



ProMix™ PD2K

Positive Displacement Proportioning System



PROVEN QUALITY. LEADING TECHNOLOGY.



We took the [efficiency of an electronic proportioner](#) to a new level of savings with our ProMix PD2K!

By moving the mixing point closer to the gun, the ProMix PD2K can [reduce solvent use and mixed material waste by up to 80%](#) compared to traditional electronic proportioners.

This means lower disposal costs of hazardous waste materials and less wasted paint – especially when you have multiple daily colour changes or short pot-life materials.

We also have specific ProMix proportioners that are [designed to manage tough acid catalyst applications](#) like cabinetry and bar counter tops. The corrosion resistance fluid section, plus the smart fluid plate with 316 and 17-4 SST catalyst sections, can [easily handle strong acid catalysts](#).

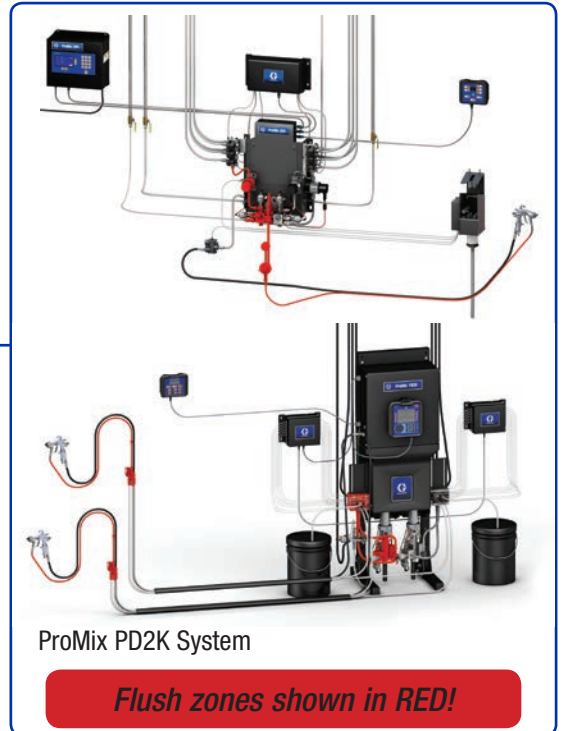
Reduce Solvent and Material Waste by up to 80%

The ProMix PD2K saves you time and money by not only making your job easier, but by reducing material waste. It's efficient, convenient and gives you a smooth, consistent spray for your most challenging applications.

Savings Comparison

See the savings stack up when you compare the ProMix PD2K to traditional systems.

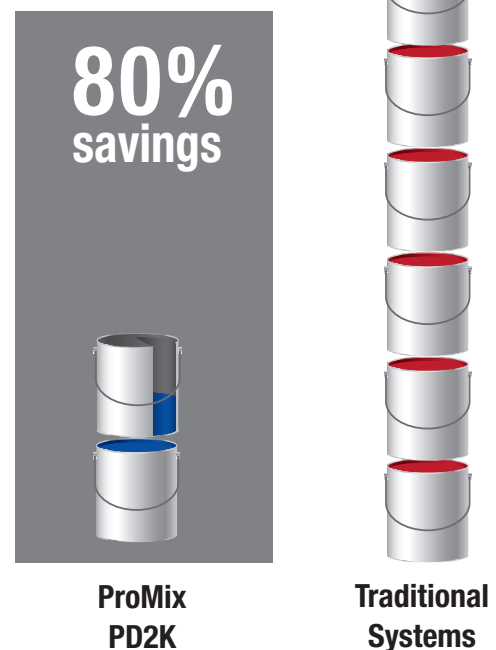
- Up to 80% reduction in flushing waste over the most efficient traditional proportioning systems
- Limited mixed material in system - great for short pot-life materials
- Faster colour changes and less material to flush mean less waste and less downtime



Daily Paint Usage*



Daily Solvent Usage*



*Savings based on 7 colour changes per day and hose length of 15 m x 1/4 in diameter

Increase Efficiency and Performance



Graco's unique ProMix PD2K dosing piston pumps Stall Under Pressure and use 100% Positive Displacement Technology so you always get accurate mix ratios and consistent performance – every time you spray!

PD2K Expansion Pumps

PD2K has the ability to add additional dosing pumps so that you can maximize your savings.

