



rheonics

inline process
density and viscosity
monitoring



INKSIGHT

ColorLock™

- Simple operation -> Click a single button to lock to the correct ink viscosity
- Level 5 Autonomous Control throughout the print
- Consistent prints set to master
- Load jobs at a click : Zero setup time and Zero setup scrap
- Predictive tracking control for precise dilutions of solvent/pH water

Color and Rheonics is synonymous with InkSight and color control. The printing process is set to spectrophotometer standards, inkSight measures and controls viscosity within 0.5 cps : 100 times greater resolution than average efflux cups enabling inkSight control color forward of the spectro track and resulting in a solution that precisely locks color from start to finish on every job with repeatable results.



Integration Options



Multi-station ink control standard system configuration

In-line ink monitoring

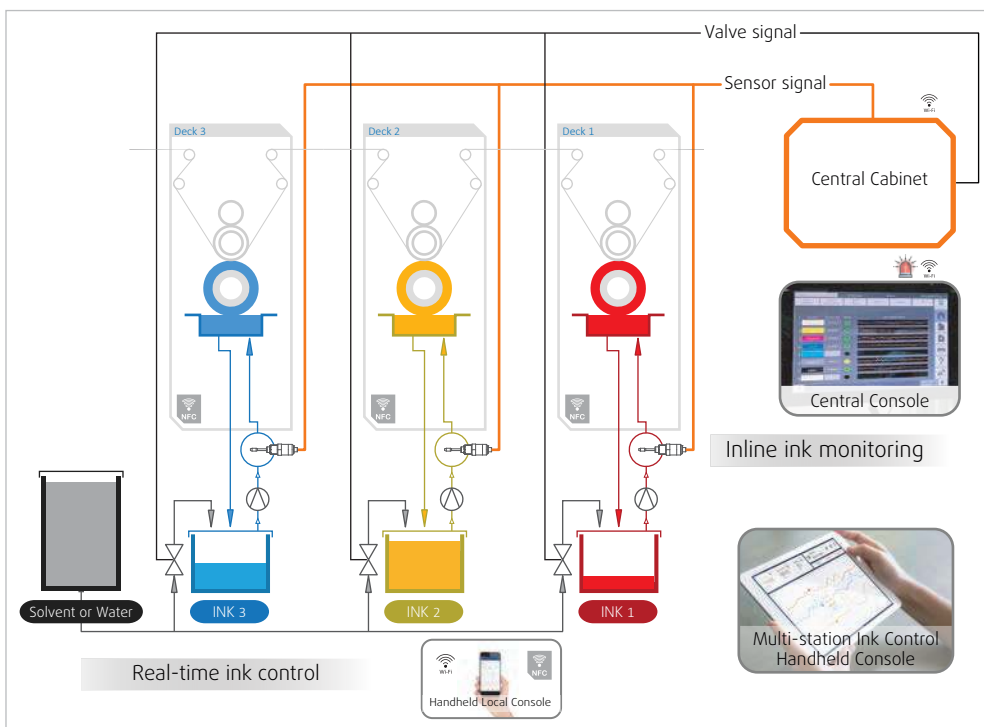
Rheonics SRV Sensor is located directly in the ink line, monitoring and transmitting to main control cabinet in real-time.

Pneumatic solvent control valve connected to main control cabinet with feed line of solvent from central tank to each ink bucket.

L5 Autonomous Control

Predictive Tracking Controller ensures precise control of ink viscosity. Intuitive HMI gives one touch ColorLock functionality.

Add-ons



Smart wash

pH system

Solvent delivery & level system

Thermal Management

Operators' interface at press



Plant supervisor's dashboard



Quality Control Manager's interface





Integration Options



Easy installation and retrofit

Easy mounting. Screws or clamps to ink line fitting. No chambers, O-ring seals or gaskets. Easily removed for cleaning or inspection. Sensors available with flange and tri-clamp connection for quick mounting/dismounting. Drop-in replacements for both sensor and electronics without any software changes - Auto detect!



