Ransburg IntelliFlow RM2

New Product Overview

March 14th, 2022

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Carlisle Fluid Technologies Next-gen 2K Family: IntelliFlow

The new IntelliFlow product family represents best-in-class 2K performance and connectivity

Next-gen performance:

o Large, intuitive, full-color touchscreens

o Seamless communication and integration

o Dynamic mixing reduces coating and solvent waste

o Modular, scalable architecture

Launching complete line through 2021-2022

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Ransburg Electronic 2K Offerings

Premium Manual or Auto

Ransburg RCS2

- Premium Automatic or Manual spray
- Robots or premium manual applicators
- 10 colors, 1 catalyst
- Rapid triggering and responsiveness
- Custom configured product

Flexible Manual or Auto

IntelliFlow RF2:

- Flexible Manual or Automatic Spray
- Hand guns, reciprocators, or robots
- 30 colors, 6 catalysts
- 1K, 2K, or 3K
- Up to 4 fluid panels
- Seamless communication and integration
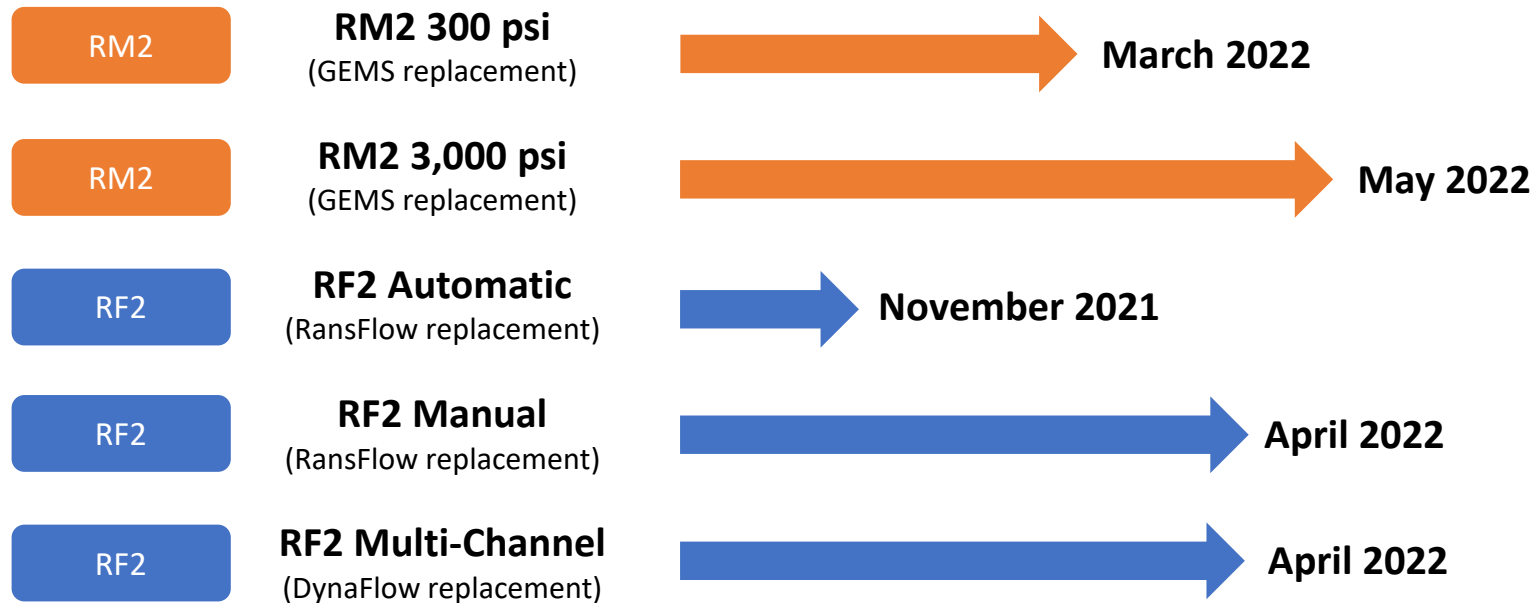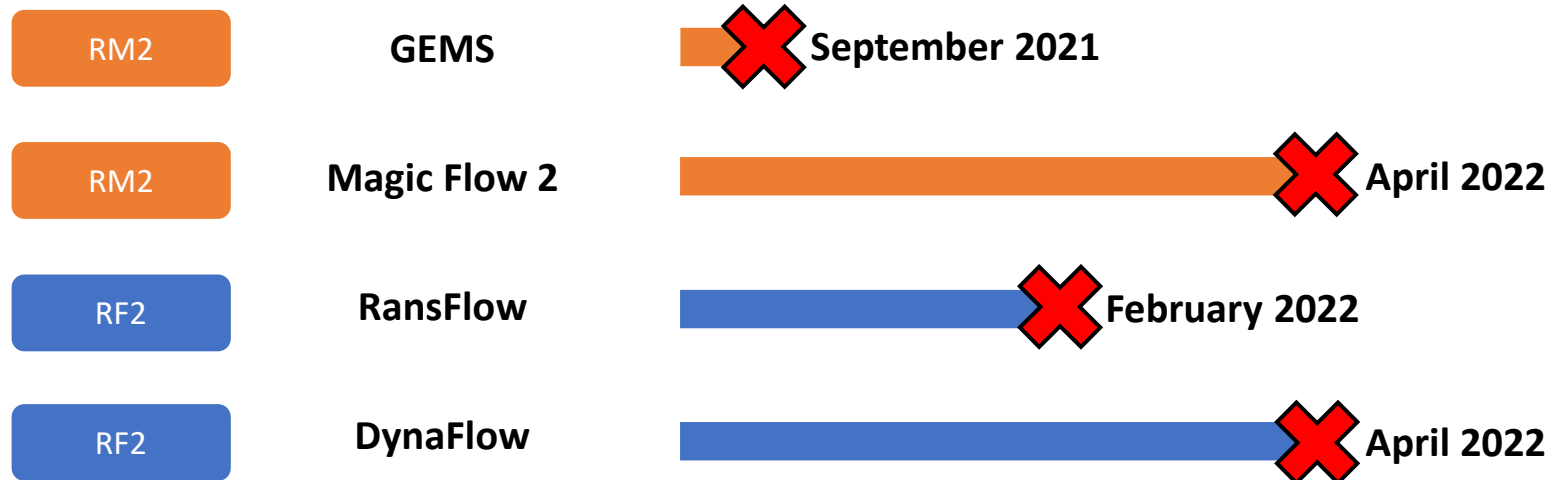- Distributed or custom configured product

