



# Glass Industry

Sealant and Adhesive Equipment for Window Applications



PROVEN QUALITY. LEADING TECHNOLOGY.

# Advanced Technology for the Glass Industry



## Improve productivity and reduce your cost of ownership

Graco systems are engineered and built to outperform the competition. They incorporate innovative features that streamline operations and reduce downtime.

- Built with high-quality parts for longer life and reliability – and less downtime for maintenance
- Advanced pumping technology creates a better, more consistent bead – which results in reduced rework
- Better pumping technology also means less wasted material
- For unique applications, Graco can also custom-engineer your equipment solution

Graco is dedicated to providing the highest level of service through its knowledgeable, qualified global team of distributors. With Graco's ongoing investment in new technologies, you are assured a world-class product offering that helps maximize your plant's production capacity.

## First choice for productivity and reliability

From hot melt systems to ambient supply systems to plural-component proportioners, Graco offers a complete line of sealant and adhesive dispensing equipment, each configured to fit your specific application. Count on Graco equipment for advanced technologies, superior quality and consistent performance that improves your productivity and throughput.



## Using one global supplier makes sense. Here's why:

- Similar equipment functionality across your plant
- Easier maintenance with common wear parts
- Better service and support with a global distribution network
- Common and shared parts which provide low carrying costs
- Simplified training

## Advanced, intuitive controls

The electronic controls on Graco units help you monitor and control critical factors through an easy-to-use interface.

- Provides immediate access to information – at the touch of a button
- Tracks material usage and flow
- Provides pump runaway protection
- Supports preventative maintenance strategies
- Easy to program, easy to service
- Simplified training



# A Complete Line of Solutions



**HFR™ Metering System**



**ExactaBlend™ AGP**  
Advanced Glazing Proportioner



**Therm-O-Flow™ 200**  
Hot Melt System



**D200**  
Ambient Supply System

## Applications

- Window glazing
- Curtain wall
- Insulating glass processes such as primary and secondary sealing
- Desiccant applications
- Corner key sealing / corner joint bonding
- Roll coat applications
- Profile wrapping

## Materials

- Silicones
- Butyls
- Polysulfides
- Polyurethanes
- Desiccants
- Urethanes
- Epoxies
- Reactive hot melt adhesives
- Warm melt sealers
- Specialty resins
- Polyvinyl chloride (PVC)

### Window Glazing or Back Bedding

- Adheres glass onto the sash for a weathertight seal
- Use a Therm-O-Flow, Graco Supply System, ExactaBlend AGP or HFR Metering System

### Desiccant Application

- Spacer is filled with desiccant to prevent condensation and improve insulating performance
- Use a Therm-O-Flow or Graco Supply System

