



# M680™ Mortar Pump

Sprayer for Mortar, Cementitious and Heavily Filled Materials



PROVEN QUALITY. LEADING TECHNOLOGY.

# A better way to spray heavy, gritty materials



The Graco M680™ Mortar Pump handles abrasive materials such as epoxy mortars, non-skid coatings or cementitious materials, and tackles difficult polymers with fillers such as glass flake, silica or sand.

## Profitable shortcut to hand troweling

Hand troweling cementitious materials is time-consuming. With a Graco M680 Mortar Pump, you can save time, speed up the process and increase your profits by spraying and finish-troweling the material instead of using the traditional hawk and trowel method.

## Less material waste and improved quality

With Graco's M680 Mortar Pump, your crews can get more thickness control by spraying instead of hand applying. The surface gets a more consistent layer of material. In addition, there's much less chance of material curing before it gets applied.

## Fast, easy cleaning

The sprayer's high velocity flush is often all that is needed to clean the pump and prevent build-up of heavy material in the spray lines. If needed, the pump is designed to be quickly taken apart for hand cleaning.

## Built tough for long-lasting durability

Engineered to withstand the grittiest materials, the Graco M680 pumps heavy materials at low pressures (typically 13 to 34 bar / 200 to 500 psi) and uses an applicator to atomize the material and transfer it to the substrate. Its low-pressure design reduces wear and tear on the pump lower.

## Ideal for coating contractors

Your crew will discover that the Graco M680 Mortar Pump is easy to use, with similar functionality to an air-operated sprayer. They'll be up and running in no time.

- Explosion proof for hazardous spray areas
- Convenient – one air source runs the pump, atomizing air and atomizes air

## Industries

Water and wastewater  
Mining  
Oil and gas  
Marine and offshore  
Building and infrastructure  
General construction

## Materials and Applications\*

Epoxy-based mortars  
Cementitious coatings  
Re-surfacing materials  
Coatings with small aggregate  
Non-skid coatings  
Waterproofing  
Epoxy claddings  
Cementitious fireproofing  
...and more

### Air Motor and Controls

- 3400 NXT™ Motor
- Filtered air for pump and applicator
- Chicago-style inlet air connection

### Hopper

- Heavy-duty stainless steel
- Straight sides for easy cleaning
- Quick-release connections

### Tool box

- For convenient storage of accessories and spare parts



### Pump Lower – 680cc

- Designed for heavy materials, stainless steel construction
- Tri-clamp on cylinder – easy to disassemble
- Pack-less pressure relief valve
- High-velocity flush for effective cleaning

### Fluid and Air Lines

- Chemically resistant fluid hoses
- Solvent resistant sleeve
- Cam and groove connections

### Hose Cam and Groove Connection

- For quick and easy assembly

### Applicator

- Your choice of Flex Hose, Pole or HTX 680 Applicator
  - Flex: for heavy materials
  - Pole: for heavy materials in hard to reach areas
  - HTX 680: for lighter materials
- On/off motor pilot controls
- Atomization air adjustments



# Features and Benefits

ITEM	FEATURE	BENEFIT
<b>Hopper</b>	38L (10 gal) capacity Durable with straight sides Cam and groove intake connections	Holds two mixed kits Easy to scrape sides clean Easy to remove and clean inlet connections
<b>Pump Lower</b>	Specialized 680 cc pump lower High output, 680 cc lower Stainless steel construction Packless relief valve Tri-clamps on pump cylinder One-piece throat and piston packing Cam and groove outlet connection	Handles cementitious and repair mortars Maximized production for sprayable materials Won't rust or corrode with water-based materials Safety relief - won't pack out after first use Easy to disassemble - tool provided Few wear parts Easy to remove hoses for pump tear down
<b>Fluid Hoses</b>	Compatible with epoxies, urethanes, solvents, water Cam and groove connections	One hose fits all - no changing hoses between applications Easy to change hoses - saves time
<b>Spraying</b>	Multiple applicator technologies	Handles a variety of heavy and lightweight materials and coatings Allows various spray patterns
<b>Flushing</b>	High velocity circulating flush, up to 57 lpm (15 gpm)	Effectively cleans lower and hoses after each spray period
<b>Approvals</b>	CE-approved	Approved for use in explosive atmospheres



## Pole Applicator

- For hard to reach areas
- Best for heavily filled materials that easily pack out
- Includes Round Nozzle; provides a rough finish texture
- Simple design
- Easy to clean



## HTX 680 Applicator

- Good for lighter materials that don't typically pack out
- Includes Round Pattern Nozzles; provides a medium round pattern texture finish
- Air mixed into fluid through multiple venturi ports provides a consistent pattern
- Gives a more controlled pattern for lightweight materials or high solids coatings
- Includes flat pattern discs – fans spray pattern for wider coverage area per pass



## Flex Hose Applicator

- Best for heavily filled materials that easily pack out
- Includes Round Nozzle; provides a rough finish texture
- Simple design
- Easy to clean

# ROI Calculator



## Return on Investment

Save time and money by spraying material with the Graco M680 Mortar Pump and trowelling to finish.



