

GAP Pro Spray Gun

311322B

For use with non-flammable polyurethane foams. Not for use in explosive atmospheres.

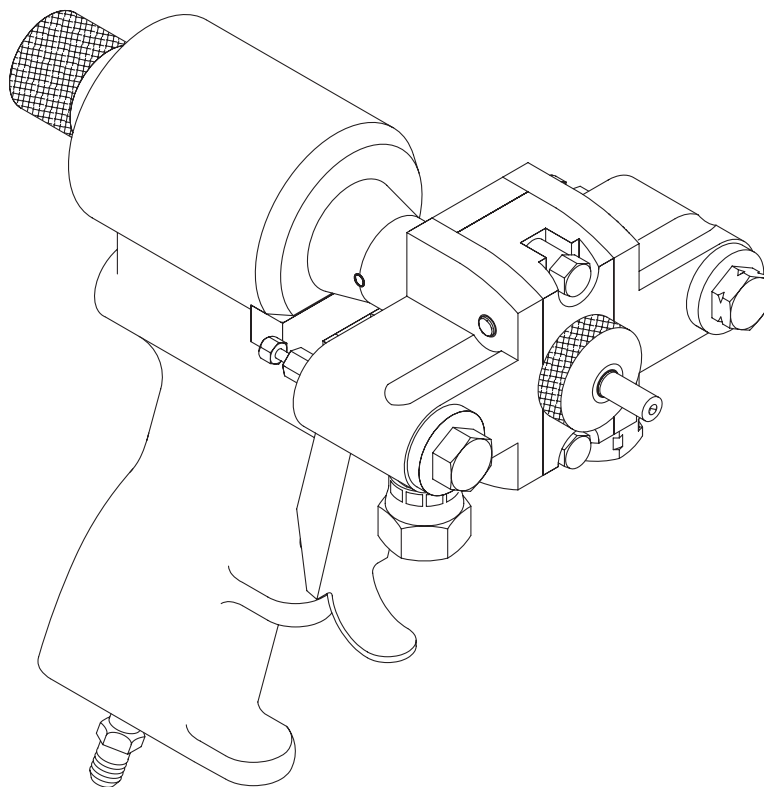
See page 3 for model information.

3000 psi (20.7 MPa, 207 bar) Maximum Working Fluid Pressure

125 psi (0.86 MPa, 8.6 bar) Maximum Working Air Pressure



Important Safety Instructions
Read all warnings and instructions
in this manual. Save these instructions.



GRACO | GUSMER

Contents

| | | | |
|-------------------------------------|----------|--|-----------|
| Gun Models | 3 | Repair | 13 |
| Warnings | 4 | Side Blocks | 13 |
| Overall View | 6 | Mixing Chamber and Gun Block | 15 |
| Major Components | 6 | End Cap and Air Piston | 17 |
| Operation | 8 | End Cap O-ring and Safety Stop Seal .. | 19 |
| Isocyanate Hazard | 8 | Trigger/Air Valve | 21 |
| Keep A and B Components Separate .. | 8 | Air Passage Diagrams | 23 |
| Grounding | 8 | Notes | 25 |
| Safety Stop | 8 | Parts | 26 |
| Manual Valves | 9 | GAP Pro Spray Gun Assembly | 26 |
| Air Hose Configurations | 10 | Notes | 29 |
| Initial Set Up | 11 | GAP Pro Spray Gun Handle Assembly .. | 30 |
| Daily Start-Up | 11 | Accessories | 32 |
| Daily Shutdown | 11 | Technical Data | 33 |
| Pressure Relief Procedure | 11 | Graco Standard Warranty | 34 |
| Grease Gun | 12 | Graco Information | 34 |






Gun Models

| Part No. | Description | Mix Module |
|----------|----------------------------------|------------|
| 295550★ | Flat Pattern Gun | #00 flat |
| 295551★ | Flat Pattern Gun | #01 flat |
| 295552★ | Flat Pattern Gun | #02 flat |
| 295553★ | Flat Pattern Gun | #03 flat |
| 295554★ | Flat Pattern Gun | #04 flat |
| 295555★ | Flat Pattern Gun, Splatter Tip | #04 flat |
| 295556★ | Flat Pattern Gun | #05 flat |
| 295557 | Round Pattern Gun | #00 round |
| 295558 | Round Pattern Gun, Recirculating | #00 round |
| 295559 | Round Pattern Gun | #01 round |
| 295560 | Round Pattern Gun | #02 round |
| 295561 | Round Pattern Gun | #03 round |
| 295562 | Round Pattern Gun | #04 round |

★ Flat pattern guns are sold without a spray tip. See **Flat Spray Tip Kits**, page 32 for tip choices.

Warnings

The following general warnings are for the setup, use, grounding, maintenance, and repair of this equipment. Additional, more specific warnings may be found throughout the body of this manual where applicable. *Symbols appearing in the body of the manual refer to these general warnings. When these symbols appear throughout the manual, refer back to these pages for a description of the specific hazard.*

