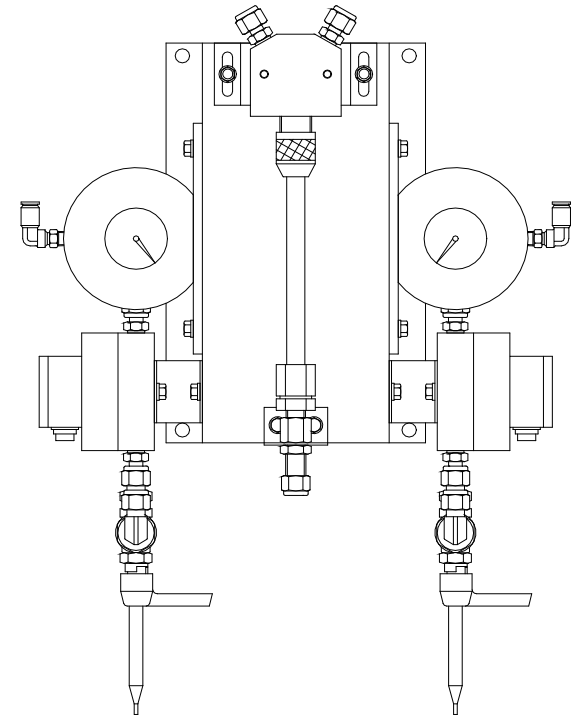


# RansFlow – Fluid Metering System



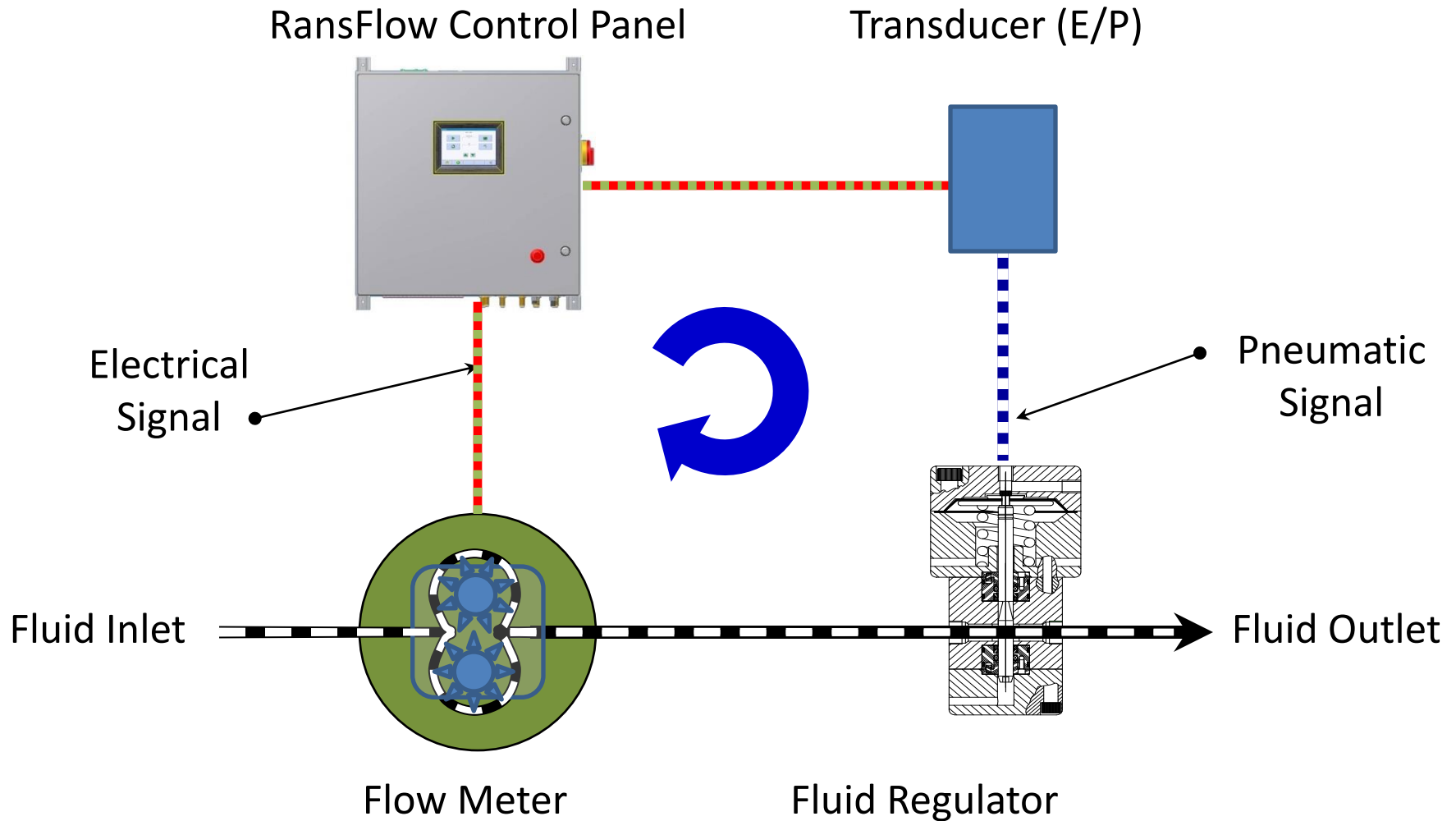
Sabarinath.M

# RansFlow – Overview

Entry level dynamic fluid metering system:

- Offers performance and simplicity in a low cost package
- Meters and mixes multi-component materials (2 or 3k)
- Designed for ease of installation and interface
- Offers closed loop metering and flow control
- Multi-language
- Remote Operator Panel

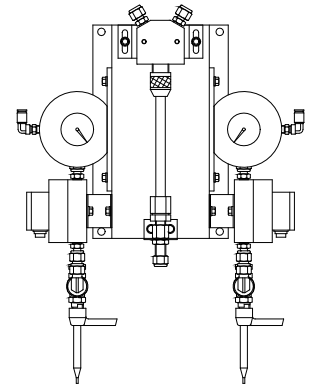
# RansFlow – Operation



# RansFlow – Components

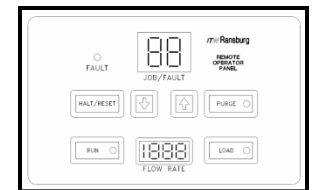
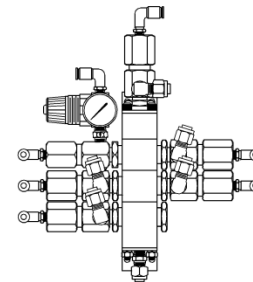
