

# Small steps – Big effect

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# Dear reader,

we are pleased to present Rieter's second comprehensive sustainability report. It describes in detail how our employees and management continued with great commitment to ensure during 2012 that economic, environmental and social sustainability is practised at Rieter on an everyday basis.

The economical use of energy is very important to us. With innovative solutions and products, we aim in particular to help our customers improve the energy efficiency of their spinning processes.

A gratifying highlight was the tribute paid to one of our development teams by the Swiss Federal Office of Energy with the coveted "Watt d'Or" award at the beginning of 2013. The winning product concerned is an inconspicuous but ingenious plastic component for ring spinning machines, which significantly reduces energy consumption and therewith power costs for our customers.

Another example of our ongoing efforts to enhance the energy-efficiency of our products, thereby creating added value for our customers, is the progress we have made in compact spinning machines. Compared with the first generation, our current machines consume 14 percent less energy.

At the same time we are constantly taking diverse measures, even small ones, in our plants to save not only energy, but also reduce water consumption. Well-trained employees are one of our most important success factors. Thanks to dual vocational training, we benefit in Europe from a highly professional workforce. Both in China and in India, we have therefore intensified our in-house vocational training programmes.

Not to be forgotten, however, are the day-to-day efforts of all our people worldwide. For example in consistently applying our sustainability principles, enhancing the energy efficiency of our production processes, or scrutinizing and documenting the standards and measures we apply. I thank and pay tribute to them all for their outstanding commitment and performance during the year under review.

E. Tiller

Erwin Stoller Executive Chairman

# **The Rieter Group**

Rieter is a leading supplier on the world market for textile machinery and components used in short staple fiber spinning. Based in Winterthur (Switzerland), the company develops and manufactures systems, machinery and technology components for converting natural and man-made fibers and their blends into yarns. Rieter is the only supplier worldwide to cover spinning preparation processes as well as all four final spinning processes currently established on the market. With eighteen manufacturing locations in ten countries, the company employs a global workforce of some 4 700, about 27 % of whom are based in Switzerland.

Rieter is a strong brand with a long tradition. Rieter's innovative momentum has been a powerful driving force for industrial progress ever since the company was established in 1795. Products and solutions are ideally tailored to its customers' needs and are increasingly also produced in customers' markets. With a global sales and service organization and strong presence in the emerging markets of China and India, Rieter fulfills important prerequisites for achieving future growth. For the benefit of shareholders, customers and employees, Rieter aspires to achieve sustained growth in enterprise value. With this in mind, Rieter aims continuously to increase sales and profitability, primarily through organic growth, but also through cooperation and acquisition.

The company consists of two business groups: Spun Yarn Systems und Premium Textile Components.

#### Spun Yarn Systems

Spun Yarn Systems develops and manufactures machinery and systems used to convert natural and manmade fibers and their blends into yarns. The business group generated sales of 727.6 million CHF in the 2012 financial year and accounted for 82% of Rieter's total sales with 3542 employees.

#### **Premium Textile Components**

Premium Textile Components provides technology components and service facilities both for spinning mills and for machinery manufacturers. This business group is represented on the market through four brands: Bräcker, Graf, Novibra and Suessen. In the year under review it employed a workforce of 1150 and accounted for 160.9 million CHF (18%) of Rieter's sales. 4

# Sustainability strategy

### Basis

Rieter's sustainability reporting is based on three pillars:



"The Rieter Values and Principles" reflect the Group's commitment not only to ambitious business goals, but also to environmental and social responsibility. Since 1997 Rieter has adhered to environmental and safety principles that form an integral component of the Group strategy. In addition to adopting a prudent attitude to the environment and natural resources, Rieter also includes risk management as well as the responsible leadership and development of personnel in this commitment. Accordingly, all Rieter's products and manufacturing processes must comply with strict environmental compatibility requirements and the highest safety standards for customers and employees as well as neighbors at its production sites.

The Rieter environmental and safety principles cover the entire Group value-added chain. Rieter strives for the continuous improvement of environmental compatibility and energy efficiency throughout the value-added chain. Development and production processes and infrastructures are continuously monitored and optimized, giving priority to the development of eco-efficient products and services.