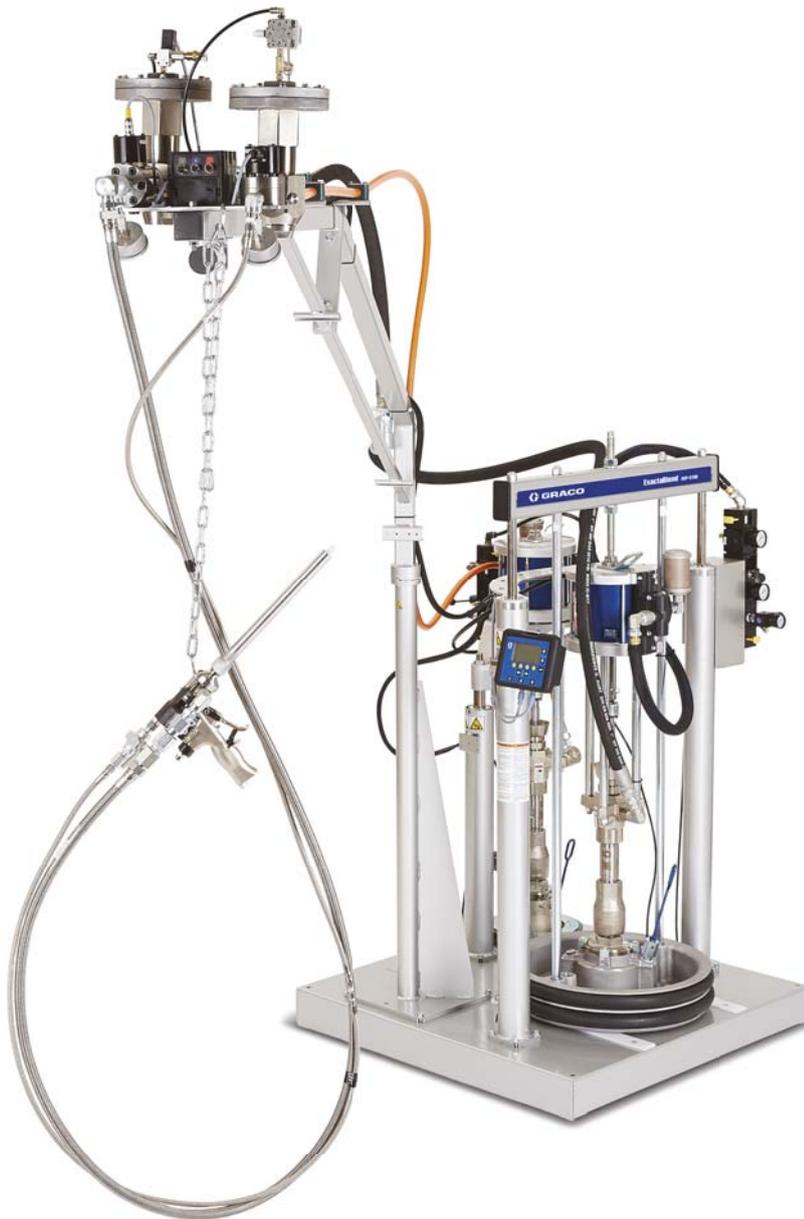
### Primary Seal

- Requires fast-bonding hot-melt, fast-set sealant
- Use a Therm-O-Flow 200 or Therm-O-Flow 20

### Secondary Seal

- Adds structural stability and provides moisture barrier
- Common materials are two-component or reactive hot melt
- Use an ExactaBlend AGP or HFR Metering System

# ExactaBlend AGP



## VARIABLE RATIO ADVANCED GLAZING PROPORTIONER

### Superior mixing and ratio assurance made easy

The ExactaBlend™ Advanced Glazing Proportioner handles two-component sealants and adhesives – providing accurate, on-ratio mixing and a consistent flow rate, even during pump changeover. It also:

- Provides automatic shut-down if off-ratio conditions occur
- Cuts material waste and reduces rework for a healthier bottom line
- Ultimately reduces the chance of seal failure on insulating glass, resulting in better quality end products

### Advanced technology at an affordable price

- Easy to use – electronic controls take the guesswork out of setting or changing the ratio
- Optional data download provides reports on ratio, flow rate, material usage and alarm events

### Reduces wasted material

When the ExactaBlend AGP is coupled with the MD2 Valve, the catalyst and base materials are blended together in the mixer – apart from the applicator. This reduces the amount of base purge material needed to clean the mixer.

### Materials

- Two-part sealants and adhesives
- Two-part structural adhesives

### Applications

- Manual adhesive and sealant applications
- Insulating glass sealant
- Structural glazing for curtainwall
- Window glazing or back bedding
- Structural adhesive
- Cartridge fill

## Technical Specifications - ExactaBlend AGP

Typical ratios by weight .....	6:1 to 20:1**
Flow rates .....	Continuous flow - 500 to 4000 grams/min*
Max. working pressure:	
UL6000 valve .....	276 bar (4000 psi, 27.6 MPa)
MD2 Valve.....	207 bar (3000 psi, 20.7 MPa)
Fluid outlet base .....	1/2 npt (f)
Fluid outlet catalyst .....	1/4 npt (f)
Air inlet .....	3/4 npt (f)
Boom height .....	274 cm (108 in)
Ram height (raised) .....	259 cm (102 in)
Weight .....	390 kg (865 lb)
Width x depth (base) .....	101 x 107 cm (40 x 42 in)
Electrical requirements .....	90-264 VAC, 50/60 Hz, 1-ph, 4 amps max
Air pressure requirements .....	6.0 to 7.0 bar (80 to 100 psi/0.6 to 0.7 MPa)
Air flow requirements .....	1.0m <sup>3</sup> /min (35 scfm) at 4000 g/min in polysulfide
Manual .....	3A2894

\* Flow rate is based on Polysulfide at room temperature.

