

Winding process expertise examined

Calemard, the converting machinery division of **Spoolex Group** will be showcasing its latest developments at ICE in Munich

Always based on three modules (unwinding, slitting, winding), each of Calemard's products is multi-purpose and can convert thick or thin materials into pads or spools, of wide or narrow strips. The technical and process expertise of the French company's engineers have allowed them to develop and equip machines with sensitive web tension control and guiding systems, to manage, depending on the product to be converted, high, low and even extremely low tension on the same machine. The result is compact rolls with consistent tension, clean and straight edges for easy use on the final product manufacturing process.

ALWAYS MORE SPOOLING HEADS

With more than 2,200 spooling heads in production worldwide, Calemard has been a leading supplier for digital spooling machines across many industries. For example, one of its latest spooling lines sold is a digital slitting and spooling line, Gemini, which is used to convert secondary rolls into stable narrow strip spools of carbon for aerospace applications. The challenge was to propose an equipment able to handle sensitive product, from narrow to large and to produce consistent high-quality spools of added-value product to increase efficiency of downstream operations. The Gemini line can handle mother rolls on dual unwinder of Ø 800 x 610 mm width with manual splicing unit. Then a mechanical cutting system cut strips from 3mm to 25 mm. Finally, the strips are spooled on 48 spooling heads on 3 stage. Using the self-traverse winding technology allows straight strip conveying even on very narrow strips (no distortion / no twisting). This line is also equipped with digital spooling to manage precisely on each spooling head pitch and optimised reversing point (dwell time), but also spool shape. An unloading assistance system by pushers enables easy and simultaneous unloading of the 48 heads.

NEW SPECIFIC DEVELOPMENT

Another machine recently engineered and commissioned by Calemard is an unwinding-rewinding line for plasma treatment with cutting station. This machine has been specifically designed to receive large rolls (Ø 900 x W 2100 mm), the standalone unwinder can rotate in both directions (clockwise and counter-clockwise) in order to allow the choice of which way the product faces up. The unwinding shaft is driven in order to

control perfectly the tension and prevent from elongation on light/thin products. Thus, the product is conveyed smoothly along the machine. An anti-static equipment to remove static electricity from product are installed on unwinder as well as on rewinder. A coated roller allows the pulling of the material from the unwinder through the Plasma treatment equipment without tension. Lastly, the winding station is fitted to allow tightness/compaction rate adjustment.

CONSTANTS IN CALEMARD'S RANGE

Calemard also offers a range of flexible and versatile slitter-rewinders. The company has recently sold its well-known VEGA S to produce quality finished rolls of technical pressure-sensitive adhesives. The customer was searching for a reliable, flexible and easy to use equipment to produce compact rolls with a good tension and clean edges. The Vega S was an obvious solution. This machine is equipped with a separate unwinder to handle large mother rolls up to Ø1,200 mm / 1,000 kg and a let-off arm to ease unwinding of adhesive products. The separated unwinder also includes a manual splicing table. As for most of machines working at high speed on plastic products, the elimination of static electricity is a must to the process. Static can have a negative impact on production, quality control, overall efficiency and cleanliness – and, of course, health and safety of employees. VEGA can handle webs up to a width of



1,600mm to be cut into minimum strips of 20mm. It can be fitted with shear cutting, razor blades cutting or crush cutting systems or a combination of these systems. The positioning of the individual cutters is readily adjustable to a precision of +/- 0,1 mm with digital indication. This makes the machine ideal when frequent change and highly accurate slitting width adjustments are required. After cutting, the strips are rewound on two shafts with lay-on arms and individual frictions which allows for differences in material thickness. The shafts offer optimal rewinding of films and most diverse materials into narrow rolls, whatever differences/tolerances in thickness thanks to an individual tension control of each strip. This allows the production of compact rolls with precise rewinding.

ICE SHOW 12-14 MARCH, MUNICH

Calemard by Spoolex Group will be exhibiting at ICE Europe on booth 475 Hall A6 this year, and the company invites attendees to visit and discuss your future equipment. Christian Montusclat and its sales team will be pleased to welcome you in order to provide you detailed information on these new developments and of course on the standard range of versatile and adaptable slitter-rewinders and spooling machines. Present since 1955 on a wide range of markets, the Calemard brand has focused its activities on highly technical cutting applications.

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