Entry-level Manual

IntelliFlow RM2:

- Entry-level manual spray
- 2 hand guns
- 7 colors, 1 catalyst
- Moving up from hot-potting
- Touch up or full production
- Distributed product

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IntelliFlow Launch Timing

RM2	**RM2 300 psi** (GEMS replacement)	→ **March 2022**
RM2	**RM2 3,000 psi** (GEMS replacement)	→ **May 2022**
RF2	**RF2 Automatic** (RansFlow replacement)	→ **November 2021**
RF2	**RF2 Manual** (RansFlow replacement)	→ **April 2022**
RF2	**RF2 Multi-Channel** (DynaFlow replacement)	→ **April 2022**

Now taking pre-orders on RF2 and RM2 units, contact your Carlisle Fluid Technologies Account Manager for details

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Legacy 2K Product Obsolescence

RM2	GEMS	✕ September 2021
RM2	Magic Flow 2	✕ April 2022
RF2	RansFlow	✕ February 2022
RF2	DynaFlow	✕ April 2022

- Legacy products will be discontinued once that product can be fully replaced by new IntelliFlow equipment
- Legacy 2K equipment parts will be available for 2-5 years after obsolescence
  - Touchscreen and control board availability dictated by supply chain availability

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Intuitive Controls

Large, full color touchscreens

- o 10" or 15" screen depending on model
- o Scratch-resistant and resists all major solvents

Easy to learn and use

- o App-like interfaces will feel natural to both new and experienced operators
- o Both visual and numeric readouts to quickly visualize equipment status
- o Simplified primary operation screens in front of full-functionality configuration and diagnostic screens

Automate common processes and avoid costly mistakes

- o Common operations like color changes, flushes, and flow adjustments can be done in 3 presses or less using customizable recipes
- o Multi-level password protection to avoid accidental or unwanted process adjustments

Visible alarms tell you what's wrong and how to fix it

- o Visual and audible alarms with on-screen notifications
- o Alarm pop-ups tell you what's wrong, and give step-by-step instructions to correct

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Seamless Connectivity

All IntelliFlow units come standard with Ethernet I/P connectivity

- Profinet, EtherCat, Device Net, CC Link and more also available

**Export process data in real-time or batches**

- Track material and solvent usage, VOC's, ratio and flowrate actuals

Send/receive data and control from central PLC or SCADA system

- Open PLC architecture can be quickly configured for retrofits or new installs
- Send color change, ratio, and flowrate commands to the unit
- Easily monitor equipment as a part of your whole process

Remote monitoring capability for real-time diagnostics

- If enabled, Carlisle Fluid Technologies or your authorized distributor can remotely login to your equipment for troubleshooting and support
- Don't wait for a service tech to arrive, get it fixed right away

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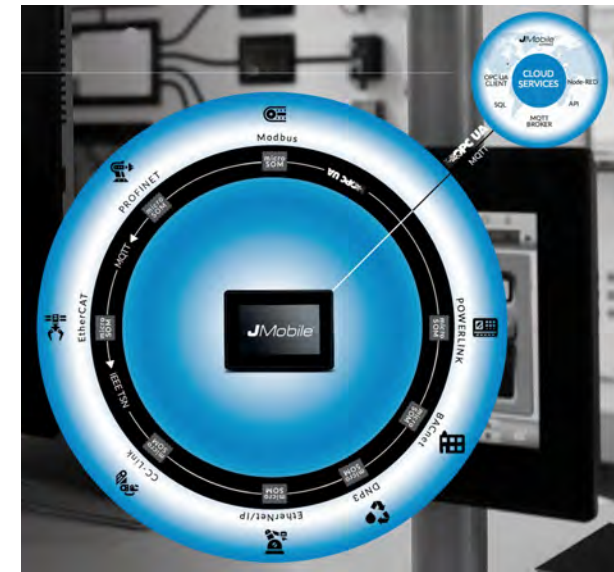
Best-In-Class Fluid Performance