|  WARNING | |
|--|---|
|  | <p>PERSONAL PROTECTIVE EQUIPMENT</p> <p>You must wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to help protect you from serious injury, including eye injury, inhalation of toxic fumes, burns, and hearing loss. This equipment includes but is not limited to:</p> <ul style="list-style-type: none"> • Protective eyewear • Clothing and respirator as recommended by the fluid and solvent manufacturer • Gloves • Hearing protection |
|  | <p>TOXIC FLUID OR FUMES HAZARD</p> <p>Toxic fluids or fumes can cause serious injury or death if splashed in the eyes or on skin, inhaled, or swallowed.</p> <ul style="list-style-type: none"> • Read MSDS's to know the specific hazards of the fluids you are using. • Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines. |
|  | <p>SKIN INJECTION HAZARD</p> <p>High-pressure fluid from gun, hose leaks, or ruptured components will pierce skin. This may look like just a cut, but it is a serious injury that can result in amputation. Get immediate surgical treatment.</p> <ul style="list-style-type: none"> • Do not point gun at anyone or at any part of the body. • Do not put your hand over the spray tip. • Do not stop or deflect leaks with your hand, body, glove, or rag. • Do not spray without tip guard and trigger guard installed. • Follow Pressure Relief Procedure in this manual, when you stop spraying and before cleaning, checking, or servicing equipment. |
|  | <p>PRESSURIZED EQUIPMENT HAZARD</p> <p>Fluid from the gun/dispense valve, leaks, or ruptured components can splash in the eyes or on skin and cause serious injury.</p> <ul style="list-style-type: none"> • Follow Pressure Relief Procedure in this manual, when you stop spraying and before cleaning, checking, or servicing equipment. • Tighten all fluid connections before operating the equipment. • Check hoses, tubes, and couplings daily. Replace worn or damaged parts immediately. |


WARNING
**FIRE AND EXPLOSION HAZARD**

Flammable fumes, such as solvent and paint fumes, in **work area** can ignite or explode. To help prevent fire and explosion:

- Use equipment only in well ventilated area.
- Eliminate all ignition sources; such as pilot lights, cigarettes, portable electric lamps, and plastic drop cloths (potential static arc).
- Keep work area free of debris, including solvent, rags and gasoline.
- Do not plug or unplug power cords, or turn power or light switches on or off when flammable fumes are present.
- Ground all equipment in the work area. See **Grounding** instructions.
- Use only grounded hoses.
- Hold gun firmly to side of grounded pail when triggering into pail.
- If there is static sparking or you feel a shock, **stop operation immediately**. Do not use equipment until you identify and correct the problem.
- Keep a fire extinguisher in the work area.

**EQUIPMENT MISUSE HAZARD**

Misuse can cause death or serious injury.

- Do not operate the unit when fatigued or under the influence of drugs or alcohol.
- Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See **Technical Data** in all equipment manuals.
- Use fluids and solvents that are compatible with equipment wetted parts. See **Technical Data** in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request MSDS forms from distributor or retailer.
- Check equipment daily. Repair or replace worn or damaged parts immediately with genuine Graco/Gusmer replacement parts only.
- Do not alter or modify equipment.
- Use equipment only for its intended purpose. Call your Graco/Gusmer distributor for information.
- Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces.
- Do not kink or over bend hoses or use hoses to pull equipment.
- Keep children and animals away from work area.
- Comply with all applicable safety regulations.

**PRESSURIZED ALUMINUM PARTS HAZARD**

Do not use 1,1,1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents in pressurized aluminum equipment. Such use can cause serious chemical reaction and equipment rupture, and result in death, serious injury, and property damage.

Overall View

Major Components

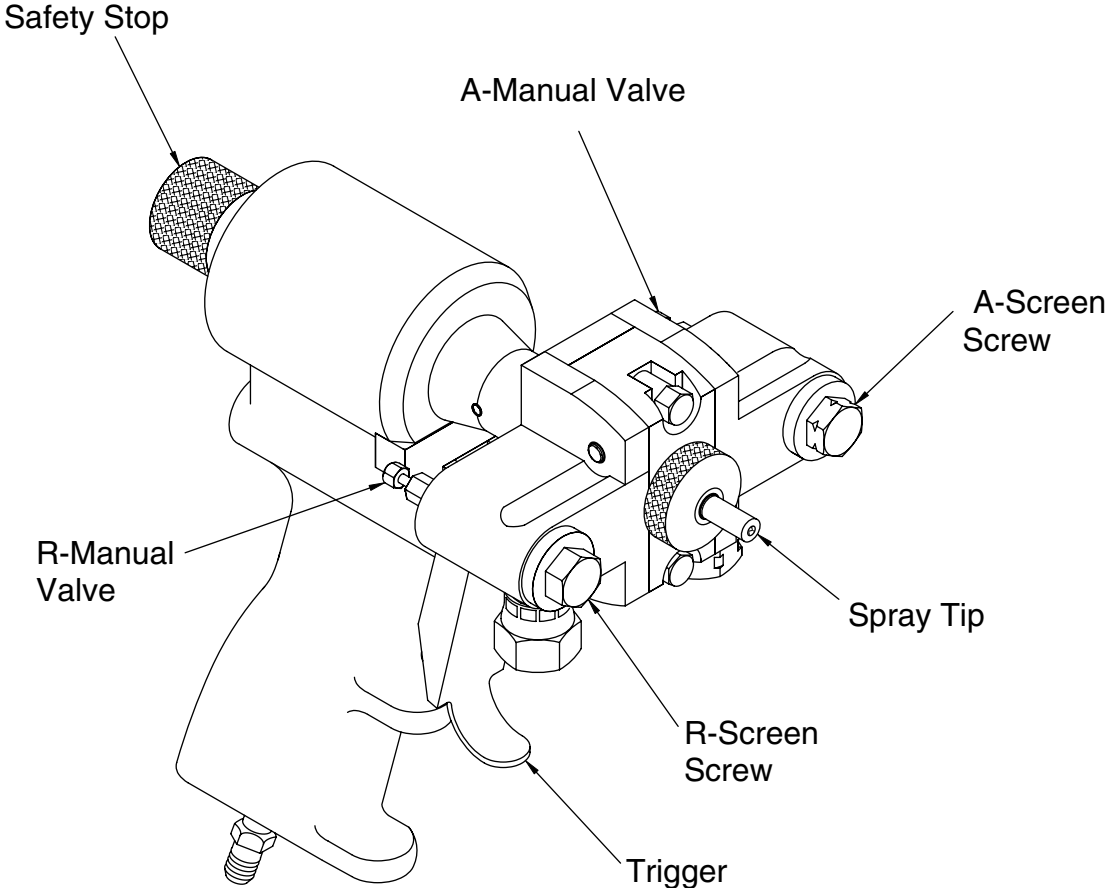


FIG. 1. Major Components (shown with round spray tip)