\*\* Weight ratios are dependent upon specific gravities.

# HFR Metering System

## HYDRAULIC FIXED RATIO METERING SYSTEM FOR SEALANTS AND ADHESIVES

### Improve your throughput with advanced dispensing technology

The Graco HFR™ Metering System is a meter, mix and dispense system that processes multiple sealant and adhesive materials.

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

The Graco HFR consistently achieves accurate ratios and volumes. As the system dispenses material, it automatically fine-tunes and adjusts material flows and pressures to achieve a consistent bead. As a result, you waste less material, reducing scrap and rework.

### More technology for less capital investment

The Graco HFR offers advanced technology and functionality – at a lower price than basic shot meters or gear pumps. In addition, the system's horizontal pumps can be rebuilt at your facility, eliminating costly rebuilds, the need for backup pumps and ultimately reducing your total cost of ownership.

### Materials

- Urethanes
- Polysulfides
- Epoxies
- Acrylics
- Methyl Methacrylate Adhesive (MMA)
- Silicones
- Filled and unfilled materials

### Applications

- Automated sealant and adhesive applications
- Window glazing or back bedding
- Secondary sealing



## Technical Specifications - HFR Metering System

Maximum Fluid Working Pressure .....	207 bar (3000 psi, 20.7 MPa)
Maximum Fluid Temperature .....	88°C (190°F)
Fluid Inlets .....	Component A (Red): 1/2 npt(f) Component B (Blue): 3/4 npt(f)
Fluid Outlets .....	Component A (Red): #8 (1/2 in.) JIC (3/4-16 unf), with #5 (5/16 in.) JIC adapter Component B (Blue): #10 (5/8 in.) JIC (7/8-14 unf), with #6 (3/8 in.) JIC adapter
Weight .....	Units with 12 kW Heaters: 394 kg (868 lb) Units without heaters: 288 kg (634 lb)
Manual .....	313997

All other brand names or marks are used for identification purposes and are trademarks of their respective owners.

# Therm-O-Flow



## BULK MELT SYSTEMS WITH NXT™ TECHNOLOGY

With melt rates that are at least 60 percent higher than the leading competitor, Therm-O-Flow bulk hot melt systems outperform the competition time after time.

### Better performance, higher melt rates

- The patented Mega-Flo™ platen for 200 l (55 gal) units provides the highest output per watt of power in the industry
- Assures smooth melting with the least amount of material degradation
- With the Mega-Flo platen, Graco's Therm-O-Flow hot melt systems can support two glazing lines simultaneously
- High melt rate, combined with the large number of heat zones and high pressure result in greater productivity and performance

### Durable, long-lasting NXT Air Motor technology

- NXT Air Motor provides quieter operation, better performance and improved efficiency

### EasyKey™ Controls

- Intuitive and easy to use
- Integrated self-diagnostics and serviceable design make service quick and easy

### Materials

- Butyl rubber
- Ethylene Vinyl Acetate (EVA)
- Polyamide
- Polyurethane Reactive (PUR)
- Pressure sensitive adhesives (PSA)
- Polyisobutylene (PIB)

### Applications

- Roll coat applications
- Glazing and back bedding
- Primary and secondary seal
- Desiccant applications
- Profile wrapping