## **Economic sustainability**

The basic values governing the Rieter Group's business activities are summarized in three overriding goals:

### Delight your customers Enjoy your work Fight for profits

Rieter is successful as a company if it satisfies its customers' expectations, if its employees are enthusiastic in their commitment, and if it generates long-term added value for its shareholders.

Rieter is committed to creating value for all Group stakeholders. The sustainability strategy accordingly forms an integral part of the business strategy.

#### Investors

Rieter fosters open, transparent dialogue with investors. By presenting an exact and comprehensive picture of the corporate goals and financial development, our reporting strives for a fair evaluation of Rieter, thereby minimizing capital costs and bolstering our reputational positioning on the finance market. In addition to semi-annual financial reporting, the Group regularly attends banking and investor conferences and meets with Swiss and foreign fund managers and financial analysts. Once annually Rieter holds a media and financial analyst conference to explain background information, technological innovations and medium to long-term development prospects in the textile machinery and components business.

Rieter currently has more than 6 900 registered shareholders in numerous countries worldwide. The major shareholders (with more than 3 % holding) are listed on the Rieter website at http://www.rieter.com/en/rieter/investorrelations/largest-shareholders/. As far as known to the company, four shareholders held more than 3 % of Rieter Holding Ltd. shares as per December 31, 2012.

#### Customers

Rieter's business activities are consistently aligned to the needs and requirements of customers.

Customer loyalty and satisfaction are a decisive success factor for Rieter. We strive for long-term customer partnerships based on mutual trust and respect.

With innovative technologies, dependable products and excellent services, Rieter successfully provides customers with solutions that enable their success in turn. Our comprehensive production process expertise, from fiber to yarn and along the entire textile value-added chain, is an important competitive advantage thereby. We continuously develop our products together with our customers to improve and optimize their benefit, and support them throughout the product lifetime with our comprehensive customer service.

#### Suppliers

Suppliers are our partners. We strive to continuously optimize the quality and costing of bought-in materials and components. We attach great importance to proactive innovation support from our suppliers, and we respect our partners' intellectual property rights. We strive for long-term cooperation characterized by mutual respect and joint commitment to addressing economic challenges. And we expect all suppliers to comply with our code of conduct.

#### Value-added statement

Value-added corresponds to Corporate output less input by third parties. It is calculated as EBIT plus personnel costs and financial income. These charts show the distribution of value-added among our stakeholders.

Mainly due to lower sales the value-added of 423.0 million CHF in the previous year declined to 314.7 million CHF in 2012. The most important share of almost 90% was distributed to employees in the form of remuneration and social security contributions. About 5% of value-added was used for interest payments to our creditors, in particular our bondholders, and 3% for tax payments in the various countries in which our Group companies operate. The residual value-added was at the disposal of our shareholders for reinvestment into the company and dividend payments.

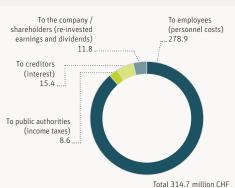
#### Value-added statement in million CHF, 2010



#### Value-added statement in million CHF, 2011



#### Value-added statement in million CHF, 2012



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# Economic sustainability also means being near the customer in every respect.

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**XIETEX** 

Production plant in Changzhou, China

### Social sustainability

Personnel policy

#### Employees

Rieter's success is founded on the know-how and commitment, flexibility and loyalty of its employees. We support them by providing appropriate workplaces and equipment, and with widely diversified future development possibilities. We train our follow-up management staff internally, and try to fill as many executive positions as possible with our own people. Our systematic global succession planning assures management continuity while at the same time offering attractive career prospects.

Rieter offers suitably graded, challenging assignments in a diversified working environment that is truly international and multicultural, in conjunction with a market-oriented, performance-based remuneration policy. Personnel costs are a major component of the Rieter income statement, but these costs are offset by the good performance of our employees.

During the course of the annual "performance management process" in 2012, about 240 employees and line managers worldwide were systematically involved in the succession planning and training schedules (previous year: 200). Interviews were also held with all employees at the various levels in the individual legal units to identify talent in good time for our "local" succession planning.