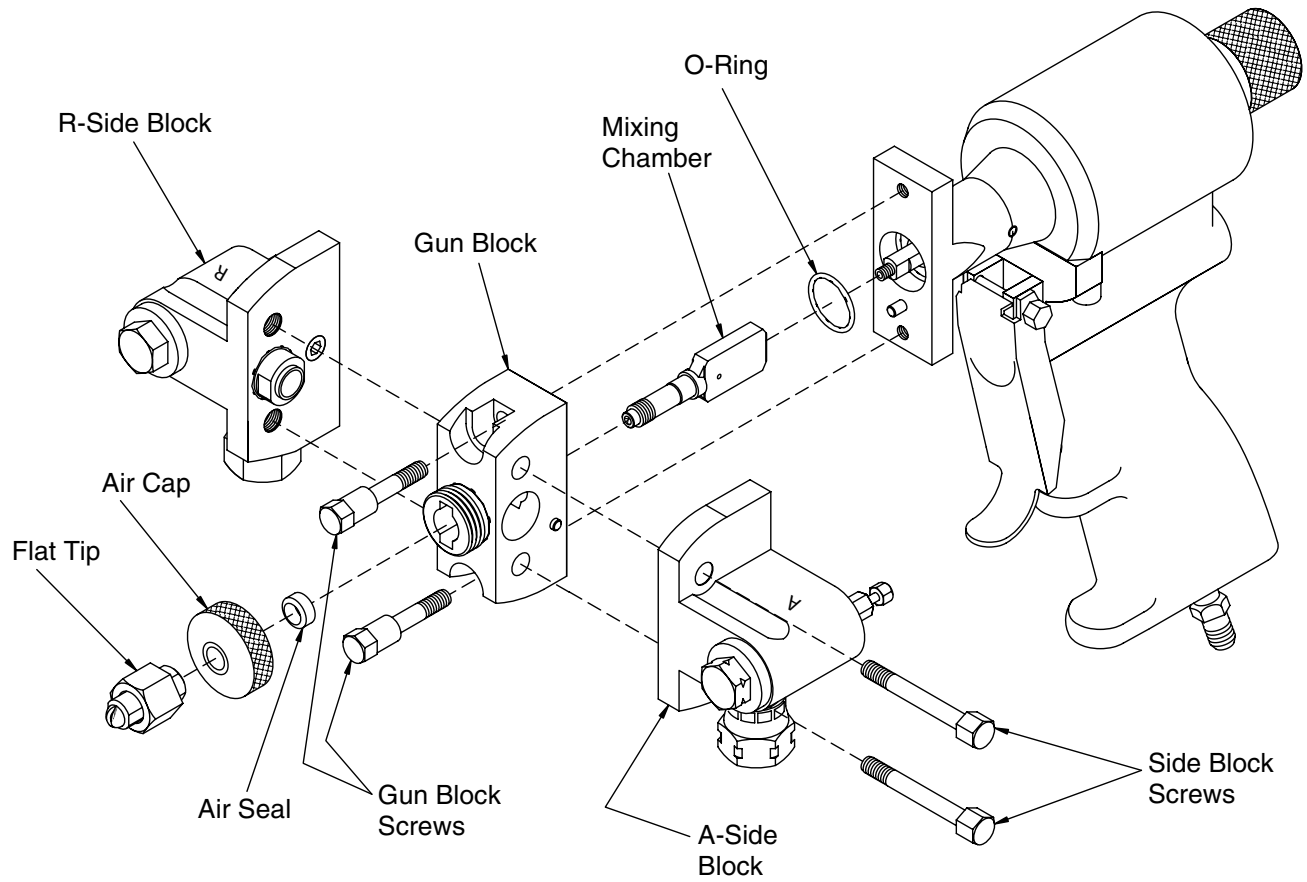










FIG. 2. Front End Components (shown with flat spray tip assembly)

Operation

| | | | | | | |
|--|---|---|---|---|--|--|
|  |  |  |  |  | | |
| To prevent accidental gun operation, always disconnect air supply before servicing gun or anytime gun is not in use. | | | | | | |



Isocyanate Hazard

| | | | | | | |
|---|---|---|--|--|--|--|
|  |  |  | | | | |
| Read Material Safety Data Sheet (MSDS) to know the specific hazards of isocyanates. Use equipment in a well-ventilated area. Wear respirator, gloves, and protective clothing when using isocyanates. | | | | | | |

Keep A and B Components Separate

| CAUTION | | | | | | |
|--|--|--|--|--|--|--|
| To prevent cross-contamination of the gun's wetted parts, do not interchange A component (isocyanate) and B component (resin) parts. The gun is shipped with the A side on the left. | | | | | | |




Grounding

| | | | | | | |
|--|---|--|--|--|--|--|
|  |  | | | | | |
|--|---|--|--|--|--|--|

Check your local electrical code and proportioner manual for detailed grounding instructions.

Ground the spray gun through connection to a Graco-approved grounded fluid supply hose.

Safety Stop

| | | | | | | |
|--|---|--|---|--|--|--|
|  |  |  |  | | | |
| Always engage safety stop, close both manual valves, and disconnect air before cleaning, maintaining, or repairing gun, or any time gun is not in use. | | | | | | |

The GAP Pro gun has a 2-position safety stop. When engaged, it prevents accidental triggering of gun. When disengaged, it allows gun to dispense.

