



PARKINSON TECHNOLOGIES INC

DUSENBERY® CONVERTING SYSTEMS

MARSHALL AND WILLIAMS PLASTICS

PARKINSON WINDERS

KEY FILTERS



Solar Panel Industry



Food Packaging Industry



Flexibility
Performance
Innovation



Automotive Industry



Lithium-Ion Battery Industry

Parkinson's customers range from venture-backed startups to Fortune 500 enterprises, all of whom demand cutting-edge solutions to their web processing challenges.

Our Technology Labs: Secure & Convenient Product Testing

Parkinson Technologies' corporate headquarters includes state-of-the-art technology labs, providing a convenient and confidential environment for your polymer extrusion and orientation (stretching) work. Here you can test drive machinery, conduct product and process development trials, produce samples for test marketing, and receive training on manufacturing of plastic film, sheet and other materials.

The Marshall and Williams Plastics Extrusion and Orientation Pilot Lab Facility is the most versatile plastic film and sheet extrusion and orientation laboratory commercially available for customer use. Key Filters' advanced melt filtration lab gives you the opportunity to test different polymers with a variety of screen changers. It features a complete 2 ½" single-screw pelletizing extrusion line for testing material and filter combinations with continuous screen filtration capabilities.

The Marshall and Williams Plastics Extrusion and Orientation Pilot Lab capabilities include the following:

- Extrusion (Single/Multiple Layer - Single/Twin Screw)
- Casting and controlled quenching of Sheet/Film
- Machine Direction Orientation (MDO)
- Transverse Direction Orientation (TDO)
- Biaxial Orientation (MDO and TDO)
- Heat setting/Annealing in either MD or TD
- Corona Treating System - single sided and two-sided
- Sequential, in-line/off-line, biaxial orientation stretching capability
- Resin Drying
- Thickness measuring via X-Ray gauge,





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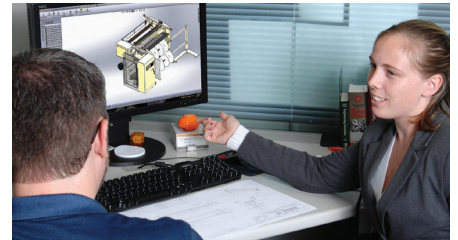
Enhancing Your Productivity. Empowering Your Business.



Established in 1871, Parkinson Technologies is a global leader in high-performance web processing equipment for the plastics, nonwovens, paper, and specialty materials industries. Since our inception over 140 years ago, we've been helping customers worldwide enhance the speed, safety, and profitability of their production processes while providing them with everyday peace of mind.

Flexibility: The Capabilities to Meet Your Specific Needs

The collaborative nature of Parkinson's customer relationships requires us to have the utmost flexibility in all phases of equipment design, engineering, and manufacturing. Our processes were developed with agility in mind, allowing for changes and refinements at every stage. Having all capabilities together under one roof enables us to respond quickly to your requests and accommodate even the most complex specifications.



Performance: Equipment that Keeps You Moving Forward

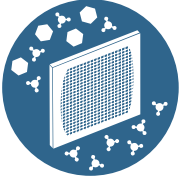
At Parkinson Technologies, our bottom line depends on improving yours. Our breadth of experience and leading-edge engineering capabilities result in rugged and reliable machinery that maximizes efficiency and output without the threat of disruption. From complete biax orientation lines to slitter-rewinder converting systems, our web processing equipment is designed to exceed the rigors of production.

Innovation: Where Revolutionary Ideas Become Reality

Performance leadership cannot be achieved by standing still. Every day, Parkinson's seasoned engineers challenge the boundaries of technology as they develop advanced approaches to working with plastics, nonwoven, and specialized materials. We're committed to continuously pursuing inventive new ways to make our customers' businesses better and their lives easier.

Parkinson also supports our customers in the development of new materials. Our in-house labs provide the ideal setting for industrial innovation, allowing you to test our equipment, conduct R&D trials, and produce commercially viable samples for test marketing.





Extrusion Melt Filtration Technology

Continuous Belt Screen Changer

Increase end-product quality and consistency, reduce scrap and achieve operating cost savings, especially when processing high recycled content polymers.

