



Optimizing the Process

Ink Temperature Control System

Tired of your inks running too



Then get *InKomand* of your ink and your process!

COLOR SELLS

Ink Temperature Control System

Flexo inks are designed to run at an optimum temperature range of 18-22°C / 66-74°F. Temperatures outside this range, *will* cause dramatic swings in pH and viscosity, requiring the addition of chemical adjusters, which *will* in turn, cause chemical imbalance of the inks, leading ultimately to:

- Reduced color density
- → Improper drying times
- Extreme viscosities
- Reduction in print quality and productivity
- ➡ Significant waste





Ink Temperature Control System

What are the specific effects of temperature on ink?

- → As ink temperatures increase the volatiles/amines evaporate from the ink causing the pH to drop & viscosity to rise
- → Changes in pH will affect color, viscosity and trapping.
- ◆Changes in viscosity will adversely affect ink tack levels, flow characteristics - affecting the ink film applied to the substrate.
- →Inconsistent ink film transfer will plug plates, and lead to frequent production interruptions for plate and anilox washing.





Ink Temperature Control System

So why InKomand – Ink Temperature Control?

- Minimized addition of chemical additives...reduced cost/inventory
- Viscosity and pH swings minimized if not eliminated.
- → Improved ink drying
- → Faster set-ups & Reduced wash-ups
- Significant reduction of ink tack
- Significant reduction of sheet wraps / jam



