



Automatic Air-Assisted High Pressure Spray Gun

- **Best finish quality at higher atomization pressures**
- **Easy maintenance and repair with removable spray gun and easy to install needle cartridge**
- **Improved transfer efficiencies at increased production speed**
- **Compact style that is simple to mount**
- **High quality stainless steel construction**

Graco's new automatic gun is specifically designed to provide the best finish quality available for air-assisted spray guns. This transfer-efficient technology delivers increased production speeds, saving both time and materials.

Graco's air-assisted spray gun is compact and lightweight, as well as easy to install. The gun has a block design with separate spray head and mounting manifold, allowing all hose connections to be made on the manifold. The spray gun can be removed and service performed without removing any connections, thus minimizing downtime. The manifold is retrofitable to your current automatic gun, so changeover can be easily performed.

This automatic gun is ideal for the wood industry, used on flat line or reciprocating machines where finish quality, reliability and ease of installation and service are important. Available air-assisted models include a standard gun, acid-catalyzed compatible gun, HVLP gun, and hi-flow gun. An airless model is available; see form 305-795 for more information.

Typical Industry Applications

- Wood finishing
- Leather tanning
- Metal furniture and fixture manufacturing
- Fabricated metal manufacturing

Typical Fluids Handles

- Washcoats, glazes, top coat lacquers and catalyzed varnishes
- Primers, protective coatings, waterborne materials and two-part urethane
- Epoxies, urethanes, air dry enamels and clear coat enamels

**High pressure
air-assisted
spray gun to
atomize
coatings at high
production
speeds**



Technical Specifications

Maximum fluid pressure 4000 psi (28 MPa, 280 bar)

Maximum working air pressure . . 100 psi (0.7 MPa, 7 bar)

Max. cylinder air pressure 100 psi (0.7 MPa, 7 bar)

Minimum actuating pressure

239-780 50 psi (0.3 MPa, 3.5 bar)

239-787 50 psi (0.3 MPa, 3.5 bar)

239-788 50 psi (0.3 MPa, 3.5 bar)

239-784 70 psi (0.5 MPa, 4.9 bar)

Maximum working fluid temperature 120°F (49°C)

Wetted parts . . . Stainless steel, carbide, UHMWPE, Delrin®,
CV75, Teflon®, polyimide

Weight 2.1 lb (9.6 g)

Instruction manual 308-780

Teflon®, Delrin® are a registered trademarks of Du Pont.

Triggering Speed

Models 239-780, 239-787, 239-788 (1/8 inch ball)

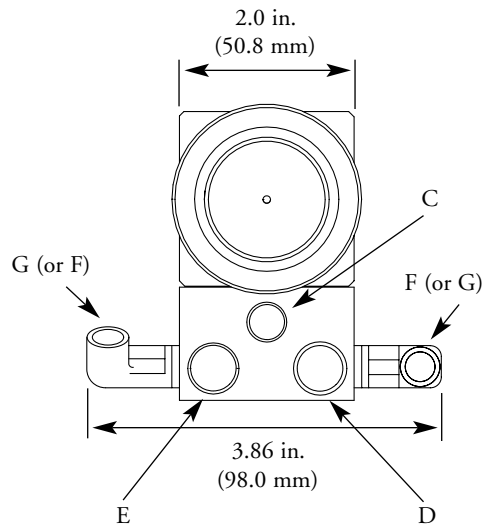
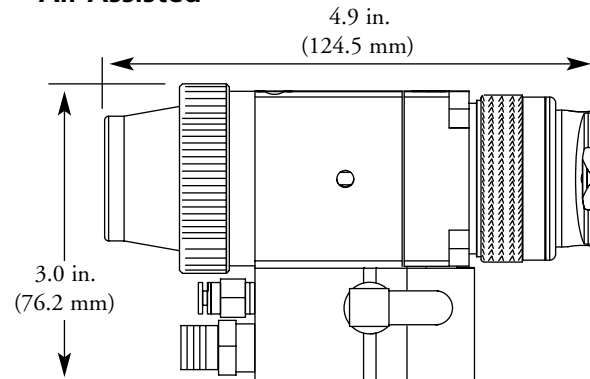
| Cylinder Air Pressure psi (MPa, bar) | Fluid Pressure psi (MPa, bar) | msec to fully open | msec to fully close |
|--|----------------------------------|-----------------------|------------------------|
| 50 (0.34, 3.4) | 600 (4.2, 42) | 60 | 60 |
| 50 (0.34, 3.4) | 1800 (12.4, 124) | 60 | 60 |
| 50 (0.34, 3.4) | 4000 (28, 280) | 60 | 60 |

Model 239-784 (3/16 inch ball)

| Cylinder Air Pressure psi (MPa, bar) | Fluid Pressure psi (MPa, bar) | msec to fully open | msec to fully close |
|--|----------------------------------|-----------------------|------------------------|
| 70 (0.49, 4.9) | 600 (4.2, 42) | 51 | 72 |
| 70 (0.49, 4.9) | 1800 (12.4, 124) | 56 | 73 |
| 70 (0.49, 4.9) | 4000 (28, 280) | 69 | 73 |

Dimensions

Air-Assisted



Key

- C Cylinder Air Inlet: accepts 1/4 in. (6.3 mm) O.D. tubing
- D Atomization Air Inlet: 1/4 - 18.6 npsm
- E Fan Air Inlet: 1/4 - 18.6 npsm
- F Fluid Inlet: 1/4 - 18 nptf (or #5 JIC (1/2-20 unf)
- G Fluid Outlet (circulating gun only):
1/4-18 nptf or #5 JIC (1/2-20 unf)

