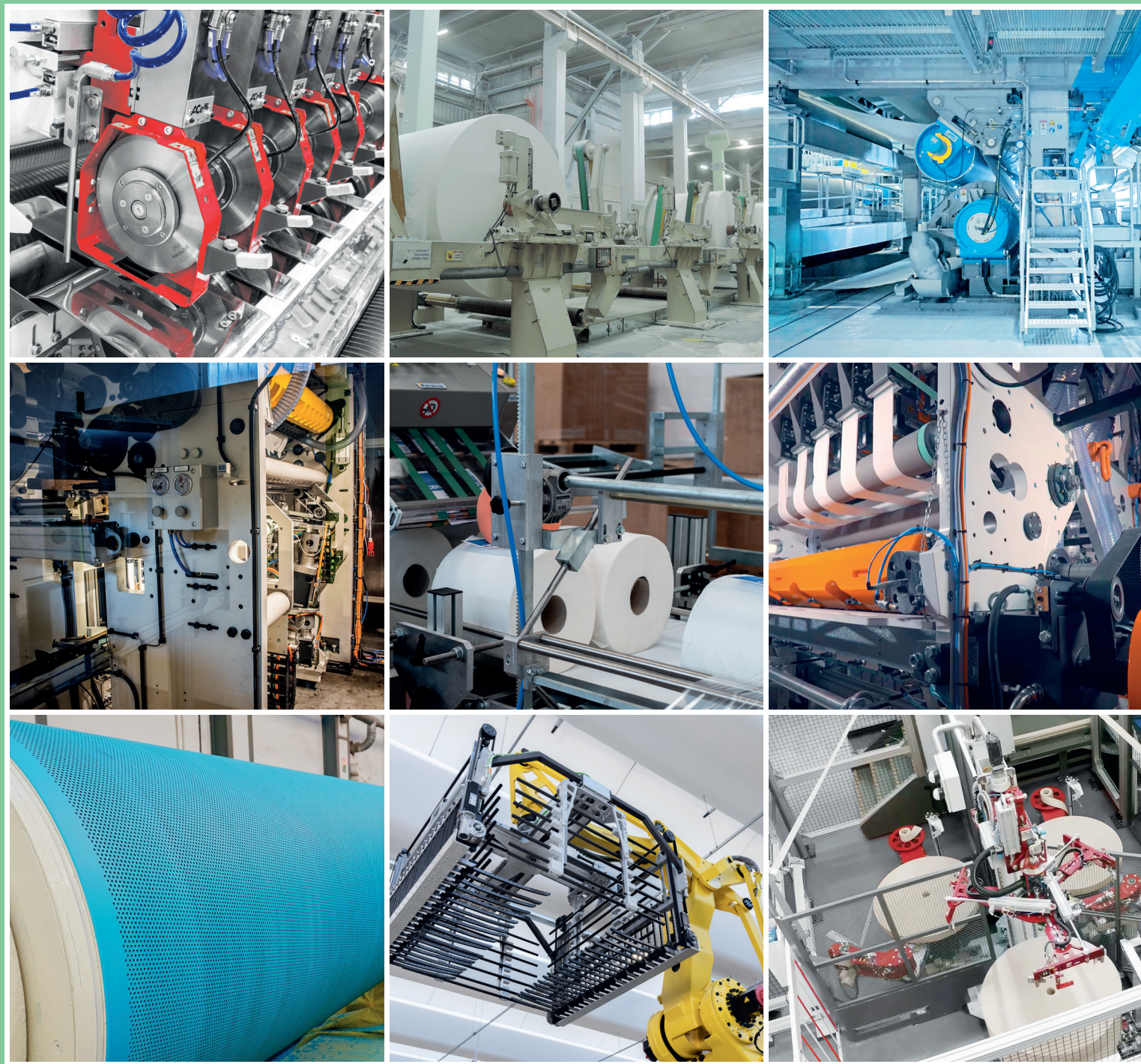


INTERNATIONAL MAGAZINE AND WEBSITE ON TISSUE PAPER MACHINERY AND TECHNOLOGY

TissueMAG

This issue is distributed to Tissue Paper Mills and Tissue Converters in **Europe, Middle East, Africa + bonus countries**



FACE UP THE VACUUM



TOGETHER TO IMPROVE

Thanks to the acquisition of MTK, Oradoc can now offer an even wider range of products and services addressed to the paper industry, to provide its international customers with increased added value. New challenges, new opportunities!

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BOOSTING PERFORMANCES



Drainage elements maintenance to save energy: a case history by Oradoc MTK

By: ORADOC Srl

How to choose the right cover material

Frequently, zirconium oxide covers are to be preferred at (re)start, when the felt is new and not sufficiently moistened (and maybe nozzles are still not working) and the friction could damage both the felt and the covers, due to thermal shock. Zirconium guarantees a greater resistance and performance, preventing it from cracking, as it can happen with ceramic.