Dynamic mixing reduces waste and maintenance time

o Continuous ratio and flow control eliminates need for Integrator

o Saves coating and solvent waste on every flush

o Simple mix blocks flush well and are easy to maintain
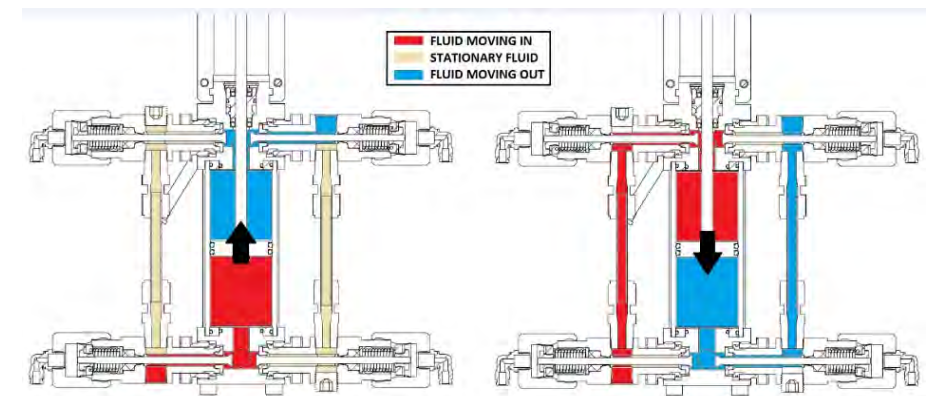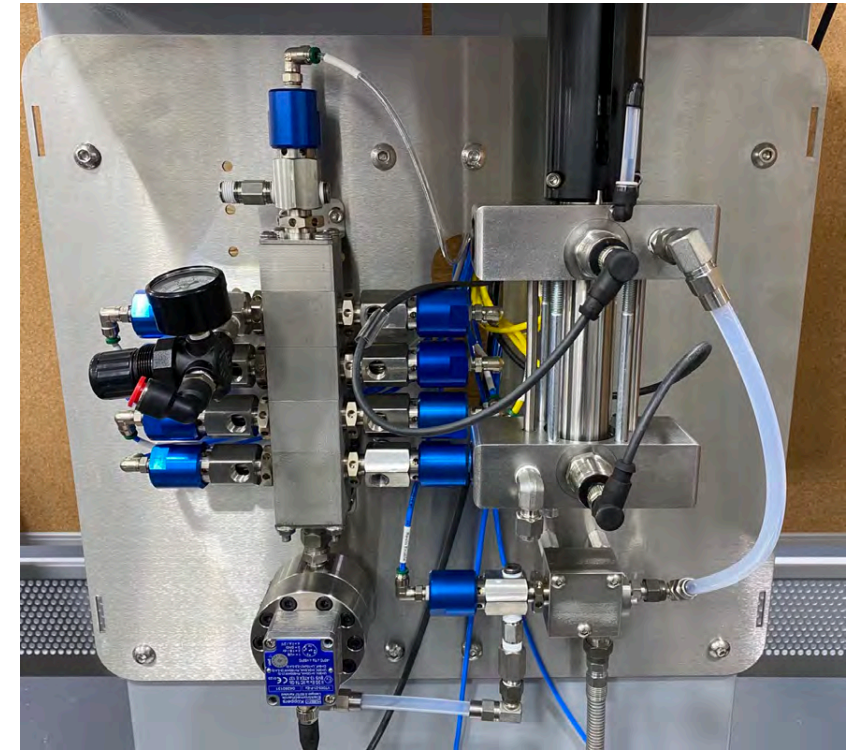
Fluid solutions to meet any process requirement

o Solvent or waterborne, electrostatic or non-electrostatic

o Wide range of flow control devices available to match your process and budget

o 1K, 2K, or 3K flow and/or ratio control

New standard flowmeters increase ratio and flow control accuracy

o Higher resolution for faster response rates and increased control

o Abrasion resistant internals, with option for acid-catalysts

o Coriolis meters also available for highly abrasive or sensitive materials

High-speed processors increase responsiveness and reduce lag

o Improved fluid components combined with faster controllers provides precise process control, even rapid triggering, low flowrates, and high ratio operation.

FLUID MOVING IN
STATIONARY FLUID
FLUID MOVING OUT

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Modular, Scalable, Easy to Order

Start small, expand later

- Accessories and add-on kits available to expand the capabilities of your system after first installation
- Go from 1K to 2K, or 2K to 3K
- Convert from manual to automatic spray
- Swap to different fluid components as your process evolves

One control architecture for the whole product range

- Easily install and use multiple different IntelliFlow products throughout your process

Order turn-key configurations or custom-engineered solutions

- Single part number configurations, with shorter lead times and very competitive pricing, designed to meet the most common process needs
- Or work with us to select a custom configuration

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IntelliFlow RM2

IntelliFlow RM2: Entry-level electronic 2K with extremely simple operation and wide process capabilities

- **Intuitive controls for easy operation by new or experienced users**
  - **10" full-color touchscreen** controls all process functionality
  - "3 presses or less for all common day-to-day operations"
  - Built-in troubleshooting for faults and errors to stay up and running

