PR70™

Meter, Mix and Dispense Systems

PROVEN QUALITY. LEADING TECHNOLOGY.

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

Technology You Can Count On

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

Compact Benchtop Unit

- Stable, strong machine base for secure installation
- Small footprint saves valuable space

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

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

Configuration Options

- Flow Control
- Servo motor
- Variable ratio

PR70e. Reliable Dispensing at an Affordable Price

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 snuffback 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 Imultiple 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

Superior Tracking and Monitoring Capabilities

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:

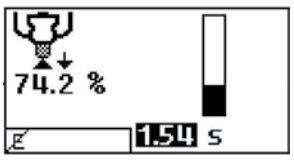
- Recirculation capability
- Programmable shot sizes and sequencing – up to 50 different shot sizes and seven sequences
- Integrated heater control
- Large, bright color screen makes the system easier to see and use
- Key pad entry makes it easy to program and reduces operator training time

Recirc Mode option prevents materials from setting overnight

Set-up screen gives users easy access heat options

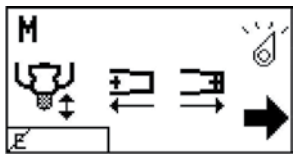
Local Control Module (PR70e only)

- 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

		PR70e with LCM	PR70 with DM	PR70 with ADM	PR70v with ADM	PR70f with ADM	PR70s with Servo
System	Configured system?	No	Yes	Yes	Yes	No	No
Ratios	Fixed Ratio	1:1 to 12:1	1:1 to 12:1	1:1 to 12:1	NA	1:1 to 12:1	1:1 to 12:1
	Variable Ratio	NA	NA	NA	1:1 to 24:1	1:1 to 24:1	1:1 to 24:1
Shots	Number of shots	1	5	50	50	50	10
	Based on Percentage of stroke	Yes	No	No	No	No	No
	Weight Based Shots	No	Yes	Yes	Yes	Yes	No
	Multi-stroke shots (over 100%)	No	Yes	Yes	Yes	Yes	Yes
	Shot Sequencing	No	Optional	Yes	Yes	Yes	No
Monitoring	Pressure Monitoring	No	Optional	Optional	Optional	Optional	Optional
	Ratio Monitoring	No	Optional	Optional	Optional	Optional	No
Data Controls	Local Control Module (LCM)	Yes	No	No	No	No	No
	Display Module (DM)	No	Yes	No	No	No	No
	Advanced Display Module (ADM)	No	Optional	Yes	Yes	Yes	No
	Gel Timer	No	Yes	Yes	Yes	Yes	Yes
	Run with Automation (PLC)	No	Yes	Yes	Yes	Yes	Yes
	USB Download	No	Optional	Yes	Yes	Yes	Optional
	Light Tower	No	No	Optional	Optional	Optional	Optional
Flow Control	Flow Control	No	No	No	No	Yes	Yes
	Flow Range*	N/A	N/A	N/A	N/A	0.014-226	0-47
	PLC Flow Selections	N/A	N/A	N/A	N/A	15	Infinite
	Bead Control	No	No	No	No	Yes	Yes
	Snake-Head Control	No	No	No	No	Yes	Yes
	Pump Re-Loading Capability	No	No	No	No	Yes	Yes
	Bead/Dispense Pausing	No	No	No	No	Yes	Yes
	Remote Analog Flow Control	No	No	No	No	No	Yes

** 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	*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.*
	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	

Technical Specifications

Metering Pump Effective Area	0.124 – 1.49 in^2 (80 – 960 mm^2) per side
Small Air Cylinder Effective Area	7.07 in^2 (4560 mm^2)
Large Air Cylinder Effective Area	15.9 in^2 (10260 mm^2)
Maximum Stroke Length	1.50 in (38.1 mm)
Minimum Stroke Length	0.23 in (5.8 mm)
Volume per Cycle	0.12 – 4.3 in^3 (2 – 70 cc)
Pump Cycles per 1L (.26 gal)	500 – 14.3
Ratios (fixed)	1:1 to 12:1 depending on cylinders selected
Ratios (variable)	1:1 to 24:1 depending on cylinders selected
Maximum Fluid Working Pressure	3000 psi (207 bar, 20.7 MPa)
Maximum Air Input Pressure	100 psi (7 bar, 0.7 MPa)
Maximum Cycle Rate	30 cpm
Maximum Operating Temperature	70° C (160° F) nylon pistons 50° C (120° F) UHMWPE pistons or PE tanks
Air Inlet Size	1/4 NPT(f)
Pump Fluid Outlet Size	-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
Wetted Parts	303/304, 17-4 PH, hard chrome, Chromex™, carbide, chemical resistant O-rings, PTFE, nylon, UHMWPE
Weight – PR70	120 lb (55 kg) typical with two 7.5 l tanks 330 lb (150 kg) typical with two 60 l tanks
Weight – PR70v	160 lb (73 kg) typical with two 7.5 l tanks 370 lb (168 kg) typical with two 60 l tanks
Weight – PR70e	100 lb (46 kg) typical without tanks
Compressed Air	< 10 scfm typical (varies with cycle time)
Electrical Power	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

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.