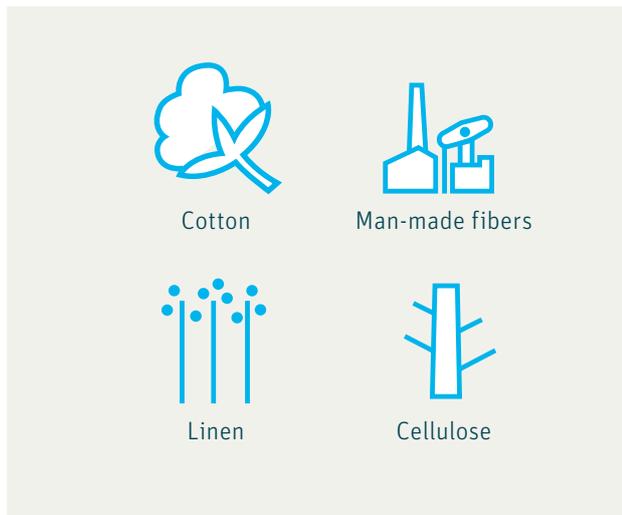


## **Business Model**

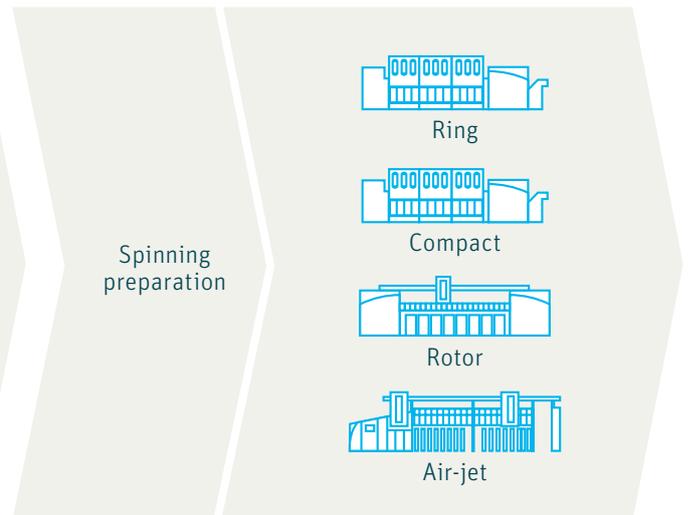


## RIETER BUSINESS MODEL

### Raw Materials



### Spinning Process



**Around 94 million tons of fiber are processed annually around the world, for example for clothing, technical textiles or household textiles. Fiber consumption is growing with the world population and disposable income, on average at around two to three percent per year.**

#### YARN PRODUCTION

The process from fiber to textile begins with fiber production. A yarn is produced from the fibers, for example from cotton, linen, polyester or viscose. A textile is then produced from the yarn via various processing steps such as weaving, knitting, dyeing or finishing.

Yarn is produced in two basically different ways. On the one hand, this is done by spinning staple fibers. These are fibers with a staple length of 23 to 60 mm (short-staple fibers) or over 60 mm (long staple fibers). On the other hand, yarn is produced by processing so-called filaments to make continuous filament yarn. The resulting yarns have different properties. In the clothing industry, the yarn produced from staple fiber predominates because it offers pleasant wearing comfort.

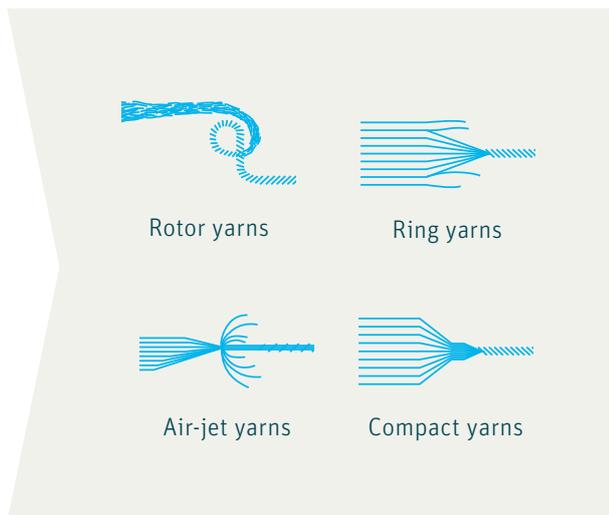
Each of the two types of yarn production accounts for around 50 percent of world fiber consumption.

