

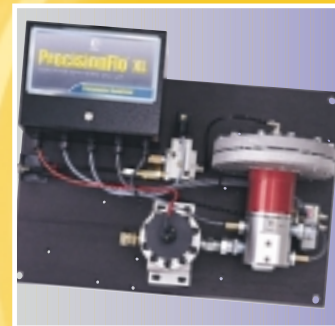


PRECISIONFLO™ XL

electronically controlled fluid metering system



*Precision metering and
dispensing systems for
Sealants and Adhesives*



Precision Metering Systems that reduce

PRECISIONFLO XL EASYKEY SCREEN



Graco's new PrecisionFlo XL is an electronically controlled fluid metering system that provides precise and reliable closed-loop metering and dispensing of sealants and adhesives for automotive and industrial applications.

PrecisionFlo XL *features & benefits*

Key APPLICATIONS

- Gasketing
- Seam Sealing
- Hem Flange
- Sound Deadening
- Body Panel Reinforcement

Key INDUSTRIES

- Automotive
 - Metal Stamping, Body Shop, Paint Shop and Trim Shop
- Transportation
- Marine
- Appliance
- Window and Door
- Fabricated Metal

SAVES MONEY

- ▶ Minimizes material usage (squeeze-out and overspray) and manual touch-up (rework)
- ▶ Improved efficiency decreases manufacturing costs, reduces labor requirements, improves product quality and accelerates cycle times
- ▶ Long-life fluid components mean lower maintenance costs, less rebuilds and repairs

EASY-TO-USE

- ▶ Self-tuning of variables simplifies set-up and reduces start-up and training time
- ▶ Simplified user interfaces - Standard "EasyKey" and Advanced "Color Touch Screen"
- ▶ System diagnostics and troubleshooting

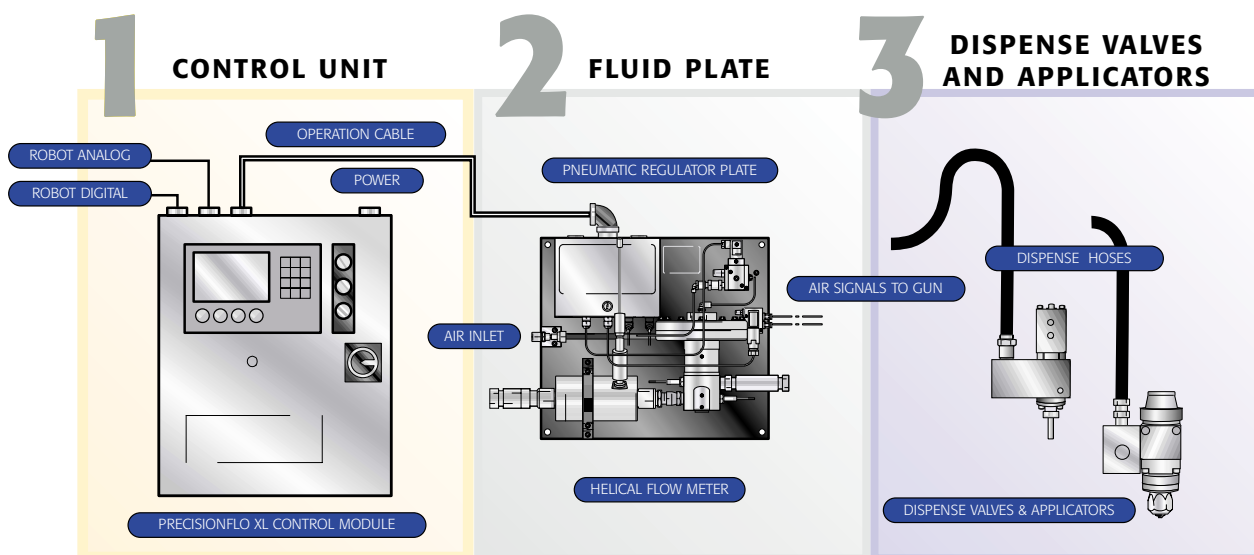
SUPERIOR PERFORMANCE

- ▶ Closed-loop "real time" control on pressure and flow ensures improved part quality and reduced material consumption
- ▶ Continuous flow metering for flexible manufacturing processes that require high cycle rates
- ▶ Fast and accurate for repeatable, precision bead dispense and control
- ▶ Fully integrated accessory controls – The PrecisionFlo XL controller controls the PrecisionSwirl and temperature conditioning systems