The base system consist of two major components and is designed for ease of installation and use.

- Control Panel
- Fluid Panel



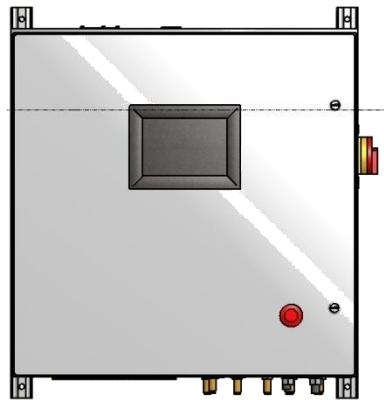
## Optional Features \ Accessories

- CCV style color stacks
- Remote Operator Panel
- Inlet pressure control



# RansFlow

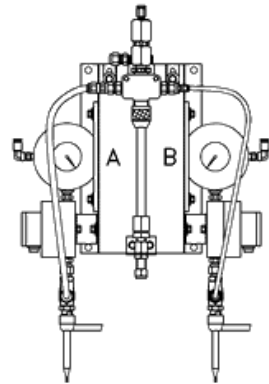
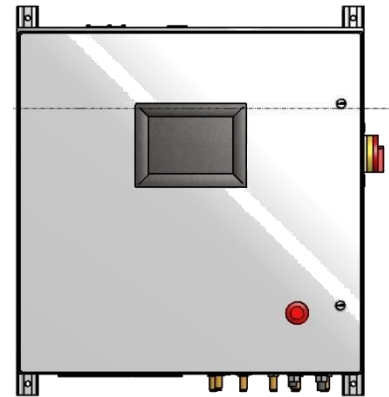
## Features & Benefits



# RansFlow Fluid Metering System

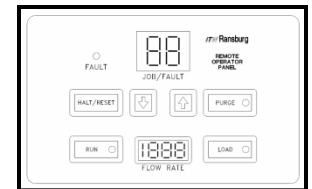
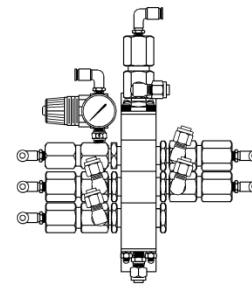
The base system consist of two major components and is designed for ease of installation and use.