#### Leadership

We encourage entrepreneurial attitudes and action at all levels, and delegate authority with responsibility to lower hierarchical levels in order to increase flexibility. We place confidence in our employees and in return expect them to adhere to agreements and show a willingness to engage in the comprehensive exchange of information. We call for exemplary conduct, especially by executive employees.

We encourage teamwork with clearly defined accountability. We recognize our employees' potential and ensure that they are employed in the right place. In this way we create a working atmosphere in which employees display commitment to our company and our customers.

#### Responsibility

Rieter is committed to sustainable development and therefore to social responsibility. Both at the global level and also in the local environment of our different locations, we do our utmost to promote positive teamwork between the authorities and employee representatives.

Equal opportunity, fair play and integrity, in conjunction with tolerance and respect, are important principles for us. We reject any form of discrimination.

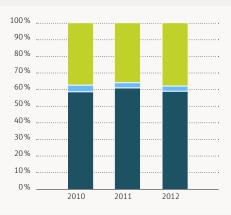
Since 2012 the leadership code of conduct introduced in 2011, known as "i-commit", is part of our "performance management process". Together with various other activities, including target-setting and target reviews, we thus ensure ongoing compliance with our code of conduct day by day as exemplified by our line managers.

## Workforce and geographical distribution Per year-end 2012 Rieter had 4720 full-time

employees (excluding temporary staff) worldwide, as against 4695 in the previous year.

Employee figures in Europe declined slightly (from 61% in 2011 to 59% in 2012). There was a slight increase to 38% employees in Asia (from 36% in 2011), most of whom (98%) are employed in China and India. Rieter has no employees in Africa.

#### Geographical distribution

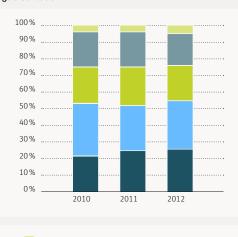




#### Age distribution

The Rieter workforce is equally distributed by age. Due to the large number of Rieter apprentices, employees aged less than 30 are well represented at 26 % of the total workforce. The age distribution hardly changed in 2012 compared with prior year.

#### Age distribution



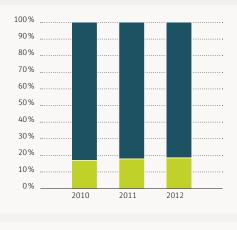


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### Percentage of female employees

The percentage of female employees rose again in 2012, to 19 % from 18 % in prior year.

#### Percentage of female employees





#### Workforce turnover

The Rieter workforce fluctuation rate varies widely from year to year. This is due not only to the distinct market cycles affecting the textile industry, but also to the big differences in regional fluctuation rates. The fluctuation rate for 2012 was 13%, a 22% increase over the previous year but still 23% less than in 2010. About 600 employees left the company during 2012 in total, either due to layoffs or to voluntary departures.

#### Turnover



Gross annual turnover rate

# Social sustainability

Education and training

Employee education and training is very important for Rieter. The experience and know-how required of employees in this sector of industry to assure Rieter's future success is not only limited to Europe. Also in China and India, we therefore invest in continuous training and development for our employees and management personnel.

#### **Vocational training**

In order to uphold in future our high reputation for Rieter product quality, we invest intensively in vocational training. This commitment covers various professions and locations in different countries worldwide.

The long-standing Rieter apprenticeship tradition continued unabated during 2012 in Switzerland and Germany. Once again, final year apprentices in Switzerland were able to attend the annual training week in October, and four apprentices had the opportunity to acquire entrepreneurial experience and knowhow in the Rieter firm "Creative Solutions", which celebrated its tenth anniversary in 2012. Former apprentices were again offered assignments in China and India during 2012. During the course of their six months in these countries they helped to train local employees and establish processes, and provided support for various projects. In this way, our young employees can already gain experience in two different countries and cultures. In Germany we had the pleasure in 2012 of paying tribute to our best apprentice, at Rieter Ingolstadt, who achieved the highest grade nationwide as an industrial electrician.

In China and India the basic training programmes started in 2011 were further expanded. The VET (Vocational Education and Training) concept in India was extended during 2012 with a CNC training and safety course, while in China the initiative launched in 2011 for the sustainable basic training of production and assembly employees was implemented to enable vocational training for school leavers. The first-year apprentices began this training course in the autumn of 2012.

