PR70. Performance You Can Trust

Reliable meter, mix and dispense systems
Graco PR70™ Meter, Mix and Dispense Systems offer superior accuracy for a broad range of applications including bonding and sealing, potting, gasketing, encapsulation and syringe filling.

Handles most two-component materials
- Stainless steel design reduces the chance of a material incompatibility
- Positive displacement pumps deliver ratio accuracy to ±1%
- Linear transducer monitors piston velocity to provide ratio assurance, and reduce scrap and re-work
- Single stroke shot size ranges from 2 to 70 cc’s
- Ratio range from 1:1 to 24:1, with a 2-to-1 adjustment using the PR70v

Rugged, reliable and durable
- Long-lasting wear parts mean lower cost of ownership
- Cast pump bodies for improved seal alignment
- Chromex™ shafts and Severe Duty™ cylinders combined with stainless steel fittings provide long pump life with no corrosion
- Shaft seals designed for extended life and easy replacement
- Preventive maintenance counter to plan system rebuilds around your production schedule
- Linear thrust bearings eliminate side loading to maximize seal life and performance

Ease of operation and less downtime
- Standard electronic controls allow for digital shot entry in grams (excludes PR70e)
- Built-in, easy to set up purge timer keeps system up and production running (excludes PR70e)
- Graco Control Architecture modules, with built-in diagnostics allow for quick troubleshooting
- Modular design eliminates point-to-point wiring – a quick board change-out gets your system up and running

Key industries
- Product assembly
- Automotive components
- Automotive electronics
- Consumer electronics
- Medical
- Sporting goods
- Appliance
Graco reliability. Industry-proven accuracy. Intuitive design.

The PR70 fixed ratio system accurately meters, mixes and dispenses two-component medium to low-viscosity materials for potting, gasketing, sealing, encapsulation and syringe filling. For variable ratio dispensing, the PR70v handles ratios from 1:1 to 24:1 and offers even more control with an optional Advanced Display Module. Further options include the PR70f (flow control) and PR70 Servo for bead applications.

**Multiple Feed Systems**
- A variety of feed package options are available:
  - Polyethylene tanks
  - Stainless steel tanks
  - Off-board tanks for high-volume applications and reduced material refills
  - Accumulators for high-viscosity materials

**MD2 Valve**
- High-pressure accuracy with multiple seat styles and adjustable snuffback for clean, precise dispensing

**Intuitive User Interface**
- Digital shot size entry, machine monitoring and feedback for total control

**Fluid Control Module**
- Offers a simplified wiring system and board-level diagnostics
- Modular approach is easier to operate, easier to maintain

**Configuration Options**
- Flow Control
- Servo motor
- Variable ratio

**Proven Ratio Accuracy**
- Multiple pump sizes available to provide multiple target ratios. Also delivers shot accuracies to ±1%

**Long-Life Design**
- Optimized pump support, seal design, and Chromex rods provide twice the life of other systems

**Compact Benchtop Unit**
- Stable, strong machine base for secure installation
- Small footprint saves valuable space
Easy to use, entry-level system.

If you are looking for a basic meter, mix and dispense system, the PR70e is the ideal model for you. It offers reliable and accurate performance, yet at a lower initial investment than other PR70 models.

**Multiple Feed Systems**
A variety of feed package options are available:
- Polyethylene tanks
- Stainless steel tanks
- Off-board tanks for high-volume applications and reduced material refills

**MD2 Valve**
- High-pressure accuracy with multiple seat styles and adjustable snubback for clean, precise dispensing

**Compact Benchtop Unit**
- Stable, strong machine base for secure installation
- Small footprint saves valuable space

**Local Control Module (LCM)**
- Digital shot size entry

**Proven Ratio Accuracy**
- Multiple pump sizes available to provide multiple target ratios. Also delivers shot accuracies to ±1%

**Long-Life Design**
- Optimized pump support, seal design, and Chromex rods provide twice the life of existing systems
Graco Control Architecture

PR70 Dispense Systems (excluding PR70e) feature intuitive user interfaces based on the Graco Control Architecture, a modular system of processing and control components. Products using the Graco Control Architecture provide similar interface functionality across your plant and simplify training. Maintenance and service is easier too, thanks to built-in troubleshooting tools and simple, modular part replacement.

