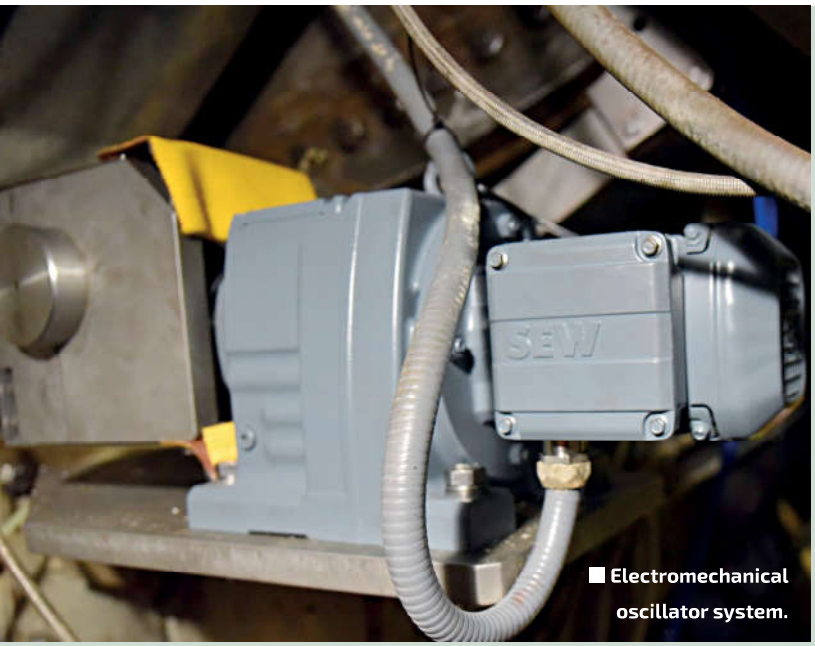


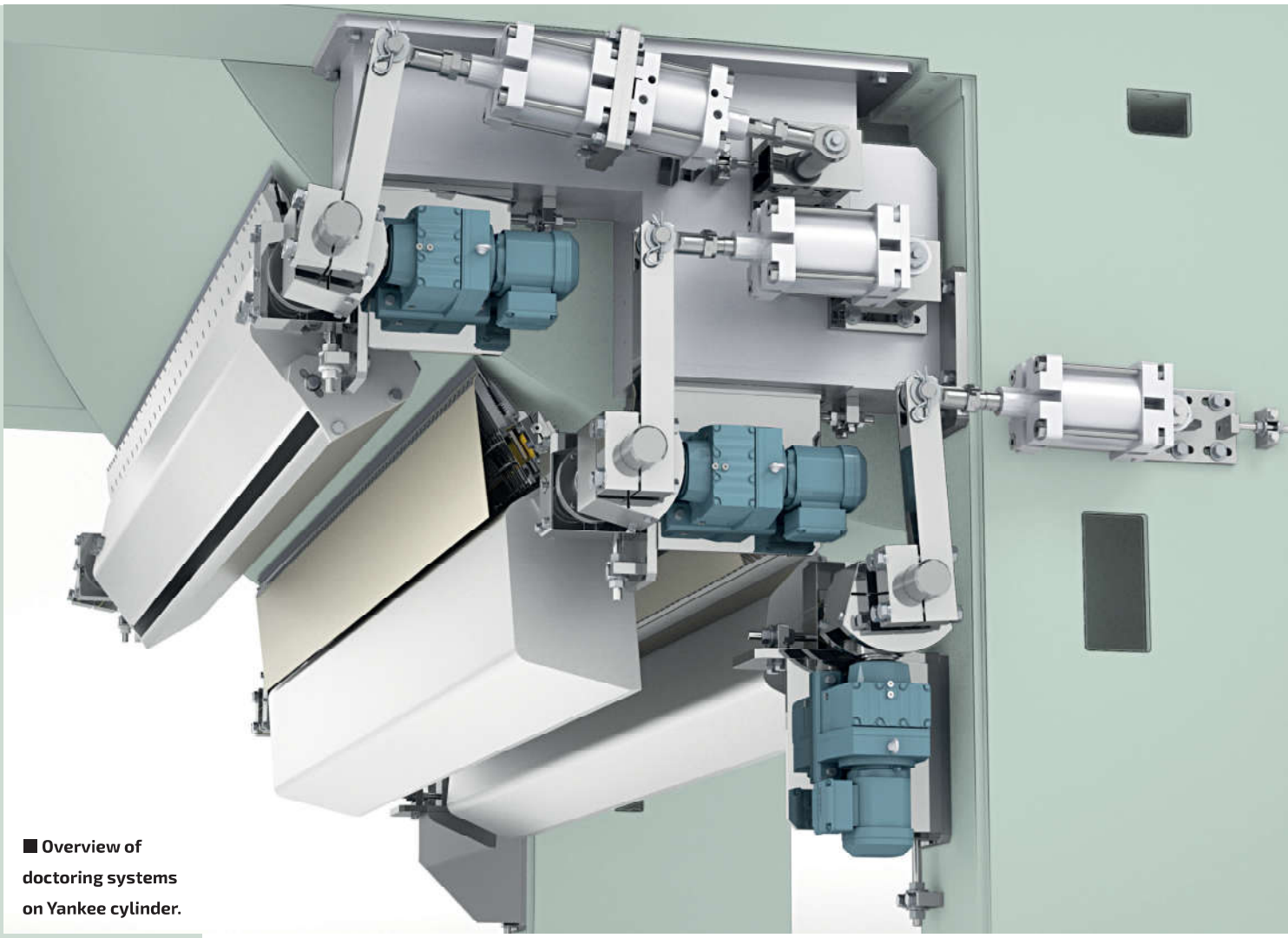
■ Electromechanical oscillator system.

