

VRM™ and VPM™ Metering Systems



Variable Ratio Metering Systems for Resin and Paste Applications



High-volume dispensing equipment for maximized productivity

- High flow rates provide faster cycle times to improve your productivity
- Accurate, on-ratio dispense means less waste, more profits
- Variable ratio allows flexibility for different materials or temperature variations
- Intuitive, easy-to-use controls cut training time and reduce operator error
- Well-suited for rotor blade production in the wind energy market

PROVEN QUALITY. LEADING TECHNOLOGY.

Expand your capacity with high-volume metering system

Graco VRM™ Metering System for resin applications

The Graco VRM Metering System is a hydraulic variable ratio metering system that uses positive displacement pumps to dispense resin materials.

High flow rates

- Meets demands for increased production requirements
- Delivers accurate continuous material flow and shot dispensing as well
- Up to 30 kg (66 lb) per minute

Accurate, on-ratio mixing

- Results in higher yield, less material waste and more process confidence
- Ratio accuracies better than $\pm 2\%$

Variable ratio

- Allows you to change ratios on the fly
- Easy to program the exact output of A and B materials
- Ratio range: 1:1 to 5:1

Applications

- Resin infusion

Materials

- Resin



Intuitive, easy to use user interface

Both the Graco VRM and VPM Metering Systems feature intuitive user controls based on the Graco Control Architecture.

Less training time

Products using Graco Control Architecture provide similar functionality across your plant – which results in less training time for your operators. In other words, if you learn one system, you are already familiar with the other.

Graco VPM™ Metering System for high-viscosity applications

The Graco VPM Metering System is a hydraulic variable ratio metering system that uses positive displacement pumps to dispense tooling pastes, adhesives and other high-viscosity materials.

High flow rates

- Speeds production with high-volume dispensing
- Delivers accurate continuous material flow and shot dispensing as well
- Up to 25 kg (55 lb) per minute

Ratio assurance

- Accurate, on-ratio mixing results in better yield, less material waste, less scrap
- Ratio accuracies better than $\pm 2\%$

Variable ratio

- Allows you to change ratios on the fly
- Easy to program the exact output of A and B materials
- Ratio range: 1:1 to 5:1

Applications

- Bonding
- Molding

Materials

- Adhesives
- Tooling paste



USB interface

The user controls offer a USB interface for easy data downloads. It lets you download process data, plus job and error logs onto a flash drive for further analysis, and also lets you archive valuable set-up parameters.

Features

- 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
- USB interface

Technical Specifications & Ordering Information

Everything you need to make an informed decision

Technical Specifications

Models	VRM-30	VPM-25
Max flow rate*	Up to 30 kg/min (66 lb/min) @ 21°C (70°F)	Up to 25 kg/min (55 lb/min) @ 21°C (70°F)
Output per cycle** (A+B)	1.01 L (0.27 gal)	0.76 L (0.2 gal)
Mixing ratio	Variable ratio 1:1 to 5:1	Variable ratio 1:1 to 5:1
Max. fluid working pressure	138 bar (14 MPa - 2000 psi)	207 bar (21 MPa - 3000 psi)
Fluid viscosity range	10 to 10,000 cps	Thixotropic paste
Power supply	System: 24kW; 60A-230V, 3-ph or 35A-400V, 3-ph	System: 24kW; 60A-230V, 3-ph or 35A-400V, 3-ph
Max. air inlet pressure	6.9 bar (0.69 MPa - 100 psi)	6.9 bar (0.69 MPa - 100 psi)
Dimensions	2921 x 2007 x 1600 cm (115L x 79H x 63W inch)	4826 x 2794 x 2286 cm (190L x 110H x 90W inch)
Weight	630 kg (1390 lb)	1731 kg (3816 lb)
Ratio accuracy	Shot accuracy better than $\pm 2\%$	Shot accuracy better than $\pm 2\%$
Shot sizes	Minimum 2.02 L (0.53 gal)	Minimum 1.5 L (0.39 gal)
Materials	For typical resin infusion materials	For typical bonding and tooling pastes
Part numbers	24F872 - 230V 3-ph 50/60Hz 60A 24F391 - 400V 3-ph 50/60Hz 35A 24F873 - 400V 3-ph 50/60Hz 35A CE	24F874 - 230V 3-ph 50/60Hz 60A 24F226 - 400V 3-ph 50/60Hz 35A 24F875 - 400V 3-ph 50/60Hz 35A CE
Operation and repair manual	313873 - 313874	313875 - 312764

* Values are dependent on mixing ratio, viscosity, temperature and installed pump size. Values shown are for largest available pump size.

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.

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