- Control \ Interface Panel
- Fluid Panel



## Optional Features \ Accessories

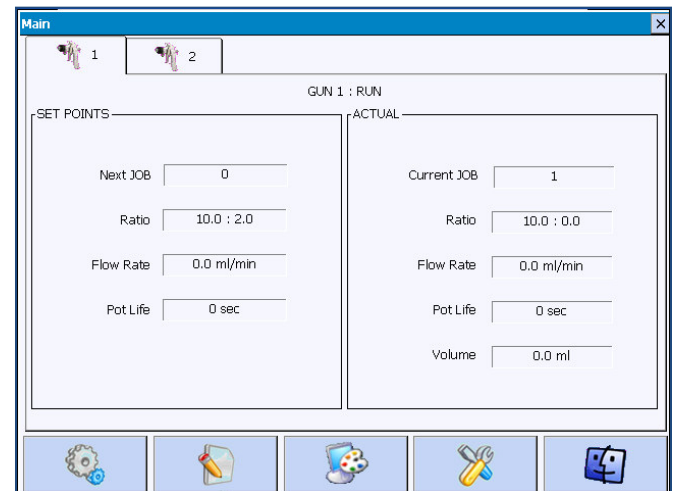
- CCV style color stacks
- Remote operator interface
- Inlet pressure control



# RansFlow Fluid Metering System

## Control Panel

- Size (L x W x H): 610mm x 610mm x 225mm (24" x 24" x 9")
- Operator interface: Touch screen that uses universal graphic icons (6.5" diagonal, full color).
- Programmable flush and fill cycles makes color change quick and easy, can support up to 10 colors and 3 catalyst.



# RansFlow Fluid Metering System

## Control Panel

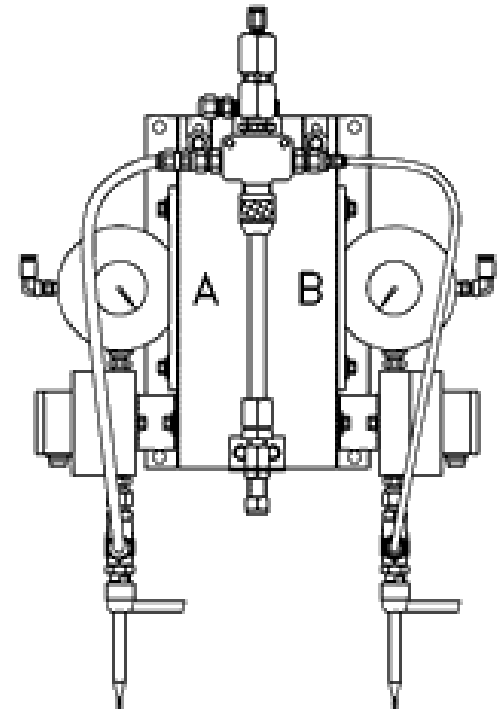
- Houses transducers and solenoid valves.
- Air flow and pressure switches for interface with gun flush box.
- Zenier barriers for intrinsically safe fluid panel installation.
- USB flash for report retrieval and software upgrades \ backups.
- Can store up to 100 jobs (P-sets) per gun.



# RansFlow Fluid Metering System

## Fluid Panel

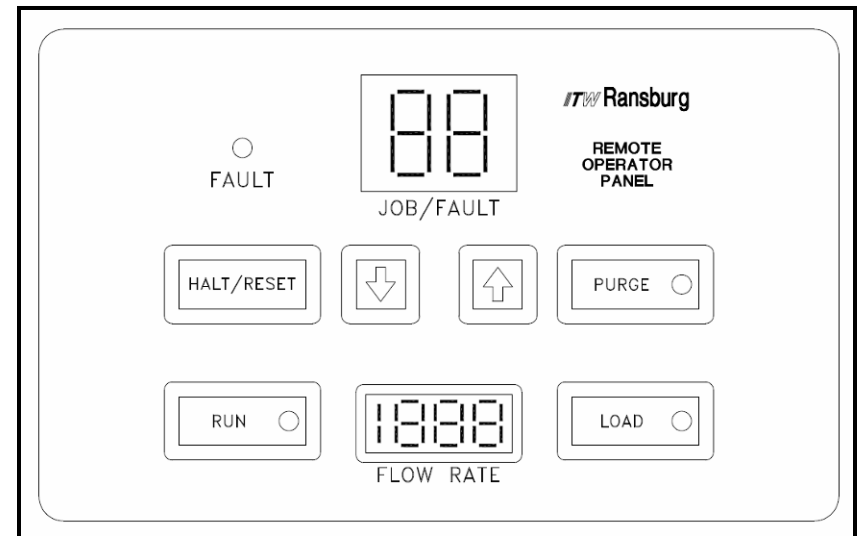
- Uses existing fluid panel design.
- RF-1 flow meter available in standard or Fiber optic design.
- Calibration tubes with three-way valves.
- Clear view static mix tube.
- Flushable Y-block assembly.