### Graco M680 Mortar Pump R.O.I.

With Sprayer	Example	Without Sprayer	Example
1. Pump operator(s) / Mixer(s)	1	1. People mixing kits	1
2. People spraying	1	2. People spraying	0
3. # of people required to finish trowel only	1	3. # of people required to hawk & trowel manually	3
4. Labour rate/hour (including benefits)	27.00	4. Labour rate/hour (including benefits)	27.00
5. Hours to complete resurfacing	16	5. Hours to complete resurfacing	32
6. Crew Total	3	6. Crew Total	4
7. Man hours	48	7. Man hours	128
8. Labour cost	1,296.00	8. Labour cost	3,456.00

**LABOUR SAVINGS % = 63%**

### How much will you save?

With Sprayer	Actual	Without Sprayer	Actual
1. Pump operator(s) / Mixer(s)	.....	1. People mixing kits	.....
2. People spraying	.....	2. People spraying	.....
3. # of people required to finish trowel only	.....	3. # of people required to hawk & trowel manually	.....
4. Labour rate/hour (including benefits)	.....	4. Labour rate/hour (including benefits)	.....
5. Hours to complete resurfacing	.....	5. Hours to complete resurfacing	.....
6. Crew Total [add lines 1, 2, 3]	.....	6. Crew Total [add lines 1, 2, 3]	.....
7. Man hours [multiply lines 4 + 6]	.....	7. Man hours [multiply lines 4 + 6]	.....
8. Labour cost [multiply lines 7 + 4]	.....	8. Labour cost [multiply lines 7 + 4]	.....

**LABOUR SAVINGS % = ..... %**

**LABOUR SAVINGS % = change in line 8 labour cost / labour cost without sprayer**

*\* Based on field testing, resurfacing takes less than half the time with a Graco M680 Mortar Sprayer*

# What are people saying about the Graco M680 Mortar Pump?



“We sprayed 800 liters one day with four guys troweling to finish. At the end of the day, we had to hawk and trowel a small section by hand and the crew quickly realized how easy the pump had made their job.”

*Shane Anderson*

*Owner, Applewood Painting Company, Arvada, CO*

“We cut our time in half and reduced our costs by one third to resurface a lift station using the Graco M680 pump. We also sprayed a new material we normally have to apply by hand.”

*Jeff White*

*Owner, Commonwealth Epoxy Coatings, Newport News, VA*

“This pump was a big time saver for our project. Normally we would have had one man mixing and three to four guys troweling to cover 85m<sup>2</sup> per day. With the pump, we were able to complete as much as 230m<sup>2</sup> in a day with two guys mixing, one spraying and one guy troweling.

*Jason Becker*

*Project Manager, Coblaco Services, Denver, CO*

## Technical Specifications

Pressure Ratio .....	10:1 fluid to air
Maximum air operating pressure .....	7 bar (100 psi, 0.7 MPa)
Air Inlet Size .....	3/4 in. npt(f) (Chicago Claw Fitting)
Fluid Inlet Size .....	2 in cam groove male
Fluid Outlet Size .....	1 in npt(f)
Dry Weight.....	113 kg (250 lb) with 11m hose and applicator
Chemical resistance.....	Compatible with solvent or water based materials
Inlet air filtration.....	40 micron, moisture separation with auto drain
Wetted parts.....	SST, aluminum, carbide seats, plated steel fittings, PTFE, UHMWPE, solvent-resistant elastomer
Manual.....	332612

Sprayability may be affected by aggregate size or distribution, hose size and other factors. Check with material suppliers or contact your Graco distributor for a demonstration.

# Ordering information

## Packages

All packages include: pump; motor; controls on cart; gaskets for cam and groove connectors; pilot tube repair fitting; pump ratchet tool and soft seal pump kit. Package 262927 includes a complete pump repair kit instead of soft seal kit.