Applications include:

Dedicated Colours Reduce Waste

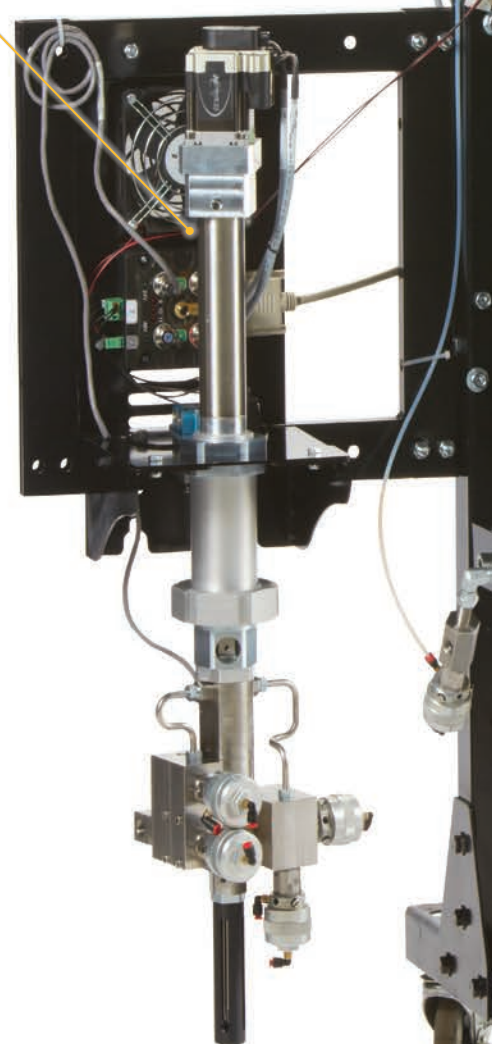
- Dedicate up to three colours with their own pumps to achieve the most waste reduction possible.

One Machine Does MORE

- Use one pair of dosing pumps for epoxy primers and another pair for urethane top coats. One machine will do both.

Save Time on Colour Changes

- In automatic systems, stage the next colour while one is being sprayed to reduce colour change time.



“ The ProMix PD2K is easy to set up and maintain. It handles various inbound pressures and viscosities without touchy fine-tuning, and pumps can be rebuilt in less than 20 minutes. ”



Electronic Fluid Management Display

Reduce Overspray and Paint Waste

- Set and maintain optimal spray pressures
- Save paint by keeping spray guns running at peak efficiency

Get Real Time Data

- Easily manage ratios, colours, alarms, pressure and flow rates
- Detect leaks and send alerts when maintenance is due
- Download reports onto a flash drive with the convenient USB Port

Spend Less Time on Maintenance

- No fluid regulators to flush or maintain

UPGRADE

- Catalyst dose pump upgraded with 316 and 17-4 SST
- Colour change valves upgraded with 316 and 17-4 SST
- Mix manifold upgrade with 316 and 17-4 SST

Dosing Piston Pumps

Accurate


- Stalls under pressure for consistent, on-ratio results (within 1% accuracy)

Versatile

- Proportion both epoxy and urethane with ONE system
- Manage up to 30 colours and 4 catalysts with 2 or 4 dosing pumps
- Pumps can be dedicated to colours or colour families
- Change colour in one pump while another pump is proportioning

Easy to Maintain

- Field serviceable in less than 20 minutes
No costly factory rebuilds like gear pumps



Manual Systems - ProMix PD2K

PD2K mixes material 2m (6 feet) away from the spray gun. This new feature saves you time and material when you make a colour change or flush your system. There are now two options for mixing; “At the Belt” and “At the Wall”

Mix at Belt for Painting in Large Areas

Convenient

- Wear on your belt or hold in your hand

Efficient

- 80% reduction in flushing waste
- Faster colour changes



Consistent Spray

PD2K HAS ELECTRONIC FLUID PRESSURE REGULATION, WHICH MEANS YOU CAN SET AND MANAGE YOUR SPRAY PRESSURE RIGHT ON THE PD2K INTERFACE.

- Set upper and lower pressure adjustment limits to keep consistent quality across all of your painters
- Reduce your down time because there are no mechanical regulators to flush or maintain

Flexible Installation

MIX REMOTELY (MIX AT WALL)
FOR PAINTING SMALLER PARTS



Convenient

- Use in either manual or automatic applications
- Consolidates all colours to one mix and colour change block

Compact

- Fits in small areas
- Ideal for automatic spray robots and reciprocators
- Great for finishing small parts

Add a gun flush box to change colours with ease

- Automated flushing system for manual spray guns
- Eliminates manual gun triggering for more accurate flushing and filling, and less waste



2 Machines in 1!

ProMix PD2K Dual Panel

Get twice the savings from your ProMix PD2K when you choose dual panel. With the dual panel, two painters can independently spray at the same time.

