

AUTOCORO 8 THE HIGH-TECH REVOLUTION IN ROTOR SPINNING

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The first **revolutionary Autocoro 8 Open End machine** was presented during the exhibition of ITMA Barcelona in 2011. Based on a long period of intensive hands on R&D activities, the Autocoro 8 Open End machine provides extensive possibilities in sophisticated yarn spinning. Up to now, worldwide more than 500 machines were successfully installed at more than 400 companies, which appreciate the flexibility to produce different yarns in the yarn count range of Ne 3,5 - Ne 60 utilizing different materials.

After the first Open End machine which was manufactured in 1969, the first revolution in rotor spinning was achieved in 1978 by Schlafhorst with the first central automation. The second revolution occurred in 2011 with Autocoro 8 Open End machine which has independent automation system. Because each movement on spinning position is driven by individual motor, the spinning process is carried out precisely.



Picture 1. Autocoro 8 Open End machine with individual driven spindle system

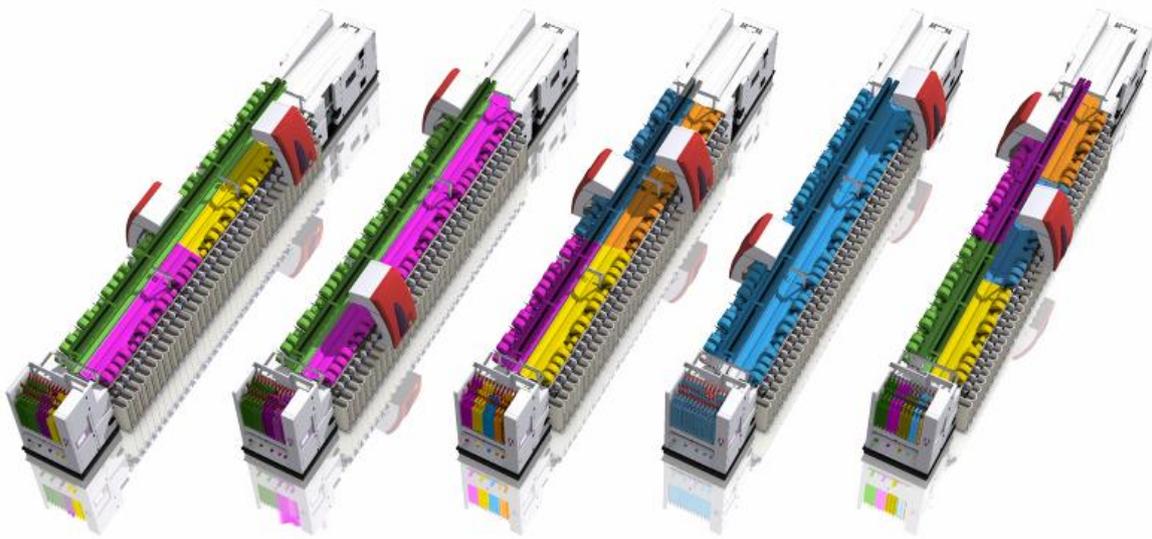
On conventional open end machines, rotors are driven by Twin-Disc and tangential belt systems. This system requires periodical maintenance and frequent modernization due to abrasions. In contrary, precise control of rotor speed is obtained since the rotor is driven by **unique rotor motors** on Autocoro 8 Open End machine without any mechanical friction. Rotor speeds are significant higher thanks to reduction of rotor dimension and weight, with the result of less temperature on the rotor itself. The rotor motors are designed to achieve up to 200.000 rpm production speed.



Picture 2. Smaller and lighter rotor driven by individual rotor motor

Each spinning position has its own **piecing system**. The machine efficiency is at all time high level even in case of high yarn breaks, because 12 piecing are carried out in the same time. The DCU (Doffing and Cleaning Unit) is just responsible for doffing and preventive cleaning of spinning boxes. In addition, because the number of mechanical parts are less compared to the regular robot used on conventional Open End machine, it allows less and easy maintenance.

Up to **5 different lots** can be in production on Autocoro 8 simultaneously. Small orders can be produced on a defined section of the machine. It gives advantages not only for production planning and costs, but also for customer satisfaction because the orders can be faced in a short production period. In addition, while one lot production is finished the following lot starts for production with **seamless lot change** function. Therefore, there is no loss of machine efficiency even during frequent lot changes.



Picture 3. Autocoro 8 Open End machine has the ability to produce up to 5 lots simultaneously

PilotSpin function gives the possibility to do trials on a defined section of the machine while the machine is in ongoing production mode. All trials with different materials, yarn counts and settings for the yarn types which would be in production can be carried out prior production release.

Thanks to **DigiPiecing** technology, the quality of piecing area is nearly the same as normal yarn in respect of appearance and tensile strength. It does not cause yarn break in the following processes and does not create thin or thick places on the fabric.

DigiWinding technology prevents bulging on package formation while the package allows more yarn length up to 10 %.

Because of individual drive of yarn guide, **take-up speed** is up to 300 m/min independent from machine length.

The **Flexpack** option ensures package production up to 7 kg and 350 mm diameter.

The Autocoro 8 has a machine length of up to 552 spinning positions at present. The space requirement is significant less compared to conventional Open End machine which has the same number of spinning positions.

Energy consumption with Autocoro 8, based on the production unit in kg is up to 20 % less compared to a conventional Open End machine.

During the presentation, the incredible features of the Autocoro 8 Open End machine will be explained more in detail based on true facts of successful customer reference installations worldwide.