PGM Metering System

Precision Gear Metering Dispense System for Sealants and Adhesives

Provides precise metering and ultimate control for smooth, consistent bead and ribbon dispensing

• Provides high flow rates with high-viscosity hot melt materials
• Offers precise starts and stops
• Touch-screen controls are easy to use, easy to integrate
Graco PGM Metering System

Boost productivity with superior bead control and high flow rates

The rules have changed

The Graco PGM Metering System™ provides precise metering and ultimate control for delivering smooth, consistent bead dispense. Precision dispense combined with high flow rates – even with high viscosity materials – means you can dramatically improve production rates and ROI within your operation.

Bead control saves material costs

Gear meters are used to control bead dispense where application control is most critical. The PGM offers precise starting and stopping, minimizing “stringers” and “snakeheads.” Precision dispense means less wasted material and savings on material costs. It also means less scrap and fewer wasted parts.

Machine-mountable design assures precise dispense control

The PGM can be mounted at the point of dispense for an extremely accurate dispense.

High flow rates improve your production capacity

With the higher flow rates of the Graco PGM, you can achieve greater productivity in your manufacturing process.

Materials

- Ambient, warm melt and hot melt materials to 204°C (400°F)
- Low to high-viscosity materials
- Unlimited volume

Applications

Solar panel manufacturing:

- Polyisobutylene (PIB) perimeter seal
- Dessicated butyl
- Silicone secondary seal

Automotive manufacturing:

- Urethane windshield sealants
- Robotized front and rear windows sealing line
- Headliner assembly

Window and door manufacturing:

- Insulated glass

General assembly:

- Any process requiring a precise bead or ribbon profile
- Appliances
- Filters
- Electronics
- Small engine gaskets

Yellow = Fluid Flow

Gear metering technology
Operator-friendly touch-screen controls

- Easy-to-use controls reduce training time
- Integrated self-diagnostics and serviceable design make service quick and easy
- Easy to integrate the system into your plant
- Controls and monitors dispense

Compact, fixed or machine-mountable design

Positive displacement gear pump technology provides superior, consistent bead and ribbon profile quality

Delivers clean starts and stops for less material waste

1. Communication from the command center provides precise control for the servo drive.
2. Material enters the manifold vertically, allowing the gearhead to rotate during a dispense
3. Robust power and sensor connections create a reliable system
## Technical Specifications

### Selection Matrix

<table>
<thead>
<tr>
<th>Product Identifier</th>
<th>PG = Precision Gear Meter</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Size</strong></td>
<td></td>
</tr>
<tr>
<td>0 = 6cc</td>
<td>2 = 20cc</td>
</tr>
<tr>
<td><strong>Heat</strong></td>
<td></td>
</tr>
<tr>
<td>1 = Unheated</td>
<td>2 = Heated</td>
</tr>
<tr>
<td><strong>Controls</strong></td>
<td></td>
</tr>
<tr>
<td>0 = No controls</td>
<td>1 = Controls / 3m</td>
</tr>
<tr>
<td>2 = Controls / 6m</td>
<td>3 = Controls / 9m</td>
</tr>
<tr>
<td><strong>Valve</strong></td>
<td></td>
</tr>
<tr>
<td>1 = Endure snuff-back</td>
<td>2 = Remote mount</td>
</tr>
</tbody>
</table>

### Flow rates

- Max. (6 cc/rev Pump)........... 480 cc/min
- Max. (20 cc/rev Pump)........... 1600 cc/min

### Max. fluid working inlet pressure

- 103.42 bar, 10.34 MPa (1500 psi)

### Max. fluid working outlet pressure

- 172.36 bar, 17.24 MPa (2500 psi)

### Air supply pressure range

- 7 bar, 0.7 MPa (60-100 psi) - filtration required

### Fluid filtration

- 200 mesh minimum

### Weight

- 6 cc/rev Pump........... 13.61 kg
- 20 cc/rev Pump........... 27.22 kg

### Fluid viscosity range

- 1000 - 1,000,000 cps

### Wetted parts

- Stainless steel, tool steel, aluminum, chrome, carbide, acetal plastic, PTFE, chemical resistant O-rings

### Power requirements

- Full load 18.5A, fuse rating 21A

### Power supply voltage range

- 240VAC, 50-60 Hz, 1-ph

### Operating temperature range

- 4 to 204°C (40 to 400°F)
- 4 to 49°C (40 to 120°F)

### Dimensions

- 6 cc/rev Pump........... 50.17 x 23.83 x 16.76 cm
- 20 cc/rev Pump........... 55.25 x 24.13 x 22.6 cm

*Flow rates and viscosities are general estimates.*
Remote Dispense Valves
243694................................................ Heated Dispense Valve
244951................................................ Endure™ Valve, Heated, 1/2 in npt male outlet
244909................................................ Endure Valve, Heated