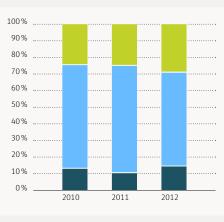
#### Advanced training (personnel development)

Also in 2012, all employees were offered an extensive range of internal and external training possibilities covering all areas and jobs within the Rieter organization. The Operational Excellence programme launched in 2011 was continued in order to significantly improve manufacturing flexibility, productivity and efficiency while at the same time increasing transparency. Our management training courses were again concentrated during 2012 on meeting training needs at lower management levels in the growth markets of China and India. Due to the realignment of our business processes and their implementation in SAP, this area was the main focus of advanced training during 2012.

#### Education

Currently 85% of Rieter staff hold a diploma or a university degree (2011: 89%). The number of employees who do not hold a diploma or a university degree increased in 2012 compared with the previous year. The proportion of university graduates has increased.

#### Education

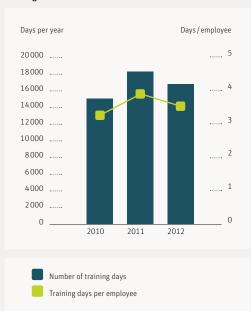




#### Training time

Training time per staff member averaged out at 3.5 days in 2012 (2010: 3 days, 2011: about 4 days). As in 2011, the majority of courses were held with Rieter employees working in Asian countries. Also in 2012, on-the-job courses were held which are not all included in this figure.

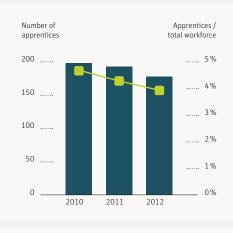
#### Training



#### Number of apprentices and trainees

Apprenticeships are a long-standing Rieter tradition, with a large number of apprentices since many years. In 2012, apprentices accounted for 3.8% of the Rieter workforce (2011: 4%). While most apprenticeships are currently in Switzerland and Germany, in 2012 Rieter also had 11 apprentices in China and 27 in India. Vocational training programs in China and India (see page 14) are not included in the table.

#### Apprentices / trainees



Number of apprentices (without China and India)
 Percentage of apprentices in total workforce

### Social sustainability

Occupational health and safety

#### **Occupational safety**

The Rieter training courses in occupational health and safety continued in 2012. The measures taken to improve accident prevention, risk awareness and occupational safety have proved effective: there has been a further reduction in the number of accidents involving lost working days per million working hours.

#### **Risk audits**

Ever since 2003 Rieter has had a well-established risk control audit system covering all locations worldwide. Apart from industrial property risk insurance such as fire and natural hazards, business interruption, occupational safety and environmental risks are also analyzed and recommendations made accordingly. In this connection the corporate risk and insurance management team holds regular audits together with an external partner, and monitors the implementation of recommendations.

#### **Rieter EHS minimal procedure requirements**

Rieter has compiled clearly defined "Environment, Health and Safety minimal procedure requirements" that have been communicated for some years to the respective Environment, Health and Safety managers. To check for compliance with these requirements, regular self-assessments and external audits are held and analyzed.

In 2012 the Rieter Environment and Occupational Health and Safety organization was restructured with a more powerful central management committee, mainly focusing during the year under review on job descriptions, training and exchange of experience.

#### Certified management systems

As already in 2011, 15 of the Rieter plants are certified to ISO 9001. Two of those not yet certified are still under construction. In 2012, 90% of the Rieter workforce were employed at an ISO 9001 certified plant.

	2010	2011	2012
ISO 9001 (locations)	17	15	15
% workforce	95 %	91%	90%
ISO 14001 (locations)	2	1	1

One Rieter plant is furthermore certified to ISO 14001. Rieter does not plan to certify all plants to ISO 14001 and OSHAS 18001, but nevertheless manages them according to these standards. Among other measures, this is also ensured by conducting in-house risk assessments.

#### Occupational accidents and accident rate

Since 2010 specific work safety training courses have been held. In 2011 the number of occupational accidents with lost days per million working hours was reduced by 7 %, and in 2012 by a further 7 % despite the slightly higher absolute number of accidents with lost days (2012: 188, 2011: 185).