■ Creping doctor bearing support.

ORADOC tips for choosing the right **creping doctor** for tissue machine

Could you ever imagine your daily routine without toilet paper, napkins, handkerchief, paper towel? Tissue paper products have become one of the most essential commodities of daily life.

by: Oradoc Srl



■ **Overview of doctoring systems on Yankee cylinder.**

Tissue paper products firstly came into use in the 1920s and since then the consumption of tissue paper has been increasing consistently thanks to changing lifestyles, rising healthcare expenditures, increasing population and GDP. A number of properties, such as absorption, porosity, coarseness, tensile strength, and tactility, determine the quality of tissue paper. A proper creping plays a key role in obtaining such characteristics and a good finishing of the final product. The first aspect to be taken into consideration is the creping blade holder, and the market currently narrows down the choices to just two possibilities: semi-rigid or flexible.
A semi-rigid blade holder surely needs less maintenance, despite a more difficult fine-tuning and profiling on the Yankee cylinder.
This is even more true for stainless steel Yankee cylinders, which, if compared to older cast iron cylinders, have a significantly different cross and circumferential deformation.
The flexible blade holder represents a more adaptable alternative, as it permits an automatic profiling of the creping blade on the changing, deforming surface of the cylinder.
Apart from being self-profiling, it also allows for lower blade load, which turns into a longer blade service life. As far as cut-off position is concerned, the semi-rigid blade holder is the most commonly used, due to the above-mentioned characteristics, except few particular cases.