1. **To engage the safety stop**, push in and turn the safety stop knob clockwise. See FIG. 3.

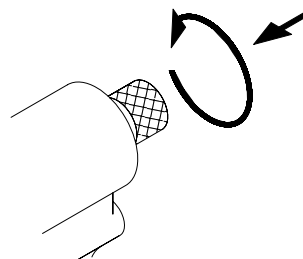


FIG. 3. Engage Safety Stop

2. **To disengage the safety stop**, push in and turn the safety stop knob counterclockwise. See FIG. 4.

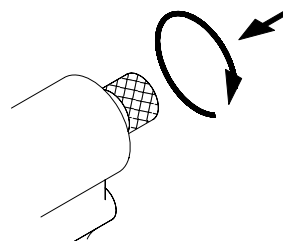








FIG. 4. Disengage Safety Stop

Manual Valves

Manual valves located on the side blocks control flow of each chemical component to gun.

 Triggering gun with manual valves closed may cause crossover if gun ports contain residual chemical.

| | | | | | | |
|--|---|---|---|---|--|--|
|  |  |  |  |  | | |
| <p>Always engage safety stop, close both manual valves, and disconnect air before cleaning, maintaining, or repairing gun, or any time gun is not in use.</p> <p>Never open a manual valve unless side block is secured to gun or exit port is directed into flush pail.</p> | | | | | | |

1. Open manual valves using a 5/16 in. nut driver; turn manual valves counterclockwise approximately three full turns.
2. Close manual valves by turning fully clockwise.

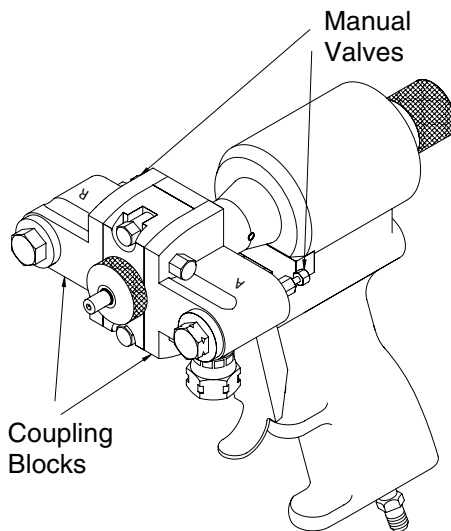


FIG. 5. Manual Valves

Air Hose Configurations

The GAP Pro Gun has two possible air hose configurations. In the standard configuration, the air connection is at the base of the handle. In the optional configuration, the air connection is at the rear of the gun.



Always engage safety stop, close both manual valves, and disconnect air before changing air hose configuration.

1. See FIG. 6. Remove air hose from nipple at base of gun handle.
2. Remove nipple from gun handle.
3. Remove pipe plug from back of gun.
4. Install pipe plug in base of gun handle.
5. Install nipple in back of gun.
6. Connect air hose to nipple and use wrench to tighten.

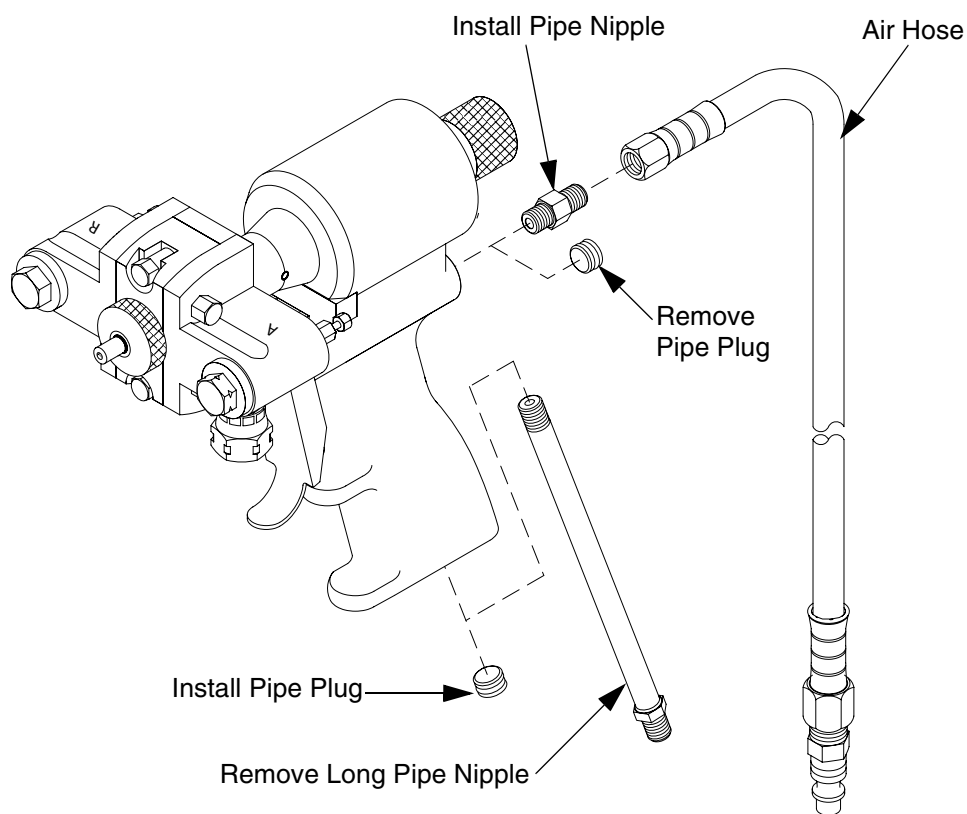



FIG. 6. Air Hose Configuration

Initial Set Up



1. Close both manual valves.
2. Engage safety stop.
3. Install female quick disconnect fitting on air hose, which is bundled with fluid supply hoses.
4. Connect A-isocyanate hose (red-taped) to fitting on A-side block. Then connect R-resin hose (blue-taped) to fitting on R-side block.

