



A SLITTER REWINDER'S FOCUS ON PURE PRODUCTIVITY AND PROFITABILITY

Having been in the converting industry for over 39+ years I have been asked many questions concerning slitting and rewinding over that time. However the number one question by far that I get asked over and over again by converters is; **"How do we as a converter increase productivity, minimize waste and increase profits on our slitter rewinders"?**

Some would think this is a straightforward question and would have a straightforward answer, well not so fast? We must keep in mind that for years the slitting department has been looked upon as a loss center when it comes to productivity and profitability. There still remains a mentality even today in the converting industry that whatever errors occur in the printing, coating and or laminating departments these errors will be automatically corrected in the slitting department. This is where the troubles begin! This train of thought is a production and profit killer! The whole converting process must work as a well oiled and managed team. The printing, coating, laminating along with the slitting departments are all dependent upon one another to insure a successful outcome. Please keep in mind that a slitter rewinder is generally the last piece of capital equipment that will touch your materials before they get shipped to your customer.

Ok, so now that we know the question and the first part of the answer what do you do as a converter to understand the other parts of the answer? By gaining this knowledge it will allow you to focus on pure productivity and profitability in the slitting department?

Incorporate and embrace **Automation and Technology** on a slitter rewinder that is designed to be operator friendly to reduce downtime, decrease waste and increase efficiencies. Recent innovations have enhanced the performance of slitter rewinders substantially. They include the use of PLC's for product data files (PDF) or slit job storage recipe settings. These settings can include but are not limited to controlling and saving tensions, contact roll pressures and overspeed settings and slit width patterns involving automatic knife positioning systems. The PLC job storage feature puts all of the operators on the same page so that they all can operate the machine within the same window of success after **Proper Training**. In addition proper training should also include refresher training from time to time thereby again achieving and maintaining the goal of reducing downtimes, waste and increasing efficiencies

Most duplex slitter rewinders of today incorporate the use of differential cantilevered rewind air shafts which remain in the machine at all times. Nearly all machines couple this design with rewind shaft finished roll pushers. They also include shaftless floor pick-up driven unwind stands. These features result in no lifting of shafts and rolls or the need for over head hoists. These developments increase efficiencies and improved **Ergonomics and Safety** for the operators while working around the machine. The loading of master rolls and unloading of the finished rewind rolls and the handling of shafts are areas which have caused headaches and potential injuries for converters for years. The machines of today have solved these issues.

Along with the cantilevered differential rewind air shafts there are now means to locate the rewind cores thru laser core positioning systems. This feature is extremely helpful during rewind set **Cycle Times**. This allows the operator to place the new rewind cores properly and correctly onto the rewind shaft after unloading of the rewind shafts. Again it increases efficiencies of the machine and reduces both the time in setting of the rewind cores and reduces waste.

Included with your slitter rewinder should be **Material Handling** features and options that will increase the pure productivity and profitability of your slitter rewinder. You could have the fastest slitter rewinder available in today's market, but if you can't get the finished rewind rolls off and reload the new cores onto the rewind shafts than the money you spent for that speed is totally lost. The material handling options can include rewind shaft finished roll pushers that will automatically push the finished rewind rolls off the cantilevered rewind shafts onto a rewind unloading unit that can automatically marry up to the rewind shafts and than automatically pivot away and turret over for the proper unloading height. These rewind unloading units can even be designed to marry up to a conveyor or a robotic roll handler that incorporates palletizing and wrapping.

Since I mentioned **Cycle Times** above, a converter must understand that there are two very distinct **cycle times** associated with a slitter rewinder. First is the **Rewind Cycle Time** which is related to the time required to remove the finished rewind rolls and re-core the rewind shafts for the continuation of that specific slitting job. I have already touch upon above how one can minimize the rewind cycle time. Second and as critical is the **Job Change Over Cycle Time**, this is associated with the changing of slit width patterns and usually materials. Many converters fail to account for the time it takes to accomplish this task. Here again the use of automation and technology and also similar job scheduling plays important roles in minimizing this job change over cycle downtime. The PLC with

PDF recipe storage along with other options such as automatic knife positioning units will minimize the time required to change over a slitter rewinder. The settings from when you last ran that job successfully are in the PDF and in conjunction with an automatic knife positioning unit can reduce job change over downtimes by up to 75%.

Last part of the answer would be to consider an automatic duplex center wind turret slitter rewinder. If you are currently running 2 - 3 standard duplex machines in your plant than the next logical progression would be to consider and understand the advantages of a turret slitter rewinder. Turret designs have been available for many years but the recent advancements in automation, technology and material handling have enabled them to reach their full production potential. With automatic cut off, automatic rewind core placement and liner tracking contact rolls, rewind cycle times are now a fraction compared to a standard slitter rewinder. Such features as automatic roll taping - closure coupled with a full range of custom designed material handling systems prove that turret slitter rewinders can increase productivity by 50 – 100% or more over a standard slitter rewinder. **I can provide any interested converter a time study cycle time using their numbers that will compare a standard duplex slitter rewinder to an automatic duplex turret slitter rewinder.**

In conclusion the slitting department of today no longer has to be thought of as a negative or loss center. With the numerous advancements and the acceptance of automation, technology, material handling and the proper training of the operators the converters of today can now **FOCUS ON PURE PRODUCTIVITY AND PROFITABILITY.**

Respectfully Submitted,

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