# RansFlow Fluid Metering System

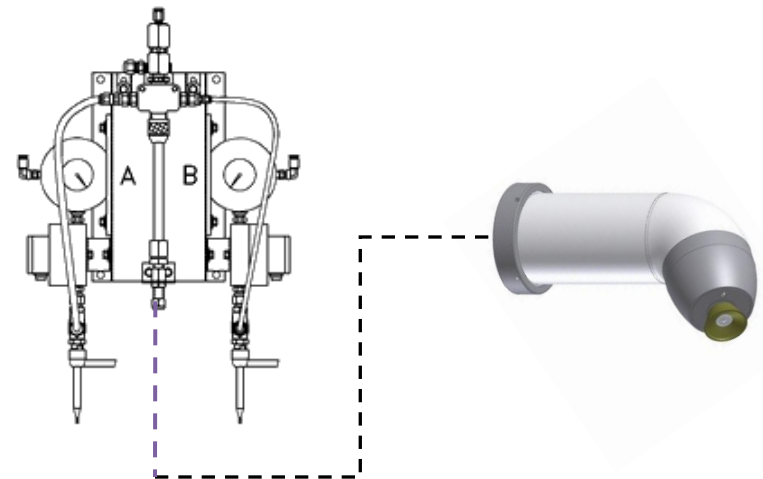
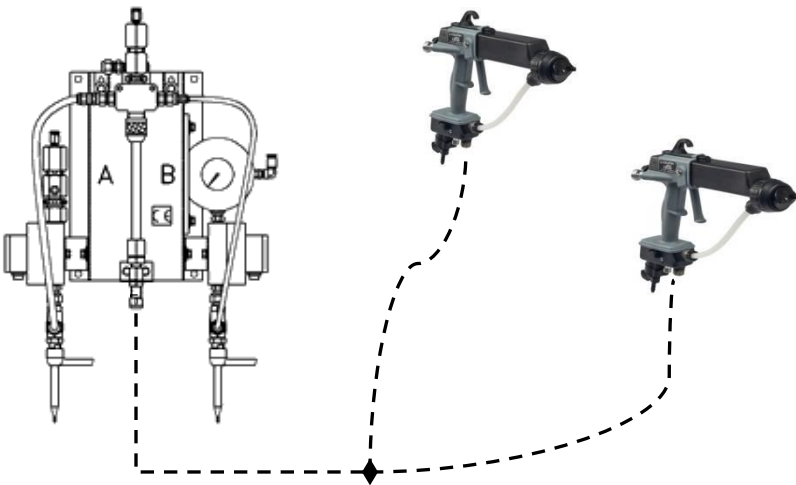
## Remote operator interface

- Intrinsically safe for in-booth mounting
- Non-Intrinsically safe version for mounting outside of hazardous area.
- Uses a magnetic stylus for easy function selection



# RansFlow Fluid Metering System

With plural component materials, the RansFlow system can be operated in “Manual” or “Automatic” Mode.



In “Manual Mode”, the flow rate of the resin is controlled by the operator(s) and the RansFlow supplies the catalyst to maintain

desired ratio.

In “Automatic Mode”, a single applicator is supplied and the RansFlow controls the ratio and flow rate to the applicator.