Advanced Display Module

When you upgrade to the Advanced Display Module, you gain extra capabilities that allow you to accomplish more in your production area. The Advanced Display Module enables expanded features including:

- Recirculation capability
- Programmable shot sizes and sequencing – up to 50 different shot sizes and seven sequences
- Integrated heater control
- Large, bright color screen makes the system easier to see and use
- Key pad entry makes it easy to program and reduces operator training time

Local Control Module (PR70e only)

- Simple system electronic controls with diagnostics
- LCD graphical interface saves time by enabling accurate shot size programming
- Automatic alarms notify you when pumps need attention

Operation Screen

Shot size is displayed as a percentage of stroke length, duration of shot and progress bar.

Maintenance Mode Screen

Allows trouble shooting and easy maintenance through manual operation of system
## Technical specifications

<table>
<thead>
<tr>
<th>System</th>
<th>Configured system?</th>
<th>PR70e with LCM</th>
<th>PR70 with DM</th>
<th>PR70 with ADM</th>
<th>PR70v with ADM</th>
<th>PR70f with ADM</th>
<th>PR70s with Servo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratios</td>
<td></td>
<td>1:1 to 12:1</td>
<td>1:1 to 12:1</td>
<td>NA</td>
<td>1:1 to 12:1</td>
<td>1:1 to 24:1</td>
<td>1:1 to 24:1</td>
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<tr>
<td>Fixed Ratio</td>
<td></td>
<td>1:1 to 12:1</td>
<td>1:1 to 12:1</td>
<td>NA</td>
<td>1:1 to 12:1</td>
<td>1:1 to 24:1</td>
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<tr>
<td>Variable Ratio</td>
<td></td>
<td>NA</td>
<td>NA</td>
<td>1:1 to 24:1</td>
<td>1:1 to 24:1</td>
<td>1:1 to 24:1</td>
<td>1:1 to 24:1</td>
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<tr>
<td>Shots</td>
<td></td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>10</td>
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<tr>
<td>Number of shots</td>
<td></td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>10</td>
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<tr>
<td>Based on Percentage of stroke</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Weight Based Shots</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>Multi-stroke shots (over 100%)</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Shot Sequencing</td>
<td>No</td>
<td>Optional</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Monitoring</td>
<td></td>
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<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
<td>Optional</td>
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<tr>
<td>Pressure Monitoring</td>
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<td>Optional</td>
<td>Optional</td>
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<tr>
<td>Local Control Module (LCM)</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
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<tr>
<td>Display Module (DM)</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>Yes</td>
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<td>Advanced Display Module (ADM)</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Gel Timer</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Run with Automation (PLC)</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>USB Download</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Data Controls</td>
<td></td>
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<td>Light Tower</td>
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<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Flow Control</td>
<td></td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>Flow Range*</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<td>0.014-226</td>
<td>0-47</td>
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<td>PLC Flow Selections</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<td>Infinite</td>
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<tr>
<td>Flow Control</td>
<td></td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Bead Control</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Snake-Head Control</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Pump Re-Loading Capability</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Bead/Dispense Pausing</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Remote Analog Flow Control</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

* Flow ranges are in cc/second. Be sure to choose proper pump sizes to achieve desired flow rate.

### Accessories and configurations — Available for all models except where noted below.

#### Valves
- 1:1 MD2 Valve: Optional, Optional
- 10:1 MD2 Valve: Optional, Optional

#### Hose options
- 2.5 ft (76 cm), 10 ft (3 m), 15 ft (4.6 m): Accessory, Optional

#### Tanks, Accumulators, Heated Equipment, Accessories
- Plastic Tanks: Accessory, Optional
- On-Board Stainless Steel Tanks: Accessory, Optional
- 1-1/2 NPT Flange Kit for bulk feed: Accessory, Optional
- Off-Board Stainless Steel Tanks: Accessory, Optional
- Heated Tanks: No, Optional
- Agitation: Accessory, Optional
- Tank Level Sensors Low: No, Optional
- Tank Level Sensors High: No, No
- Accumulators: No, No
- Auto Refill: No, No
- Mixers & Shrouds: Accessory, Optional
- Valve Mounting: Accessory, Optional
- Heated Hoses: No, No
- Recirculation: No, No

Optional items can be selected from the configurator and are factory installed.