Fast Colour Change

- Stage the next colour while one colour is spraying

Two Painters, One PD2K

- Each painter is independent and can change colours at anytime

Manual Guns

- Manages spray pressure for 2 manual painters spraying at the same time

Automatic Guns

- Flow or pressure control for 2 automatic guns spraying at the same time



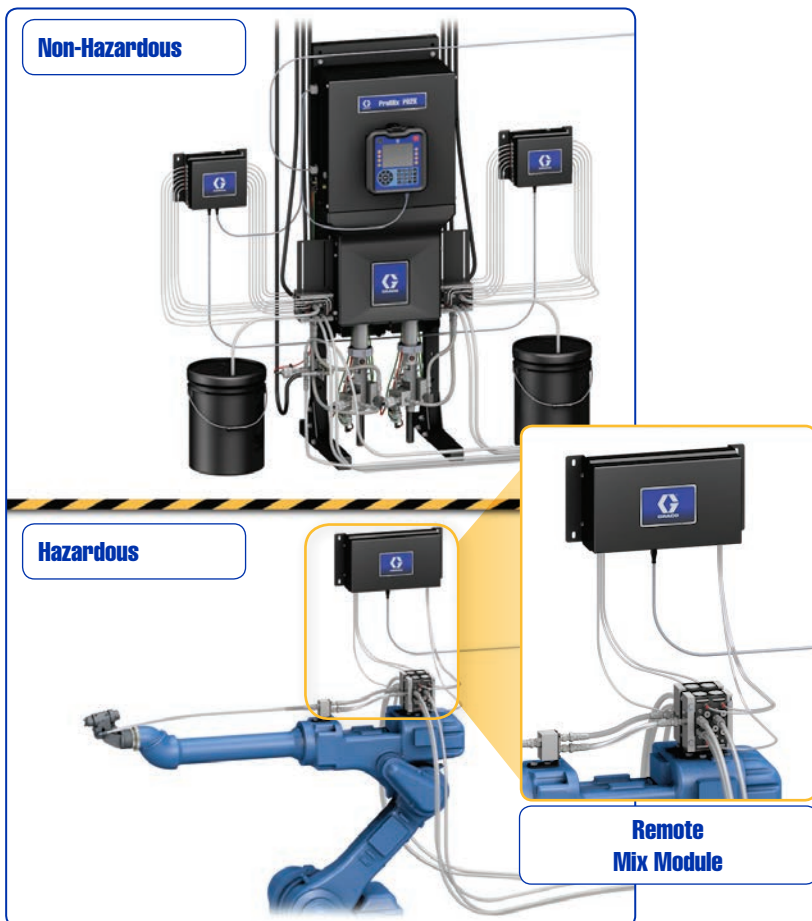
To order, select the following equipment:

- Dual Panel main PD2K unit
- 70 cc resin and 35 cc catalyst expansion pumps
- Desired colour change modules

See page 10 for ordering information.

Automatic Systems - ProMix PD2K and PD1K

Locate the main unit of the ProMix PD2K outside the hazardous area for easier maintenance access



ProMix PD2K Automation

PD2K Automatic delivers precise flow control to spray the perfect amount when you need it. Step changes are faster and more accurate with the dosing pumps - beaker calibrations are not needed. And the remote mixing module allows you to mix near the gun to minimize flushing waste.

Integration with Plant Automation

- Controls colour change, mixing and flushing, and flow control

Flow Control

- Manages material flow rate to maintain consistent paint application
- Reduces material use by applying the right amount for each part feature

PD1K

- Single component flow control and colour change for up to 4 independent spray guns

Remote Mix Module

- Saves space and weight for mounting on robots and reciprocators

Communications and Integration

Integrate to PLC

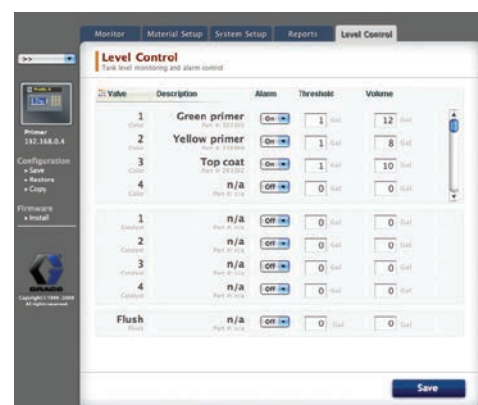
- ProMix PD2K interfaces with wide array of PLC/Robotic controllers through gateways