Tip Selection Chart for Air-Assisted Automatic Spray Guns

| Orifice in (mm) | Fan Width at 12 in. in (mm) | Flow Rate | | Tip Part No. | Orifice in (mm) | Fan Width at 12 in. in (mm) | Flow Rate | | Tip Part No. |
|--------------------|-----------------------------------|---|------------------------------------|-----------------|--------------------|-----------------------------------|---|------------------------------------|-----------------|
| | | Light-Med. Viscosity oz/min (lpm) | Heavy Viscosity oz/min (lpm) | | | | Light-Med. Viscosity oz/min (lpm) | Heavy Viscosity oz/min (lpm) | |
| 0.009 (0.229) | 4-5 (100-125) | 7.0 (0.2) | Not | GG5-209 | 0.017 (0.432) | 6-7 (150-175) | 22.0 (0.7) | 17.0 (0.5) | GG5-317 |
| | 6-7 (150-175) | | Recommended | GG5-309 | | 8-9 (200-225) | | GG5-417 | |
| | 8-9 (200-225) | | | GG5-409 | | 10-11 (250-275) | | GG5-517 | |
| | 10-11 (250-275) | | | GG5-509 | | 12-13 (300-325) | | GG5-617 | |
| 0.011 (0.279) | 4-5 (100-125) | 10.0 (0.3) | Not | GG5-211 | 0.019 (0.483) | 8-9 (200-225) | 28.0 (0.8) | 21.0 (0.6) | GG5-419 |
| | 6-7 (150-175) | | Recommended | GG5-311 | | 10-11 (250-275) | | GG5-519 | |
| | 8-9 (200-225) | | | GG5-411 | | 12-13 (300-325) | | GG5-619 | |
| | 10-11 (250-275) | | | GG5-511 | | 14-15 (350-375) | | GG5-719 | |
| | 12-13 (300-325) | | | GG5-611 | | | | | |
| 0.013 (0.330) | 4-5(100-125) | 13.0 (0.4) | Not | GG5-213 | 0.021 (0.533) | 8-9 (200-225) | 35.0 (1.0) | 27.0 (0.8) | GG5-421 |
| | 6-7 (150-175) | | Recommended | GG5-313 | | 10-11 (250-275) | | GG5-521 | |
| | 8-9 (200-225) | | | GG5-413 | | 12-13 (300-325) | | GG5-621 | |
| | 10-11 (250-275) | | | GG5-513 | | | | | |
| | 12-13 (300-325) | | | GG5-613 | | | | | |
| 0.015 (0.381) | 4-5 (100-125) | 17.0 (0.5) | Not | GG5-215 | | | | | |
| | 6-7 (150-175) | | Recommended | GG5-315 | | | | | |
| | 8-9 (200-225) | | | GG5-415 | | | | | |
| | 10-11 (250-275) | | | GG5-515 | | | | | |
| | 12-13 (300-325) | | | GG5-615 | | | | | |
| | 14-15 (350-375) | | | GG5-715 | | | | | |
| | 16-17 (400-425) | | | GG5-815 | | | | | |

Ordering Information for Air-Assisted Spray Guns

All models include an internal filter.

239-780 Standard Gun

Includes standard needle with 1/8 in. (3.1 mm) carbide ball (239-794) and standard diffuser seat (224-855), standard air cap (239-781) and GG5 tip.

239-787 Acid Catalyst Gun

Specially designed to handle low viscosity and/or acid-catalyzed materials. Includes a needle with 1/8 in. (3.1 mm) plastic ball (239-808) and standard diffuser seat (224-855), standard air cap (239-781) and GG5 tip.

239-788 HVLP Gun

Includes standard needle (239-794) and standard seat (224-855), HVLP air cap (239-898), and GG5 tip.

239-784 Hi-Flow Spray Gun

Includes needle with 3/16 in. (4.7 mm) carbide ball (239-807), seat (239-806). Air cap and tip not included.

Manifolds

A manifold is required for each gun to be installed.

239-891 Standard 1/4-18 npsm inlets

240-214 European #5 JIC inlets

Filter Kit

240-948 Contains 10 internal filters (193-413).

Accessories

239-894 Air Seal Repair Kit

239-895 Fluid Repair Kit

For air-assisted models.

239-808 Plastic Ball-Tipped Fluid Needle

Replacement needle, for use with acid catalyst/low viscosity materials. Must be used on air-assisted guns only with the 224-855 diffuser seat.

238-766 Ruby Ball-Tipped Fluid Needle

For use with higher viscosity and/or higher abrasive acid catalyst materials. To be used only on air-assisted guns with the 224-855 diffuser seat.

239-781 Standard Air Cap

Typical air consumption: 3-6 scfm.

239-898 HVLP Air Cap

Typical air consumption: 4-8 scfm. Meets environmental regulatory requirements when used at 10 psi (0.07 MPa, 0.7 bar) or less air cap atomizing air pressure.

239-897 Air Cap Verification Kit

Used to determine air pressure behind the air cap. (239-898 cap only). Not to be used for actual spraying. Note: To be compliant, the atomizing air pressure must not exceed 10 psi (70 kPa, 0.7 bar).