

# **PFP Sprayers**

Equipment Solutions for Epoxy Intumescent Fireproofing Materials



# When Material is This Critical, Count on Graco

# Protecting steel, assets and lives is serious business

Built for passive fire protection (PFP) materials, Graco equipment handles the toughest epoxy intumescent fire protection coatings.

## **Graco XM™ PFP Plural-Component Sprayer**

- Handles two-part materials from 1:1 to 10:1
- Provides precise ratio control within ± 5%
- Ensures accurate, on-ratio mixing to reduce material waste
- Virtually eliminates the difficult task of removing material that is improperly proportioned
- · Fast start-up times due to performance of heating system

## **Applications**

- · Pipe racking
- · Structural steel
- · Storage tanks
- Onshore and offshore oil rigs
- Living quarters





# Get serious with Graco technology

## Proven ratio assurance

Simply enter the mix ratios into the control panel. If off-ratio conditions should occur, the system will stop production, preventing any off-ratio material from reaching your project.

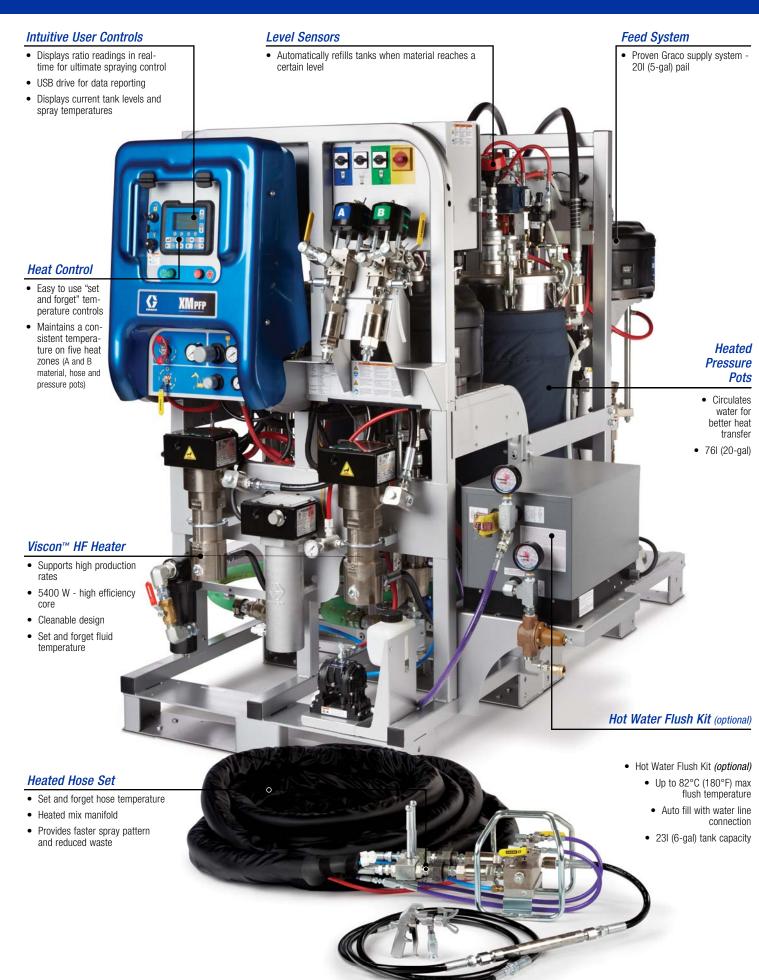
### Consistent temperature control

The XM PFP Sprayer maintains temperature set points of the hose and materials - no more heater adjustments and no more material charring due to overheating. Closed-loop technology adjusts the heaters to achieve optimum spray performance in the most extreme conditions.

# Data reporting - for confidence that the job was done right

Project data such as spray pressures, temperatures, actual ratio, and total flow output can be downloaded onto a flash drive. With this data, you can verify that materials were sprayed at the proper ratios and requirements set by the coatings manufacturer.

# **Technology Delivers Peace of Mind**



# **Technology that Boosts Productivity**

# An easier way to take control

The intuitive user interface provides two display modes: "set-up" for entering parameters and a "run" mode for operation.

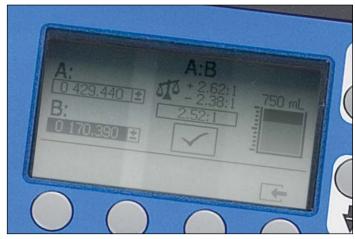
The user interface monitors and tracks mix ratio, pressure, temperature and flow, and allows you to program maintenance schedules. It shuts down the system if off-ratio conditions exist, and with its USB port, you can download historical spraying data.

