

## Rieter innovations for short staple fiber spinning at a glance

Rieter will exhibit at Textile Asia 2008 with their agent Simag (Private) Limited, the various innovations for short staple fiber spinning with a focus on energy savings in Hall 4. Highlights are the new ring spinning machine G 35, the new compact spinning machine K 45, the new SB 20 double head draw frame and the new OMEGAlap combing preparation. New versions and improvements are presented of the card C 60 with new integrated drafting module and the rotor spinning machine R 40. Yarns, fabrics and final products from COM4 compact yarn, Comforo rotor yarn and Rotona rotor core yarn demonstrate Rieter's expertise as a systems supplier.

Simag was established in 1968 and has a core business activity of representing only world renowned textile machinery's manufacturers in Pakistan, such as Rieter Textile Systems from Switzerland. Simag represented textile machinery manufacturers for cotton, synthetic, fabric and nonwovens industry and provide complete solution from technical sales, spare parts supply, know-how and process techniques for textile industries. Simag have an office in Karachi and Lahore with highly competent staff members in Sales and Service department.

The trendsetting concept of the CLEANline compact, high-performance blowroom enables carding production rates of up to 1200 kg/h to be achieved. Optimum yarn values can be realized by using the further enhanced C 60 card. The RSB-D 40 autoleveller drawframe features increases in output up to 1100 m/min with a simultaneous improvement in sliver and yarn quality plus well-conceived functions for simplifying the operation and adjustment of the machine. The new SB 20 double-head drawframe allows mechanical delivery speeds up to 1,000 m/min with excellent sliver quality.

The high-performance E35 OMEGAlap combing preparation unit is adapted to the output of the new generation of combers.

### Innovations in ring and compact spinning

Fancy yarns, twin yarns and ring-spun core yarns can be spun on the newly developed K 45 and G 35 ring spinning machines, which are available now in a length of up to 1,632 spindles. Ring spinning can hardly get more flexible than this, since fancy yarn and core yarn manufacture can be combined.

The R40 rotor spinning machine now offers increased productivity at reduced power consumption with 440 spinning boxes at delivery speeds of 290 m/min, with 240 spinning boxes even 350 m/min can be achieved. New AEROpiecing technology, integrated in the R40 robot, enables to produce ComfoRo® rotor-spun yarns with invisible piecings<sup>7</sup>. The R 40 is now available with 2, 3 or 4 robots, always combined with an intelligent service concept.

The efficiency of the semi-automatic BT 923 rotor spinning machine has been optimized further with now up to 360 spinning boxes. The new BT 924 rotor spinning machine enables to spin Rotona® yarns with elastic core.



R40 rotor spinning machine.

### C 60 card with new SB drawframe

According to Rieter, the C 60 card with the revolutionary working width of 1,500 mm is currently the most productive card on the world market with an output of up to 220 kg/h. It processes staple fibers up to 60 mm with consistently high sliver quality. Quality yarns in all spheres of application - rotor-spun, ring-spun and vortex-spun yarns, and yarns made from man-made fibers - can be produced reliably.

Due to its modular design, the C 60 can quickly be converted from 3 licker-in units to 1 unit. The competitive position of spinning mills is strengthened by the ability to respond rapidly to changes in raw material or the spinning process. A radical adjustment, for example from processing cotton to processing regenerated fiber, or from ring spinning to rotor spinning, is possible without any difficulty.



Rieter C 60 card .

The card C 60 now commands a manually or electronically adjustable knife on the licker-in. With the adjustable licker-in distance, the optimal trash removal at the licker-in during the card production can be determined. With the C 60, 4 to 6 shifts without sliver breakage are usual and result in a high production volume and excellent sliver quality. This success mainly originates from the treatment of the card web by a dynamic, controlled draft in the doffer area.

High production efficiency goes hand in hand with improved quality. The production costs of the yarns are directly influenced by the card productivity. For the same production, a smaller number of C60 cards are required. Consequently a reduced pay-back period for the C 60 card results, with the lower costs for air-conditioning and air filter plant, lower maintenance expenditure (specially for card wires, in addition longer life span of the card wires) and significantly lower energy costs.