- 262927 Complete sprayer, M680 Cart Unit, 18m (60 ft) hose kit, 24U209 HTX 680 and 24T947 Flex Hose applicator, SST hopper, spare hard rubber retaining cap, extra #3(3/16), 4(1/4), 8(1/2), 9(9/16), size nozzles for Flex Hose/ Pole applicator
- 24T834 M680 Cart Unit, 10.7m (35 ft) hose kit, 24T947 Flex Hose applicator, SST hopper
- 24T835 M680 Cart Unit, 10.7m (35 ft) hose kit, 24T947 Flex Hose applicator, no hopper
- 262909 M680 Cart Unit, 10.7m (35 ft) hose kit, 24U209 HTX 680 applicator, SST hopper
- 262926 M680 Cart Unit, 10.7m (35 ft) hose kit, 24U209 HTX680 applicator, no hopper
- 24T836 M680 Cart Unit with SST hopper, no hoses, no applicator
- 24T837 M680 Cart Unit, bare (cart, pump, motor and air controls only)

## Applicators, Flex Hose and Pole

- 24T947 Flex Hose applicator kit
- 24T946 Pole applicator kit
- 16A405 Retaining cap, medium rubber (supplied with gun)
- 16A421 Retaining cap, hard rubber
- 16A443 Round Nozzle #3, 3/16 in
- 16A444 Round Nozzle #4, 1/4 in
- 16A445 Round Nozzle #5, 5/16 in (supplied with applicator)
- 16A446 Round Nozzle #6, 3/8 in (supplied with applicator)
- 16A447 Round Nozzle #7, 7/16 in (supplied with applicator)
- 16A448 Round Nozzle #8, 1/2 in
- 16A449 Round Nozzle #9, 9/16 in

## HTX 680 Applicators

- 24U209 HTX 680 Applicator Kit. Includes 4 mm, 6 mm, 8 mm, 10 mm round nozzles, and A, B, C, D pattern discs.
- 248524 HTX Round Pattern Nozzle, 4 mm (supplied with HTX 680 Gun)
- 248525 HTX Round Pattern Nozzle, 6 mm nozzle (supplied with HTX 680 Gun)
- 248526 HTX Round Pattern Nozzle, 8 mm nozzle (supplied with HTX 680 Gun)
- 248527 HTX Round Pattern Nozzle, 10 mm nozzle (supplied with HTX 680 Gun)
- 287227 Flat Pattern Nozzle Kit for HTX 680 gun (manual 310617) Includes A, B, C, D (1/8, 1/4, 5/16, 3/8) pattern discs.
- 24U337 HTX 680 Fine Finish RAC Extension Kit. Includes RAC 671 tip and guard, extension tube, and 18 and 30 mesh filters.
- 24U217 HTX Applicator. Spare spray head assembly

## Fluid and Air Lines

- 24R254 Spray Line Extension bundle (fluid and air), 7.6m (25 ft)
- 24U210 Spray Line kit (fluid and air) with fluid shut-off valve, 10.7m (35 ft)
- 16W511 Hose, 1 in x 7.6m (25 ft), 69 bar (1000 psi) bare hose, solvent compatible, 1 in (mbe)
- 16W512 Hose, 3/4 in x 3m (10 ft), 69 bar (1000 psi) bare hose, solvent compatible, 1 in (mbe)
- 24U185 Fluid line sleeve, replacement, 15.2m (50 ft), solvent resistant. Keeps fluid lines clean. Polyethylene 3 in tubing, 6 mil
- 16W601 Hose Clean Pack Out Kit. Adapter to reverse fluid hoses.
- 24U331 Standard air hose replacement bundle, 3/8 in x 11.6m (38 ft) with pilot line and solvent resistant sleeve
- 24T852 Air hose extension replacement bundle, 3/8 in x 7.9m (26 ft) with pilot line and solvent resistant sleeve
- 24U184 Air line sleeve, replacement, 15.2m (50 ft), solvent resistant. Keeps air lines clean. Polyethylene 2 in tubing, 6 mil
- 262910 Pilot line, 11.6m (75 ft), (cut to length.)
- 127312 Pilot line splice connector (fbc). For repairing damaged pilot line.

## Pump Accessories

- 16W508 M680 Pump lower rebuild kit. Soft parts plus hardened stainless steel balls.
- 24U173 M680 Pump soft seal kit
- 16W510 Carbide inlet seat with O-ring
- 16W509 Carbide piston seat with O-ring
- 16W513 Zero-cavity relief valve at pump outlet. Complete valve.
- 24T853 Hopper kit. Includes 38L(10 gal) SST hopper with 2 in npt cam/groove fittings and mounting bracket
- 16U537 Hopper lid, SST (Not supplied with standard hopper kit) (Manual 332234)
- 16X005 Xtreme™ connection kit. For light to medium duty airless spraying. Includes tie rods and couplers to adapt an Xtreme lower to the system. Requires Xtreme lower and high-pressure accessories.





## 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.

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