material usage and improve quality

SYSTEM Configuration

PrecisionFlo XL System Configuration



SOUND DEADENING

For low-pressure application of water-based or epoxy-based, spray-applied sound deadener for NHV reduction, you can count on PrecisionFlo XL. It eliminates masking and mastic die-cuts to provide weight and cost reduction and allow for greater surface coverage. Easily reprogram the PrecisionFlo XL for style changes.



SYSTEM Modules

1

CONTROL Unit

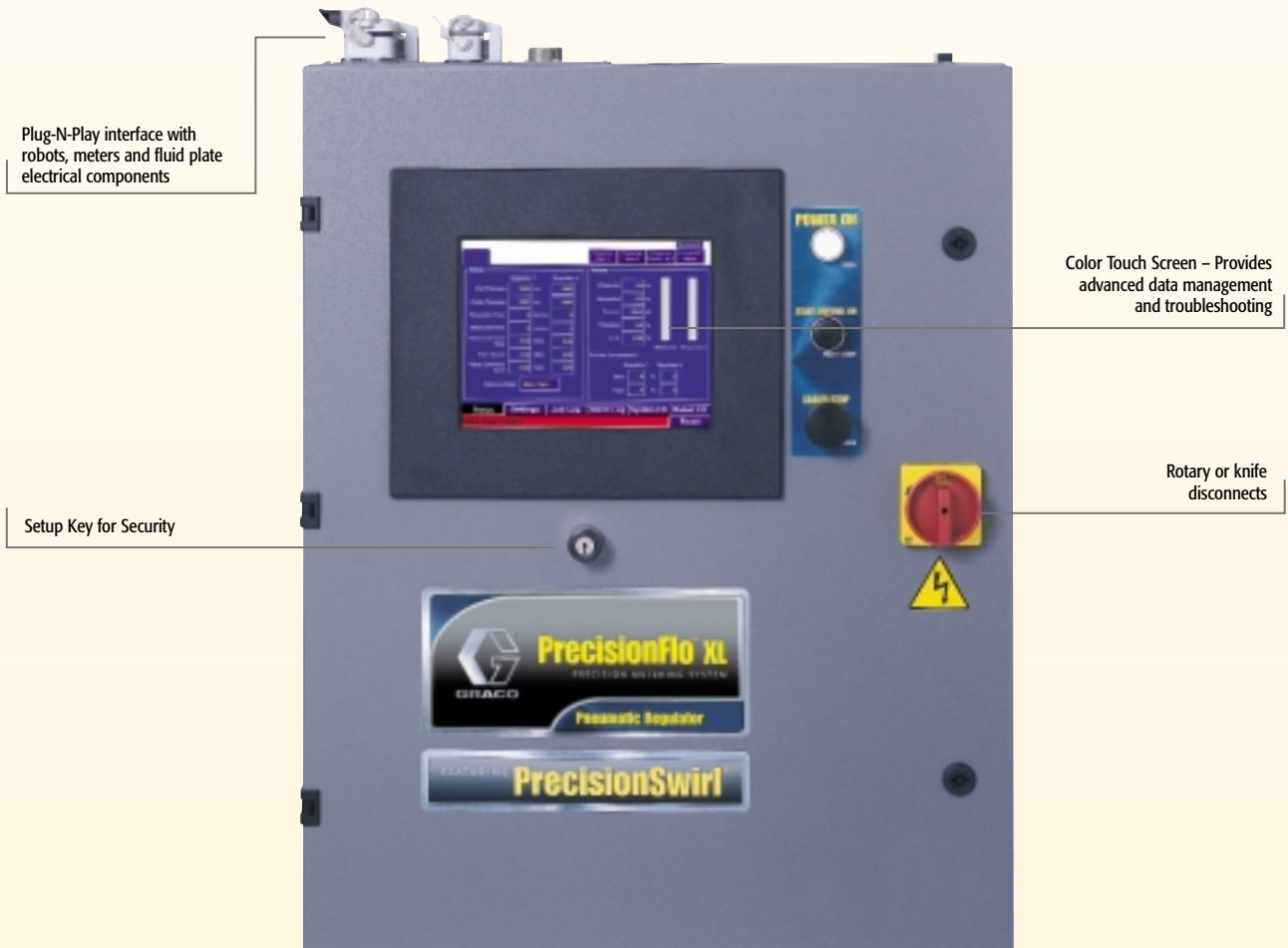
Control Unit

- ▶ Continuous volume optimization for precise and repeatable bead control
- ▶ "Real Time" closed-loop control on pressure and flow
- ▶ Choice of EasyKey Pad or Touch Screen Interface
- ▶ Self tuning of variables simplifies set-up and reduces start-up time
- ▶ Able to operate 2 pneumatic regulator plates
- ▶ Remote screen and enclosure option
- ▶ Global language capability - 8 languages
- ▶ Approved by ETL, ETLc and CE; TE 9000 qualified



PrecisionFlo XL Key Pad

Graco's standard "EasyKey" user interface offers multiple languages, and the lowest cost for



FLEXIBLE



EasyKey Pad – Provides user friendly menu navigation and data input

offers easy navigation and self-tuning, for a high degree of reliability.

TEMPERATURE Conditioning Unit Option

- ▶ Maintains material at constant temperature to minimize viscosity changes that may affect bead consistency
- ▶ Integrated Temperature Conditioning controls
- ▶ Water Heat/Cool, Water Heat only and Electric Heat options