# RansFlow Fluid Metering System

## Specifications:

- Size
  - Main Control Panel L x W x D: 610mm x 610mm x 225mm  
(24" x 24" x 9")
  - Fluid Panel L x W x D: 550mm x 400mm x 300mm  
(22" x 16" x 12")
- Power Input: 120 VAC @ 2A or 240 VAC @ 1A 50/60
- Auto selecting power supply with resettable internal breaker.
- Flow Capacity: 10 – 4000 ml/min (Flow meter dependant)
- Viscosity Range: 30 – 500 cp
- PID Loop Updates: 50 times per second
- Job Tables: 100 Jobs (P-sets) per gun




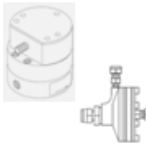
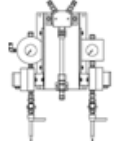
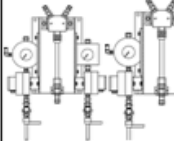


# RansFlow Fluid Metering System

## ROI opportunities:
























- Dynamic metering system eliminates waste associated with “hot potting”.
- Dynamic metering system eliminates rejects associated with “hot potting” such as:
  - Variations in gloss
  - Variations in viscosity
- Closed loop flow control will result in a reduction of 5 – 10% of coating usage.
- Automated color change will:
  - Reduce solvent usage by 25 – 50%
  - Improve cleanliness

# RansFlow Fluid Metering System

## RansFlow Configurations

Controls			Fluid Components			Color Change	
RansFlow Controller	Solenoid Interface Panel	Remote Operator Interface Panel	Fluid Regulator & Flow Meter	Fluid Panel 2 Component	Fluid Panel 3 Component	Resin CCV (1 - 10)	Catalyst CCV (1 - 3)
							

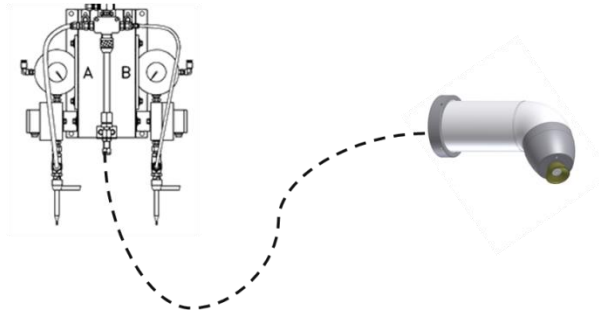
### System Configurations

2K Metering			Optional				Optional	Optional
3K Metering			Optional				Optional	Optional
One Applicator, Flow Control			Optional				Optional	Optional
Two Applicator, Flow Control		Optional	Optional				Optional	Optional
One Applicator, Flow Control & 2K Metering			Optional				Optional	Optional

# RansFlow – Configurations

## *Application: 2k Metering*

### Automatic Application

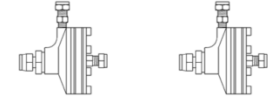


### Accessories

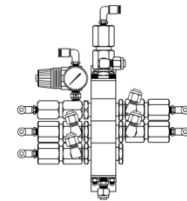
- Remote Operator Panel



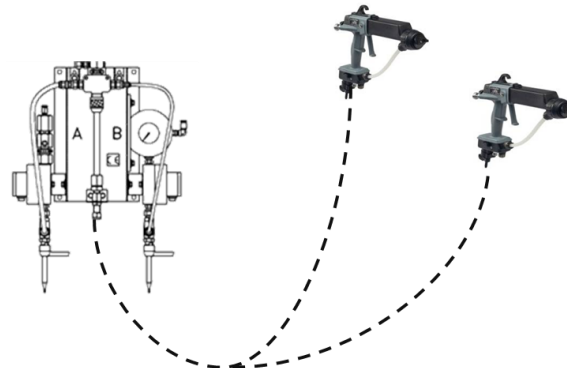
- In-Bound Fluid Pressure Control



- Color Stack Assemblies



### Manual Application



- Metric Fittings
  - Control Panel
  - Fluid Panel
  - Color Stacks

- Voltage \ Solvent Interlock (Handguns)

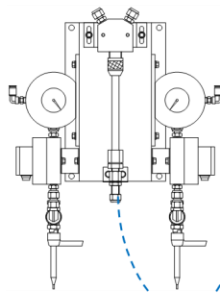
# RansFlow – Configurations

## Application: 3k Metering

### Automatic Application

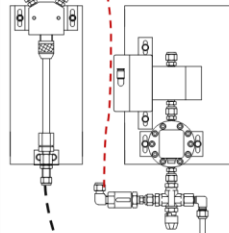


Component "A & B"