 A and R side hoses are sized differently to prevent improper connection.

5. Pressurize A and R chemical hoses and check for leaks. (See Proportioning Unit manual.)
6. Check proportioning unit for proper hose temperature, heater temperature, and pressure. (See Proportioning Unit manual.)
7. Connect air supply hose to gun.
8. Open both manual valves, page 9.
9. Disengage safety stop.
10. Test spray on disposable surface.
11. Proceed with Daily Start-up procedure or Shutdown procedure as required.

Pressure Relief Procedure

Daily Start-Up




Ensure side blocks are attached to gun, and proportioning unit is at desired temperature and pressure.

1. Connect air supply to gun, page 10.
2. Trigger gun multiple times to ensure proper mixing chamber movement.
3. Open both manual valves, page 9.
4. Disengage safety stop.
5. Test spray on disposable surface.

Daily Shutdown







 Follow this procedure when gun is out of service for any length of time. Daily disassembly of gun for cleaning is not recommended if it has been operating properly. However, if you remove gun from coupling block, flush and clean thoroughly.

1. Follow Pressure Relief Procedure, page 11.
2. Shutdown proportioning unit as required.
3. Grease gun, page 12.




Relieve pressure before cleaning or repairing gun.


1. Close both manual valves.
2. Engage safety stop.
3. Trigger gun once onto waste area to relieve fluid pressure in gun front end.
4. Disconnect gun air supply, page 10.

| | | | | | | |
|--|---|---|---|--|--|--|
|  |  |  |  | | | |
| <p>If fluid in hose and proportioner is still under pressure, follow Pressure Relief Procedure in proportioner manual.</p> <p>To relieve pressure in hose after gun is removed, place fluid manifold over containers, facing away from you. Very carefully open fluid valves. Under high pressure, fluid will spray sideways from fluid ports.</p> | | | | | | |





Grease Gun

 Do not grease gun if gun will be serviced following shutdown.

1. Follow **Pressure Relief Procedure**, page 11.
2. Insert GAP Gun Chamber Lubricant Needle into nozzle of mixing chamber. Dispense a small amount of lubricant into mixing chamber.

 To determine correct amount of lubricant, remove air cap to view internal chamber area. When lubricant becomes visible, stop dispensing.
3. Connect gun air supply.
4. With safety stop engaged, trigger gun 2 or 3 times to discharge any excess lubricant.
5. Disconnect gun air supply, page 10.

Repair

| | | | | | | |
|--|---|---|---|--|--|--|
|  |  |  |  | | | |
| Shutdown proportioner and allow chemicals to cool before performing any repair procedures. | | | | | | |

Side Blocks

| | | | | | | |
|---|---|---|---|---|--|--|
|  |  |  |  |  | | |
|---|---|---|---|---|--|--|

1. Follow **Pressure Relief Procedure**, page 11.

2. See FIG. 7. Remove A-side screen screw, seal, and screen. Inspect for damage. Thoroughly rinse and dry screen. Hold screen up to a bright light; mesh must be free of particles and material buildup. Replace as necessary. Repeat for R-side.

3. Alternately loosen side block mounting screws. Carefully separate side blocks from gun. Wipe mating surfaces with a rag soaked in gun cleaner.

4. Remove check valve retainer/side seal assembly from A-side block.

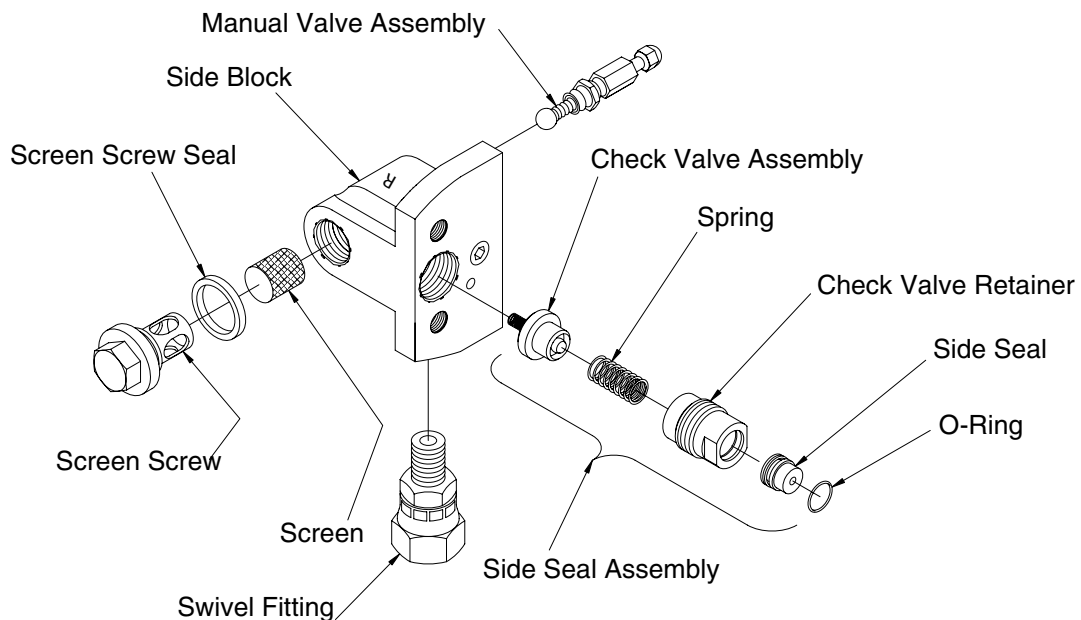


FIG. 7. Side Block Components

- Remove check valve and clean with gun cleaner. Inspect and replace if damaged.