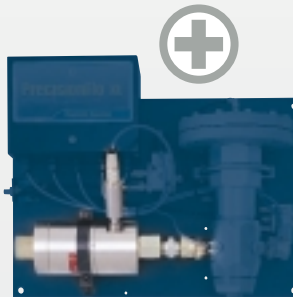
2 FLUID Plates

FEATURES AND BENEFITS

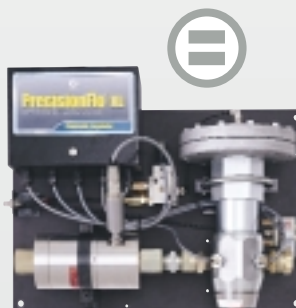
- Compact module size for robot or XY gantry mounting
- 7 Different pneumatic or electric fluid regulating options
- 3 Flow meter options
- Regulated pressures to 5,000 psi (345 bar, 34.5 MPa)
- Components designed for filled, abrasive and fragile material handling



PNEUMATIC REGULATOR



HELICAL GEAR FLOW METER



PNEUMATIC FLUID PLATE WITH FLOW CONTROL

Regulators

Pneumatic Regulators

- ▶ Fast acting 20-50 msec regulator response time for excellent performance
- ▶ Low or Med/High viscosity

Electric Regulators



- ▶ Fast acting 5-10 msec regulator response time for superior performance and reliability
- ▶ Precision bead control
- ▶ Reliable linear motor controlling a tapered needle and seat
- ▶ Low or Med/High viscosity

Flow Meters

The PrecisionFlo XL has 3 meter options to maximize material compatibility and performance at high or low flow rates

- ▶ Low cost spur gear meter (G3000) suitable for low viscosity materials
- ▶ Standard helical gear meter (SRZ-40) suitable for medium/high viscosity materials
- ▶ Non-intrusive mass flow meter (Coriolis) suitable for abrasive or corrosive materials

SYSTEM Modules

3

APPLICATORS AND Dispense Valves

Use Graco's standard application devices, tips and nozzles with PrecisionFlo XL to enhance your dispensing performance. Graco's low cost, lightweight applicators are designed for high performance, long life, flexible mounting and ease of use.

