HFR Metering System
Hydraulic Fixed Ratio Metering System
### The rules have changed

The versatility of the Graco HFR Metering System™ promises to re-define the marketplace. That’s because this hydraulic, fixed ratio metering system processes multiple materials – from rigid and flexible polyurethanes to elastomers and epoxies. And its modular design, combined with Graco technologies and precision dispensing capabilities give you a system that is advanced and reliable, yet affordable.

### Accurate, on-ratio dispense means less waste, more profits

With the Graco HFR Metering System, you accurately hit a specific ratio and volume – first time, every time. As the machine dispenses material, it automatically fine-tunes and adjusts to achieve a consistent material flow or pressure. With a ±1% ratio accuracy, you reduce scrap and rework with accurate, on-ratio dispensing.

### More technology for less capital investment

The Graco HFR Metering System is a high-quality meter, mix and dispense system that offers more technology and functionality – at a lower price than traditional custom RIM systems. A low initial investment allows you to participate in the marketplace where it may not have been possible before.

### You benefit from a lower total cost of ownership

The system’s horizontal pumps can be rebuilt at your facility, eliminating costly rebuilds and the need for backup pumps. Less downtime, reduced maintenance costs, and lower parts inventory mean more profits for our company.

### Materials

<table>
<thead>
<tr>
<th>Handles multiple materials including:</th>
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<tbody>
<tr>
<td>• Polyurethane foams</td>
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<tr>
<td>• Polyurethane elastomers</td>
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<tr>
<td>• Epoxies</td>
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<tr>
<td>• Silicones</td>
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<tr>
<td>• Polyureas</td>
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<td>• Soft filled materials</td>
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</table>

### Applications

<table>
<thead>
<tr>
<th>Low viscosity application such as:</th>
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<tbody>
<tr>
<td>• Batch processing</td>
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<tr>
<td>• Potting</td>
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<tr>
<td>• Encapsulating</td>
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<td>• Vacuum infusion</td>
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</table>
Graco HFR Metering System

Fully configurable – simply select what you need for your material and application

Modular design gives you exactly what you need

A modular design gives you the freedom and flexibility to configure the components that are essential for your specific application requirements – no more, no less. Standard configured equipment can be delivered to your door much faster than a custom solution. Plus it’s easier to use and service than custom equipment because you use standard parts. And with Graco’s established global distribution network, service is there when you need it.
Technology that Boosts Productivity

Easy set-up, material monitoring capabilities and advanced dispensing technology

Intuitive, easy to use controls

The Graco HFR Metering System features intuitive user interfaces based on the Graco Control Architecture™, a modular system of processing and control components. Products using 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.

The Advanced Display Module is easy to understand and operate. Because it’s easy to use, you spend less time on training and reduce operator error as well. The Advanced Display Module provides:

- Programmable shot sizes and sequencing – up to 100 different shot sizes and five sequences of 20 positions each
- Easy configuration of integrated temperature controls
- Immediate access to error/event history
- Material usage and pump cycle counter
- Simple interface for machine calibration

Integrated USB interface for easy data downloads

- Lets you download process data and error/event logs onto a flash drive for further analysis
- Allows you to archive valuable setup parameters

Improved process performance

Material dispensing reaches a new level of precision due to proprietary algorithms and adaptive technology. The Graco Metering System uses advanced controls to monitor the system and control the dispensing and material conditioning processes. The system is capable of producing either a constant pressure material output or a constant flow rate material output.
Technical Specifications

Dimensions.................................................................................................................................. 48W x 59H x 34D in (122 x 150 x 86 cm)
Mix ratio range ............................................................................................................................ Fixed ratio, 1:1 to 16:1, shot to continuous flow
Ratio tolerance range .................................................................................................................. Up to ±1%
Fluid filtration .............................................................................................................................. 20 mesh standard
Flow rates
  Minimum ................................................................................................................................. 0.12 gpm (7.5 cc/s)
  Maximum ................................................................................................................................. 5.0 gpm (316 cc/s)
Fluid inlets without feed kits ................................................................................................... 3/4 npt
Max. mixed fluid working pressure ......................................................................................... 3000 psi (207 bar, 20.7 MPa)
Min. pump inlet fluid pressure ................................................................................................. 50 psig (0.3 bar, 0.03 MPa)
Max. ambient temperature ........................................................................................................ 120°F (49°C)
Weight
  Base machine ........................................................................................................................... 634 lb (287.6 kg)
  Fully configured ...................................................................................................................... 868 lb (393.7 kg)
Fluid viscosity range .................................................................................................................. up to 30,000 cps
Wetted parts
  Pumps (A and B) ...................................................................................................................... Stainless steel, PTFE, UHMWPE, tungsten carbide
  Manifold ................................................................................................................................. Aluminum or stainless steel
  Applicator ............................................................................................................................... Varies based on applicator chosen; see applicator manual
  Primary heaters ...................................................................................................................... Aluminum, carbon steel
Since 1998, EnDiSys has provided customer-driven solutions to fluid delivery challenges in an ever-changing market. As products become increasingly high tech, and adhesives replace fasteners, EnDiSys consistently invests in research and development to maintain their position as an industry leader for spray and pumping equipment, and other fluid delivery systems. Whether their products are used for coating chewing gum tablets in Bangkok, Thailand, evacuating 250-gallon bins of caramel at a Pennsylvania food processing plant, or striping roads on Minnesota highways, EnDiSys is meeting the demand for quality fluid delivery systems.

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Call today for product information or to request a demonstration.

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