Gateways

- Choose between ethernet IP, DeviceNet and ProfiBus for network automation
- Reduces installation time with quick plug-and-play set up

Advanced Web Interface

- Set up and monitor your ProMix PD2K system and get reports accessible through corporate intranet
- Perform quick and easy system configuration and recipe set up
- Manages operations more efficiently by networking multiple ProMix 2KS systems to a single PC



Advanced Web Interface screen shot

Return on Investment

Example of Savings

Flush Savings with ProMix PD2K

Compared to Traditional Electronic Proportioners

Cost per Colour Change		Traditional	ProMix PD2K
	Paint Cost at example price of 10€/l	0,68l x 10€ = 6,80€	0,15l x 10€ = 1,5€
	Solvent Cost at example price of 2€/l	3,90l x 2€ = 7,80€	0,57l x 2€ = 1,14€
	Disposal Cost at example price of 1€/l	4,60l x 1€ = 4,60€	0,71l x 1€ = 0,71€
	Total Material Cost	19,20€	3,35€
Total Flush Cost per Day (Total Material Cost x 7 colour changes/day)		134,40€	23,45€
Total Flush Cost per Year (250 working days)		33.600€	5.862€
Flush SAVINGS/year*		27.738€	

Transfer Efficiency Savings with ProMix PD2K

SAVE up to 10% in transfer efficiency with PD2K electronic fluid management

	Traditional	ProMix PD2K
Paint Cost per day (based on 75l/day paint use at 10€/l)	750€	750€ - 10% = 675€
Paint Cost per year (250 working days)	187.500€	168.750€
Transfer Efficiency SAVINGS/year*	18.750€	

*Savings based on 7 colour changes per day and hose length of 15m x 1/4 in diameter

Technical Specifications

Maximum fluid working pressure

MC1000 Air Spray Systems 21 bar (300 psi, 2.1 MPa)

MC2000 Air-Assisted Spray Systems 105 bar (1500 psi, 10.5 MPa)

Maximum working air pressure. 7 bar (100 psi, 0.7 MPa)

Air supply 6 to 7 bar (85 to 100 psi 0.6 to 0.7 MPa)

Air filter inlet size 3/8 npt(f)

Air filtration

Air logic (Graco supplied) minimum of 5 micron clean/dry

Air for atomizing (user supplied) minimum of 30 micron clean/dry

Mix ratio range

Mix module 0.1:1 to 50:1, ± 1%

Fluids handled

One or two component: solvent and waterborne paints; polyurethanes; epoxies; acid catalyzed varnishes; moisture sensitive isocyanates

Viscosity range of fluid 20 to 5000 centipoise

Fluid filtration (user supplied) 100 mesh minimum

Fluid outlet size 1/4 npt(m)

External power supply requirements

90 to 250 Vac, 50/60 Hz. 7 amps maximum draw, 15 amp maximum circuit breaker required, 8 to 14 AWG power supply wire gauge

Operating temperature range 2 to 50°C (36 to 122°F)

Storage temperature range -20 to 70°C (-4 to 158°F)

Weight (approx.) 136 kg (300 lb)

Sound data below 75 dBA

Wetted parts

17-4 PH, 300 series SST, tungsten carbide with nickel binder, PTFE, PPS, perfluoroelastomer, UHMWPE

Manuals

Installation 332457

Operation 332562

Repair parts 3A2800

Pumps 332339

Mix manifold 3A2801

Colour change valves 332454

Colour change kits 332455

3rd and 4th Pump expansion kits 332456

Ordering Information

Build Your System in 4 Easy Steps!