Rieter is mainly engaged in yarn production from staple fibers. The most important of these are cotton (about 24 million tons per year), polyester (about 16 million tons per year) and viscose (about 5 million tons per year).

The process for producing a yarn from staple fibers consists of two stages: preparation and end spinning.

In the preparation stage, the fibers, which are delivered in bales, are separated, cleaned if necessary, aligned, homogenized and drawn. This is done in three process steps: blowroom/bale opener, carding machine and draw frame. In cotton processing, the combing machine also plays a role: here, short fibers are combed out to produce a higher-quality yarn. At the end of the preparation stage, a uniform sliver has been produced, which is as yet untwisted.

## Yarn



## Capacity



### SPINNING PROCESS

In the end spinning stage, the fiber mesh is further drawn (up to about 40 fibers in cross-section for very fine yarns) and spun into a yarn by twisting. Twisting takes place either by means of a rotating spindle (ring spinning, compact spinning), by rotation of a rotor (rotor spinning) or by an air flow (air-jet spinning). Compact spinning is a variant of ring spinning, in which, by means of an auxiliary device, a more compact yarn with a higher yarn density is achieved due to improved fiber bonding.

After spinning, imperfections are removed from the yarn. The yarn is then wound, in order to present it in a suitable form for the subsequent process steps in the textile production chain.

### MEASURED VARIABLES FOR CAPACITY

The production capacity for producing yarn from staple fibers is measured in spindle equivalents. The production capacity of a ring spindle serves as the basis. The spinning unit of a rotor spinning machine corresponds to the productivity of five to six ring spindles, whereas that of an air-jet spinning machine corresponds to the productivity of 20 ring spindles.

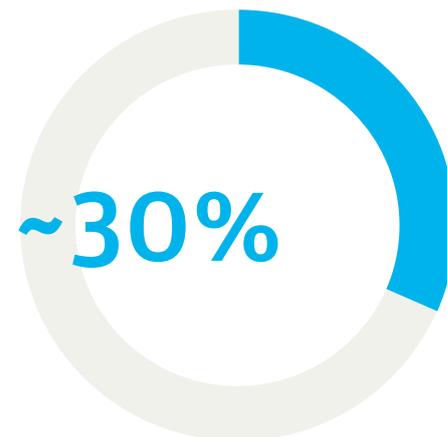
A total of more than 250 million spindle equivalents are used worldwide to produce yarn from the around 50 million tons of staple fibers, of which around 103 million are in China, 54 million in India, 54 million in Southeast Asia and 12 million in Turkey. Every year, between 11 and 13 million spindle equivalents are installed worldwide: spinning mill owners invest in rationalization, replacement or expansion. In 2017, Rieter delivered 1.93 million spindle equivalents (2016: 1.83 million). In addition, spinning mills require wear and spare parts for ongoing operation.

## Market Volume



Global volume for  
staple fiber machines per year

## Market Share



Rieter market leader  
in global competition

### MARKET

The world market for staple fiber machines, which is relevant for Rieter, has an annual volume of CHF 3 200 to 4 000 million. Rieter is the market leader with a market share of around 30 percent.

### BUSINESS WITH NEW MACHINES, WEAR AND SPARE PARTS

The business with new machines is cyclical. The tendency to invest in the spinning industry is mainly influenced by expectations regarding fiber consumption and the margins that can be achieved by selling yarns. Fiber consumption is dependent on the economy, while the margins for yarn depend on the movement of raw material prices, capacity utilization and the production costs of the spinning mills, foreign exchange rates and government policies.

The business with wear and spare parts is much less cyclical. The basic business is driven by the degree of capacity utilization of spinning mills – operational spinning mills require wear and spare parts. Project business such as the conversion or modernization of entire spinning mills, on the other hand, are subject to the investment cycle described above.

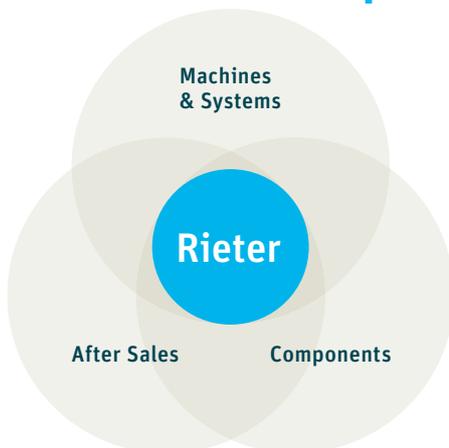
### PRODUCT AND SERVICE OFFERING

Rieter plans spinning mills, develops, produces and supplies the machines for both preparation and end spinning, and supervises the installed machines throughout their life cycle.