Dispense Valves

AutoPlus™



Compact Design
Ambient & TC
Stream or Spray
Fixed Mount Manifold
Low Cost Solution

1K Ultra-Lite™



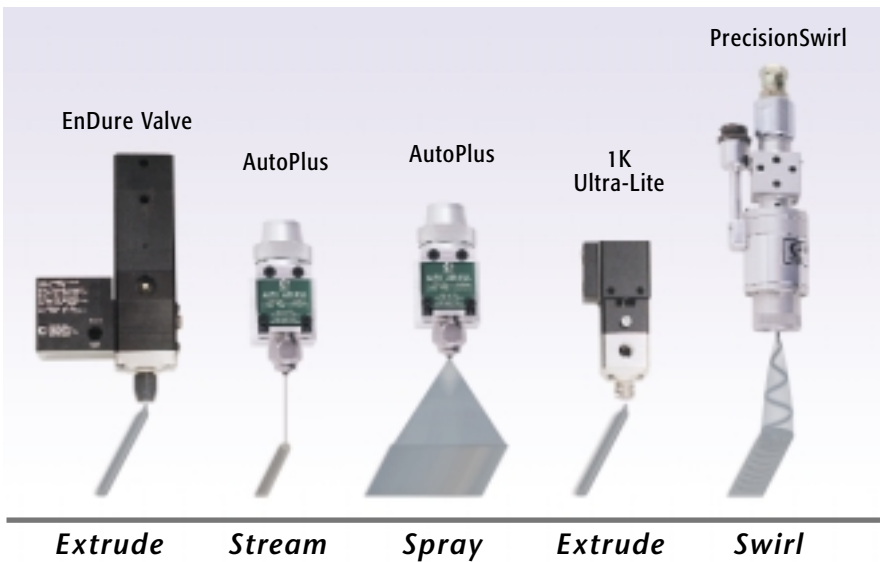
Snuff-Back
Ambient only
Extrude, Swirl

EnDure™



High Pressure, High Flow Snuff-Back
Ambient, T/C or Electric Heat
Stream, Extrude, Swirl
Fixed-mount Manifold

Applicators



PrecisionSwirl

PrecisionSwirl™

- ▶ Innovative orbital applicator
- ▶ High efficiency transfer of sealant or adhesive to the part surface
- ▶ Provides precise control and repeatable bead profiles
- ▶ Adjustable speed and flow rate for varying bead patterns
- ▶ Long stand-off distance simplifies robot programming
- ▶ Long life, high performance components for reliable operation under demanding use

Extrude

Stream

Spray

Extrude

Swirl

COMPREHENSIVE Data Management



PrecisionFlo XL stores critical information for each part processed. Archived and easy-to-retrieve production records of each dispense cycle guarantee part-by-part quality conformance and audit trails.

Production Reporting

The PrecisionFlo XL database stores job results so you can easily view the data on-screen, download to a network connection (EtherNet) or export data to a PC.

Fault Reporting

Fault history is also automatically archived and stored. This information can easily be transported over a network then imported into a spreadsheet or other software for analysis. Use this information for SPC analysis, productive maintenance, process downtime reduction and quality assurance recordkeeping.



EASY INTEGRATION

The modular design of PrecisionFlo XL facilitates integration into new or existing plants with design center or integrator configured packages. The compact metering module is easily mounted into flexible automation workcells. With flexible electronic controls, PrecisionFlo XL can be integrated using discreet I/O or industry-standard network communication protocols, including, ControlNet, DeviceNet, Interbus and Profibus-DP.

PRECISIONFLO XL RETURN ON INVESTMENT (ROI)

Use this exclusive ROI analysis tool to see how much you can save with a Graco PrecisionFlo XL.

Material Savings (Sealant and adhesive costs)

Product price per pound	X	\$/Lb.
Pounds used per day	X	Lbs.
Business days per month	X	21
Typical savings (or enter a percent)	X	40%
Monthly product savings	=	\$

Labor Savings (Manual touch-up, clean-up, rework)

Labor rate per hour	X	\$/Hr.
Labor hours per day	X	Hrs.
Business days per month	X	21
Typical savings (or enter a percent)	X	40%
Monthly labor savings	=	\$

Maintenance Savings (Rebuild and repair)

Labor rate per hour	X	\$/Hr.
Labor hours per day	X	Hrs.
Business days per month	X	21
Typical savings (or enter a percent)	X	40%
Monthly maintenance savings	=	\$

Total Monthly Savings \$

ABOUT GRACO

PROVEN QUALITY. LEADING TECHNOLOGY.

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 which 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.

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