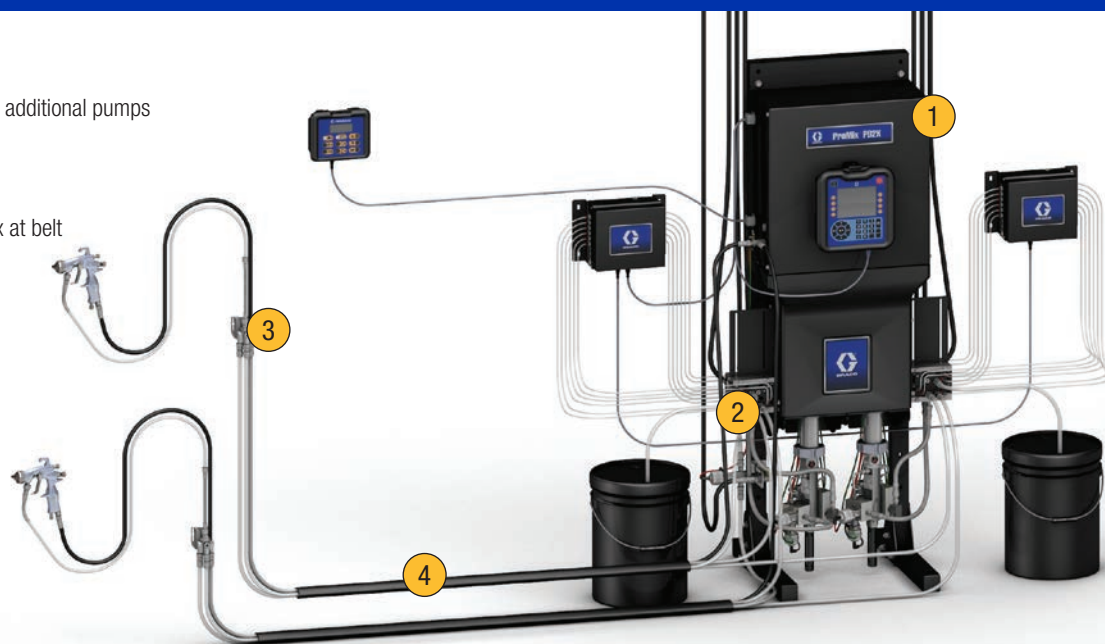
Manual Systems*

- 1 Select air spray or air-assist and any additional pumps
- 2 Select pump colour change
- 3 Select remote mixing or mix at belt
- 4 Select hose bundles if you select mix at belt

**Manual systems using remote mixing must order an additional solvent flow switch kit*

Automatic Systems

- 1 Select air spray or air-assist and any additional pumps
- 2 Select pump colour change
- 3 Select remote mixing



1 Select a ProMix PD2K Main Proportioning Unit

Main PD2K Unit Part No.	Manual	Automatic	Air Spray up to 21 bar (300 psi)	Air-Assist up to 104 bar (1500 psi)	70 cc Resin Pump	35 cc Catalyst Pump	Advanced Display Module with USB	Solvent Valve
MC1000	Standard		•		•	•	•	1
MC1002	Dual Panel		•		•	•	•	2
MC2000	Standard			•	•	•	•	1
MC2002	Dual Panel			•	•	•	•	2
MC0500	Standard		Control Module Only				•	
MC0502	Dual Panel		Control Module Only				•	
AC1000		Standard	•		•		•	
AC1002		Dual Panel	•		•		•	
AC2000		Standard		•	•		•	
AC2002		Dual Panel		•	•		•	
AC0500		Standard	Control Module Only				•	
AC0502		Dual Panel	Control Module Only				•	
MC3000*	Std Acid Catalyst		•		•	•	•	1
MC4000*	Std Acid Catalyst			•	•	•	•	1

**Acid applications only*

PD2K Expansion Pumps

24R968	Air Spray, 70 cc
24R970	Air Spray, 35 cc
24R969	Air-Assist, 70 cc
24R971	Air-Assist, 35 cc

PD1K Expansion Pumps

24V257	Air Spray, 70 cc
24V258	Air-Assist, 70 cc

2 Select Pump Colour Change

	1 Colour Pump Flush	2 Colour / 3 Colour Expansion	4 Colour / 5 Colour Expansion	6 Colour / 7 Colour Expansion	8 Colour / 9 Colour Expansion
Air Spray Non-Circulation	25A239	24Y954	24Y955	24Y956	24Y957
Air Spray Circulation	25A240	24Y958	24Y959	24Y960	24Y961
Air-Assist Non-Circulation	24X318	24R959	24R960	24R961	24R962
Air-Assist Circulation	24X319	24R963	24R964	24R965	24R966
Air-Assist Acid Catalyst	24X320	24T579	24T580	—	—