## Simplify the ratio checking process

The ratio checking process for epoxy intumescents is important and documentation is often required. With the XM PFP's controls, it's easy to make sure your material is on ratio.

- 1. Initiate ratio check process on the machine controls
- 2. Operator dispenses A and B materials into test beakers, and weighs samples
- 3. Operator enters A and B weights on the control screen
- 4. Control screen provides "Pass" or "Fail" message, and logs the results in the USB data.





The user interface also lets you keep track of your fluid supply and spray parameters.

#### You can:

- Monitor the temperature of supply tanks, fluid heaters and hose heat
- Set temperatures for A and B materials and hose.
- Set and monitor tank levels, turn automatic tank filling on and off

# **Graco XHF<sup>™</sup> Spray Gun**

- High-flow, high pressure gun
- Easily handles high-viscosity coatings, fiber filled materials and epoxy intumescent materials
- Reduced clogging means more uptime
- Rated to 500 bar (7250 psi, 50 MPa)



# Xtreme<sup>™</sup> PFP Sprayer

# Small jobs made easy

Get in and get smaller jobs done fast. Ideal for spraying hot-potted PFP epoxies, the Xtreme PFP Sprayer is easy to clean with its quick knock-down, double-ball pump.

## NXT<sup>™</sup> Air Motor

Standard de-icing feature keeps you up and running

### Handles high-viscosity coatings

- 448 bar (6500 psi) working pressure
- · Large inlet check with extended ball travel
- · Pail ram plate with high down force and air-assisted removal
- · Large outlet check for improved pattern control

### Compact cart-mounted

- · Heavy-duty cart withstands extreme conditions
- · Easy handling for one person

# **Worldwide Support**

With infrastructure throughout the world, your company will benefit from Graco's knowledgeable, global network of professionals.



# **Responsive Service**

Graco has close working relationships with many of the world's leading manufacturers and material suppliers. With Graco, you can expect responsive service and support, as well as the accuracy and reliability you demand from your manufacturing equipment.



# **Training**

Graco offers valuable hands-on learning and equipment training at its training centers in Minneapolis, MN; North Canton, OH; Maasmechelen, Belgium; and Shanghai, China. Convenient online training courses are also available.



# Distribution

With a global distribution network, you can count on quick turnaround times for replacement parts and service. With Graco's authorized distributors, you have access to experts who understand the unique needs of your business.

