

Autocoro with new, patented rotor cleaning

To prepare spinning mills for the circular economy of the future, Saurer thinks one step ahead in all its developments and upgrades. A high degree of contamination reduced production speeds and a lot of personnel intervention are all common consequences of using recycled short-staple fibres in a rotor spinning mill. With their new optimised, patented cleaning and operator guidance with LED light signals, the new doffing cleaning units (DCUs) on the Autocoro 10 help our customers achieve higher yarn quality and personnel efficiency.

Fully automatic rotor spinning essentially consists of four key processes: spinning and winding, automatic piecing and automatic doffing of yarn packages. When it comes to the Autocoro, the first three processes have been integrated into each individual spinning position for more than 10 years through individual drive technology, resulting in high productivity.

When doffing a package, rotor cleaning is carried out simultaneously by the doffing cleaning units (DCUs), which travel from spinning position to spinning position. With the Autocoro, you can install up to eight DCUs. The machine can be configured differently depending on the machine length, package size, yarn count and raw material.



The new doffing cleaning unit on the Autocoro 10



New patented cleaning technology for rotors

New patented rotor cleaning improves yarns

The several DCUs work like a well-coordinated team on the Autocoro 10. At the same time, each DCU can be precisely adjusted to the quality requirements of its lots and work areas on the Autocoro 10.

The most important task of the DCUs in the context of yarn quality assurance is to clean the rotors, both pneumatically and mechanically. In the new Autocoro 10, this is now even more efficient as a result of an innovative, patented technology. The cleaning processes are digitally controlled using state-of-the-art linear motor technology. A new movement mode for the cleaning scraper has been integrated, and the positioning of the scraper in the rotor groove is more precise and significantly more efficient thanks to an additional circuit.

This new cleaning technology loosens and removes even the most stubborn dirt and sticky residue in the rotor. The cleaning time of the rotors can now be individually adjusted on the new DCUs. All this paves the way for impeccably clean rotors, leading to a more reproducible yarn quality regardless of the fibre type. During our market launch tests, the cleaning technology proved effective for all fibres that are difficult to spin, such as recycled fibres and regenerated fibres. Our customers can now rest assured that they'll be ready to meet the requirements of the future thanks to the new rotor cleaning system.

Optimised automation for higher efficiency



LED signals for the operators on the new doffing cleaning unit

The new DCUs on the Autocoro 10 are not just automatic devices focused on doffing packages and cleaning the rotor – they are the right hand of the spinning mill personnel, and a new type of operator guidance in two steps makes communication with the personnel quicker and easier. The LED signals, visible from afar, indicate to the personnel when manual intervention is needed. The DCU itself has digitally controlled touch menus with plain text information. This way, the operator knows immediately what needs to be done: whether the auxiliary yarn required for doffing the package is coming to an end or some other manual intervention is necessary. This optimised operator guidance improves the timing of the auxiliary yarn supply and increases the efficiency of both the DCUs and the Autocoro 10.

The patent has been granted and the new rotor cleaning system will be integrated into all newly delivered Autocoro systems as of summer 2023. It will also be available as a retrofit kit for Autocoro 8 and Autocoro 9.

