



BUCKLING UP

Manufacturers of belting solutions are successfully navigating the industry's transition.

By Stefanie Rossel

The radical changes in the tobacco industry haven't bypassed suppliers of tobacco material handling solutions. As the golden days for combustible tobacco products are over and cigarette volumes decrease, manufacturers have stepped up their quest for ever-greater efficiency and process optimization.

At the same time, tobacco companies must cope with changing consumer preferences, which include increasingly customized traditional cigarettes as well as the rapid rise of an entirely new product category, next-generation products.

"There is a remarkable transition within the industry," notes Jens Faerber, managing director of sales at Max Schlatterer, a German manufacturer of belts and tapes. While probably best known for its Esband endless garniture and suction tapes, the company also offers a wide range of endless transport and conveyor belts, as well as drive and special belts.

"Belting manufacturers are facing a challenging world full of regulations, restrictions and the constant demand for efficiency. The pace of development is getting faster and faster," says Faerber. "Digitization is one main factor that drives our current understanding of smart tools, transparency, pace, flexibility and customer orientation into completely different dimensions."

One of the main tasks for tobacco companies, he adds, is to cater to the changing smoking habits, which requires a vastly expanded product portfolio. "Like to our customers, we see the potential of new tobacco products, and we support

their development projects with our expertise. Nevertheless, we still see our competencies also in belting and supplying the tobacco industry with belt and tape solutions for existing tobacco products such as cigarettes and filters. Constant improvement of processes and therefore efficiency are the keywords here."

Wanted: multifunctionality

In traditional cigarette production, there is a vast range of applications for belts and tapes in the primary and the secondary department. Comprising highly specialized material compositions and featuring elaborate surface structures and coatings to optimize product movements within the cigarette manufacturing process, belts and tapes are high-tech products. Requirements for the regular consumable items, which, like other spare parts, have a limited lifespan, vary greatly depending on the point in processing where they are used. Having direct contact with tobacco and other cigarette components, belts and tapes must comply with strict unpacked food and pyrolysis guidelines.

This means that belts in the primary need a nonstick surface that doesn't contaminate the tobacco. Forbo Siegling, a German manufacturer of conveyor belts, currently focuses on the development of belts with improved "release" properties, as well as dirt-resistant and dirt-repellent silo belts, according to Christian Reinhard, Forbo Siegling's segment manager for food and tobacco. Resistance to high temperatures and steam

is also essential. "We see a trend toward fine-cut tobaccos," says Reinhard. "These often wet and sticky tobaccos require belts with better release properties."

To cater to these requirements, the company in early 2016 launched a new type of conveyor belt. The Siegling Transilon E 8/2 0/A2 MT-TT white FDA is a fabric-based polyolefin belt with an additional top face made of polypropylene. This coating makes the belt resistant to hot water and steam—i.e., hydrolysis-resistant. According to its manufacturer, temperatures of up to 120 C and for short periods up to 140 C are unproblematic. Originally developed for manufacturing steam-cooked rice for a customer in China, the new belt also has good release characteristics for sticky foodstuffs, such as moist tobacco. The belt is also "trough-able," which is important for the conveyance of bulk goods and complies with U.S., EU and Japanese regulations for use in the food industry.

Extending service life

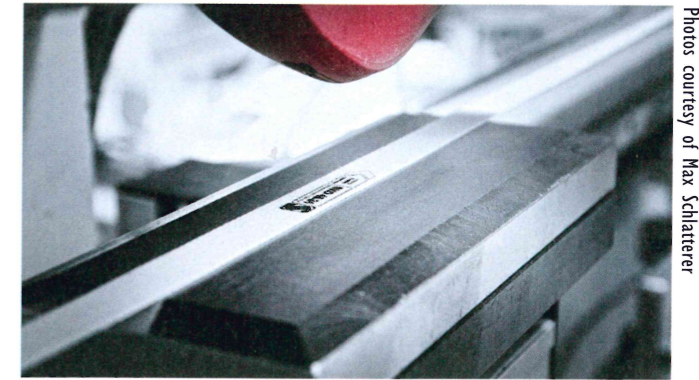
Schlatterer's current emphasis is on tapes for filter components, such as nonwrapped acetate, in addition to solutions for the production of new tobacco products. Materials must meet both the high tobacco industry requirements and Schlatterer's own quality standards. Service life is still the main consideration in terms of good belt performance, according to Faerber. "The service life of a belt is affected by various facets; the material, for example, is one factor," he says. "Another point is the machine setup. This is why we stay in close contact with our customers, to find the right belting solution by looking at the tobacco machine in total. Efficiency is key, and therefore we focus on maintaining and expanding our high quality level. This means that the variety between two belts of the same product line is as low as possible. We already set narrow fields of tolerance."

The company benefits from its diversification into other industries, which is typical of most players in the belting systems sector. "Since we are able to combine different carrier materials, coatings and refinements, it is possible to create a custom conveyor belt that suits the needs of our customers," says Faerber. "The possible application areas vary from transportation to food processing, weighing, etc. So we have a profound knowledge and understanding of production processes in different fields. Through being so diversified, we are able to transfer new findings and technologies we developed for the food industry to the tobacco industry, for example."

The company's most recent innovation has gone the opposite direction. Looking outside the tobacco industry, based on many years of experience and knowledge, the company introduced a completely new product—pressure rollers. These consist of polymers or foam and can be applied to hold down transportation goods or attach labels.

Moving with the times

Such equipment might also become useful in the production and packaging of novel tobacco products. Heat-not-burn (HnB) products, for instance, have seen remarkable growth



Photos courtesy of Max Schlatterer

Tobacco belts and tapes must comply with strict requirements regarding materials, surface structures and release properties.

over the past few years. To meet demand, manufacturers have begun to expand production capacities and convert former cigarette factories into HnB production sites, which opens up additional opportunities for manufacturers of belting solutions. Schlatterer already operates in this field. "New tobacco products such as heat-not-burn products are produced in a different way but quite similar to the traditional cigarettes, and therefore there are special requirements on belts and tapes as well," Faerber points out. "In the case of new tobacco products, our portfolio varies from slightly altered tapes and belts to complete innovations, depending on the processes." Here, Schlatterer uses various materials, such as yarns and polymers.

E-cigarette production involves different manufacturing processes altogether. "Our belts may be involved in the process—mainly packaging—but the typical tobacco-specific requirements, such as pyrolysis requirements, do not apply here," says Reinhard.

"At the moment, there is no special need for endless belts in the actual production process of e-cigarettes as far as we know, but Esband offers belting solutions regarding the packaging process and other transport processes," Faerber says. "With our other product line for the packaging industry, for example, we already have sophisticated solutions that are ready to be used in these processes as well."

For the time being, novel tobacco products are likely to remain a niche market, despite their impressive growth rates, and both companies see current opportunities predominantly in the traditional tobacco market. "Even though tobacco consumption may decrease in some parts of the world, it will undoubtedly stay a major industry," says Reinhard. "We will continue to listen to our customers—original equipment manufacturers and end users alike—and be a powerful provider of belting solutions."

"I definitely see the change within the tobacco industry and find it remarkable how innovative the industry is," says Faerber. "The new products—but also other developments in production processes—show that the industry is able to adapt quickly to the needs of the customers and requirements of the market and legislation. Looking at Schlatterer, based on our comprehensive strategy, the future will be challenging—but we are well-prepared."