## Technical Specifications - Therm-O-Flow

	Therm-O-Flow 200	Therm-O-Flow 20	Therm-O-Flow 20 / Mini-5
Fluid flow at 60 cpm	2.8 US gpm (10.6 lpm)	2.8 US gpm (10.6 lpm)	0.9 US gpm (3.4 lpm)
Max. pump operating temp.	204°C (400°F)	204°C (400°F)	204°C (400°F)
Weight	545 kg (1200 lb)	340 kg (750 lb)	295 kg (650 lb)
Air inlet size	1/2 npt (f)	1/2 npsm (f)	1/2 npsm (f)
Pump fluid outlet size	1 npt (f)	1 npt (f)	1 npt (f)
Power consumption:			
Compressed air	25-50 scfm typical	25-50 scfm typical	25-50 scfm typical
Peak consumption with:			
Mega-Flo melt grid	27.5 KVa	NA	NA
Standard/finned melt grid	24.5 KVa	8.7 KVa	6.4 KVa
Smooth melt grid	24.5 KVa	8.7 KVa	6.4 KVa
Manuals	311208	311976	312094

Therm-O-Flow machines and complete configured packages are CE marked.

# Graco Supply Systems

## SEALANTS AND ADHESIVES SUPPLY SYSTEMS WITH NXT TECHNOLOGY

Designed with features that minimize maintenance and streamline everyday operations, Graco Supply Systems help reduce your cost of ownership.

### Built with high-quality parts for longer life

- Seal design offers less maintenance and lasts two to three times longer than the competition
- Better durability means increased uptime

### NXT – the next generation of Graco air motors

- NXT Air Motor is the new standard in air motor durability, lasting ten times longer than the King

### Advanced controls – intuitive and easy to use

- Tracks and displays material usage
- Provides pump diagnostics for better maintenance
- Provides pump runaway protection
- Tandem Display Module provides automatic electric crossover that switches over to the second ram when material reaches a certain level

### Materials

- Silicones
- Butyl
- Polysulfides
- Desiccants
- Urethanes
- Acrylics
- Epoxies
- PVC
- Specialty resins
- Latex

### Applications

- Insulating glass manufacturing
- Glazing and back bedding
- Desiccant applications



## Technical Specifications - Graco Supply Systems

Pump	Pump Ratio	Air Motor	lpm @ 60 cpm (gpm)	Bar (psi, Mpa)	Available in Stainless Steel
C40	40:1 100cc	NXT2200	6.4 (1.7)	276 (4000, 27.6)	No
C63	63:1 100cc	NXT3400	6.4 (1.7)	434 (6300, 43.4)	No
C23	23:1 200cc	NXT2200	11.4 (3.0)	159 (2300, 15.9)	Yes
C36	36:1 200cc	NXT3400	11.4 (3.0)	248 (3600, 24.8)	Yes
C68	68:1 200cc	NXT6500	11.4 (3.0)	427 (6200, 42.7)	Yes
C29	29:1 250cc	NXT3400	14.4 (3.8)	200 (2900, 20.0)	Yes
C55	55:1 250cc	NXT6500	14.4 (3.8)	379 (5500, 37.9)	Yes
C82	82:1 250cc	Premier	14.4 (3.8)	427 (6200, 42.7)	Yes
C14	14:1 500cc	NXT3400	30.3 (8.0)	97 (1400, 9.7)	Yes
C26	26:1 500cc	NXT6500	30.3 (8.0)	179 (2600, 17.9)	Yes
C39	39:1 500cc	Premier	30.3 (8.0)	269 (3900, 26.9)	Yes



## 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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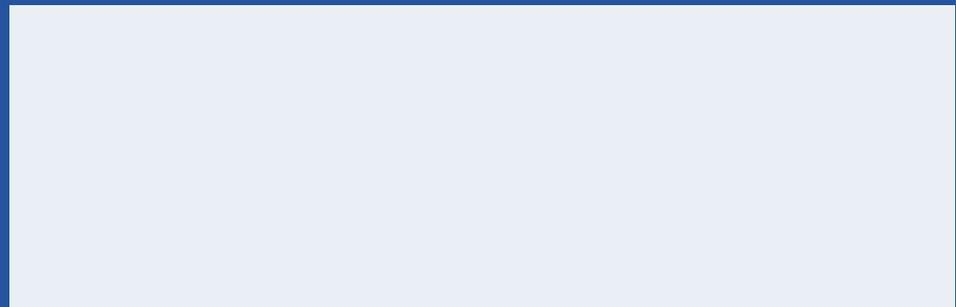
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Graco is certified ISO 9001.



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