



New Axcyl carbon fiber bridge sleeve eliminates flexo bounce issues at AFP

When AFP, a leading Dutch producer of flexible packaging concepts, needed to improve the productivity of its two eight-color Windmoeller & Hoelscher flexo presses, it turned to local Trelleborg Axcyl dealer Graphic Help 4 U. Jochem Sants is pre-press coordinator at AFP and is also responsible for projects relating to improvements at the factory in Apeldoorn, which is in the center of the Netherlands.

“The print quality from our presses, which are one meter and 1.25 meters in width, was being adversely affected by the well-known issue of press bounce, or vibration, which caused uneven ink transfer in the impression nip,” says Sants. “This often resulted in a print quality that was not the standard we wanted and the only way to overcome this was to reduce the speed of the presses.

“The challenge we faced was made more complex by the designs that we have to produce, as these are commonly highly sensitive to vibration and the images generally cannot be staggered to alleviate the issue. In addition, we needed to reduce the set up time between jobs, as decreasing run lengths demanded an ever greater efficiency in how the next job was prepared for the press, as well as speeding up resetting the press for the new job. We explained these various problems to Ton Valentijn at Graphic Help 4 U and he approached the experts in flexo sleeve technology at the facility in France where Trelleborg produces Axcyl sleeves.”

Trelleborg has long been a pioneer in the field of flexo sleeve design and its Axcyl products are recognized as amongst the best in the world. The manufacturer has carried out extensive research and development work into reducing bounce on flexo sleeves (both plate mounting and bridges sleeves) and recent trials by an independent printing research company in Germany have confirmed its leading position in this area. Damien Leterrier is Sales and Application Manager for Axcyl sleeves.

“We have created a unique carbon fiber bridge sleeve which ensures rigidity, lightness and stability - features that have been welcomed warmly by press manufacturers and flexo printers around the globe,” says Leterrier. “AFP wanted the flexibility to mount flexo sleeves from both Windmoeller & Hoelscher presses on the widest model, which meant that the bridge air ventilation had to be adapted so that the narrower sleeves could be used. Along with Ton Valentijn, we began in-depth discussions with AFP about how to tailor our bridge sleeve concept to meet their very particular requirements.”

Bridge sleeves are normally placed on to the shafts of flexo presses to reduce the weight of the flexo sleeve to which the photopolymer plates are fitted and also cut down the printer’s capital expenditure. Many bridge sleeves available on the market do little to reduce the problem of vibration which occurs naturally as part of the flexo printing process, especially at higher speeds.



The carbon fiber bridge sleeves developed by Axcyl provide an exceptional reduction in bounce, eliminating the streaks that can so often appear in the final printed product. The pneumatically mounted bridge sleeves also have a special mounting layer that enables faster press set up.

The bridge sleeves can have ventilation either via a mandrel or a separate air supply and have a reinforced register slot with a bayonet system and pin index. They are available with a wall thickness ranging from 16 mm to 100 mm, in widths from 500 mm to 2,000 mm, and can be cleaned with any solvent compatible with UV, solvent or water-based inks. The totally sealed ends makes them suitable for automatic cleaning machines.

Leterrier continues: “As manufacturers produce presses capable of faster printing speeds and the market continues to demand shorter runs, often using lighter stock, the need to



reduce flexo sleeve bounce and set up times between jobs becomes ever more important to the printer.

“AFP had specific requirements and to meet these we developed a carbon fiber bridge sleeve that incorporates ball valves that enable smooth and safe removal of the bridge sleeve from the press shaft, while allowing various widths of flexo sleeve to be easily mounted on top. During 2015 we supplied a limited number to AFP for trial on the smaller of its two Windmoeller & Hoelscher presses.”

Sants picks up the story: “We trialed the redesigned bridge sleeve for a year and the results were so impressive that we equipped both presses with the Axcyl solution. During this period we took the opportunity to examine how we handled set up procedures between jobs and implemented some new guidelines for operators, including standardization of flexo plates using a product from Kodak.

“It’s difficult to state precisely the degree to which each of the changes we implemented was responsible for what part of the overall improvements, but we’re delighted with the results. We run our flexo presses around ten per cent faster than we did a year ago, while the set up time between jobs has been reduced by around eight per cent.

“The print quality is consistently better, with good fit between colors, and this means less wastage, while we are able to provide customers with a faster delivery. Our presses are in operation around the clock and the flexible packaging work we produce is sent around the world.

“We’ve been extremely pleased with the service from Ton Valentijn at Graphic Help 4 U and the team at Trelleborg. By creating greater stability and standardization in the factory, our press operators are also happier!”

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