- **Reliable fluid panel can handle almost all common 2K hand gun applications**
  - **Up to 7 colors and 1 catalyst**
  - **1:1 to 100:1 material ratios**
  - Hardener flow rates as low as 2 cc/min
  - Low pressure capability at launch, with 3,000 psi coming in 2022
  - Coriolis flow meters also available for challenging materials

- **Increase efficiency and reduce coating and solvent waste**
  - **On-demand metering and mixing** with 1% ratio accuracy drives significant reductions in coating waste. No integrator means less waste.
  - **Automatic color change and flushing** with programming for each color
  - **Standard air-solvent chop** uses 65% less solvent
  - **Track and export process data** such as paint and solvent usage, spray time, ratio and flowrates, alarms and faults

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IntelliFlow RM2 Equipment Specifications:

Next-gen RF2 Automatic Specifications	
Ratio Range	1:1 to 100:1
Ratio Tolerance	±1%
Viscosity Range of Fluid	10-3000 cPs
Max Number of Colors/Resins	7
Max Number of Catalyst/Hardener	1
Low Pressure System	250 psi
High Pressure System (future)	3,000 psi
Color/Resin Flow Rate	20-1900 cc/min
Catalyst/Hardener Flow Rate	2-600 cc/min
Total Flow rate range	20-1900 cc/min
Flow Tolerance	±1%
Trigger response rate	200 ms
Wetted Parts	Stainless steel, PTFE, Perfluoro elastomer, UHMW, Polyethylene
Optimal Working Air Pressure	75-105psi
Operating Temperature	0-50℃
Acid catalyst compatible option	Coming June 2022
Isocyanate catalyst compatible	Yes
Flowmeters	Gear, Coriolis
Communication Protocol	Ethernet
No. of Recipes/Jobs	99+
No. of guns per fluid panel	2

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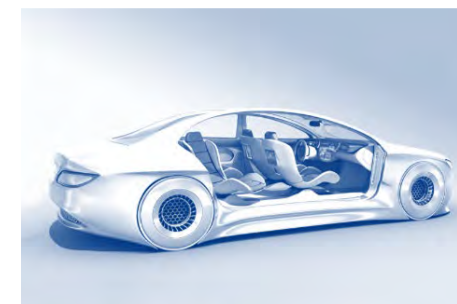
IntelliFlow RM2 is a good fit for almost any manual hand-gun application

- Industries:
  - Automotive (touch-up)
  - Industrial
  - Agriculture and Construction
  - Marine
  - Wood
  - Electronics
- Coatings:
  - Solventborne
  - Waterborne
  - Electrostatic (non waterborne)
  - Epoxy
  - Urethanes
  - Acid-catalyst (coming June 2022)

- Applicators:
  - Trophy
  - Tekna
  - Pro Lite
  - JGA
  - RansFlex
  - Vector
- Optional Configurations:
  - Remote fluid panel
  - In-booth color change
  - Coriolis flowmeter
  - MCV or piggable color stack

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Why use 2K proportioning equipment over hot-potting?

- The average high-production facility wastes $50,000 - $65,000 per booth every year hot potting: Electronic 2K units pay for themselves in less than 1 year

- What are the visible and hidden costs of hot potting:
  - o Wasted material
  - o Wasted solvent
  - o Wasted time spent mixing
  - o Product rework and quality issues due to off-ratio mixing
  - o No guarantee your coating application is to spec
  - o Increased VOC emissions and reporting

- Carlisle's Account Managers specialize in developing application-specific ROI calculations: We can prove the savings to the end-user

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RM2 Configurations and Accessories

How to select your configuration:
1. Choose 1 or 7 colors
2. Select pump size:
   a) If max catalyst flow is less than 100cc/min, select 300 pump
   b) If max catalyst flow is greater than 100cc/min, select 600 pump

Low Pressure (250 psi)

Number of Colors	Number of Catalysts	Catalyst Pump Size	Part Number	2021 and 2022 List Price		
1	1	300	RM2-11121	$ 20,900	£ 15,950	€ 17,710
1	1	600	RM2-11111	$ 21,200	£ 16,180	€ 17,970
7	1	300	RM2-11127	$ 22,600	£ 17,250	€ 19,150
7	1	600	RM2-11117	$ 22,900	£ 17,480	€ 19,400

Recommended Accessories
Floor Stand
Gun Flush Box Kit
2 Gun Manifold
Remote Color Change Kit
Solvent Flowmeter Kit
Catalyst Flow Sensor Kit

All configurations include:
- Air cutoffs for 2 guns
- Solvent air/chop flushing
- Gear flowmeter
- Stack light with buzzer
- Wall mounting