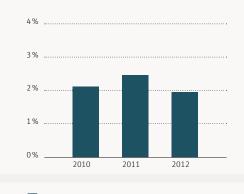
#### Number of occupational fatalities

Rieter recorded no occupational fatalities in 2010, 2011 and 2012.





#### Absence hours due to occupational accidents or sickness



Percentage lost work hours

# Absentee rate due to occupational accidents or sickness

In 2012 the absentee rate due to occupational accidents or sickness was just under 2% of total working hours (2.5% in 2011). The absentee rate was thus lower than in 2010.

#### **Occupational health management**

Rieter continued during 2012 with the various occupational health care initiatives launched in 2011, and is continuously taking short-term, medium-term and long-term measures to promote employee health and wellbeing at the workplace.

The measures introduced in 2011 (occupational health management, training courses, standardized absence monitoring and system-supported absence management) have positively affected absence rates and productivity. They belong to our in-house training programme that focuses in various courses both on imparting knowledge and improving management awareness, as well as on prevention and rehabilitation. Reducing absentee rates, mitigating occupational accidents, and strengthening management capabilities are only three of the challenging goals in this area.

## Social sustainability

Social responsibility

Rieter has always taken its social responsibility very seriously, both toward employees and toward their local communities worldwide. In Switzerland Rieter meets this commitment through the Johann Jacob Rieter foundation in support of art and culture, education and charitable causes.

Cooperation with employee representatives worldwide is fundamentally important to Rieter. In Europe this cooperation is with the European Works Council, and in each individual country directly with the respective employee representatives and trade unions. In Switzerland Rieter belongs to the Swissmem industry association. The employees work under the respective collective labor agreement.

For Rieter as a globally active company it is important to implement and enforce the legal and ethical obligation standards worldwide. To this purpose Rieter has developed a code of conduct in business relationships that is binding for all Rieter employees at all levels and in all countries. To ensure their familiarity and compliance with this code of conduct, regular training courses and tests are held.

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Employees also experience social sustainability as a pleasantly harmonious working atmosphere.

A Far Eastern New Century Corporation employee in Taiwan

### **Environmental sustainability**

Product development

Rieter attaches great importance to the conservation of resources. Not only does Rieter make every effort thereby to reduce production process energy consumption, but also to continuously optimize its spinning machinery, components, and their operation so that customers likewise consume less resources. Minimal environmental pollution, more efficient power generation, greatest possible savings in electricity consumption, optimal utilization of raw materials – Rieter recognized all these sustainability factors decades ago and takes full account of them in product development, focusing on the entire lifecycle.

Rieter is the only supplier worldwide to cover spinning preparation processes as well as all four final spinning processes currently established on the market. This competence along the entire value-added chain enables Rieter to energy-optimize all processes and machinery settings according to individual customer needs.

# **Environmental sustainability**

External reporting

Since 2007 the Rieter Group participates in the Carbon Disclosure Project (CDP), an international survey of greenhouse gas relevant company data. One of its aims is to reduce greenhouse gas emissions worldwide.

All relevant information for sustainable corporate management is registered in the Rieter SEED database (Social, Economic and Environmental Data) and evaluated each year also to assess the Group's sustainability performance as basis for this report.

# **Environmental sustainability**

Environmental data

The main environmentally relevant facts and figures on Rieter's worldwide activities are set out below. They refer to the years 2010 to 2012. Due to separation of the two divisions Rieter Textile Systems and Rieter Automotive Systems in May 2011, this data only applies to Rieter Textile Systems to facilitate comparison over all three years.

In line with the Rieter Annual Report 2012, the term Corporate output used in 2011 is now replaced by Sales. This adjustment applies to all three reporting years.

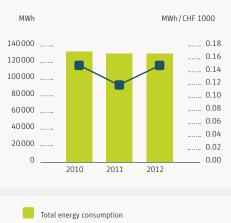
#### **Energy consumption**

Overall energy consumption by Rieter in 2012 remained unchanged from prior year at 131000 MWh. Energy consumption relative to sales increased by 20% to 0.15 MWh/1000 CHF and reached the level of 2010. This higher specific energy consumption in 2012 is primarily attributable to a new plant in China and plant expansions in India and Uzbekistan.

