

WHITE PAPER

**PERSONAL &
HOME CARE**



**Spoolput™: A New Efficiency For Your
Personal & Home Care Product Customers**

Large-Format Spools Outpace Roll Pads 10 To 1

In the competitive arena of personal & home care (P&HC) product manufacturing, the race is on to find new ways of lowering costs, differentiating your brand and offering a sustainable product. Advancements in fabrics, absorption capabilities, gels and chemistry for unique user-friendly features are driving innovation. But all innovations are soon copied or improved upon by others. This frantic pace of innovation comes at a high cost, and to offset this manufacturers must relentlessly focus on optimization. Achieving higher manufacturing efficiency will be the key to remaining competitive and surviving. Web Industries is collaborating with material suppliers to deliver cost and productivity improvements. We like to say there is throughput, greater throughput, high-speed throughput and, now, there is **Spoolput™**.

Spoolput?

Yes. **Spoolput** is a term we use at Web Industries to describe the speed with which flexible materials can be processed when large format spools (LFS) or extra-large format spools (XLFS) are in play at the front end of a manufacturer's production line. These large traverse wound spools increase throughput so much, we felt that throughput deserved a new name.

Backed with years of expertise, Web has improved its proprietary spooling design to bring this solution to the next level. We've optimized tension control to allow thinner, extensible, and high loft materials to be converted with precision. Each material has unique properties that must be maintained through the converting process. Web's proprietary spooling processes ensure that the material's integrity remains intact for optimum performance.

If your P&HC product customers are not already enjoying the benefits of large format spooling, then here's a chance to add value to your product offering: Educate them to the advantages of LFS/XLFS and their rapid **Spoolput** processing speed.

Here is what they need to know:

Large-format spools work on the same principle as sewing thread on a wooden spool or fishing line on a deep-sea reel. Nonwovens and other materials such as film, foil, foam or paper are slit and wound back and forth onto large

spools at the right pressure and in the correct pattern for the application. On a manufacturer's production lines, an unwinder that integrates with large spools removes the spooled material and feeds it gradually to the line.

The large spools address some of the well-known drawbacks of conventional pad rolls in personal-care applications. For example, pad rolls have a limited capacity and must be changed out frequently, often in less than an hour. This slows production and leads to manufacturing stoppages and increased waste.

In contrast, large-format spools have a much greater capacity than pad rolls. New-generation extra-large-format spools (XLFS), for example, can measure 5 feet in outer diameter (OD) and dispense over 500,000 linear feet of material between changes. Their large material capacity allows production lines to run for 10 times as long as conventional pad rolls, boosting productivity for manufacturers of baby diapers, feminine care products and other P&HC items. Spools also reduce waste and contribute to greater sustainability. More on sustainability in a moment.

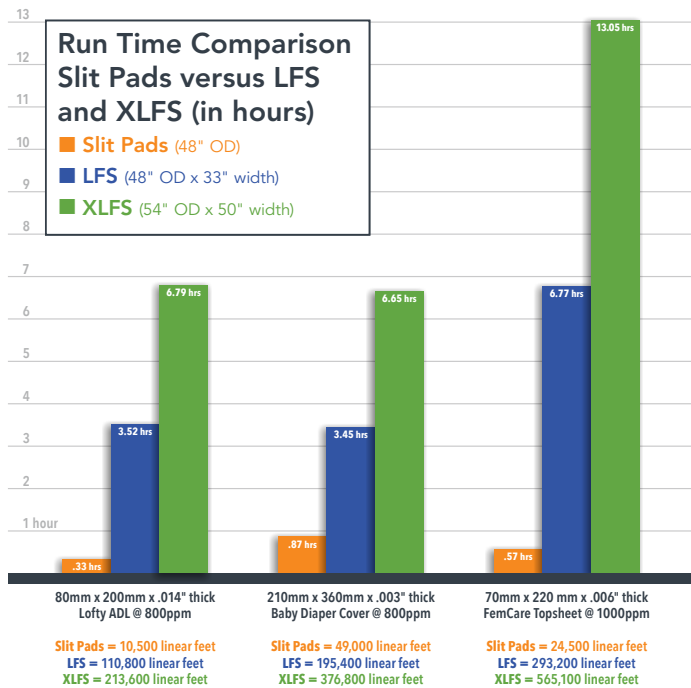
Precision formatters like Web Industries can slit your nonwoven materials for LFS in widths ranging from 1 to 12 inches. Newly available 12-inch widths are ideal for producing items like adult incontinence wear and disposable cleaning pads. LFS and XLFS also offer a solution to pad cracking that can occur in a festoon process.