CAUTION

Clean side seals with a wooden or plastic scraper or a brass brush. Do not use a pocketknife, razor blade, or any tool that may scratch surface.

- Remove side seal and o-ring. Replace if damaged.
- Clean all components thoroughly. Use brass brushes or drill bits to remove residual chemical from the gun block. Thorough cleaning ensures unrestricted movement of mixing chamber. Use cotton swabs soaked in gun cleaner if necessary.
- Repeat steps 4-7 for R-side block.

CAUTION

Do not overtighten check valve retainer. Tightening more than 1/4 turn can damage check valve or retainer and cause leaking when gun is pressurized.

- Place check valve assembly in check valve retainer and thread into side block finger-tight. Use a 1/2 in. wrench to tighten retainer 1/4 turn and **no more**. See FIG. 8.

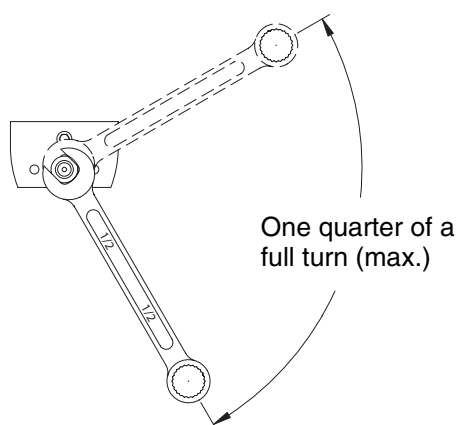


FIG. 8. Tighten Check Valve Retainer

- Check side seal for wear by measuring how far seal protrudes from side seal assembly insert. A worn side seal promotes chemical leakage. Replace side seal if it protrudes 0.065 in. (1.65 mm) or less. In addition, check seal for scratches, which also promote leakage. See FIG. 9.
- Inspect check valve assembly for damage by measuring gap between mating surface of side block and bottom edge of side seal assembly insert. If gap measures 0.018 in. (.46 mm) or less, the check valve assembly has been crushed due to overtightening and it must be replaced. See FIG. 9.

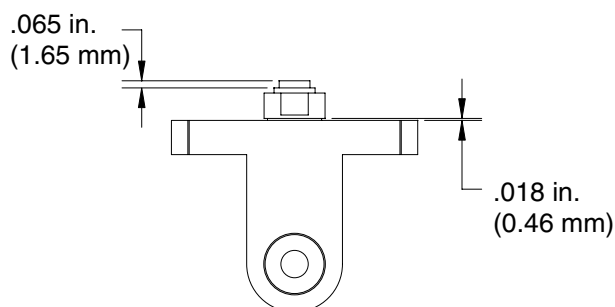



FIG. 9: Side Seal

- Place spring in check valve retainer.
- Lightly coat o-ring with grease and install on side seal.
- Push side seal into the check valve retainer until o-ring engages detent groove and remains in place.
- Install side blocks to gun body with two mounting screws. Tighten screws alternately and evenly to prevent leakage.
- Return gun to service. See **Daily Start-Up**, page 11.

Mixing Chamber and Gun Block



1. Follow **Pressure Relief Procedure**, page 11.

 If your gun has a round pattern spray tip, skip step 2 and go to step 3.

2. Remove flat tip assembly from end of mix module.
3. Remove air cap.
4. Use a 5/16 in. nut driver to alternately loosen side block mounting screws. Carefully separate side blocks from gun. Wipe mating surfaces with a rag soaked in gun cleaner.

 To repair side blocks, see **Side Blocks**, page 13.

5. Remove gun block bolts. Slide gun block away from gun. Wipe mating surfaces with a rag soaked in gun cleaner. Clean gun block with gun cleaner and brass brushes to remove residual chemical and built-up material. This ensures unrestricted movement of mixing chamber.
6. Use a 3/16 in. wrench or needle-nose pliers to hold end of piston shaft while unscrewing mixing chamber by hand. Clean mixing chamber with gun cleaner and drill bits. Inspect for damage and replace if necessary.
7. Hold end of piston shaft with a 3/16 in. wrench or needle-nose pliers. Screw mixing chamber onto shaft by hand.

8. Slide gun block over mixing chamber and up to gun. Install two mounting screws. Tighten screws alternately and evenly to prevent leakage.
9. Install side blocks to gun body with two mounting screws. Tighten screws alternately and evenly to prevent leakage.
10. Return gun to service. See **Daily Start-Up**, page 11.