"AB" Mixed

Component "C"



"AB+C" Mixed

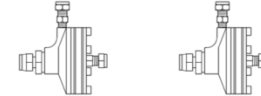


### Accessories

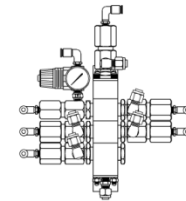
- Remote Operator Panel



- In-Bound Fluid Pressure Control



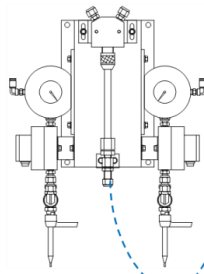
- Color Stack Assemblies



### Manual Application

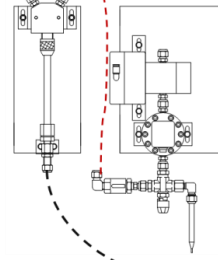


Component "A & B"



"AB" Mixed

Component "C"



"AB+C" Mixed



- Metric Fittings
  - Control Panel
  - Fluid Panel
  - Color Stacks

- Voltage \ Solvent Interlock (Handguns)

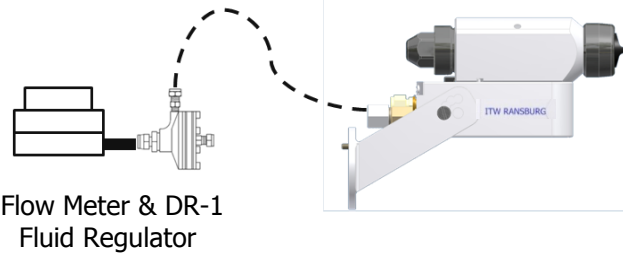


# RansFlow – Configurations

*Application:* Single Applicator Flow Control



Channel "A"

