

Web Handling - Brake Unwind

Stop energy loss at the source & improve process tension

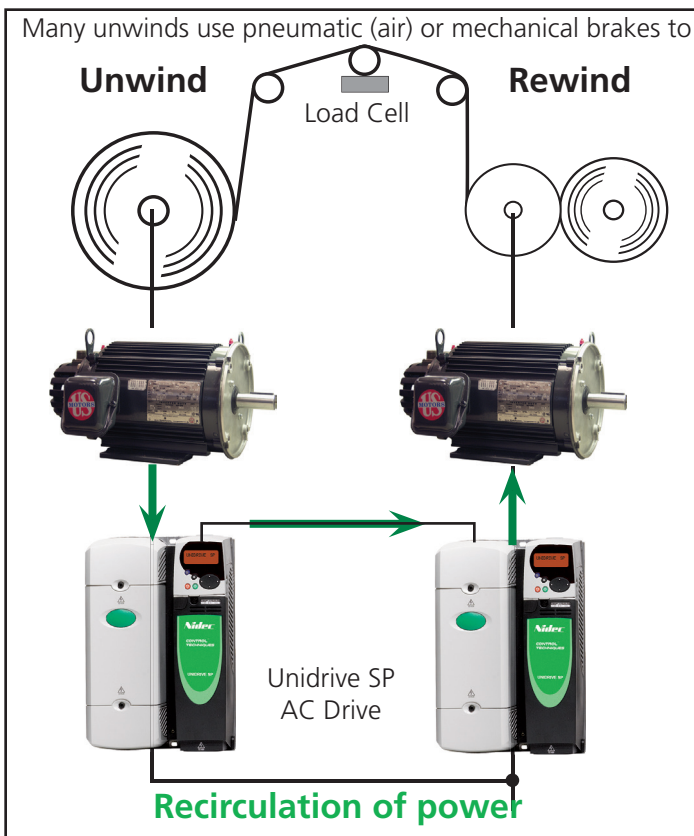
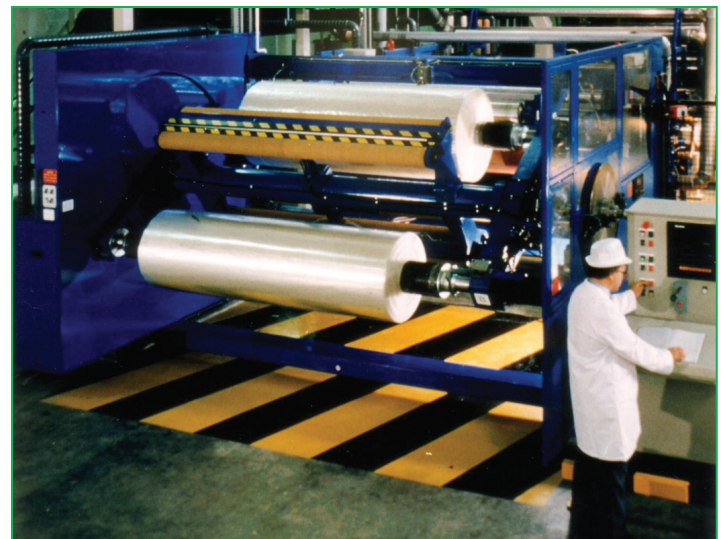
Unwinds:

Power: Up to 2,000 HP

Savings: Up to 50%

(Depends on duty cycle.)

Unwinds are designed to hold back on a web material to create tension in the product. They are used with paper, film, metals, rubber, and many other products. Tensioning the product consistently is a major issue for many processes such as coating, printing, and slitting and may affect final product thickness and strength.



control tension. Lower-end systems frequently use a weight belt thrown over the roll of material to create tension. These brakes typically have significant variability and temperature or humidity changes make long term consistency impossible.

Pneumatic and mechanical brakes are inexpensive to purchase and simple to install but are expensive to operate and maintain. Air leaks are common with pneumatic brakes due to the combination of heat, high pressures, and multiple fittings as air is divided up to the different brake pads. Many produce a loud squeal during operation. They dissipate braking energy as wasted heat and include wear components which must be maintained.

Many of these systems provide poor tension control & negatively affect product quality. AC & DC drives can dramatically improve tension control while harnessing the power being produced by downstream sections being over-hauled. The electric motor acts as an generator and sends

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power back to the drive. Regenerative DC drives can put this electricity back to the power line. AC drives improve regenerative efficiency to 97% at unity power factor. This equates to significant energy savings on a heavily utilized unwind. The generated energy can either be shared over a common DC bus to other drives or regenerated back to the power line.

Even greater cost savings can be achieved using the imbedded PLC functionality to manage local I/O on independent unwind stands. Powerful networking options provide a simple path for integrating individual drives into larger systems.

Control Techniques can evaluate your application and help you decide which drive solution is best for your situation. We have significant web handling experience and can provide stand-alone AC or DC drives, enclosed drives, and systems including hardware and / or software engineering.

Contact Control Techniques for assistance in identifying energy savings opportunities in your facility.



AC Drives & Engineered Systems to 2,900 HP

Drives plus...

World Class Products & Support

- Assistance estimating energy savings
- Worldwide Application & Field Service Network
- 24/7 support line +1 800 893-2321
- Custom software and panel configurations



DC Drives to 5,000 HP



AC Drives to 4,200 HP