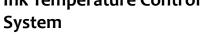


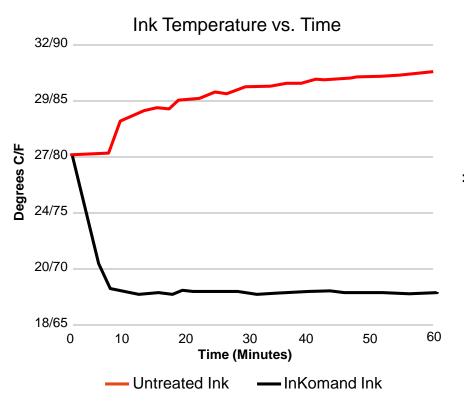
COLOR SELLS

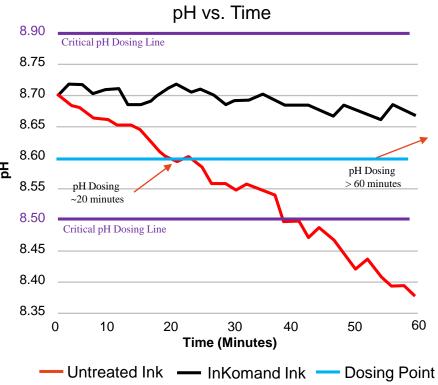


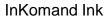


Ink Temperature Control





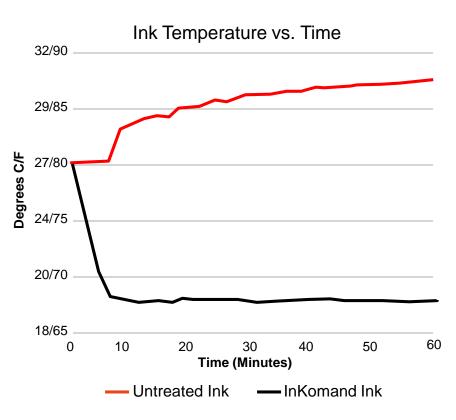


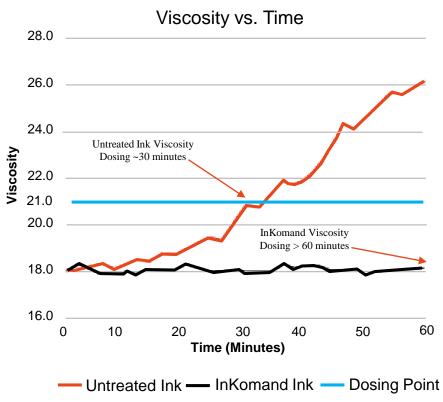






Ink Temperature Control System





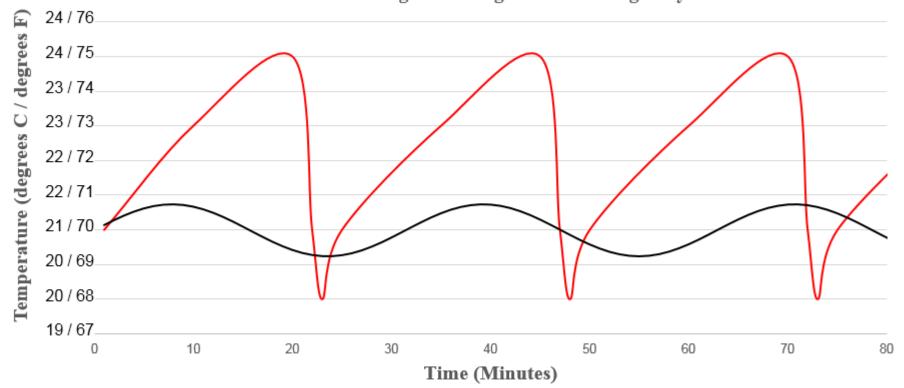




COLOR SELLS

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Algorithms of Ink Temperature over Time InKomand - Chilling & Heating versus Chilling Only



—Chilling (° C / ° F)

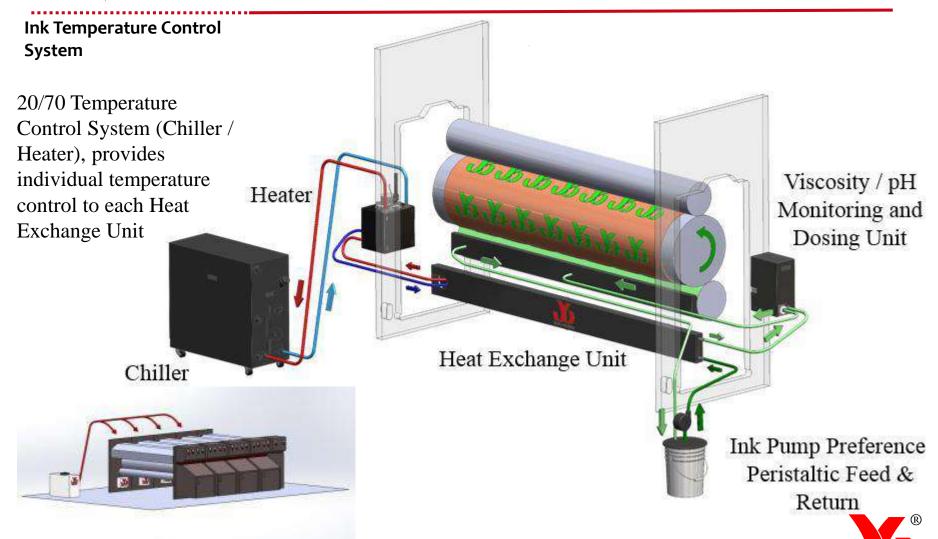
----InKomand Chilling & Heating (° C / ° F)





COLOR SELLS

JB MACHINERY



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COLOR SELLS

Ink Temperature Control System



System Performance Specification

- Seamless automatic switching between heating and cooling
- ▶ Ink *cooled* from a high of 86°F to 70°F (30°C to 20°C) in *less* than 5 minutes
- ▶ Ink *heated* from a low of 50°F-70°F (10°C to 20°C) in *less* than 5 minutes
- Other temperature extremes will take longer to adjust







Ink Temperature Control System

Benefits:

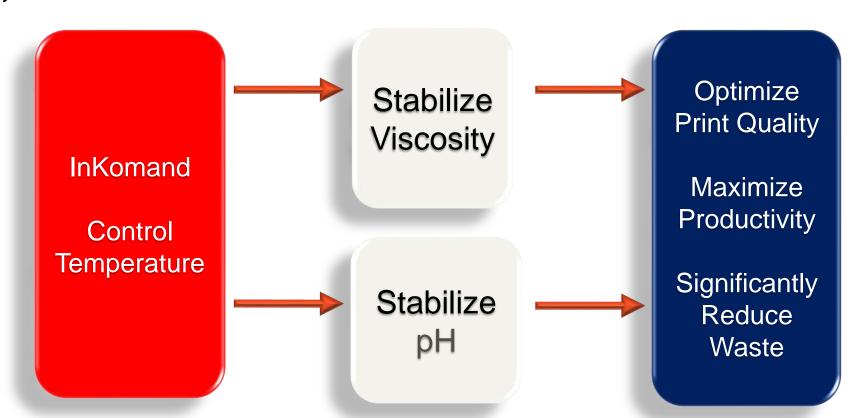
- Optimized Print Quality
 - Consistent Color
- Maximized Productivity
 - Enhanced Efficiency
- Significantly Reduced Waste
 - → Reduced Cost







Ink Temperature Control System



Consistent Color – Enhanced Efficiency – Reduced Cost





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Optimizing the Process

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