Fixed Dispense Valves
244907................................................ Endure Valve

Parts and Accessories
24D824................................................ Automation I/O Cable
24E654................................................ Ribbon Nozzle Kit, 10 x 1.5 mm
24E655................................................ Bead Nozzle Kit, 3 mm dia
24E675................................................ Dynamic Air Regulator for TOF
24E607................................................ Gear Pump Seals, 6 cc
24E619................................................ Gear Pump Seals, 20 cc
24E677................................................ O-ring Kit, 6 cc
24E626................................................ O-ring Kit, 20 cc
24E678................................................ Heated Nest, Pilot
24E679................................................ Heated nest, Ribbon or Bead

**HOSES**

<table>
<thead>
<tr>
<th>Hose Length</th>
<th>HOT MELT</th>
<th>AMBIENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-8 3/4&quot;-16 JIC</td>
<td>-10 7/8&quot;-14 JIC</td>
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<tr>
<td>6 ft</td>
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<td>10 ft</td>
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<td>115876</td>
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<tr>
<td>15 ft</td>
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**FITTINGS**

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<tr>
<th></th>
<th>HOT MELT</th>
<th>AMBIENT</th>
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<tbody>
<tr>
<td>PGM Inlet (-16 SAE)</td>
<td>None</td>
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<tr>
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<tr>
<td>PGM Outlet (3/4&quot; npt)</td>
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<td>C20595</td>
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<td>Dispense Valve Inlet</td>
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Optional Bulk Supply Systems

WARM MELT

Precision Temperature Control

Designed specifically for warm melt materials and temperature conditioning applications, Graco Warm Melt Supply Systems deliver superior heat control and performance in a reliable, easy-to-use, easy-to-maintain package. Instead of investing in a custom solution or equipment meant for other applications, Graco Warm Melt Supply Systems offer performance and flexibility at a reasonable price.

Easy to Service
- Modular approach lets you configure a system to fit your operation
- A turnbuckle raises the air motor for easy maintenance

Precision Temperature Control
- Ensures consistent processes with accurate temperature control
- Modular controls eliminate the unreliability of point-to-point wiring

Display Module
- Intuitive, easy-to-use screen navigation provides simple setup, monitoring and diagnostics

Integrated Air Controls
- Conveniently located easy to see, easy to use

Check-Mate® Pump
- Quick-disconnect coupler reduces maintenance time

Integrated Drum Air Blow-Off
- Reduces downtime with quick, easy drum changes

Modular Design

Graco Warm Melt Supply System
HOT MELT

A highly advanced technology on the market

Therm-O-Flow solutions are amongst the best performing industrial bulk melt systems on the market. Therm-O-Flow’s advanced temperature control virtually eliminates overshoot of temperature, resulting in better adhesive quality and reduced rework due to damaged material.

Graco offers a complete line of Therm-O-Flow bulk melt systems — each configured to fit your specific application.

Therm-O-Flow 200
(Advanced model shown)

- Ethernet Connection
  Provides remote reporting capabilities
- Maintenance Call Button
  Maximizes productivity by signaling maintenance crew
- EasyKey™ Controls
  Easy-to-use, eye-level controls improve set up and operation, speeding up production
- Integrated Drum Air Blow Off
  Reduces downtime with quick, easy drum changes
- Precision Temperature Control
  Ensures consistent processes with accurate temperature control of up to 12 zones
- Easy Access Air Controls
  Lets you control motor, ram and blow-off air independently from front panel
- Light Tower
  Lets operator know the unloader status from a distance, indicating readiness, alarms and warnings to reduce downtime
- NXT™ Air Motor
  Provides quieter operation, better performance and improved efficiency
- Large Ram Cylinders
  Increases pump loading and flow rate capability
- Severe-Duty Check-Mate® Pump
  For trouble-free long life and reliable material movement with minimal pressure drop
- Heated Platen
  Provides industry-leading melt rates and easy clean up

Therm-O-Flow 20

- The ultimate hot melt bulk system
- Six to eight zones standard, up to 12 heat zones with an optional four-zone expansion box
- Main unit easily integrated with a second Therm-O-Flow 200 or Therm-O-Flow 20 for tandem operation

Therm-O-Flow 20/NXT

- Perfect for 20 l applications where high performance is still needed
- Double the power for high melt rate needs
- Allows accurate temperature control of six zones (standard). Up to 10 heat zones with an optional four-zone expansion box
- Main unit easily integrated with a second Therm-O-Flow 200 or Therm-O-Flow 20 for tandem operation
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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All written and visual data contained in this document are based on the latest product information available at the time of publication. Graco reserves the right to make changes at any time without notice.

Graco is certified ISO 9001.