Rieter with all its brands is established worldwide as a premium supplier. The innovative products and services from Rieter enable spinning mill operators to be more competitive. Success factors are lower yarn costs, as savings can be made on raw materials, energy, labor and depreciation, with the same or better yarn quality, which allows higher prices for the same production costs.

The professionalism and availability of the service is also a key aspect when customers decide to buy Rieter products.

## Business Groups



Established premium supplier  
with innovative products and services

### THREE BUSINESS GROUPS

The Business Group Machines & Systems develops, produces and distributes new equipment in the spinning systems and single machines sector. Blowroom, carding machines, draw frames and combing machines are used for preparation; ring, compact, rotor and air-jet spinning machines are used for end spinning. The offer is supplemented by planning services as well as material flow and information technology, by means of which the machines are connected to a single system.

The Business Group After Sales develops, produces and distributes spare parts for Rieter machines that do not come into contact with fibers, such as drives, sensors or controllers. After Sales also sells technology components that are not included in the range of products offered by the Business Group Components (see right). After Sales also offers services that enable Rieter customers to improve the efficiency and effectiveness of their spinning mills.

The Business Group Components develops, produces and distributes technology components and precision winding machines for use in the textile value chain. Technology components come into contact with fibers and affect yarn properties; they are used in new machines and have to be replaced at regular intervals during operation. Precision winding machines are used for downstream yarn processing like dyeing.

(Sources: PCI, ITMF, estimate Rieter)

## RIETER GROUP

Rieter is the world's leading supplier of systems for short-staple fiber spinning. Based in Winterthur (Switzerland), the company develops and manufactures machinery, systems and components used to convert natural and manmade fibers and their blends into yarns. Rieter is the only supplier worldwide to cover spinning preparation processes as well as all four end spinning processes currently established on the market. With the acquisition of SSM Textile Machinery in mid-2017, the company invested in related areas of the textile value chain, thereby expanding its portfolio. With 18 manufacturing locations in ten countries, the company employs a global workforce of some 5 250, about 20% of whom are based in Switzerland.

Rieter is a strong brand with a long tradition. Since it was established in 1795, Rieter's innovative momentum has been a powerful driving force for progress in the spinning mill industry. Products and solutions are ideally tailored to its customers' needs and are to a large extent produced in the respective markets.

With a global sales and service organization and a strong presence in the core markets China and India, Rieter as market leader is well positioned in the global competitive environment.

For the benefit of shareholders, customers and employees, Rieter aspires to achieve sustained growth in enterprise value. With this in mind, Rieter seeks to maintain continuous growth in sales and profitability, primarily through organic growth, but also through strategic alliances and acquisitions.

The company comprises three business groups: Machines & Systems, After Sales and Components.

### SALES

2017 **965.6**

2016 **945.0**

#### North and South America ●●

2017 **114.7**

2016 **86.6**

#### Brazil

São Paulo

#### USA

Spartanburg

- Sales/Agents
- Service
- Production
- Research & Development
- Headquarters



**Europe** ●●●●●

2017 **46.2**  
2016 **40.9**

- Switzerland**  
Winterthur  
Horgen  
Pfäffikon  
Rapperswil
- Belgium**  
Stembert
- Germany**  
Gersthofen  
Ingolstadt  
Süssen
- France**  
Wintzenheim
- Italy**  
Galbiate
- Netherlands**  
Enschede
- Czech Republic**  
Boskovice  
Ústí nad Orlicí

**Asian countries<sup>1</sup>** ●●●●

2017 **319.1**  
2016 **286.3**

- Taiwan**  
Taipei
  - Uzbekistan**  
Tashkent City
- <sup>1</sup> without China, India and Turkey

**Turkey** ●●

2017 **100.1**  
2016 **119.4**

Adana  
Istanbul

**China** ●●●●

2017 **184.0**  
2016 **186.5**

Changzhou  
Hong Kong  
Shanghai  
Beijing  
Urumqi  
Zhongshan

**Africa** ●●

2017 **27.7**  
2016 **43.2**

**India** ●●●●

2017 **173.8**  
2016 **182.1**

Chandigarh  
Koregaon Bhima  
Wing

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