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RM2 Accessories

Part Number	Description	$ (USD) List Price	€ (Euros) List Price	£ (GBP) List Price
240-5199	Floor Stand Kit, RM2	$ 1,388.00	€ 1,176.27	£ 1,059.54
240-5205-1	Gun flush box kit, 1 gun	$ 5,403.22	€ 4,579.00	£ 4,124.59
240-5205-2	Gun flush box kit, 2 gun	$ 10,806.38	€ 9,157.94	£ 8,249.14
240-5200	Two Gun Manifold Kit, LP	$ 1,785.00	€ 1,512.71	£ 1,362.59
240-5336	Two Gun Manifold Kit, HP	$ 2,785.00	€ 2,360.16	£ 2,125.95
240-5201	Catalyst Flow Sensor Kit	$ 2,425.86	€ 2,055.81	£ 1,851.80
240-5202	Solvent Meter Kit	$ 3,543.08	€ 3,002.61	£ 2,704.64
240-5203	Remote Color Change Kit	$ 2,327.59	€ 1,972.53	£ 1,776.78
240-5204	In-Booth Solvent Meter Kit	$ 3,850.00	€ 3,262.71	£ 2,938.93
240-5206	In-Booth Fluid Panel Mounting kit, LP	$ 700.00	€ 593.22	£ 534.35
240-5337	In-Booth Fluid Panel Mounting kit, HP	$ 1,800.00	€ 1,525.42	£ 1,374.05
240-5143	Screen Protector Kit	$ 55.00	€ 46.61	£ 41.98
240-3131	Air Regulator Assembly	$ 119.19	€ 101.00	£ 90.98
310-3900	Air Manifold	$ 175.00	€ 148.30	£ 133.58
84-409	Manual Inlet Regulator, LP	$ 659.61	€ 558.99	£ 503.51
84-420	Manual Inlet Regulator, HP	$ 939.66	€ 796.32	£ 717.29
310-4170	Wi-Fi Module	$ 285.00	€ 241.52	£ 217.55
240-3198-C	Flush box Saddle - Binks 2100	$ 1,071.82	€ 908.32	£ 818.18
240-3198-D	Flush box Saddle - Binks Trophy Touch Up	$ 1,071.82	€ 908.32	£ 818.18
240-3198-G	Flush box Saddle - DeVilbiss JGA / JGHV	$ 1,071.82	€ 908.32	£ 818.18
240-3198-H	Flush box Saddle - Ransburg Vector	$ 1,071.82	€ 908.32	£ 818.18
240-3198-J	Flush box Saddle - DeVilbiss GTi Pro Lite	$ 1,071.82	€ 908.32	£ 818.18
240-3198-K	Flush box Saddle - DeVilbiss Advance HD	$ 1,071.82	€ 908.32	£ 818.18
240-3198-L	Flush box Saddle - Ransburg Ransflex	$ 1,071.82	€ 908.32	£ 818.18
240-3198-M	Flush box Saddle - Binks Trophy	$ 1,071.82	€ 908.32	£ 818.18

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New Accessory: 2-gun Manifold

- 2-gun manifold allows independent, air-piloted control of coating distribution to each gun

- Only load, spray, or flush 1 gun when necessary, then quickly switch to 2 gun operations

- No managing ball valves to distribute flow

- Spray with 1 port, batch mix into cup from other port

RM2 New Features: Touchscreen
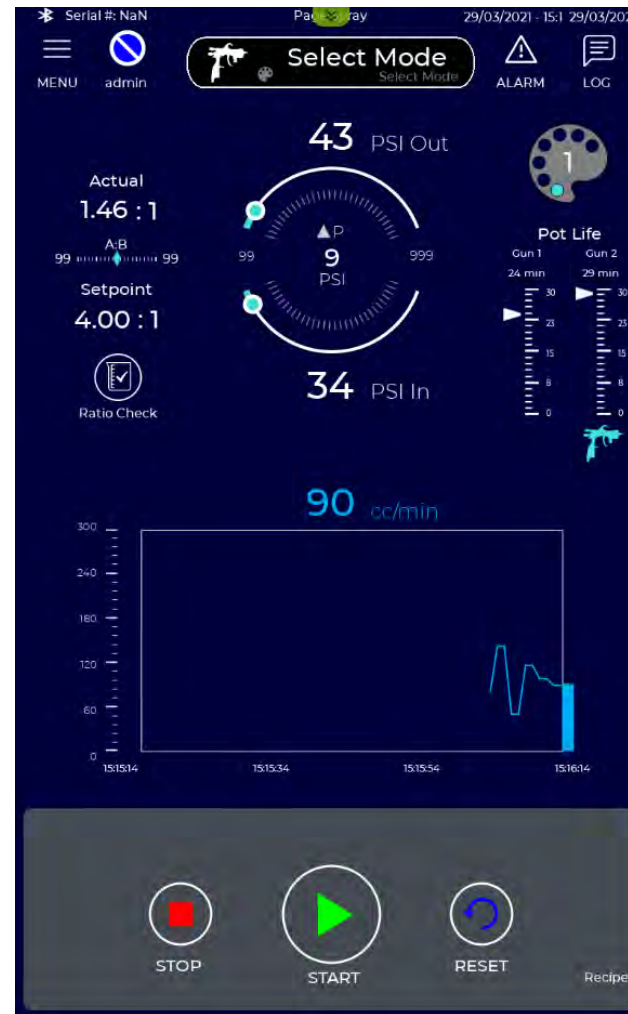
New Features:

- 10" Touchscreen

- Ethernet and Cloud connectivity with remote troubleshooting

- Monitor process on main screen

- Switch to flush screen for flushing/purging

- Menu icon on top left allows easy access to all major operation and settings screens