- Rheonics SRV viscosity sensor measuring element is sealed within the sensor head, protected from fluid ingress providing precise measurement with consistent color control
- The sensor washes up with your press, if ink lines are dirty inkSight alerts the operator.
- 100x more accurate than a Zahn, shell, din or ford cup - the SRV Sensor is repeatable to 0.1 cps (equivalent to 0.001 second on a cup)

inkSight System Main Components

- Main Control Cabinet
- MMI Main Press Console
- SRV sensor on each station
- Pneumatic valve on each station





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INKSIGHT

RPS - Inksight

Achieve best in class printing quality, dramatically reduce setup time and optimise use of pigments and solvents. Improve productivity and efficiency through complete automation of color control on your press.

- Robust, maintenance free viscosity sensor eliminates need for re-calibration
- Agile viscosity controller reduces viscosity variation to less than 1% over entire print run regardless of length
- One-click, intuitive graphical interface touch-screen
- Tighter, more accurate color density and dE control



SRV - Wide range inline viscometer

The SRV sensor sensing element is fully encapsulated within a hermetically sealed structure. This isolation protects the balanced torsional oscillator from direct contact with the ink. This unique technology is fully repeatable with 0.05 cps variation between sensors. You can expect the sensor on every station to measure and perform equally on any other station. The Rheonics SRV sensor is factory calibrated and traceable to NIST standards.

Small Form Factor

Fits in your palm while more robust than any other inline viscometers!

All 316L stainless steel wetted parts

Hermetically sealed, metal-metal process sealing – no elastomer

Repeatable, Reproducible

Newtonian, non-Newtonian, Single and Multi-phase fluids

Wide viscosity range

Air to 50,000+ cP

Built-in fluid temperature measurement

Excellent thermal compensation to achieve consistency over the years



Software

Rheonics' InkSight ColorLock software is powerful, intuitive and convenient to use. Multiple stations are managed from a single dashboard. It supports multiple HMIs for operator, production supervisor, quality manager and management view.

- On-device(edge), cloud and PC data acquisition and analysis
- API for data acquisition and integration into press manufacturer's HMI





Standard solutions

Rheonics InkSight viscosity control technology locks to spectrophotometer color density and dE approved colors. While presses function in wide ranges of ink viscosities, maintaining the approved color tolerances from start to finish on every roll and sheet is the expectation of the brand owner. Rheonics scientists have successfully incorporated precise temperature compensated viscosity with proprietary PTC (predictive tracking control) to achieve consistent dE and color density over the complete run. Repeat jobs can be loaded and printed with zero setup time and zero scrap.



CI Flexo



Gravure



Corrugated

Standalone Solutions

Turnkey integrated automation solution for full control over your printing and coating process. InkSight measures and controls viscosity within 0.5 cps : 100 times greater resolution than average eflux cups.



Automotive painting



Pad printing



Varnish & Adhesives



Anti-corrosion coating



Food safety - active coating



Coil coating



Contact lens printing



Sealant coating



Can coating



Tablet Printing



Confectionery marking



Wire enamel coating



Battery electrode coating



Focus on print quality instead of measurement skills

Robust accuracy and repeatability

No maintenance, no recalibration = no attention needed.

Temperature compensated viscosity with proprietary Predictive Tracking Control

Solution that precisely locks color from start to finish on every job with repeatable results. Use the same system that NASA uses for Mars entry and landing.

You can take the cup out of the equation

Printing process is set to spectrophotometer standards, 100 times greater resolution than average eflux cups.

Reduce setup time & setup scrap

Reduce and eliminate setup times & scrap by loading pre-run jobs for repeat orders.

Improve print quality and reduce costs

Achieve color consistency, reduce printing errors by ensuring correct ink properties during the process.

Complete automation for improved productivity and efficiency

Maximize press operation speed, decrease reliance on manual machine adjustments and manual measurement techniques.

Global Support

Color control experts help when you need it the most

Rheonics provides a worldwide network of engineers, application experts and technical sales professionals to help you size, select and troubleshoot printing and coating automations for your applications.

Complete monitoring and Quality Control Support

Together with our solution partners, we work with you to meet the needs of your team, whether it is application training for engineers, operational training for operators or maintenance training for technicians. Reliable support to troubleshoot field problems and effectively maintain your systems.



Global network of Solution Partners



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