

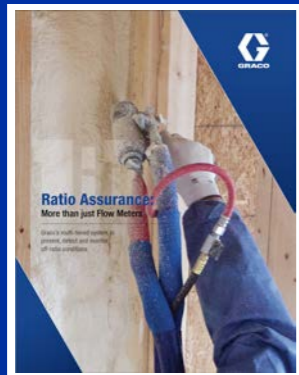


# Reactor<sup>®</sup> Ratio Assurance System

Prevent, Detect and Monitor Off-Ratio Conditions

PROVEN QUALITY. LEADING TECHNOLOGY.

Graco has engineered a multi-tiered system for ratio prevention and detection. As a contractor, having the confidence you are spraying on-ratio is critical. This system is designed to monitor and detect issues that may cause off-ratio spraying.



View the complete White Paper at [www.graco.com/RAWP](http://www.graco.com/RAWP)

Graco's Ratio Assurance System provides industry leading solutions:

- Assurance that your material was sprayed correctly
- Peace of mind to homeowners, builders and customers
- Eliminate costly repairs and call-backs
- Quick detection of equipment issues and off-ratio foam
- Confidence for sprayers new to the industry
- Risk mitigation of misapplied foam

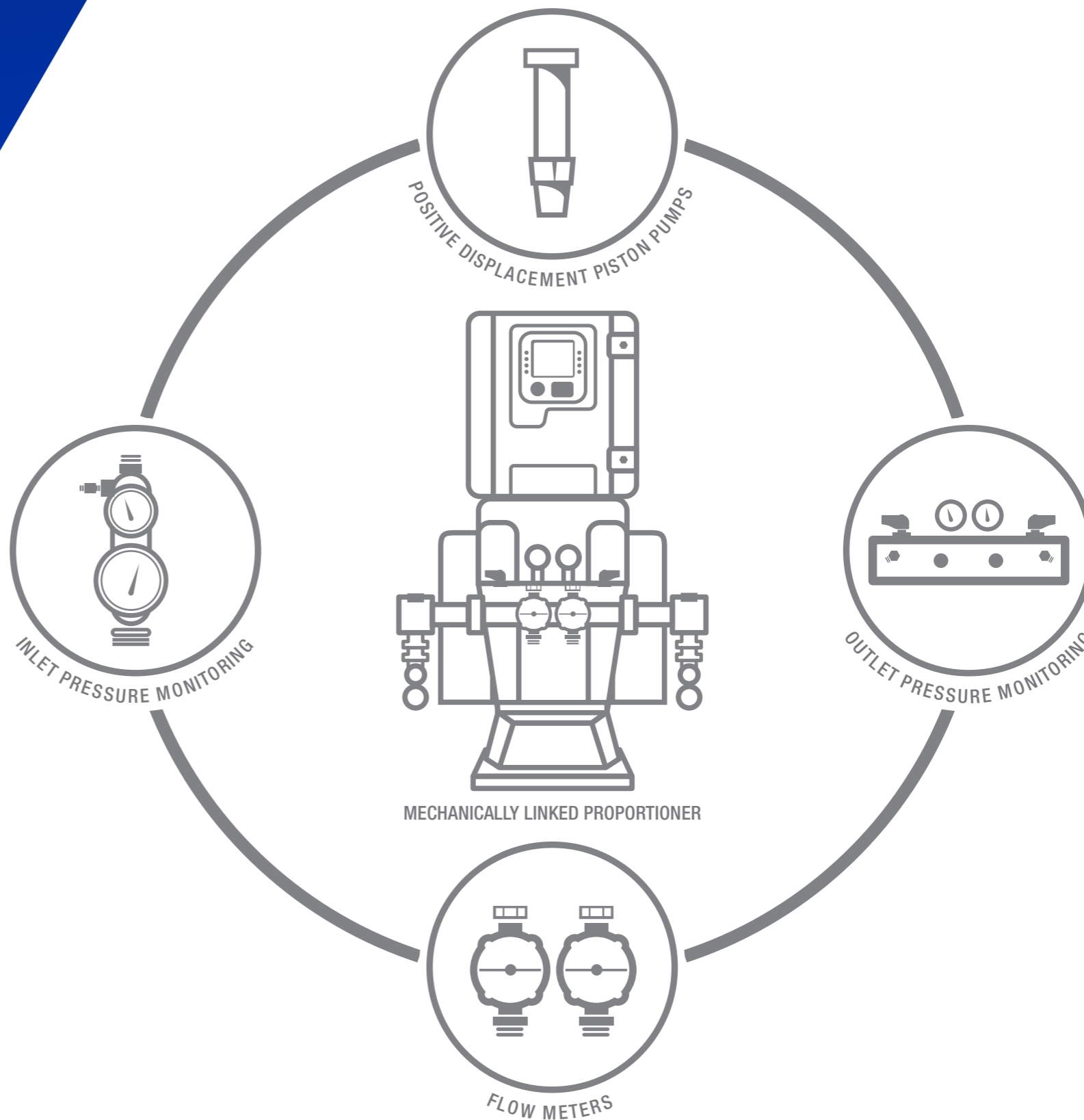
# SOLUTIONS TO ADVANCE our industry.



