In this application a thin film of special plastic compound is cast on a paper sheet web and then treated with chemicals. Precise tension and speed control is crucial in achieving the required web thickness, composition and smooth winding. Driven Rolls 2 &3 follow master Driven Roll 1 with PID trimming control based on Load Cell tension feedback. Dual winder controls enable the operator to change rolls without interrupting the line operation. The
Payoff has a pneumatic controlled brake that is controlled by a Load Cell tension controller to achieve steady payoff with the required web tension

**Other Web Handling Applications that we have worked on**

- Pulse follower speed control
- Dancer Tension Control
- Load Cell Tension Control
- Tension Control with PID Speed Trim
- Web Alignment control with Edge guides
- Web Thickness Measurement with Laser Displacement Sensors. Click here Products/Measurement/Web Gauging systems for more details
- Web Cut-to-length Control
Winder Web Tension Control with Dancer arm

Tension control is achieved by the integral PID Trim function of an AC Flux vector drive. This PID Trim function is used to control dancer position by sensing arm movement and trimming drive speed. Tension is adjusted by changing the load on the dancer arm (usually by means of a low friction air cylinder or balance weights). This method of control can be used in center winders, between nip rolls or with a surface winder.

Winder Web Tension Control with Load Cell
Tension control is achieved by the integral PID Trim function of an AC Flux vector drive. This PID Trim function is used to trim the drive speed based on Load Cell Tension feedback. This method of control can be used in center winders, between nip rolls or with a surface winder.

**Winder Web Tension Control with Ultrasonic Position Sensor**
Tension control is achieved by the integral PID Trim function of an AC Flux vector drive. This PID Trim function is used to trim the drive speed based on Web slack feedback signal from the Ultrasonic Position Sensor. This method of control can be used in center winders, between nip rolls or with a surface winder.

**Other Winder Applications that we have worked on**

- Turret Winder Controls
- Sensor less Constant Tension Center Winder Controls
- Pay-Off/Take-Up Speed and Tension Controls
- Taper Tension Control
- Tension Control with Diameter Compensation
INTERNAL VIEW OF CONTROL PANEL FOR BEAMING M/C
INTERNAL VIEW OF CONTROL PANEL FOR BLOWFLIM PLANT
TRYPICAL EXAMPLE FOR WINDER SYSTEM

SLIM CELL TRANSDUCER
For stationary (dead) shafts or rotating (live) shafts,
Slim profile, advanced design for use where mounting space is tight,
Especially for light tension, extended tension ranges and retrofits
Wash down duty, corrosive and chemical resisting,
Ultra line features 40:1 tension range and noise immunity,
Ratings 10-1000 lb-mwf Typical overload rating 500 to 1000%
• for rotating(live) shafts
• for use with under pillow block bearings -low height profile
• especially good for use in high tension applications
• ultra line features 40:1 tension range and noise immunity
• ratings:25-30,000 lb.mwf
• typical overload rating 500%

LOAD CELL AMPLIFIER COMMON FOR ALL TYPE
Ultra line load cell amplifiers are designed to interface with a wide variety of control for monitoring and measuring web tension. The basic amplifier or an electrically isolated amplifier ultra-line amplifier are low profile and designed so that calibration adjustments and terminal strips are conveniently accessible from the front. Pluggable connections are removable for easy wiring. Essential specifications and a wiring schematic are located on the side, eliminating the need for a manual.

WE HAVE SUCCESSFULLY AUTOMATED THE FOLLOWING PLASTIC PAPER & PACKAGING MACHINES

- BLOW FILM PLANT M/C
- COATING MACHINES M/C
- VACUUM COATER & METALLIZERS M/C
- EXTRUSION COATING & LAMINATING LINES
- FLEXO POST-PRINTING PRESS
- ROTOGRAVURE PRINTING
• LAMINATING MACHINES M/C
• PRINTING M/C
• SLITTERS M/C
• CALENDAR M/C

WE HAVE SUCCESSFULLY AUTOMATED THE FOLLOWING TEXTILE MACHINES

• SIZING
• BEAMING
• DRAW WARPING
• SECTIONAL WARPING
• STENTER
• RELAX DRYER
• CONTINUES BLEACHING RANGE
• CONTINUES DYEING RANGE
• CONTINUES WASHING RANGE
• COATING MACHINE
• BALLOON PADDER
• MERCERIZES