A razor sharp cooperation

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For more than 30 years, Eclépens/CH-based company BTG has been specializing in the manufacturing of high-performance wear-resistant blades made of different materials and catering to a broad range of applications, mainly in the pulp and paper industry. In the 1980's BTG launched the first coating blade, in 1994 the first creping doctor blade and five years later the first flexo doctor. Based on long experience and high-tech know-how BTG's ceramic-coated doctor blade, Duroblade, meets the manifold requirements of everyday production.

Now, BTG has joined forces with the German company Rolf Meyer GmbH, a market leader in printing doctor blades, high performance knives and spare parts for the printing and packaging industry. BTG will continue manufacturing the product while worldwide distribution and service will be taken over by Rolf Meyer GmbH with its in-depth competence of this particular industry, under the new product name of RMB DuroBlade. We talked to JEROME MICHAUT, Marketing Manager of BTG and THOMAS STÖRTE, Managing Director of Rolf Meyer, to learn more about the products and the advantages of this new collaboration.

J. Michaut, Marketing Manager BTG DuroBlade. **Th. Störte, Managing Director Rolf Meyer GmbH.**

BTG Eclépens enjoys a worldwide reputation as a manufacturer and supplier of ceramic-coated doctor blades. Could you give our readers a brief sketch of the company's history? What other products do you offer your international clientele?

JEROME MICHAUT: *BTG* has been working for the pulp and paper and related industries since 1921. What was mainly a process control company evolved over the years and with the acquisition of *Duroblade SA*, Switzerland, in 1988 *BTG* became a supplier of high-performance blades. Inventor of the original high-performance coating blade, in 1994 *BTG* launched its first ceramic-tipped creping doctor blade and in 1999, the first flexo printing doctor blade, which can be used in any type of flexographic application, and for UV, offset and gravure coating; all with engraved, ceramic rolls. A recent development is our rotogravure blade, especially for use in décor and flexible packaging applications.

Our focus is on developing innovative, cost-effective ways to improve productivity for our customers by pioneering advanced technologies. Apart from *Duroblade*, *BTG* also offers *IPI Durorod*, rods for coating and size press operations, and a full range of process sensors, analyzers and lab instruments.

How do you estimate the significance of the doctor blade for the printing process? Which criteria must be met for optimum doctoring of the anilox roller in flexo printing? How is this affected by the characteristics of the ceramic surface of the anilox roller and by the ink system (solvent-based inks; UV curable inks; water-based inks)?

JEROME MICHAUT: Since the introduction of the *BTG* doctor blade in flexography we see a big improvement in terms of quality, reliability and productivity. The most important advantage when using the ceramic doctor blades against an anilox cylinder is the blade pressure on the cylinder! Because the wear of the ceramic-tipped blade is very even and slow, one can work with less pressure than with a steel blade. This has positive effects on the anilox surface such as less friction and increased lifetimes of the edge seals.

Experience shows that there is no excess wear of the cylinder surface when using ceramic doctor blades and the amount of scoring lines on the anilox (due to burr formation at the contact zone on standard steel blades) can be drastically reduced. The wiping quality with solvent- and water-based inks is constant during the whole blade lifetime and under certain circumstances the ink-speeding effect (back doctoring) can be eliminated.

Your product managers are worldwide in continual contact with the decision-makers in the printing industry. Therefore we assume that you know exactly the current requirements of the industry?

THOMAS STÖRTE: More than ever before the industry is requiring support in order to optimize their production with the main focus on productivity, safety and quality. Nowadays we can't only offer one type of doctor blade for all applications in the printing industry, therefore we are proud that we have now the complete range of doctor blades in order to fulfill the high requirements of the printers.

You were the world's first company to introduce ceramic-coated doctor blades, marketed under the Duroblade trade name. Would you describe the manufacturing process as well as the special features compared with conventional doctor blades?

JEROME MICHAUT: The manufacturing process of high-performance coated blades consists of the application by thermal spraying of ce-

ramic and cermet material onto the edge of a steel strip. (A cermet is a composite material composed of ceramic and metallic materials. A cermet is ideally designed to have the optimal properties of a ceramic, such as high temperature resistance and hardness, and those of metal, such as the ability to undergo plastic deformation. The metal is used as a binder for an oxide, boride, carbide, or alumina. Generally, the metallic elements used are nickel, molybdenum, and cobalt. Depending on the physical structure of the material, cermets can also be metal matrix composites, but cermets are usually less than 20% metal by volume.)

As the wear mechanisms on conventional doctor blades are due to friction between the blade tip and the substrate and also due to abrasion of the doctor material by substrate components, the application of a material that resists friction, thanks to its low heat transfer conductivity, and to abrasion, thanks to its wear-resistance, allows us to keep the blade tip design unchanged for a much longer time than a conventional doctor blade. The resulting advantage is of course a longer potential blade life. However, even more important is the stability of the quality achieved, which allows the production of the very same quality from the beginning to the end of the print run without adjusting machine settings.

As far as we know you have already a wide product range of doctor blades to offer. Why is the RMB DuroBlade of interest for you?

Thomas Störte: With the *RMB DuroBlade* we are able to complete our competence in offering optimized solutions to our customers. The *RMB DuroBlade* will be our first choice in special applications where for example our *FlexoTip* and *MegaPrint* blades reach their limits.

Do you have an example of this?

Thomas Störte: For example for long print runs where customers are using white ink as preprint colour. This white preprint ink is usually more abrasive than other inks. But there are a lot more examples, also in other applications, where *RMB DuroBlade* is the most economical blade compared to others.

How can you prove this to the customer?

Thomas Störte: Our product managers are able to run together with the customer for his individual requirements a »return on investment« calculation in order to find out which is the most economical blade for him.

What are your (investment) plans for the future? What are the projects and developments you are currently working on?

Jerome Michaut: For *BTG* and *Rolf Meyer* it is extremely important to be as close as possible to the customer and his needs and even to foresee what future market requirements need to be satisfied in order to bring him value. At *BTG*, we are constantly working on new or improved materials that can help solve new issues and reduce customer operating cost. For example, *BTG* is now developing a high-performance blade for rotogravure printing for décor and flexible packaging applications.

How is your sales network organized?

Thomas Störte: We are supporting a multichannel network. In some main countries we are benefiting from the strong organization of the *IKS Klingelnberg Group* with our own companies like in France, the Netherlands, the United States or in Asia. In other countries we are working with specialized experienced distributors who know the product range and the industry very well. The entire worldwide network is furthermore supported by our own product managers and our internal sales team.

How do you see the evolution of this collaboration let's say two years from now?

Jerome Michaut: By combining the excellent knowledge of *Rolf Meyer* thanks to its daily direct contact with the worldwide market and *BTG*'s long experience of blade manufacture, we expect to understand customer issues and troubles even better and to respond with the right product. Having this collaboration with *Rolf Meyer* is a tremendous opportunity to develop new products that will fit with current and future market requirements.

Thomas Störte: *DuroBlade* is a very high-performing blade and therefore of high interest to the market. Our sales network is focused on providing the best solution to our customers worldwide. I clearly see here a good potential to grow. ■