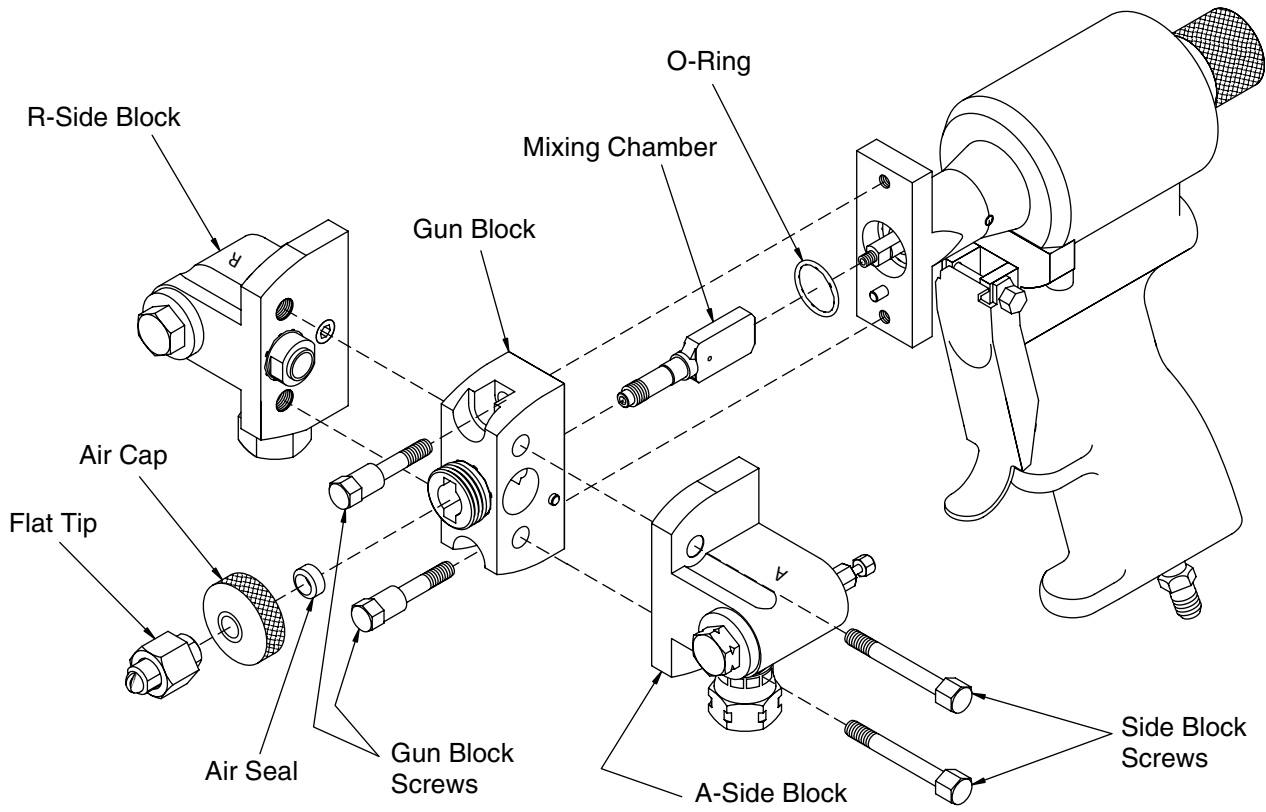




FIG. 10. Mixing Chamber and Gun Block


End Cap and Air Piston



1. Follow **Pressure Relief Procedure**, page 11.
 2. Use a 5/16 in. nut driver to alternately loosen side block mounting screws. Carefully separate side blocks from gun. Wipe mating surfaces with a rag soaked in gun cleaner.
-  To repair side blocks, see **Side Blocks**, page 13.
3. Use a 5/16 in. nut driver to remove gun block mounting screws. Slide gun block away from gun. Wipe mating surfaces with a rag soaked in gun cleaner. Be sure to retain o-ring located between gun block and mounting flange.

 To repair gun block, see **Mixing Chamber and Gun Block**, page 15.

4. See FIG. 11. Use a 3/16 in. wrench or needle-nose pliers to hold end of piston shaft while unscrewing mixing chamber by hand.

 To repair mixing chamber, see **Mixing Chamber and Gun Block**, page 15.

5. Disengage safety stop.
6. Use a 9/64 in. ball point hex key to remove socket head screw and clamp from rear of air cylinder.
7. Use a retaining ring pliers to remove retaining ring. Ring retains end cap position in air cylinder.

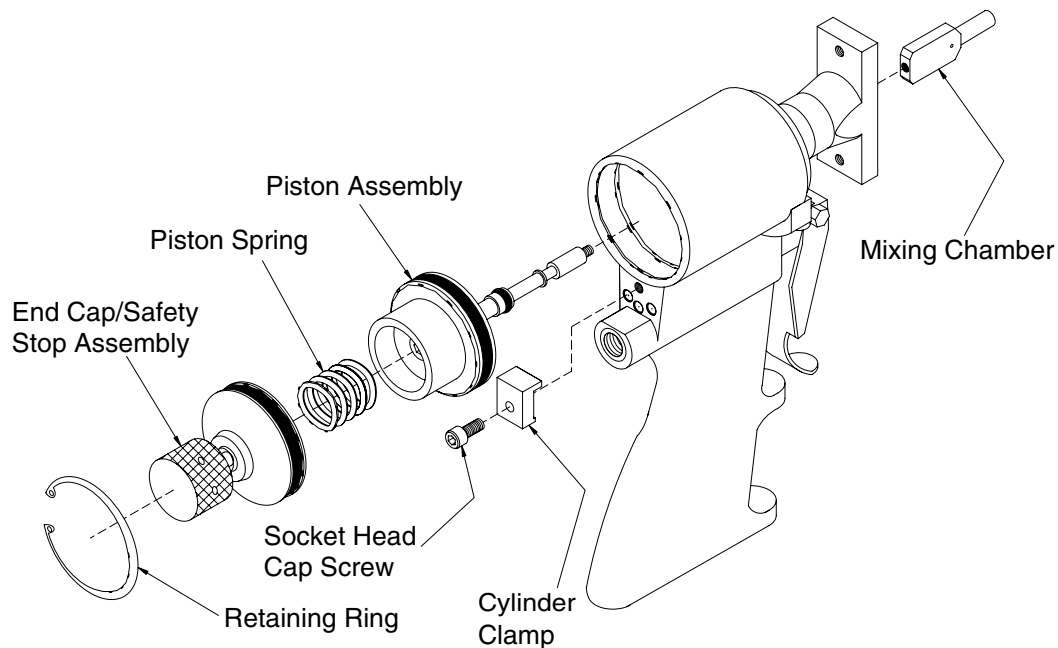



FIG. 11. End Cap and Piston Assembly

 Removing safety stop and end cap requires some force because o-ring is tightly compressed.

