S2 WINDER with Roll and Core Handling System

OVERVIEW
Efficiency, value, performance — that’s the Davis-Standard Global Advantage™ in winding & unwinding technology. Our winding & unwinding equipment is engineered for dependability, wound roll conformation and limited downtime.

• Versatile designs with a wide range of winding methods.
• Patented roll changing systems.
• Integrated core and finished roll handling.

FEATURES
• Designed to wind slit lanes of stretch film on a continuous basis.
• Features surface center winding control, high-speed indexing, 60 SECOND cycle times, adhesiveless transfer, and digital controls.
• Designed to wind topside of web (side against chill roll) inside of roll.
• Integrally mounted Allen Bradley control Logix PLC/CPU and operator interface touch screen panel maximizes control functionality.
• The QFP design provides a simplified wiring scheme which minimizes installation cost and start up time.

DESIGN SPECIFICATIONS
• Trimmed web width: 3000 mm (118 inch) net measured at the winder with bleedless guiders. 3200 mm (126 inch) net measured at winder with bleed trims includes 10 mm/side core extensions
• Nominal machine roll face: 3785 mm (149 inch) infeed idlers
• Machine line speed: 50 to 500 MPM nominal (164 to 1640 FPM)
• Gear-in speed: 50 to 610 MPM (164 to 2001 FPM)
• Process tension ranges: 6.8 to 22.7 kg (15 to 50 lbs) total
• Hand of machine/drive side winder: left
• Maximum roll diameter: 360 mm (14 inch) maximum
• Maximum roll weight: 275 kgs (600 lbs)
• Core size shafted: 76.9 mm (3 inch) I.D. (6 to 15 mm wall) (+0.25 mm/-0.015 mm) stiff wall cores, shaft O.D. to be confirmed
• Core material: fibre
• Core lengths: 520 mm (20.47 inch) for 470 mm (18.5 inch) wide film
• Finished roll widths: 500 mm and 450 mm only
• Web tension range core, full roll: 6.8 to 22.7 kg (15 to 50 lbs) total
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FEATURES

WINDER SECTION

Web Handling Rolls
Carbon fiber epoxy grit finished.

Surface Center Winding Control
The winder spindle drives are torque regulated, the lay-on is surface driven run in draw/speed control.

Lay-on Roll
Pneumatically loaded with exclusive dampening system provides high speed winding capability

Adhesiveless Roll Change System
The system minimizes wound roll top waste, eliminates the need for core tape or adhesives, and provides reliable clean cuts at high line speeds.

Turret Assembly
Precision CNC machined and hardened wheels support the spindle latching and drive assemblies and are mounted to a round cross section mainshaft.

Winder Shafts
Three (3) pneumatically expanding, precision balanced steel winder shafts are provided.
- One (1) of the shafts to be used as a spare.
- Quality cores with matched ID and OD diameters are required for high speed winding.

Pivoting Core-shaft Support System with Center Support
The core-shaft support system is designed to rigidly retain the core-shaft to allow high speed winding

Indexing Drive
An AC Servo motor provides a 1.0 to 1.25 second index including accel/decel ramps.

ROLL AND CORE HANDLING SECTION

Pivoting Unload System
A pivoting cart provides support for the roll set and pivots the core shaft to align with the roll removal conveyor and re-coring rail.

Core Handling System
A core box hold a large volume of cores, minimizing re-filling frequency, provides core agitation to insure core feeding to automatically dispense the cores to the core box rail assembly.
- A large volume core box is provided with agitator
- A core loader is provided to place cores on to the core rail.
- A core pusher loads the winder shaft with the new cores.

CONTROLS/ELECTRICAL

Integrally mounted Allen Bradley control Logix PLC/CPU and operator interface touch screen panel maximizes control functionality.

Parker SSD 890 AC vector Digital drive system Sectional Winder Drive Motor and Control System
- Cabinet is floor mounted. Wiring of the control devices to the PLC, as well as wiring of the AC motors to motor starters and sectional drives is completed prior to shipment. Requires exact position of the cabinet placement.
- Fan on cooling coil cabinet air conditioning cooling system.

OPTIONS

- Inline Bleedless slitting/web steering unit.
- Unit mounts prior to the winder requires trim take away by buyer.
- Inline slitting with bleed trims.
- System mounts integrally to the winder requires trim take away by buyer.