■ Overview of overhauled Uhle boxes.

■ Encrusted slats difficult to be detached.



■ Detail of damaged box structure.

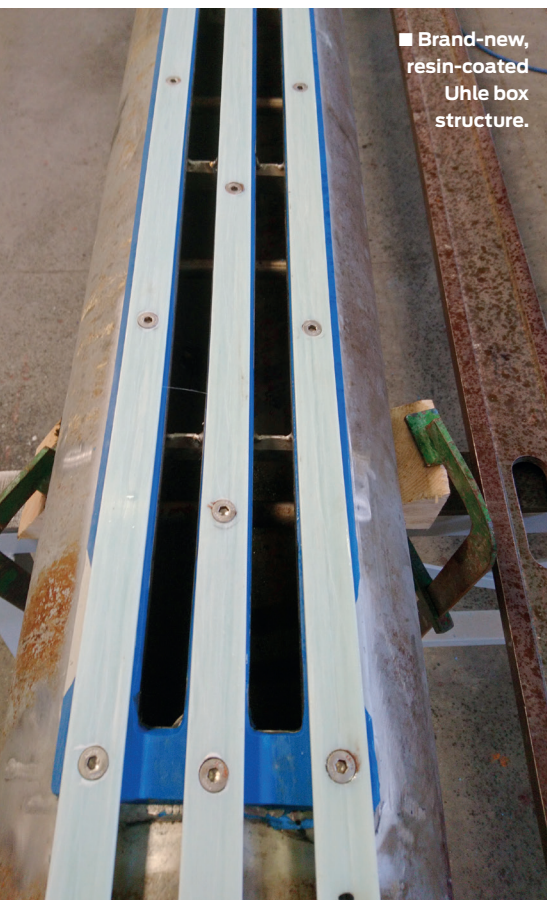


■ Detail of cracked ceramic cover.

Poor maintenance in the felt area can lead to extreme overall conditions, very serious drainage elements damage and significant lack of efficiency, not to mention a dirty or poorly conditioned felt; yet, preventive maintenance activities are

usually underrated and neglected. One of our customers, an Italian multinational company with several plants scattered all over Europe, asked for our intervention to assess the conditions of the felt area, as they noticed that one ceramic cover was cracked. Once onsite, our Field Engineers, along with customer,

decided that the best solution was to proceed with an in-depth control and repair of the whole *Uhle box*. The *Uhle box*, in fact, beside the cracked element, had heavy incrustations, which made it almost impossible to detach the T-bars and the ceramic covers, and it was collapsed in the lower structural part,



■ Brand-new, resin-coated Uhle box structure.



■ Adjustable supports for Uhle box.

“ Oradoc - boosting performances ”

which was originally in plastic. What started as a simple survey turned out to need a turnkey service: the Uhle box was dismantled and taken to our workshop, where it underwent an overall maintenance. Cleaning the inside of boxes is of critical importance: portholes facilitate this operation, which should be best carried out at least once a year, by thoroughly washing boxes with high-pressure water to remove all remaining paper pulp in an efficient way. Even the spaces between the slats are often clogged by encrustations, thus leading to less efficient conditioning, as the ceramic covers are compromised to the point of not being able anymore to correctly adhere to the felt in order to clean it, while the suction surface is considerably reduced. After having disassembled all parts, the box structure was welded again in

some cracked spots (which accounted for less efficiency), and the counter top was resin-coated to make it planar and make it easier for T-bars and covers to be inserted on it, in order to ensure perfect adherence and alignment to the felt. Finally, 3 brand-new slats in aluminium oxide were installed on the T-bars. The Uhle box was then installed, set-up and aligned on the paper machine. All these maintenance activities were carried out in 3 days as unplanned, extraordinary intervention, but taking advantage of an already scheduled stop: once again, **Oradoc MTK** timely service and logistical proximity proven to be an important plus in offering such maintenance services. After having checked and appreciated the previous maintenance intervention,

on the occasion of the following stop, customer asked Oradoc MTK to also proceed with the overhaul of the second Uhle box, which underwent the same treatment, to bring it back to its original aspect and efficiency. Moreover, Oradoc MTK proposed an upgrade of the current Uhle boxes structure by also installing adjustable supports, in order to make alignment and set-up a lot easier. The two overhauled Uhle boxes could then be back on track to work properly, guaranteeing not only a more efficient vacuum system and therefore less energy waste – as, using the same quantity of energy, the vacuum pump works exactly as it was dimensioned for, thus performing better – but also more uniformity in the felt conditioning, increasing its service life. ●

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