The Reactor 2 Ratio Assurance System is designed to provide ratio detection so your job is being applied on-ratio and within tolerance. Since no single detection method is best to detect all possible issues it is important to have a robust multi-tiered detection system. The Graco system uses a combination of mechanically linked positive displacement piston pumps, pressure monitoring and flow meters to create a robust system that will provide unsurpassed results in maintaining on-ratio spraying.

# RATIO ASSURANCE SYSTEM

includes pressure and flow meter monitoring.









# DEFLECTION METHODS

to eliminate off-ratio conditions.

Graco has identified the best method of detection for issues that may cause off-ratio foam to be sprayed. These issues are called *single-point variables*. Utilizing inlet and outlet pressure monitoring and flow meters, the Reactor 2 can monitor for these issues and shut the proportioner down if required. The operator can then make the necessary updates in order to eliminate the off-ratio condition.

■ BEST 
 ■ BETTER 
 ■ GOOD

Category Type	Single-Point Variables	Reactor Detection Method		
		Inlet Pressure Sensor *	Outlet Pressure Sensor	Flow Meters
 Air in fluid stream	Run away feed pump/ Running out of chemical	NA	Better	Better
	Trapped air in the feed line and/or proportioner	NA	Good	Best
 Undersized feed pump	Too large of a mix chamber being used	Best	Good	Better
	Too high of proportioner pressure setting	Best	Good	Better
	Too long of a trigger pull	Best	Good	Better
 Poor material feed to proportioner	Cold material(s)	Best	Better	Good
	Feed pump pressure set too low	Best	Good	Better
	Damaged feed pump (seals, check ball, air motor)	Best	Good	Better
	No feed pump pressure	Best	Good	Better
	Plugging inlet filter	Best	Good	Better
 Proportioner pump issue	Damaged proportioner pump foot valve ball/seat	Best	Good	Better
	Damaged proportioner pump piston ball/seat	NA	Better	Best
	Damaged proportioner pump seal	NA	Better	Best
 Fluid leaks	Leak between proportioner pump and flow meter	NA	Better	Best
	Leak in heated hose	NA	Best	NA
 Restriction after flow meter	Blockage in heated hose, build-up on ID of hose(s) **	NA	Best	NA
	Plugged gun filter **	NA	Best	NA
	Gun impingement port plugging **	NA	Best	NA

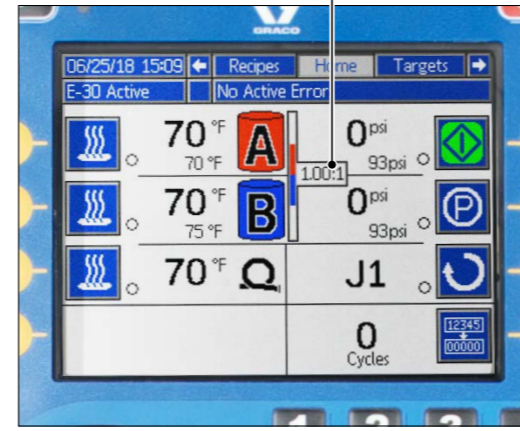
# RATIO ASSURANCE SYSTEM

is standard on Reactor 2 elite models.

Reactor 2 elite models E-30, E-XP2, H-30, H-40, H-50, H-XP2 and H-XP3 now include factory installed flow meters. All Reactor 2 models include updated software to allow for flow meters to be added and configured, refinements to optimize inlet pressure detection and add Reactor Smart Control to electric models.

### Updated ADM

- Home screen update to include the real-time ratio value and ratio gauge



### ADM Set-up: System Screen

- Updated ADM set-up screen to allow easy configuration of flow meters and enabling alarms



### Oval Gear Flow Meters

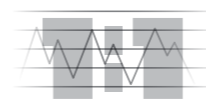
- Simple and robust design
- Ideally suited for high flow rate measurements
- Accuracy of +/- 1% once calibrated

# DATA ANALYSIS & REPORTING

includes pressure and flow meter monitoring.

Reactor Connect® provides access to summary and detail ratio reports and graphs. Reports can be viewed, emailed, shared and printed using the app.

## Reports for Each Reactor



Ratio data showing average ratio, ratio range across a specific timeframe and ratio alarm count



Volume of material usage



Temperature data including A, B and hose set points and averages



Pressure data including A and B set point and average

## ► Simple Ordering Process

---

Graco's Ratio Assurance System can be added to any Reactor 2 (E-30, E-30i, E-XP2, H-30, H-40, H-50, H-XP2 or H-XP3). Retrofit kits are available. Kits include: flow meters, updated software, cables and hardware.