KCH Continuous Belt Screen Changer

The KCH Continuous Belt Screen Changer offers a complete turnkey solution to meet melt filtration needs for thermoplastic and elastomer materials. The KCH provides a smoother more consistent pressure profile for a better product at a higher overall yield.



KCH-6.0

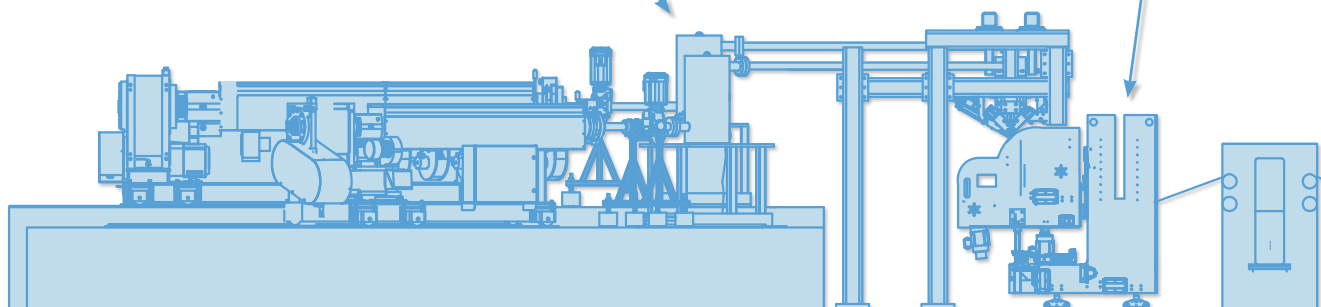
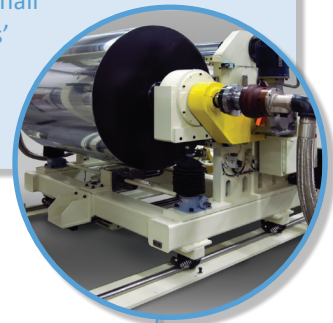
Continuous Belt Screen Changer

This type of melt filtration provides superior maintenance and cleaning with virtually no metal-to-metal contact, minimal pressure drop during a screen index, the lowest machine cost and frequently the lowest consumable screen cost.



Casting

Casting rolls are double-shell style with spiral baffle and have an internal flow design to maintain superior temperature uniformity across the width of the web. Closed loop circulating water from the heat transfer system cools the rolls. Roll sizes are designed using Marshall and Williams Plastics' proprietary heat transfer program.





Oriented Stretching Technology

Biaxial & Monoaxial Production Lines

Achieve performance advantages by down-gauging plastic film and sheet while retaining or enhancing physical properties.



Casting Roll Stand in a J-Stack Configuration

Machine Direction Orientation

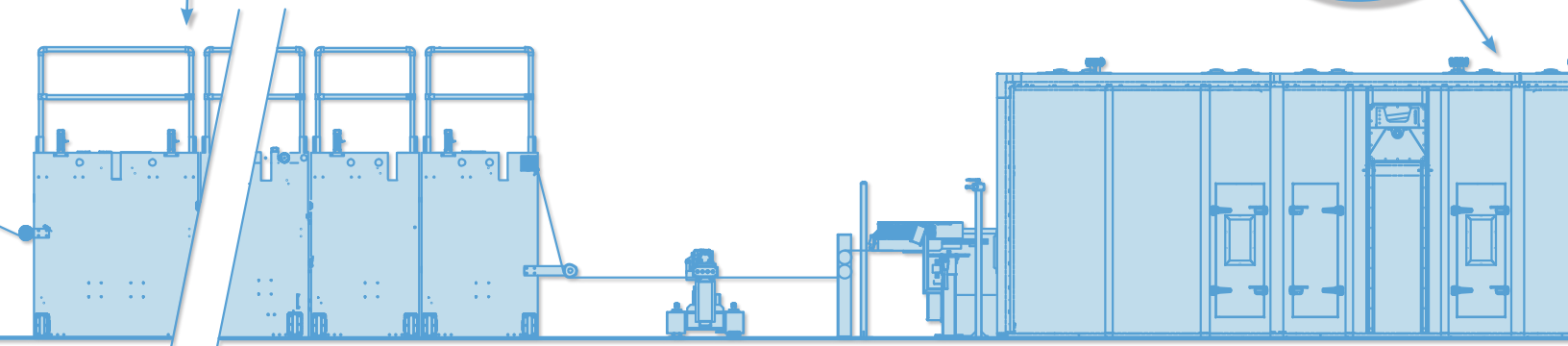
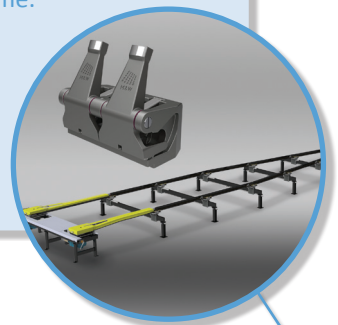
Machine direction orientation of plastic film and sheet is accomplished by heating the web and stretching it lengthwise over a series of rollers. Unique stretch gap control and energy efficient designs can be custom engineered for the most demanding applications.