#### **Energy** mix

Rieter's most important energy media, electricity and gas, each accounted for 48% of energy consumption in 2012 (97% together).









#### Greenhouse gas emissions

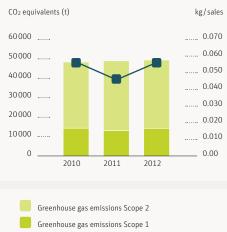
Rieter's greenhouse gas emissions in metric tons of  $CO_2$  equivalents comprise emissions either directly from Rieter production plants, from fuel combustion (scope 1 emissions) or from electricity generation by power utilities in countries where Rieter is active (scope 2 emissions). In 2012 absolute  $CO_2$  emission figures remained practically unchanged from the previous two years, while emissions in terms of sales returned to the 2010 level.

Environmental sustainability was improved in 2012 also with rooftop photovoltaic installations at the Rieter plant in Winterthur, Switzerland, which are expected to save 762 tons of CO<sub>2</sub> emissions over the next 25 years.

#### Acidification (SOX equivalents)

Absolute SOX emissions in 2012 were 2% more than in the previous year. SOX emissions in terms of sales increased from 0.011 to 0.014 kg/CHF 1000.

#### Greenhouse gas emissions



Greenhouse gas emissions / Sales



#### Water consumption

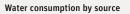
Absolute water consumption figures for 2012 amounted to 421000 m<sup>3</sup>. Water consumption in terms of sales increased by 45% in 2012, and water consumption per employee by 21%. The significant rise in water consumption compared with 2011 is mainly attributable to a new plant in China that started operation in March 2012. Water is mainly consumed by Rieter for cooling or for sanitation and cleaning purposes. Wherever possible, closed loop systems are used in order to minimize water consumption.

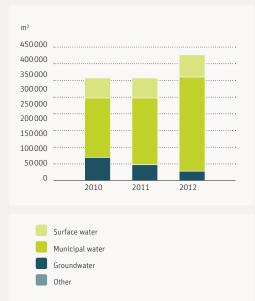
Most of the water used is taken from municipal supplies (74%); the combined surface and groundwater component amounted to 26% in 2012.

#### Water consumption



water consumption/ sales





## Waste disposal and recycling

The absolute waste figures at Rieter locations decreased by 9% in 2012. Waste figures in terms of sales increased by just over 8% to 12.50 kg/1000 CHF. 86% of waste is recycled externally.

#### Waste disposal and recycling



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Environmental sustainability starts with small steps that have a big effect, just like this product.

Rieter Suction Tube ECOrized

# Examples of sustainable product development

### **Rieter Suction Tube ECOrized**

The Rieter Suction Tube ECOrized for ring spinning machines is a small component with a big effect. It reduces suction power at the spinning position by 50 % and results in significant production cost savings. Each spinning position currently features a suction opening for extracting ends down and hard ends. However, this is only needed in very few cases. The Rieter Suction Tube ECOrized has a flap that fully opens only when necessary. It is easily fitted to replace existing suction tubes, and considerable energy savings are achieved in conjunction with adjustable inverter control.

Retrofitting all the 244 million ring spindles worldwide with Rieter Suction Tube ECOrized would save as much energy as the annual production of Switzerland's biggest nuclear power plant!

On January 10, 2013 the Swiss Federal Office of Energy awarded its seventh "Watt d'Or" prize, this time to Rieter for the innovative energy-saving impact of this highly effective plastic component.

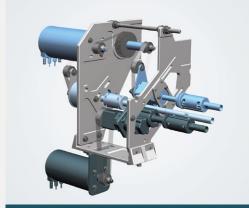


# 6-10%

lower energy consumption thanks to innovation

#### **Energy-efficient compact spinning**

Only those in charge of the overall production process see where most energy is consumed. Rieter as a complete system provider knows best where to make savings.