## New SB 20 double-head drawframe

Recently the **SB 20 double-head drawframe** has been released for the worldwide sales. The mechanical delivery speed has been increased up to 1'000 m/min. Excellent sliver and yarn quality is reached by the proven 3 over 3 drafting system, efficient suction and patented coiling system. Additionally a new graphic display improves ease of operation. Compared to conventional double-head drawframes, only the Rieter SB 20 double-head drawframe offers the possibility of using very large can sizes up to 600 mm diameter with can changer and up to 1,000 mm diameter without can changer.

## Quantum leap in lap winding technology with E 35 OMEGAlap

In the new E 35 OMEGAlap combing preparation, the known lap winding technology featuring two pressure rollers for lap formation has been replaced by the new OMEGA belt winding technology. Gentle, uniform lap build-up permits winding speeds of 180 m/min without impairing lap quality.

The production output of the E 35 is set to cover the output of 7 Rieter E 65 or E 75 combers. The Rieter high-performance combing set with 1 E 35 OMEGAlap and 7 E 75 combers thus produces more than 10'000 kg of combed sliver/day - enough to tailor 40'000 exclusive COM4® business shirts. For lower production requirements the proven E 32 UNIlap combing preparation produces laps for up to 5 combers.

## Comber E 65 / E 75

With the E 65 / E 75 combers Rieter has extended its lead in combing in terms of productivity as well as quality. With mill production rates of 450 nips per minute, up to 68 kg/h can be produced with the fully automatic E 75 comber model or 66 kg/h with the semi-automatic E 65. A redesigned drafting unit has resulted in a further improvement in yarn quality values - especially CV. Raw material savings of up to 2% can be achieved compared to other combers.

## K 45 and G 35 ring spinning machines

The new K 45 and G 35 are available with 1,632 spindles. This makes the K 45 the longest compact spinning machine on the market. The machines are offered with the unique features of the



Rieter G 35 Ring Spinning Machine.



Rieter SB 20 drawframe.

well-established models **G 33, K 44**, such as SERVOgrip, FLEXIstart VARIOspin etc.

The flexibility of the K 45 machine is manifested not only in the COM4® yarn count but also in processing various types of fibers and their blends, and in specialty yarns in counts of Ne 10 to Ne 160.

The Rieter ring-spun core yarn system enables elastic yarns to be manufactured on ring spinning and ComforSpin machines. The quality characteristics of Rieter core yarns enable them to be used in ladies' and men's outerwear garments as well as in leisurewear, thus following current fashion trends.

## R 40 rotor spinning machine

Rotor-spun yarn produced on the R 40 has attained new quality standards. Unique AEROpiecing technology produces piecings that are virtually identical to the yarn, in terms of both visibility and their properties for downstream processing. Virtually faultless yarn packages are therefore produced on the R 40. The brand name for this novel yarn of outstanding quality is ComfoRo®.

An R 40 machine now has up to 440 rotors and even full-length machines can operate at delivery speeds of up to 290 m/min, with 240 rotors even up to 350 m/min.

The R 40 is now available with 2, 3 or 4 robots, according to the requirements of the customers. The intelligent service concept with the unique service station in combination with 3 and 4 robots secures the high productivity

The power consumption of this newest R 40 is reduced by more than 7% compared to the previous versions by means of improved drive systems.

## BT 924 machines for semi-automatic rotor spinning

The newest innovation - **BT 924 rotor spinning machine** - combines all advantages of the BT 923 with the Rotona yarn process. Elastic filament can be entered into the rotor. Rotona® elastic yarns and Rotona® yarns with slub effects can now be produced on BT 924. This machine offers high productivity thanks to rotor speeds up to 75,000 rpm, 160 m/min delivery speed and 320 positions. In many installations worldwide Rieter demonstrated that spinning elastic Rotona® yarns on the rotor machine brings benefits both in spinning and in further processing. With the new BT 924, packages of Rotona® yarns with elastic core up to 4 kg are produced that can be passed on to weaving or knitting operations without any special treatment.◆