# **Technical Specifications**

| MODEL   | XM PFP  | XTREME PFP   |
|---|---|--|
| Mix Ratio Range   | 1:1 - 10:1 (In 0.01 increments)   | Hot Potted   |
| Ratio Tolerance Range (before alarm)  | +/- 5%  | No Alarm   |
| Max Flow Rate   | 11.4 lpm (3 gpm)  | 11.1 lpm (2.93 gpm)  |
| Fluid to Air Pressure Ratio   | 60:1  | 70:1   |
| Fluid Viscosity Range   | Handles mastic materials which are loaded into heated tanks with ram-fed priming piston pumps   | Handles mastic materials of two parts (A and B) which are mixed then ram-fed   |
| Air Inlet   | 1 in npt(f)   | 3/4 in npt(f)  |
| Fluid Inlets  | Ram plate fed pail pumps  | Ram plate fed pail pump  |
| Max Fluid Working Pressure of mixed material  | 414 bar (6000 psi, 41.4 MPa)  | 448 bar (6500 psi, 44.8 MPa)   |
| Max Fluid Temp  | 70°C (160°F)  | Hot potted (depends on material)   |
| Incoming Air Supply Pressure Range  | 5.5-10.3 bar (80-150 psi, 0.5-1.0 MPa)  | 5.5-10.3 bar (80-150 psi, 0.5-1.0 MPa)   |
| Max Pump Air Set Pressure   | 7 bar (100 psi, 0.7 MPa)  | 6.2 bar (90 psi, 0.6 MPa)  |
| Max Tank Pressure   | 7 bar (100 psi, 0.7 MPa)  | NA   |
| Max Air Consumption   | 5 meter <sup>3</sup> /min (175 scfm)  | 3.25 meter <sup>3</sup> /min (115 scfm)  |
| Air Filtration  | 40 micron main filter, 5 micron control filter  | 40 micron filter   |
| Ambient Operating Temp Range  | 0° - 54°C (32° - 130°F)   | 10° - 54°C (50° - 130°F)   |
| Ambient Storage Temp Range  | -1° - 71°C (30° - 160°F)  | 0° - 49°C (32° - 120°F)  |
| <b>Environmental Conditions Rating</b>  | Altitude up to 4000m (13,123 ft)  | Altitude up to 4000m (13,123 ft)   |
| Sound Pressure  | 86 dBA at 100 psi   | 87 dBA at 100 psi, 15 cycles/min   |
| Sound Power   | 98 dBA at 100 psi   | 98 dBA at 100 psi, 15 cycles/min   |
| Weight  | 987 kg  | 178 kg, includes cart  |
| DOWED DECUIDEMENTO  |   |  |
| POWER REQUIREMENTS  |   |  |
| POWER REQUIREMENTS  Voltage (Jumper selectable)   | <b>Option 1:</b> 220-240V, 3-ph (3 wire plus ground)  | NA   |
|   | Option 1: 220-240V, 3-ph (3 wire plus ground) Option 2: 380-400 DELTA, WYE, 3-ph (4 wire including neutral plus ground)   | NA<br>NA   |
|   | <b>Option 2:</b> 380-400 DELTA, WYE, 3-ph   |  |
| Voltage (Jumper selectable)   | Option 2: 380-400 DELTA, WYE, 3-ph<br>(4 wire including neutral plus ground)<br>18,400 Watts  | NA   |
| Voltage (Jumper selectable)  Wattage  | Option 2: 380-400 DELTA, WYE, 3-ph<br>(4 wire including neutral plus ground)<br>18,400 Watts<br>(23,400 Watts with optional flush water heater)<br>65 amps DELTA  | NA<br>NA   |
| Voltage (Jumper selectable)  Wattage  Amps  | Option 2: 380-400 DELTA, WYE, 3-ph<br>(4 wire including neutral plus ground)<br>18,400 Watts<br>(23,400 Watts with optional flush water heater)<br>65 amps DELTA  | NA<br>NA   |
| Voltage (Jumper selectable)  Wattage  Amps  WETTED PARTS  | Option 2: 380-400 DELTA, WYE, 3-ph (4 wire including neutral plus ground)  18,400 Watts (23,400 Watts with optional flush water heater)  65 amps DELTA (38 amps WYE)  | NA NA  |
| Voltage (Jumper selectable)  Wattage  Amps  WETTED PARTS  Suction Tube (flush)  | Option 2: 380-400 DELTA, WYE, 3-ph (4 wire including neutral plus ground)  18,400 Watts (23,400 Watts with optional flush water heater)  65 amps DELTA (38 amps WYE)  Stainless Steel   | NA NA NA   |
| Voltage (Jumper selectable)  Wattage  Amps  WETTED PARTS  Suction Tube (flush)  Tanks   | Option 2: 380-400 DELTA, WYE, 3-ph (4 wire including neutral plus ground)  18,400 Watts (23,400 Watts with optional flush water heater)  65 amps DELTA (38 amps WYE)  Stainless Steel  Stainless Steel  | NA NA NA NA NA NA  |
| Voltage (Jumper selectable)  Wattage  Amps  WETTED PARTS  Suction Tube (flush)  Tanks  Flush Pump   | Option 2: 380-400 DELTA, WYE, 3-ph (4 wire including neutral plus ground)  18,400 Watts (23,400 Watts with optional flush water heater)  65 amps DELTA (38 amps WYE)  Stainless Steel Stainless Steel Carbide, PTFE, stainless steel, UHMWPE  | NA NA NA NA NA NA NA   |
| Voltage (Jumper selectable)  Wattage  Amps  WETTED PARTS  Suction Tube (flush)  Tanks  Flush Pump  Hoses  | Option 2: 380-400 DELTA, WYE, 3-ph (4 wire including neutral plus ground)  18,400 Watts (23,400 Watts with optional flush water heater)  65 amps DELTA (38 amps WYE)  Stainless Steel  Stainless Steel  Carbide, PTFE, stainless steel, UHMWPE  Nylon  Carbon steel, alloy steel, 303, 440, 17-ph grades stainless steel, zinc and nickel plating, ductile  | NA   |