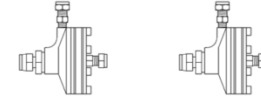


## Accessories

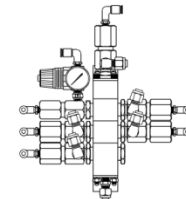
- Remote Operator Panel



- In-Bound Fluid Pressure Control



- Color Stack Assemblies

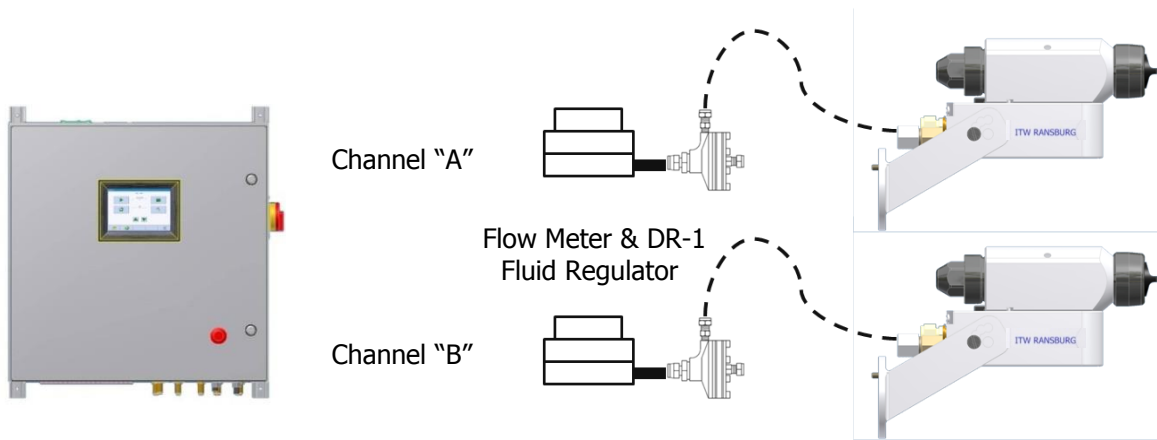


- Metric Fittings
  - Control Panel
  - Fluid Panel
  - Color Stacks

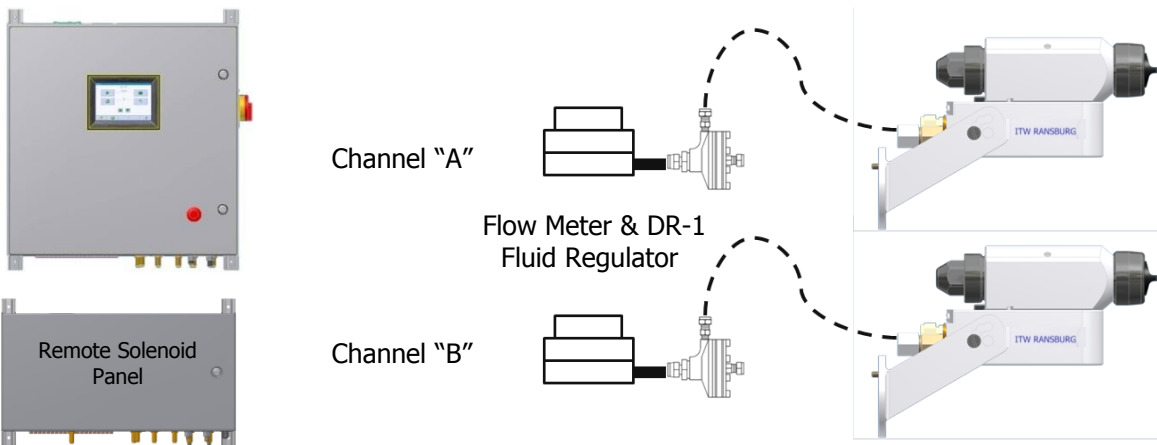
- Voltage \ Solvent Interlock (Handguns)

# RansFlow – Configurations

## *Application:* Dual Applicator Flow Control



**Note: With common control panel, common gun settings and color change sequence.**



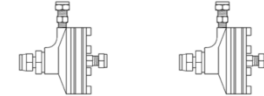
**Note: With use of remote solenoid panel, independent gun settings and color change sequence.**

## Accessories

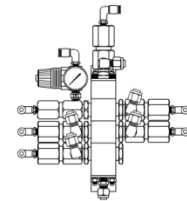
- Remote Operator Panel



- In-Bound Fluid Pressure Control



- Color Stack Assemblies



- Metric Fittings
  - Control Panel
  - Fluid Panel
  - Color Stacks

- Voltage \ Solvent Interlock (Handguns)

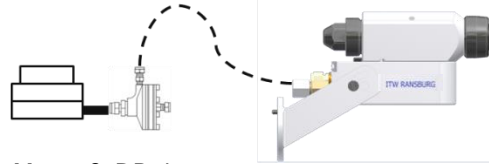
# RansFlow – Configurations

RansFlow Configurations						
System	Options	Fluid Components	2k Metering	2k Flow Control	Color Stacks	Color Dispense
System Configuration						
2k Metering	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Optional	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Optional
2k Flow Control	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Optional	<input checked="" type="checkbox"/>	<input type="checkbox"/>	Optional
Color Stacks	<input type="checkbox"/>	<input type="checkbox"/>	Optional	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Optional
Color Dispense	<input type="checkbox"/>	<input type="checkbox"/>	Optional	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Optional
2k Flow Control & Color Stacks	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Optional	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Optional

*Application:* Single Applicator Flow Control & 2k

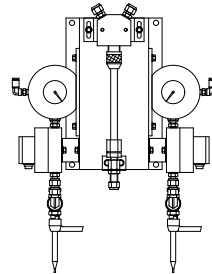


Channel "A"



Flow Meter & DR-1 Fluid Regulator

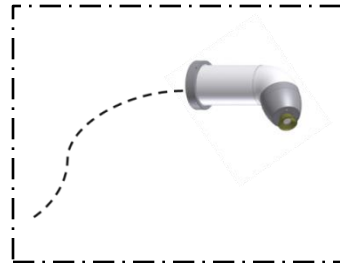
100ft (30M)  
maximum



Channel "B"  
Channel "C"

Remote Solenoid Panel

Can be configured for "Automatic" or "Manual" mode 2k metering operation.

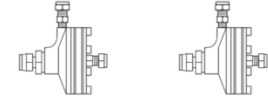


## Accessories

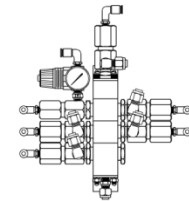
- Remote Operator Panel



- In-Bound Fluid Pressure Control



- Color Stack Assemblies



- Metric Fittings

- Control Panel
- Fluid Panel
- Color Stacks

- Voltage \ Solvent Interlock (Handguns)