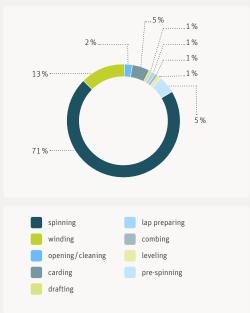
# 14%

energy savings with new compact spinning machine A typical application for fine shirting fabrics is Ne 40, a 100% combed compact yarn. Energy costs account for 22% of the overall yarn production costs, amounting to CHF 0.48 per kilogram of yarn. 71% of these energy costs are attributable to the compact spinning machine (Fig. 1).

For decades Rieter has been consistently setting systematic targets for reducing energy consumption. Compact spinning machine power consumption per kilogram of yarn has meanwhile been significantly reduced (Fig. 2). The K45 compact spinning machine saves Rieter customers 14 % more energy than the firstgeneration K44 1V compact spinning machine.

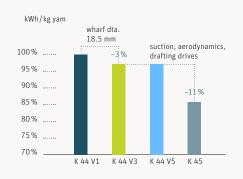
#### Figure 1

Energy cost percentages of the overall compact spinning process



#### Figure 2

14 % energy saved by the new compact spinning machine since 2011



# Examples of sustainable infrastructure projects

# Waterless urinals at Rieter headquarters (Switzerland)

Conventional urinals need at least three litres of water per flushing. Bacteria and mould rapidly develop in the residual water-urine mixture to cause bad odours. Salts and other substances in the water combine to form urine scale deposits not only on the urinal itself. After about 25 years, they also block the piping.

To save water and combat pipe blockage, Rieter Machine Works in Winterthur decided to install only waterless urinals from 2012 on. The twelve waterless urinals installed at Rieter's Swiss headquarters in 2012 sustainably save about 600m<sup>3</sup> of (drinking) water each year. And not only there are less disruptions than with conventional urinals, but also the investment costs are lower.



3–5 litres

less water per flushi<u>ng</u>

# Soft renovations at production site Rieter (China) Textile Instruments Co., Ltd.

In the course of strategic expansion in Asia, Rieter established a new plant in Changzhou and at the same time renovated and refurbished an existing plant built between 2002 and 2006. The climatic conditions in Changzhou – with cold winters, hot summers and high air humidity particularly affect the building shell. Buildings are not normally renovated in China, and maintenance is usually restricted to an absolute minimum. If necessary, the building is demolished and replaced with a new one.

Since this existing building concept is ideal for the planned ring spinning production, and the machine park is already adequate, Rieter decided to renovate the partially weathered and dilapidated outer shell (Page 32, Fig.1).

After an intensive planning phase, in only six weeks most of the production shop and the entire office tract were lined with coated panelling. Aluminium panels with PVDF surface coating were applied to the old façade, leaving an air gap of 5 to 10 cm. These panels were quickly and easily installed, and above all they prevent water penetration.



# 13%

energy savings thanks to building refurbishment At a relatively low cost investment, not only does the renovated building have a new and harmonious appearance (Fig. 2), but also power consumption has been reduced by 13 % (260 000 MWh per year), and 30 % maintenance and energy costs have been saved. This is attributable to the significantly lower heat losses in winter (thanks to better insulation among other measures), more efficient sunlight reflection in summer, and completely restored water sealing. Last but not least, the office working conditions are also much better now.

# Figure 1 The plant prior to façade renovation



# Figure 2 The post-renovation aluminium panels with PVDF surface coating



#### Modernization of the Rieter production shop in Usti nad Orlici (Czech Republic)

In 2012 the air-jet spinning machine production shop at Rieter's Usti nad Orlici subsidiary in the Czech Republic was renovated. Modernization of the assembly hall also aims to reduce the overall plant energy consumption.

As main locations for energy savings, the roof hatches and the lighting system were identified. The new roof hatches have a low coefficient of light permeability and let less sunlight into the building, which makes working conditions in the summer months more pleasant. This also reduces gas consumption by 15000 m<sup>3</sup> or 63% per annum.

The new lighting system meets the specific hygiene standards for workplace illumination and automatically adjusts to daylight intensity. This modular system is also easy to install and adapt to the emergency lighting system. The lighting intensity can be increased up to 500 lux, 67 % more than the original system (300 lux). It also reduces energy consumption by 36 %.

All in all, the modernization of this production shop has not only resulted in energy and cost savings, but also improved working conditions for the employees significantly.



# 63%

gas savings thanks to rebuild

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