| Voltage (Jumper selectable)  Wattage  Amps  WETTED PARTS  Suction Tube (flush)  Tanks  Flush Pump  Hoses  Pumps (A, B and feed pail)  | Option 2: 380-400 DELTA, WYE, 3-ph (4 wire including neutral plus ground)  18,400 Watts (23,400 Watts with optional flush water heater) 65 amps DELTA (38 amps WYE)  Stainless Steel Stainless Steel Carbide, PTFE, stainless steel, UHMWPE Nylon Carbon steel, alloy steel, 303, 440, 17-ph grades stainless steel, zinc and nickel plating, ductile iron, tungsten carbide, PTFE Carbon steel, nickel plating, carbide,   | NA  NA  NA  NA  NA  NA  NA  NA  NA  Carbon steel, alloy steel, 304, 440, 17-ph grades stainless steel, zinc and nickel plating, ductile iron, tungsten carbide, PTFE, leather                |
| Voltage (Jumper selectable)  Wattage  Amps  WETTED PARTS  Suction Tube (flush)  Tanks  Flush Pump  Hoses  Pumps (A, B and feed pail)  Metering Valves                             | Option 2: 380-400 DELTA, WYE, 3-ph (4 wire including neutral plus ground)  18,400 Watts (23,400 Watts with optional flush water heater)  65 amps DELTA (38 amps WYE)  Stainless Steel  Stainless Steel  Carbide, PTFE, stainless steel, UHMWPE  Nylon  Carbon steel, alloy steel, 303, 440, 17-ph grades stainless steel, zinc and nickel plating, ductile iron, tungsten carbide, PTFE  Carbon steel, nickel plating, carbide, polyethylene, leather  Plated carbon steel, zinc + nickel plated steel,   | NA  NA  NA  NA  NA  NA  NA  NA  NA  Nylon  Carbon steel, alloy steel, 304, 440, 17-ph grades stainless steel, zinc and nickel plating, ductile iron, tungsten carbide, PTFE, leather  NA     |
| Voltage (Jumper selectable)  Wattage  Amps  WETTED PARTS  Suction Tube (flush)  Tanks  Flush Pump  Hoses  Pumps (A, B and feed pail)  Metering Valves  Manifold                   | Option 2: 380-400 DELTA, WYE, 3-ph (4 wire including neutral plus ground)  18,400 Watts (23,400 Watts with optional flush water heater)  65 amps DELTA (38 amps WYE)  Stainless Steel  Stainless Steel  Carbide, PTFE, stainless steel, UHMWPE  Nylon  Carbon steel, alloy steel, 303, 440, 17-ph grades stainless steel, zinc and nickel plating, ductile iron, tungsten carbide, PTFE  Carbon steel, nickel plating, carbide, polyethylene, leather  Plated carbon steel, zinc + nickel plated steel, carbide, 302 stainless steel, PTFE, FKM acetal  | NA  NA  NA  NA  NA  NA  NA  Nylon  Carbon steel, alloy steel, 304, 440, 17-ph grades stainless steel, zinc and nickel plating, ductile iron, tungsten carbide, PTFE, leather  NA  NA         |
| Voltage (Jumper selectable)  Wattage  Amps  WETTED PARTS  Suction Tube (flush)  Tanks  Flush Pump  Hoses  Pumps (A, B and feed pail)  Metering Valves  Manifold  Mixer            | Option 2: 380-400 DELTA, WYE, 3-ph (4 wire including neutral plus ground)  18,400 Watts (23,400 Watts with optional flush water heater)  65 amps DELTA (38 amps WYE)  Stainless Steel  Stainless Steel  Carbide, PTFE, stainless steel, UHMWPE  Nylon  Carbon steel, alloy steel, 303, 440, 17-ph grades stainless steel, zinc and nickel plating, ductile iron, tungsten carbide, PTFE  Carbon steel, nickel plating, carbide, polyethylene, leather  Plated carbon steel, zinc + nickel plated steel, carbide, 302 stainless steel, PTFE, FKM acetal  | NA  NA  NA  NA  NA  NA  NA  Nylon  Carbon steel, alloy steel, 304, 440, 17-ph grades stainless steel, zinc and nickel plating, ductile iron, tungsten carbide, PTFE, leather  NA  NA         |
| Voltage (Jumper selectable)  Wattage  Amps  WETTED PARTS  Suction Tube (flush)  Tanks  Flush Pump  Hoses  Pumps (A, B and feed pail)  Metering Valves  Manifold  Mixer  APPROVALS | Option 2: 380-400 DELTA, WYE, 3-ph (4 wire including neutral plus ground)  18,400 Watts (23,400 Watts with optional flush water heater)  65 amps DELTA (38 amps WYE)  Stainless Steel  Stainless Steel  Carbide, PTFE, stainless steel, UHMWPE  Nylon  Carbon steel, alloy steel, 303, 440, 17-ph grades stainless steel, zinc and nickel plating, ductile iron, tungsten carbide, PTFE  Carbon steel, nickel plating, carbide, polyethylene, leather  Plated carbon steel, zinc + nickel plated steel, carbide, 302 stainless steel, PTFE, FKM acetal  Stainless steel housing with stainless elements | NA  NA  NA  NA  NA  NA  NA  Nylon  Carbon steel, alloy steel, 304, 440, 17-ph grades stainless steel, zinc and nickel plating, ductile iron, tungsten carbide, PTFE, leather  NA  NA  NA  NA |