Transverse Direction Orientation

Transverse direction orientation of plastic film and sheet is accomplished by heating the web and stretching it in the width (transverse or cross) direction on a tenter frame.

The tenter frame consists of two horizontal chain tracks, on which clip and chain assemblies ride. It is usually enclosed in an oven.





PARKINSON WINDERS

PARKINSON TECHNOLOGIES INC



Web Winding Technology

Automated Turret & Surface Winders

Ensure maximum productivity of specialty and high-capacity continuous web production lines with robust winding and web handling solutions.

Surface Winders

- Single & dual drum models available
- Fully automatic with various web cut & transfer systems offered
- Horizontal winding configurations for large finished diameters of nip sensitive materials
- Robust construction & sophisticated controls provide precise finished roll formation, process flexibility, & long-term reliability



Shaftless Center
Turret Winder

Center Winder

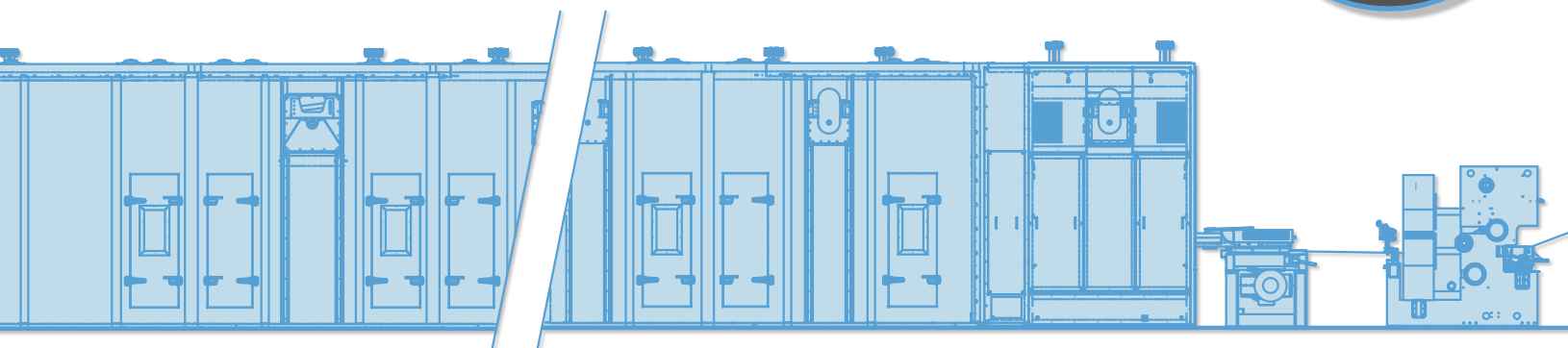
- Multiple position turret (2, 3 or 4 shafts) or fixed position available
- Manual or fully automatic with a variety of web cut and transfer systems to choose from
- From small diameter, high duty-cycle models to large mill roll winders
- Tape and tapeless roll start options
- Winders for delicate film to heavy gauge plastic sheet

Common Features

- Integrated core & shaft handling systems
- In-line slitting options (shear, score, razor)
- Automatic cut & roll start
 - Plunge, cross-cut, & heated knife
 - Shafted, shaftless, or cantilevered operation
 - Multiple package delivery systems

Winder

Featuring a complete range of cut-over techniques, Parkinson's flexible, fully automatic winders are designed to meet the web handling requirements of the most demanding plastic film, plastic sheet, nonwovens, and paper applications.