Air Spray
Colour Change Valve



Air-Assist
Colour Change Valve

3a Remote Mixing

Air Spray Colour Change

Colours	1 Catalyst		2 Catalysts		4 Catalysts	
	Non-Circulation	Circulation	Non-Circulation	Circulation	Non-Circulation	Circulation
1	24V157	24V166				
2	24V158	24V167	24V331	24V336		
4	24V159	24V308	24V332	24V337	24V343	24V347
6	24V160	24V309	24V333	24V338	24V344	24V348
8	24V161	24V326	24V334	24V339	24V345	24V349
12	24V162	24V327	24V335	24V340	24V346	24V350
13-18*	24V163	24V328				
13-24*	24V164	24V329				
13-30*	24V165	24V330				

Manual systems using remote mixing must order an additional solvent flow switch kit (see accessories)

*Expansion kits (use with 1, 2 or 4 catalyst kits)

Air-Assist Colour Change

Colours	1 Catalyst		2 Catalysts		4 Catalysts	
	Non-Circulation	Circulation	Non-Circulation	Circulation	Non-Circulation	Circulation
1	24V359	24V369				
2	24V360	24V370	24V381	24V389		
4	24V361	24V371	24V382	24V390	24V396	24V402
6	24V362	24V372	24V383	24V391	24V397	24V403
8	24V363	24V373	24V384	24V392	24V398	24V404
12	24V364	24V374	24V385	24V393	24V399	24V405
13-18*	24V365	24V375				
13-24*	24V366	24V376				
13-30*	24V367	24V377				

Manual systems using remote mixing must order an additional solvent flow switch kit (see accessories)

*Expansion kits (use with 1, 2 or 4 catalyst kits)

OR

3b Mix at Belt

Select Mix Module

one per Colour

Module	Part No.
Air Spray Module	24R991
Air-Assist Module	24R992
Air-Assist Acid	24T273

Whip Hose

Hose between Static Mixer and gun

Whip Hose	Part No.
1/8 in Air Spray/Air-Assist Fluid - 1,8m / 6ft	236135
1/8 in Air Spray/Air-Assist Fluid - 0,9m / 3 ft	236134
1/4 in Air Spray Fluid - 1,8m / 6ft	24N305
1/4 in Air-Assist Fluid - 1,8m / 6ft	H52506
1/4 in Air Spray/Air-Assist Fluid - 0,9m / 3 ft	H52503
5/16 in Air Whip Hose - for conventional air spray use	16F537

Quick Disconnect

(if needed)

Quick Disconnect	Part No.
Air, Electrostatic	24S004
Fluid	24T873

4 Select One Hose Bundle per Colour (Only for Mix at Belt)

Bundle includes: 1/4 in resin hose; 1/4 in catalyst hose; 1/4 in solvent hose; air hose

Hose Bundle	7m (25 ft)	15m (50 ft)
Air Spray	24T140	24T141
Air Spray Electrostatic	24T138	24T139
Air Assist	24T247	24T248
Air-Assist Electrostatic	24T245	24T246

Separate Hoses	7m (25 ft)	15m (50 ft)
Air Spray 3/8 inch Fluid Hose	24T763	24T764

Accessories

Other Items	Part No.
Gun Air Shut Off Kit	15V823
Cable, 30m (100 ft) CAN, Booth Control	16V430
Solvent Meter Kit	16D329
Bracket, Belt	16W557
Gun Flush Box Kit	15V826
Solvent Flow Switch Kit	24T787*
Manual to Automatic Conversion Kit	24T803

*Manual systems using remote mixing must order an additional solvent flow switch kit

Communication Kits	Part No.
Advanced Web Interface	15V337**
Modbus Gateway	24R910**
Ethernet I/P Gateway	15V331
DeviceNet Gateway	15V963
Profibus Gateway	15V964

**Manual systems require Modbus Gateway to work with Advanced Web Interface



ABOUT GRACO

Founded in 1926, Graco is a world leader in fluid handling systems and components. Graco products move, measure, control, dispense and apply a wide range of fluids and viscous materials used in vehicle lubrication, commercial and industrial settings.

The company's success is based on its unwavering commitment to technical excellence, world-class manufacturing and unparalleled customer service. Working closely with qualified distributors, Graco offers systems, products and technology that set the quality standard in a wide range of fluid handling solutions. Graco provides equipment for spray finishing, protective coating, paint circulation, lubrication, and dispensing sealants and adhesives, along with power application equipment for the contractor industry. Graco's ongoing investment in fluid management and control will continue to provide innovative solutions to a diverse global market.

GRACO LOCATIONS

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Graco is certified ISO 9001.

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