## Ordering Information

---

### Reactor 2 Low-Pressure Flow Meter Hardware Kits

---

#### For Reactor E-30 non-elite models (2018 and older)

**25N749** Flow Meter kit – includes flow meters, Y-strainers with inlet sensors, Motor Control Module (MCM), all cables and mounting hardware

#### For Reactor E-30 non-elite models (2019 and newer)

**25N786** Flow Meter kit – includes flow meters, inlet sensors, all cables and mounting hardware

#### For Reactor E-30 elite models

**25N913** Flow Meter kit – includes flow meters, Y-strainers with inlet sensors, all cables and mounting hardware

#### For Reactor E-30i (generation 2)

**25N926** Flow Meter kit – includes flow meters, Y-strainers with inlet sensors, all cables and mounting hardware

#### For Reactor H-30, H-40 and H-50 non-elite models

**25N786** Flow Meter kit – includes flow meters, inlet sensors, all cables and mounting hardware

#### For Reactor H-30, H-40 and H-50 elite models

**25N748** Flow Meter kit – includes flow meters, all cables and mounting hardware





## ► **Ordering Information** - continued

### **Reactor 2 High-Pressure Flow Meter Hardware Kits**

#### **For Reactor E-XP2 non-elite models (2018 and older)**

**25P384** Flow Meter kit – includes flow meters, Y-strainers with inlet sensors, Motor Control Module (MCM), all cables and mounting hardware

#### **For Reactor E-XP2 non-elite models (2019 and newer)**

**25P385** Flow Meter kit – includes flow meters, inlet sensors, all cables and mounting hardware

#### **For Reactor E-XP2 elite models (2018 and older)**

**25P386** Flow Meter kit – includes flow meters, Y-strainers with inlet sensors, all cables and mounting hardware

#### **For Reactor E-XP2 elite models (2019 and newer)**

**25P383** Flow Meter kit – includes flow meters, all cables and mounting hardware

#### **For Reactor E-XP2i (generation 2)**

**25P387** Flow Meter kit – includes flow meters, Y-strainers with inlet sensors, all cables and mounting hardware

#### **For Reactor H-XP2 and H-XP3 non-elite models**

**25P385** Flow Meter kit – includes flow meters, inlet sensors, all cables and mounting hardware

#### **For Reactor H-XP2 and H-XP3 elite models**

**25P383** Flow Meter kit – includes flow meters, all cables and mounting hardware



### **Reactor Connect Hardware Kits**

#### **North America Kits (4G Cell Module)**

**25E656** Reactor 2 Retrofit kit – for Electric and Hydraulic systems

**25E657** Reactor 2 Retrofit kit – for Integrated Systems (E-30i, E-XP2i)

#### **Worldwide Kits (3G Cell Module)**

**25D612** Reactor 2 Retrofit kit – for Electric and Hydraulic systems

**25D614** Reactor 2 Retrofit kit – for Integrated Systems (E-30i, E-XP2i)





## GRACO HEADQUARTERS

### WORLDWIDE HEADQUARTERS

Graco Inc.  
88 -11th Avenue N.E.  
Minneapolis, MN 55413  
Tel: 612-623-6000



# Graco Has You Covered

Facilities Worldwide for Global Support



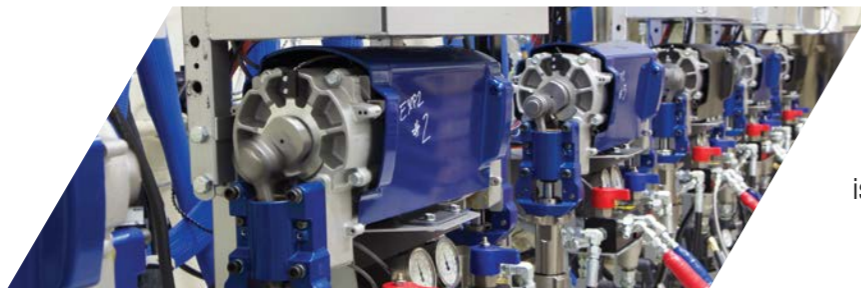
### Quality First

At Graco we pride ourselves on providing best-in-class products. Engineered solutions are manufactured in our own facilities, with the highest standards in the industry. We provide you with world-class customer support and expertise to help solve your application challenges.



### Global Reach

Graco has facilities across the globe to provide you with the products and service you need, where you live. Plus, Graco has dedicated field experts in all areas of the world to support the products we sell.



### Product Capabilities

Graco has a broad range of products that are engineered and tested to perform in the harshest environments so you can be certain your equipment is protected and working at peak performance.

**Contact us today!**

Call **866-361-5959** to talk with a Graco representative, or visit [www.graco.com](http://www.graco.com) for more information.