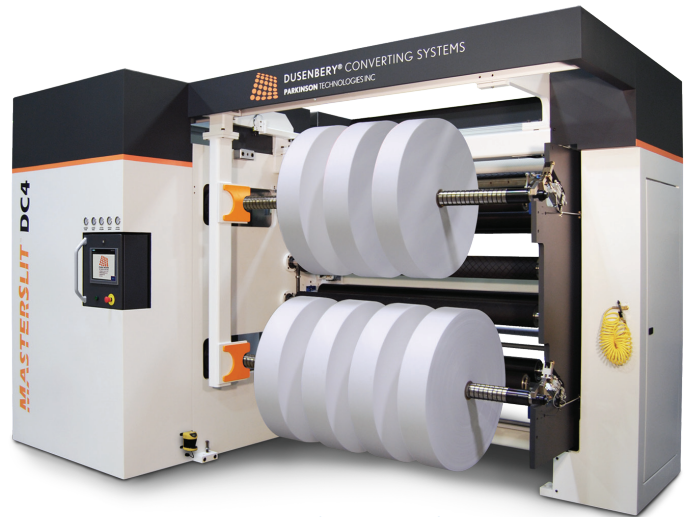




Converting Technology

Slitter Rewinders

Dusenbery® has set converting industry standards for quality, performance and productivity for over six decades. Our latest line of MasterSlit™ slitter rewinders continues this tradition by using state of the art components and proven winding and web handling techniques to deliver equipment that is safe to operate, ensures quality, and improves productivity.



DC4 Center Slitter Rewinder

MASTERSLIT™ Slitter Rewinders

C Series - Center Slitter Rewinders

Center driven slitter rewinders are used extensively in the flexible packaging, label, and plastic film industries and are easily the most popular type of rewinder sold in the industry. Winding is accomplished by transmitting torque, via the winding shaft, through the center of the wound package and very often winding is assisted by a lay-on roller to create the desired finished roll structure. Differential winding shafts are typically used, which account for subtle variations in material thickness across the web to wind each individual roll uniformly.

CS Series - Center Surface Slitter Rewinders

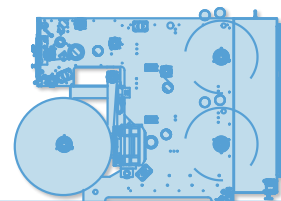
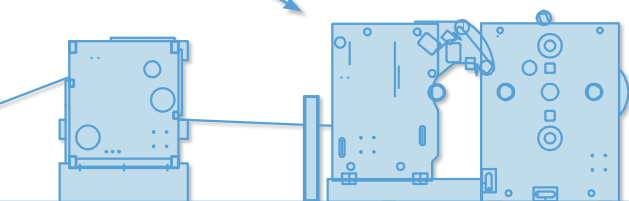
Center surface slitter rewinders provide the most flexibility for winding challenging webs to larger diameters. Winding torque is transmitted to the winding shaft like a traditional center driven rewinder, while the wound rolls are also in contact with a driven surface roller or rollers. The torque provided from each driven section can be varied in limitless combinations to yield the desired finished roll quality for a multitude of substrates.

S Series - Surface Slitter Rewinders

In surface winding, the torque necessary to wind the material is imparted to the outside of the winding roll as it is in contact with a driven roller or set of rollers. As nip loading is essential to this winding method, it should not be used for materials that are sensitive to being nipped. Materials such as paper, nonwovens, textiles, and specialty composites can be wound to large diameters using this type of machine.

Slitter Rewinder

Dusenbery offers a complete line of slitter rewinder machines for slitting paper, label stock, non-woven, film and sheet, or laminates in any size configuration.





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*Let us put our unique
capabilities to work for you.*

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www.parkinsontechnologies.com

