Clean calender covers thanks to new blade technology
For more than 120 years, Crown Van Gelder has been producing wood free uncoated and C1S (one side coated) specialty papers for graphics and industrial applications. For a long time Crown Van Gelder has been relying on Voith Paper’s proven nanotechnology for its calender roll covers.

Voith’s nanotechnology achieves very high abrasion resistance and therefore ensures availability and increased run time. Apart from wear, another common reason for changing the calender roll cover is barring, i.e., the streaks on a calender cover that are usually caused by external influences. This barring causes vibrations in the calender and severely reduces efficiency. As well as offering a high level of abrasion resistance, Voith’s NanoPro technology also reduces barring.

Both NanoPearl and NanoPro, which was developed to resist barring, are being used very successfully on the PM 1 and PM 2 at Crown Van Gelder. Given that the surface of the cover has a direct impact on paper quality, all kinds of unevenness or contamination on the cover have to be prevented. This is why a lot of calenders are equipped with blades to remove potential contamination caused by stickies. In the past, composite calender covers, including NanoPearl and NanoPro, were always doctored using steel blades. Nevertheless, in many systems the use of steel blades results in contamination that takes the form of black streaks from the metal blades. These can then build up and lead to quality impairments in the paper and also increased broke as a result of stickies transfer, more web breaks and problems in winding due to uneven profiles.

Crown Van Gelder is committed to producing paper of the highest quality. Operational excellence combined with ongoing improvements can help achieve this.

Black streaks on cover caused by metal blades
“We were able to lastingly improve surface cleanliness by using SkyCal doctor blades. Existing fouling caused by steel blades could be removed with SkyCal and the cover kept consistently clean. As a result we can live up to our promise to produce optimum quality and strive for operational excellence,” says Bart Lensink, Head of Production at Crown Van Gelder.

Because it has its own laminating press, Voith is the only supplier that can design its doctor blades so that they are precisely tailored to the requirements in the paper machine. The functionality of SkyCal is achieved through the resin-filler combination, which enables the surface to constantly renew itself and thus results in a consistently high cleaning performance. The blade is designed to be used with all Voith nano-composite covers.

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