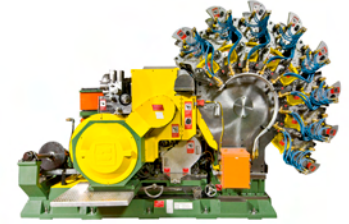




8 Color Advanced Print System

For the Stolle Rutherford Decorator
January 2009



The Rutherford **8 Color Advanced Print System** allows canmakers to print 2-piece cans with photographic line screens *in excess of 133 lpi*, a major quality improvement over the 80-90 lpi possible with a standard 6-color decorator configuration. This higher print quality is possible without compromising production speeds with both the conventional dry offset printing or waterless lithography processes. The APS system can be easily retrofitted to any Rutherford Decorator, and consists of five major components:

1. Advanced Performance Print Section
2. Multi-Zone Closed-Loop Temperature Control Unit
3. Advanced Performance Inkers
4. Advanced Performance Spindle Disc
5. Advanced Performance Master Cam

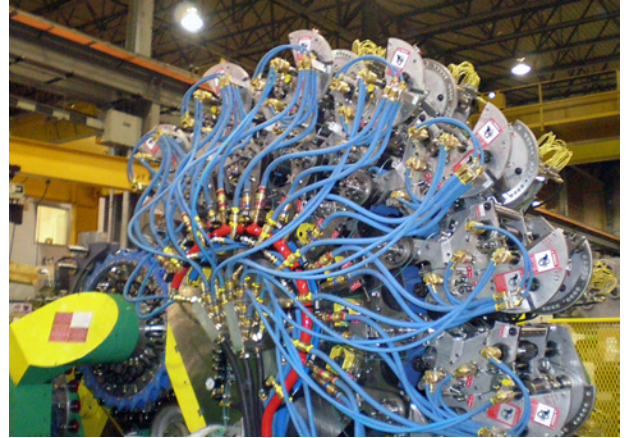
Advanced Performance Print Section

Features

- New direct drive system
- Blanket cylinder with temperature controlled support shaft
- Diameter increased 50% (over six-color)
- Number of blanket segments increased 50%
- Redesigned construction
- Flywheel effect reduced 65%
- Lateral deflection reduced 87%
- Torsional deflection reduced 83%
- Shaft and bearing diameters increased 67%
- Main Support Frames
- Rigidity increased 500%
- Deflection reduced 76%

Positive Effects

- Consistent, repeatable pressure between plate cylinder and blanket
- Reduced, consistent, predictable dot gain from the plate cylinder to the blanket
- Halftone dot shifting virtually eliminated under all running conditions
- Reduced vibration of the support frames and inkers for harder dots
- Dot elongation virtually eliminated



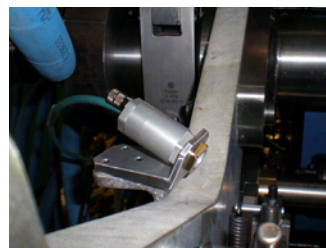
8 Color Advanced Print Section

Other Features and Enhancements

- Digital plate cylinder to blanket pressure gauges with eight channel multiplexer
- All inkers removable without disturbing any others

Multi-Zone, Closed-Loop Temperature Control System

- True control loop technology for 2° F standard deviation
- One zone for each inker (total 8 zones) for precise, individual control of each color
- Two zones for all eight fountains for predictable initial rheology
- One zone for the blanket cylinder shaft
- One zone for the spindle disc support shaft
- One zone for all the inker gear covers to control heat transfer back to the inkers
- One extra zone for future use



Temperature Control System sensor on inker

Stolle Machinery Company - Can Machinery Division

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Positive Effects

- Inks may now be properly formulated without having to account for wide variations in decorator or ambient temperatures
- Each color may operate under its own characteristic critical toning temperature (CTT) and critical mottling temperature (CMT), which is absolutely essential for higher screen printing

Other Features and Enhancements

- Fully self-contained, self supporting system, including all heat exchange equipment and remotely locatable condenser
- Operator's control pedestal with touchscreen

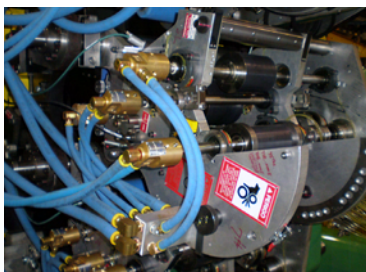
Advanced Performance Inker

Features

- Redesigned TurboFlow® rollers (4)
- New internal arrangement for efficient heat removal
- New outer diameter treatment for efficient heat dissipation
- New, simpler mounting to shaft for leakproof performance
- Redesigned coolant flow to rollers
- Parallel versus serial for thermodynamic efficiency
- Increased flow capability through hosing
- Increased flow capability through rotary unions
- Form rollers to plate cylinder pressure gauges for accurate, verifiable settings

Positive Effects

- Reduced variation of temperatures within roller train
- Reduced temperature variation across each individual roller
- Reduced color variation at all speeds
- Reduced dot veiling for predictable, accurate high-resolution screen printing
- Elimination of cold start-ups

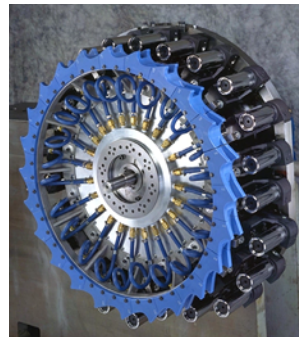


Advanced Performance Inker unit

Advanced Performance Spindle Disc

Features

- Patented vertical track for decreased, consistent print pressure
- Spindle arm mass reduced 26%, yet with 50% greater rigidity (patented)
- Elimination of air and vacuum shafts and associated bearings and seals
- Improved front valve assembly with complete operator access (patented)
- Increased spindle drum diameter for reduced protrusion of support shafts
- Eccentric mandrel support shafts for fine-tuning of spindle circle accuracy
- Temperature-controlled main support shaft



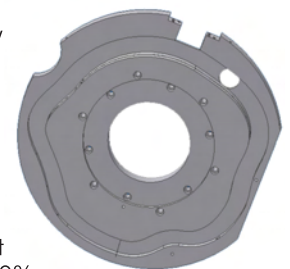
Positive Effects

- Less translating inertia for reduced vibration
- Less mandrel deflection for consistent ink transfer
- Reduced, predictable, consistent dot gain from blanket to container

Advanced Printing Master Cam

Features

- Designed using proprietary research into high-speed motion control
- Reduced vibration for higher screen, higher quality printing at higher speeds
- Forces throughout the print area reduced more than 50%



Please contact Stolle CMD at 303-708-9044 for more information on the Rutherford Advanced Print System.



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