# **Ordering Information**

## **Plural-Component Sprayers**

262869 Complete XM PFP System. Includes base XM PFP with 15m (50 ft) dual heated hose, mix manifold, 5m (17 ft) static mix line, 30:1 flush pump, XHF Gun with 429 tip. Includes two Check-Mate™ 76l (20-gal) heated feed modules with agitators and level sensors.

Base XM PFP. No feed modules or heated hose bundle. Base XM PFP includes: XM60, Viscon™ HF primary heaters, Viscon HP with hose heat supply system, 30:1 Merkur™ flush pump, PFP mix manifold, mixer, whip hoses and gun.

# **Single-Component Sprayers**

Includes 23m (75 ft) spray line and XHF Gun with 429 tip.

16P957 Xtreme PFP, floor mount 16T311 Xtreme PFP, cart mount

# **Supply Processing Equipment**

24P883 Heated Supply Module. Includes 40:1 Check-Mate, heated pressure tank, agitator, level sensor, and bottom outlet feed hose and connection.

24P884 Level sensor kit. Replacement for XM PFP heated tanks.

24P831 Level sensor probe replacement

16T525 Viscon LT heater for tank heat circulation, 1750 W

24P885 XM PFP feed module agitator

24P835 Husky™ 205 hot water circulation pump for tanks or heated hose

262896 Tank dryer kit. Provides additional filtration and moisture control for heated tanks.

24P899 XM PFP main line air filter kit (1-1/4 in npt)

262853 Viscon HF heater kit, remote controlled. Not approved for use in explosive atmospheres.

## **Hoses and Guns**

16T122 Heated hose bundle. Includes 15m (50 ft, ¾ in x ¾ in), 448 bar (6500 psi/44.8 MPa) fluid hoses; ¼ in

4500 psi (310 bar/31.0 MPa) flush hose; and four ½ in heat tubes. Includes scuff guard.

16T121 Heated hose bundle. Includes 15m (50 ft, ¾ in x ½ in), 448 bar (6500 psi/44.8 MPa) fluid hoses; ¼ in

310 bar (4500 psi/31.0 MPa) flush hose; and four ½ in heat tubes. Includes scuff guard.

16T316 Static mixer assembly, 12 element, SST

24P886 Mix element replacement, SST

262890 XM PFP mix manifold with ball valves and check valves, 414 bar (6000 psi/41.4 MPa)

237260 XHF Gun repair kit

24P832 Xtreme PFP Gun and mix line kit, 23 m (75 ft) - (single component pump to gun)

24P833  $\,$  XM PFP Gun and mix line kit, 5 m (17 ft); includes static mixer - (mix manifold outlet to gun)

Hose, 19 mm (¾ in) ID x 15 m (50 ft), 19 mm (¾ in) npsm (fbe), 448 bar (6500 psi/44.8 MPa) nylon core Hose, 13 mm (½ in) ID x 15 m (50 ft), 13 mm (½ in) npsm (fbe), 500 bar (7250 psi/50 MPa) nylon core Hose, 13 mm (½ in) ID x 7.6 m (25 ft), 13 mm (½ in) npsm (fbe), 500 bar (7250 psi/50 MPa) nylon core

262854 XHF Gun, includes XHD 429 tip

24P834 XHF Gun swivel, 13 mm (1/2 in) f x 3/8 npsm, PTFE packing, 448 bar (6500 psi/44.8 MPa)

## **Accessories**

16T481 Check valve, ¾ in npt (fbe), 500 bar (7250 psi/50 MPa)

16T859 Hot water flush kit, 82°C (180°F) with auto fill and temperature control

255478 Dosing valve, A or B replacement valve

262872 XM PFP sampling valve. Used for weight ratio checks.

24P268 Ball valve, 3/4 in npt, 414 bar (6000 psi/41.4 MPa)

L220C9 XM PFP lower replacement, 220 cc, X-Tuff<sup>™</sup> (repair kit 262793) L180C9 XM PFP lower replacement, 180 cc, X-Tuff (repair kit 262792)

L180C7 Xtreme PFP lower replacement, 180 cc, Xtreme Seal (repair kit 24F969) (has inlet ball spacers in a different location)



### **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.

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