

Slitter rewinder series – Part 5 & 6

A checklist for the diligent buyer

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A converting machine is to be run by a human, and its interface must be safe, user friendly and comfortable to get the best out of the man and machine. Also, one would do well to invest in a machine which includes design elements to handle a wider array of jobs in terms of substrate types and thicknesses.

User friendliness

A reputed manufacturer does not lose sight of the human element while building in mechanisms to enhance the performance and output of the machine. After all, it has to be run by a human and as such the interface must be safe, user friendly and comfortable to get the best out of the man and machine. Some features to look out for include –

- Safety features that detect certain pre-determined conditions by making use of safety guards, sensors and interlocks, to raise alarms or bring the machine to a halt or state of safe operation to mitigate the risk of accidents.
- Process automation such as intelligent tension management (ITM) and job set-up automation to reduce the dependency on operator skill.
- Integrated material handling solutions such as a floor lift to load the unwind reel, motorized ejector to eject finished reels and automatic off-loader to receive the finished reels and bring them to a comfortable height for removal.

Versatility and future proofing

- The drive towards sustainable packaging has led to the introduction of newer substrates with properties that better support recyclability. The focus is also on increasing yield to reduce consumption, implying thinner and more delicate structures. Finally, there is an element of uncertainty when it comes to evolving statutory requirements.

Under this dynamic scenario, one would do well to invest in a machine which includes design elements to handle a wider array of jobs in terms of substrate types and thicknesses. Among other attributes, the machine must have a wide enough tension range and include quickly interchangeable cutting modes that the variety of substrates would require.

- Brand owners who pack their product on Multi Track machines would require from the converter, finished reels with bigger diameters, with just the edges trimmed. The combined effect of larger diameters and widths (which also means heavier reels), render the differential winding technology of converting slitters both unsuitable and inadequate.

The ideal slitter rewinder to support this application would allow the production of a larger diameter at the lower rewind on an interchangeable air shaft when rewinding such 'Jumbo' reels. Here it may be noted that there are other applications too which require Jumbo reels. For both Multi Track packing machines and other applications requiring larger reels, configurations that allow the larger diameter at the lower diameter on an interchangeable air shaft are indicated. ■



Biku Kohli, managing director of SP Ultraflex with the Robolsit at PlastIndia 2023