- Multi-level password protection

Controller Introduction

- What is a "Soft" PLC?
  - Combination HMI (touchscreen) and processor
  - Core of new IntelliFlow family

- Benefits:
  - Provides the reliability and standardization of a traditional PLC, with the flexibility and performance of a modern PC-based system
  - Touchscreen just like an iPhone: High resolution, extremely responsive
  - New product features and improvements can be implemented in weeks, not months or years
  - Seamless integration with the rest of the plant
  - Remote monitoring and screen mirroring
  - No greenboards: Eliminate sourcing issues, lack of connectivity and flexibility

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Connectivity

- All RF2's come standard with the ability to interface with PLC's and robots through Ethernet I/P:
  - o Send data out for tracking and logging purposes
  - o RF2 can receive operation commands and job parameters from PLC or robot
  - o Can be operated "headless" without any touchscreen interaction

- Remote access and troubleshooting through Corvina Cloud:
  - o If RF2 is connected to the internet, end-user, distributor, or Carlisle Fluid Technologies can remotely log into unit to operate or troubleshoot remotely, anywhere in the world
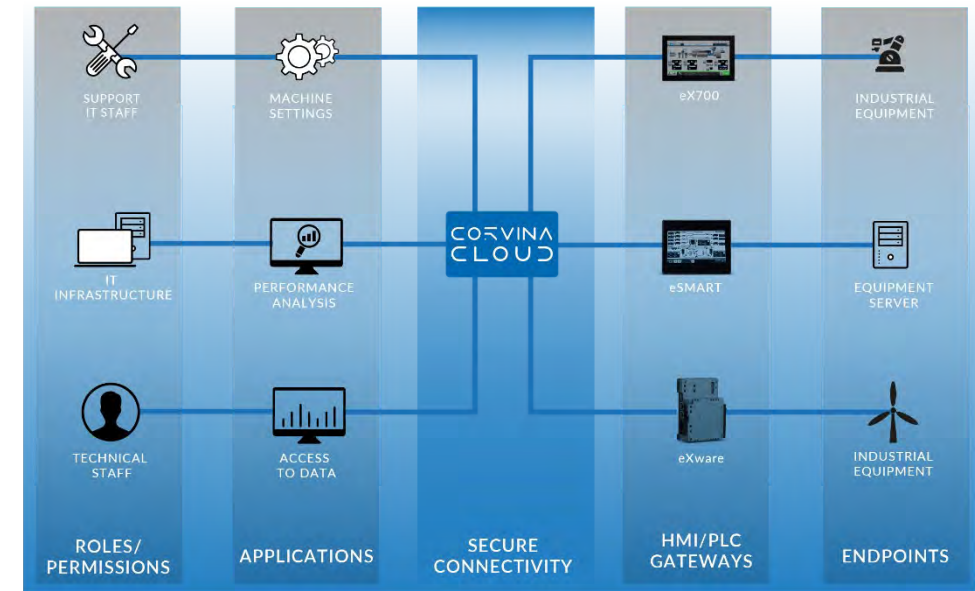
RM2 New Features: Fluid Panel
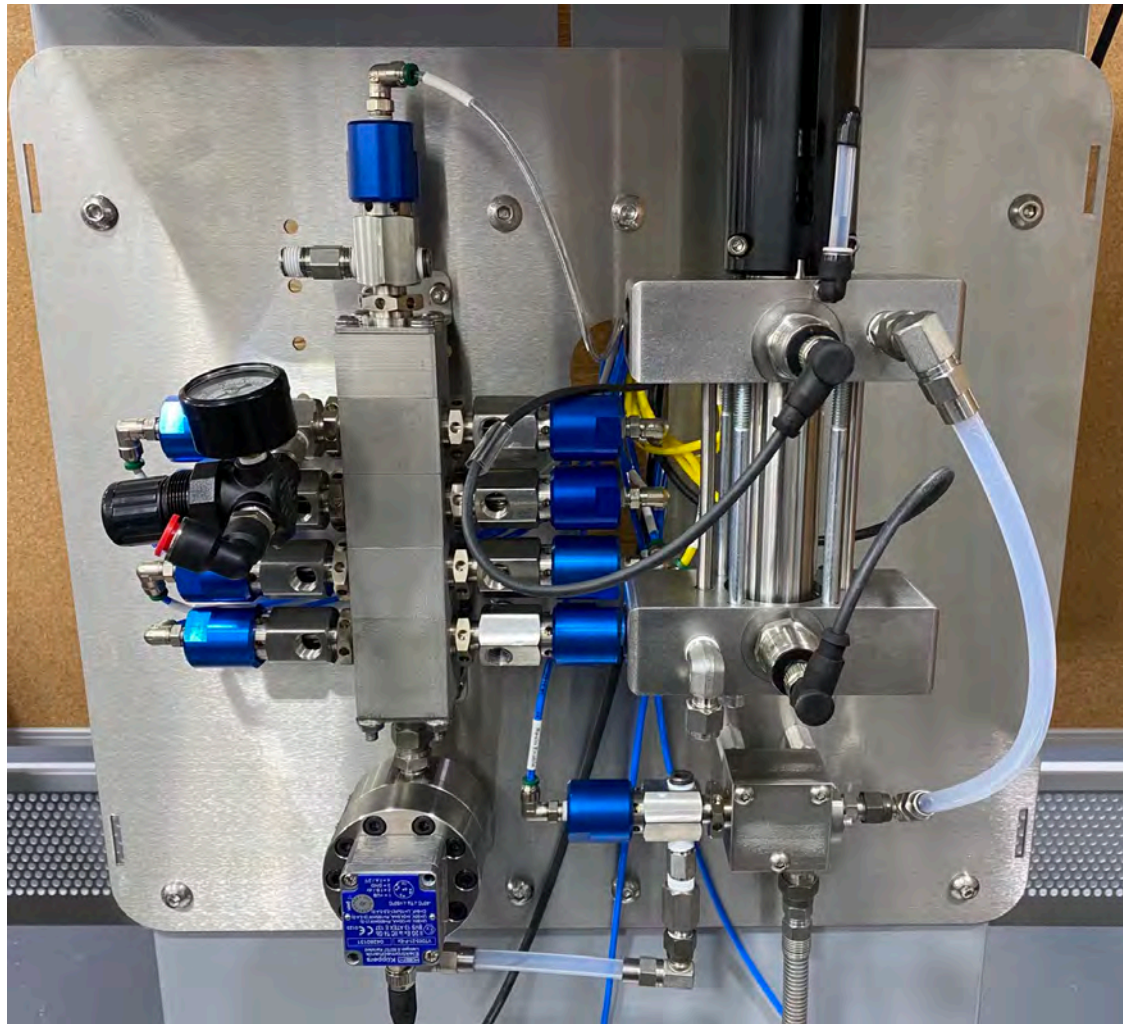
New Features:

- Dispense pump MCV valves mounted in new top and bottom blocks with TSL reservoirs

- 7 colors, up from 5 colors

- Programmable flush sequences for each color

- Air-solvent chop still standard

- New high-resolution flowmeter provides better ratio accuracy and lower minimum flowrate

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Catalyst Dispense Pump

- RM2 catalyst dispense pump is servo driven for precise dynamic metering
  - Catalyst flow rates as low as 2 cc/min, ratios up to 100:1
  - Pump only meters, does not generate pressure. Must be fed by pressure pot or supply pump
  - 300cc pump for low flows, high ratios; 600cc pump for most applications

- All new top and bottom blocks with integrated MCV valves standard
  - Much longer valve life (6-12 months+), especially with isocyanate catalysts
  - TSL reservoirs for increased upper seal life
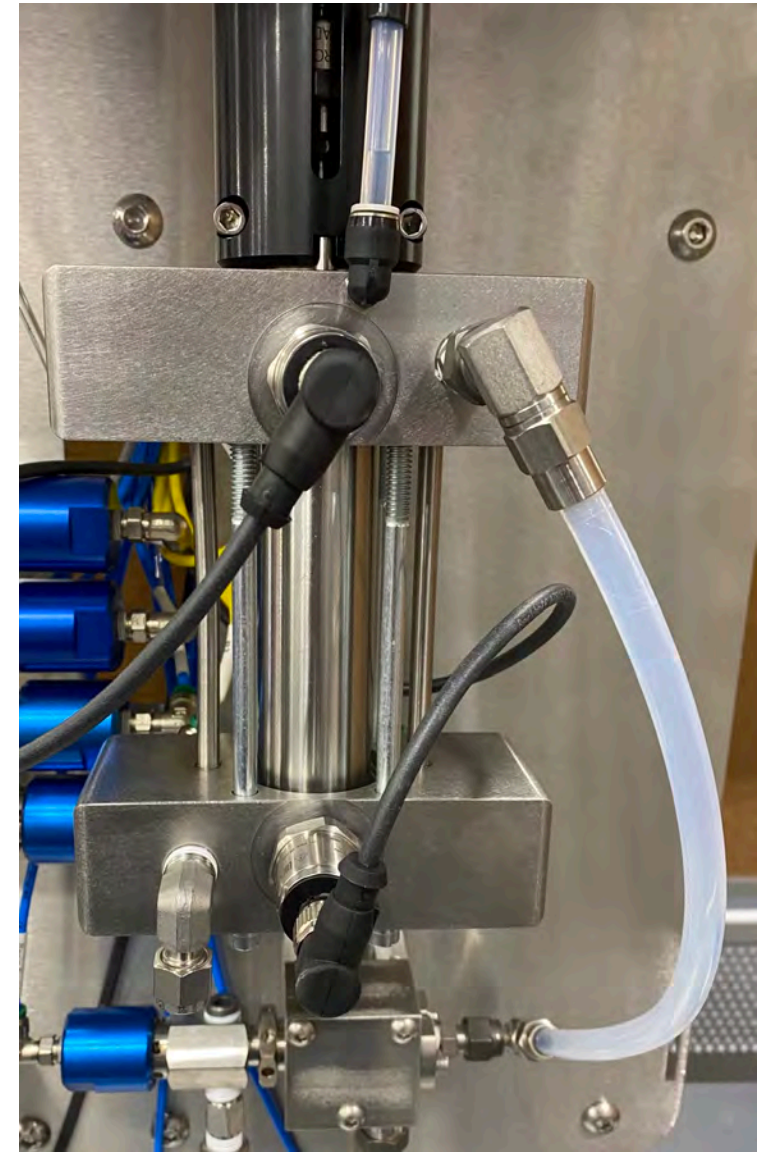
Flowmeters: New Higher Resolution