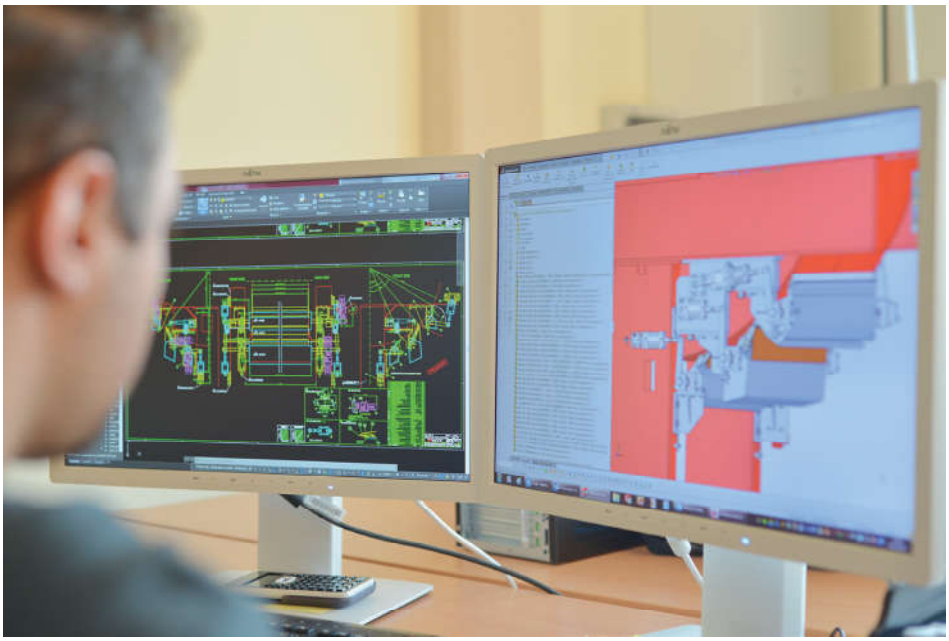
Both semi-rigid - if manually well profiled - and flexible blade holders, instead, will do in cleaning position.

Performing creping doctor

The creping blade is the fundamental element complementary to the blade holder and its geometry is very important in obtaining specific tissue characteristics. All creping blade types can be clustered in two macro groups: steel blades and steel with ceramic coating blades. Steel blades with ceramic coated tip offer a better performance and a longer service life, even if they are more expensive and need a more careful handling. As steel Yankee dryers become more and more commonly used, this kind of blades is replacing the older steel blades almost everywhere. Oscillation is also a must for a creping system on a Yankee: be it pneumatic or electromechanical, an oscillating system guarantees a more performing creping doctor and it helps obtaining a higher product quality. The electromechanical system is easier to maintain; it is sturdy and it can endure also difficult working conditions such as high humidity, temperature and dirt, as motor gearboxes come with very high IP protection level. The pneumatic alternative is more compact, and this of course means a better protection of elements from working environment conditions. Moreover, it needs no electric power and this of course makes it safer; on the other side, it is more difficult to maintain and less reliable over time. Yankee creping doctors work in an high-temperature, high-humidity environment where built-ups are frequent and where chemicals are also employed, that's why they're commonly made in stainless steel. Compared to stainless steel, simply painted steel proves to be cheaper upon purchase, but when it comes to the type of maintenance it needs on the long run, the cost-benefit analysis favors the stainless steel version.

Knowledge of the tissue production process

The doctoring loading and controlling system, the doctor back oscillation and all other accessories are usually driven either through a dedicated control panel or a remote DCS; the latter is usually adopted on new tissue machines, as it allows a safer and more precise control of various parameters and a better monitoring of process performances (air leaks on cylinders, bearings wear and tear, any aberration in the oscillating system, etc.). Thanks to these pieces of information it is possible to carry out an objective maintenance analysis in real time in order to be able to intervene, if needed, in the shortest possible time. In over 30 years of doctoring experience and thousands of doctoring installations worldwide, **Oradoc** has gained a comprehensive knowledge of the tissue production process; this makes it possible to suggest renowned solutions according to different machine characteristics and production plants' needs. Having focused on such a specific system, which is a fundamental part of the tissue machine, has enabled Oradoc to win a very good reputation in the paper and tissue world. ●



▲ Oradoc offers tailor made projects.

> "ORADOC can supply the three main **doctoring systems** needed in the creping process: **cutting**, **creping** and **cleaning**"

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