Spoolput = Higher Throughput

Nonwoven materials in spooled form can make a dramatic increase in your customers' production.

The chart below compares the performance of 48-inch OD pad rolls vs. large-format and extra-large-format spools for three different nonwovens: a high loft acquisition distribution layer (ADL) for diapers, a .003-inch-thick baby diaper cover and a .006-inch-thick feminine care strip. The chart compares run time and material length.

Note that the pad rolls have a run time of only 20 minutes in the first example, and less than an hour in the other two cases. The two spool formats dispense significantly more material between changeovers, allowing run times between changeovers to range from almost 4 hours to 13 hours depending on the application.



Added Benefits For Your Manufacturing Customers

From a product manufacturer's standpoint, there are additional benefits associated with large-format spooling. They include:

Greater sustainability

Large-format spools reduce material waste because production machines are programmed to reject several layers of material after splicing to catch imperfections. Since large spools require fewer splices, the amount of rejected material is greatly reduced. In addition, large spools can better accommodate wide incoming mill rolls, lowering trim waste and further improving material usage. Additionally, there is a reduction in packaging materials with large-format spools because there are fewer total packages as compared to packaging pad rolls.

Fewer errors

The frequent splices needed with pad rolls increase the risk of errors. Splices are usually made in mid-production using automatic splicers, and splice integrity can be an issue. If a splice fails during production, the entire operation will have to shut down and production machinery will require rethreading—a time-consuming task for operators. Large-format spools keep splices to a minimum, reducing errors.

More efficient use of labor

P&HC product manufacturers can make more efficient use of their labor resources with large-format spooling. Fewer changeovers free machine operators to devote their time to more productive tasks.

A Recent Case

When a major manufacturer of hygiene products directed a material supplier to deliver a delicate material in spooled form, the supplier came to Web Industries for assistance. The application involved an ADL for diapers and similar personal care products. Web succeeded in winding the material on 48-inch OD spools containing nearly 100,000 linear feet of material. The large spools cut the number of splices needed during manufacturing while greatly boosting throughput. Splices were reduced from one changeover every 20 minutes to one every two to three hours, decreasing the number of roll changes by about 600%.

Supporting The Move To Spooling

Converting production lines from pad rolls to LFS/XLFS involves a capital investment. Consider for example the unwinder needed to integrate the spooled material and feed it to the production line. The production benefits, however, easily justify the unwinder's initial expense. P&HC product manufacturers can expect to recoup their investment in spooling materials and equipment in two to three years or even less. After that, LFS/XLFS will add to their bottom line.

A logical time for P&HC product manufacturers to consider converting from pad rolls to large-format spooling is when installing new production lines or upgrading existing ones.

Web Industries can support your LFS recommendation to customers by explaining its benefits in person. Our large-format spooling facility in Fort Wayne, Ind., ranks among the largest and most advanced spooling operations in the world. Web slits nonwoven materials to exacting standards and then winds the material onto large spools using computer-controlled surface winding technology. Computerized drives and motors adjust the winding tension as the rolls build in size. The result is large rolls with extremely low tension. Web Industries' engineers can explain the advantages of LFS/XLFS to your customers for nearly any P&HC application.

Ultimately, encouraging product manufacturers to add large-format spooling to their operations can earn you appreciation as a trusted business advisor and help support your customers' current and future needs.

Just say you want to upgrade their throughput to **Spoolput**. It will capture their attention. And some new business.

About **Web Industries**

A 100% employee-owned company, Web Industries, Inc., is one of the largest and most diverse providers of precision converting and outsource manufacturing. We help customers in the Aerospace, Medical, Personal & Home Care, and Industrial markets bridge their capability gaps and accelerate their go-to-market success by leveraging close, trust-based relationships to develop ingenious solutions precisely tailored to their needs. From project inception through commercialization, Web offers creative problem-solving backed by deep technical and operational expertise.

The world's top P&HC product manufacturers trust our innovative engineering, converting, and manufacturing solutions to improve their products and get them to market ahead of the competition.

Contact Web Industries at +1 508.573.7979 or sales@webindustries.com to learn more.