Accessories are ordered when you order the machine, but you assemble it onto the machine at your location.
### Technical Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Metering Pump Effective Area</strong></td>
<td>0.124 – 1.49 in² (80 – 960 mm²) per side</td>
</tr>
<tr>
<td><strong>Small Air Cylinder Effective Area</strong></td>
<td>7.07 in² (4560 mm²)</td>
</tr>
<tr>
<td><strong>Large Air Cylinder Effective Area</strong></td>
<td>15.9 in² (10260 mm²)</td>
</tr>
<tr>
<td><strong>Maximum Stroke Length</strong></td>
<td>1.50 in (38.1 mm)</td>
</tr>
<tr>
<td><strong>Minimum Stroke Length</strong></td>
<td>0.23 in (5.8 mm)</td>
</tr>
<tr>
<td><strong>Volume per Cycle</strong></td>
<td>0.12 – 4.3 in³ (2 – 70 cc)</td>
</tr>
<tr>
<td><strong>Pump Cycles per 1L (.26 gal)</strong></td>
<td>500 – 14.3</td>
</tr>
<tr>
<td><strong>Ratios (fixed)</strong></td>
<td>1:1 to 12:1 depending on cylinders selected</td>
</tr>
<tr>
<td><strong>Ratios (variable)</strong></td>
<td>1:1 to 24:1 depending on cylinders selected</td>
</tr>
<tr>
<td><strong>Maximum Fluid Working Pressure</strong></td>
<td>3000 psi (207 bar, 20.7 MPa)</td>
</tr>
<tr>
<td><strong>Maximum Air Input Pressure</strong></td>
<td>100 psi (7 bar, 0.7 MPa)</td>
</tr>
<tr>
<td><strong>Maximum Cycle Rate</strong></td>
<td>30 cpm</td>
</tr>
<tr>
<td><strong>Maximum Operating Temperature</strong></td>
<td>70° C (160° F) nylon pistons, 50° C (120° F) UHMWPE pistons or PE tanks</td>
</tr>
<tr>
<td><strong>Air Inlet Size</strong></td>
<td>1/4 NPT(f)</td>
</tr>
<tr>
<td><strong>Pump Fluid Outlet Size</strong></td>
<td>-03, -04, -06, -08 or -12 JIC fittings for 3/16 in (4.8 mm), 1/4 in (6.4 mm), 3/8 in (9.5 mm), 1/2 in (12.7 mm), 3/4 in (19.1 mm) hoses</td>
</tr>
<tr>
<td><strong>Wetted Parts</strong></td>
<td>303/304, 17-4 PH, hard chrome, Chromex™, carbide, chemical resistant O-rings, PTFE, nylon, UHMWPE</td>
</tr>
<tr>
<td><strong>Weight – PR70</strong></td>
<td>120 lb (55 kg) typical with two 7.5 l tanks, 330 lb (150 kg) typical with two 60 l tanks</td>
</tr>
<tr>
<td><strong>Weight – PR70v</strong></td>
<td>160 lb (73 kg) typical with two 7.5 l tanks, 370 lb (168 kg) typical with two 60 l tanks</td>
</tr>
<tr>
<td><strong>Weight – PR70e</strong></td>
<td>100 lb (46 kg) typical without tanks</td>
</tr>
<tr>
<td><strong>Compressed Air</strong></td>
<td>&lt; 10 scfm typical (varies with cycle time)</td>
</tr>
<tr>
<td><strong>Electrical Power</strong></td>
<td>100-240V 50/60Hz 1 phase for machine – 80 watts, 208-240V 50/60Hz 1 phase for heat – 10 kW max, 120 or 240V 50/60Hz 1 phase for on-board agitators</td>
</tr>
</tbody>
</table>

**Instruction Manuals**
- PR70 with Display Module Operation & Maintenance: 312393
- PR70 Models with Advanced Display Module: 312759
- Repair and Parts: 312760
- Feed System: 312394
- PR70v Integrated Heat: 312761
- PR70e Operation & Maintenance: 334135
- MD2 Valve Instructions and Parts: 312185

*PR70 machines and complete configured packages carry the CE mark.*
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 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.

Call today for product information or to request a demonstration. 800-746-1334 or visit us at www.graco.com.

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