- Double the resolution of existing RF-1 flowmeter: 14 pulses/cc
  - Significantly improved flow and ratio control ability, especially with rapid triggering
  - Can measure flow down to 10cc/min
  - Works with material viscosities as low as 10 cPs

- Same flowmeter for low and high pressure

- Will be used across IntelliFlow family, including RM2

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Trade-in Trade-up Launch Promotion

- End-users can receive a **$1,500 discount** when purchasing an RM2, or a **$3,000 discount** when purchasing an RF2, for trading in a Carlisle Fluid Technologies or competitor's 2K unit

- Program Duration: October 2021 – June 2022

- Applies to both RM2 and RF2, any configuration

- Specifics:
  - Carlisle Fluid Technologies provides discount to Distributor/Integrator
  - Old equipment must be returned to Carlisle Fluid Technologies, or proof of scrapping provided
  - No limit on number of discounts on an order
  - For integrated solutions, customer must replace at minimum: Controller, solenoids, and flowmeters

Ransburg A *CARLISLE* BRAND

TRADE UP SAVE SMART OPERATE BETTER

For a limited time*, get the next generation of high-performance plural component equipment and

SAVE UP TO **$3,000** on RF2

SAVE UP TO **$1,500** on RM2

The new Ransburg IntelliFlow family of reliable plural component systems will bring intuitive operation, seamless connectivity, and significant cost savings to your finishing process. To help you make the jump to next-generation performance, we are offering a limited time trade-in promotion. Just step up soon to either the RF2 or RM2, you'll receive up to a $3,000 discount with the trade in of your existing plural component equipment, *of any make*.

Program Duration
September 1, 2021 to June 30, 2022

Eligible Products
- Ransburg IntelliFlow RF2
- Ransburg IntelliFlow RM2

*Offer ends June 30, 2022

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Marketing and Sales Tools Available

- **Product Sell Sheet**

- **User Manual**

- **Pricing Configurator**

- **Website**

How to select the correct 2K equipment

Criteria	RM2	RF2	RCS2
Manual spray	✓	✓	✓
Automatic spray with flow control		✓	✓
High pressure (3,000 psi) required	✓	✓	
More than 7 colors		✓	✓
More than 1 catalyst		✓	
Catalyst flowrates less than 10 cc/min	✓		✓
3K required		✓	
More than 2 guns per controller		✓	✓
PLC or robot integration required		✓	✓
Very rapid triggering and flowrate adjustment			✓

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Once the unit is selected, now select the configuration

- Each 2K unit has slightly different configuration requirements, but below are key process parameters to know:
    1. Material ratios
    2. Material flowrates
    3. Flow control requirements
    4. Electrostatic or non-electrostatic
    5. Applicator types and quantities
    6. Triggering frequency
    7. Material supply equipment
    8. Spray pressure
    9. Material types and compatibility (PDS, SDS, MDS datasheets)
    10. Number of colors
    11. Number of catalysts
    12. PLC or robot integration requirements

- Then work with your Carlisle Fluid Technologies Account Manager to help select the optimal configuration for your application

Great opportunities to win with RM2

Competition quoting Graco 2KS/PD2K or Kremlin Cyclomix Expert for handgun application, with 1 catalyst

- RM2 can do almost all Graco 2KS can do, at 2KE price point. Easy win situations

Customer has entry-level budget, but needs more than 3 colors

- Only the RM2 can do more than 3 colors (up to 7 colors)

Customer now tracking VOC, and wants to reduce solvent usage

- RM2 is the only entry unit with air/solvent chop standard
- RM2 has paint and solvent usage tracking built-in

Customer doesn't have much experience with 2K, or had problems operating competitor units

- RM2 user interface is much easier to learn and use, and can be tailored to customer's operation

Customer hates dealing with Integrator mixers

- RM2 uses dynamic mixing with no integrator to clean or maintain

Customer wants independent control for 2 guns

- RM2 + 2-gun manifold allows for independent loading and flushing

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The Brands You Trust

BGK
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BGK™ products deliver precision-engineered curing capabilities for a full range of coatings including liquid, powder, wax, UV and adhesives.

BINKS
A CARLISLE BRAND

Binks® products boast innovative spray gun and air cap design along with industry leading pumps and controls.

DeVILBISS
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DeVilbiss® products include low pressure manual and automatic spray guns and related spraying accessories. *DeVilbiss* products are widely acclaimed for ergonomics and innovative spray gun design.

Hosco
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Hosco® products deliver smooth bore, "cavity free" stainless steel fittings and accessories designed for use in paint circulating and application finishing systems.

ms
A CARLISLE BRAND

ms® products include powder coating systems and equipment. ms is recognized throughout the world for quality, efficiency and durability.

Ransburg
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Ransburg® manual and automatic electrostatic finishing products offer spray finishing solutions to industrial and automobile manufacturing markets.

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Thank you!