, a lubrication device. This all-in-one device is used both for the first oil filling and oil change while it even cleans the spindle bearing.

LUBRICO L15 supplies fresh oil into the spindle bearing and drain waste oil simultaneously. As a result, the oil is not only fully changed in the correct oil level but at the same time spindle bearing is flushed out from used oil. Thanks to the design of the oiling head the oil level in the spindle bearing is constant after filling, irrespective of the quantity of oil pumped through the bearing. Due to the removable oil canister, oil handling is very easy.

The recommended interval of spindle oil change is 12 months irrespective of the spindle running speed. Random tests of oil level and oil quality should be executed during scheduled machine maintenance. Oil replenishing will give better running performance and consistent energy consumption with good service life.

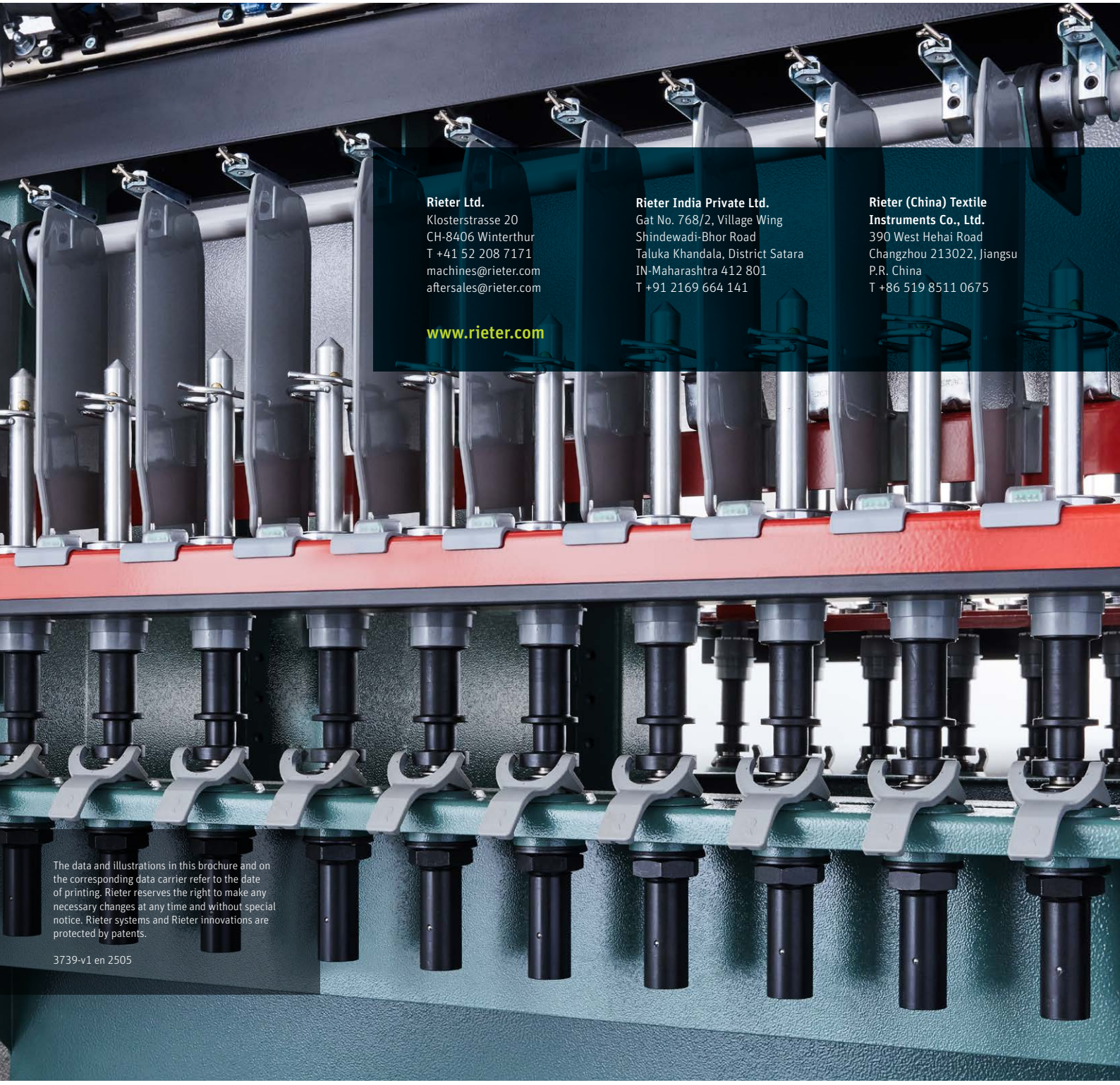
The LUBRICO L15 can be easily ordered through Rieter parts ordering webshop, ESSENTIALorder with help of below part number and description.



Lubricating device LUBRICO L15

Oiling head for the complete portfolio spindles

Part number and description
11016439 – Lubrication device L15
10508699 – Lubrication insert LENA
10964720 – Lubrication insert HPS



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