8. Pull safety stop until it and attached end cap come free from air cylinder. Be sure to retain piston spring, located inside cylinder.
9. Inspect end cap o-ring and remove if damaged. Lightly coat new o-ring with Lubriplate grease and install on end cap.
10. Pull piston assembly out of air cylinder.
11. See FIG. 12. Remove retaining ring and slide piston shaft out from the back of piston.
12. Inspect shaft and piston o-rings and replace if damaged. Lightly coat new o-rings with Lubriplate grease before installing.
13. Slide piston shaft into the back of piston, being careful not to damage shaft o-rings. Secure with retaining ring.

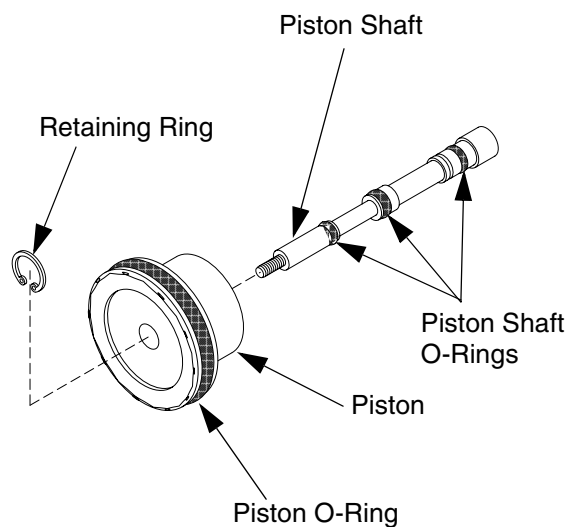




FIG. 12. Piston Assembly

14. Install piston assembly into the air cylinder. See FIG. 11.

| | | | | | | |
|---|---|--|--|--|--|--|
|  |  | | | | | |
| Be sure to insert retaining ring completely into groove so end cap will remain in air cylinder when gun is pressurized. Keep clear of end cap when reapplying air pressure or triggering gun after reassembly in case of improper retaining ring installation | | | | | | |

15. Center piston spring over raised portion of piston. Align raised portion of end cap with inside diameter of piston spring. Insert end cap into air cylinder. Press end cap until it moves past the undercut groove in air cylinder, which is where retaining ring nests. Maintain pressure on end cap, ensure groove remains visible, and install retaining ring using retaining ring pliers.
16. Reinstall socket head screw and cylinder clamp in rear of air cylinder.
17. Hold end of piston shaft with a 3/16 in. wrench or needle-nose pliers. Screw the mixing chamber onto shaft by hand.
18. Slide gun block over mixing chamber and up to gun. Install two mounting screws. Tighten screws alternately and evenly to prevent leakage.
19. Install side blocks to gun body with two mounting screws. Tighten screws alternately and evenly to prevent leakage.
20. Return gun to service. See **Daily Start-Up**, page 11.


End Cap O-ring and Safety Stop Seal



1. Follow **Pressure Relief Procedure**, page 11.
2. Use a 5/16 in. nut driver to alternately loosen side block mounting screws. Carefully separate side blocks from gun. Wipe mating surfaces with a rag soaked in gun cleaner.

 To repair side blocks, see **Side Blocks**, page 13.

3. Remove socket head screw and clamp from rear of air cylinder.
4. See FIG. 13. Use a retaining ring pliers to remove retaining ring. Ring retains end cap position in air cylinder.

 Removing safety stop and end cap requires some force because o-ring is tightly compressed.

5. Pull safety stop until it and attached end cap come free from air cylinder. Be sure to retain piston spring, which is located inside cylinder.
6. Inspect end cap o-ring and replace if damaged. Lightly coat new o-ring with Lubri-plate grease and install on end cap.

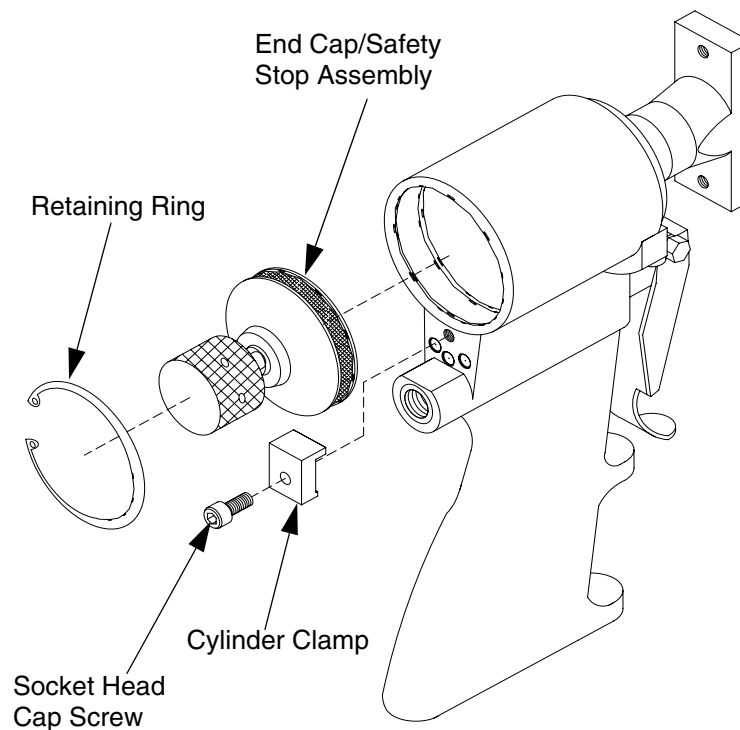


FIG. 13. End Cap Assembly

7. See FIG. 14. Use a 5/64 in. hex key to loosen two setscrews on stop knob. Slide knob off shaft of stop pin. Retain shaft spring. Pull stop pin out of end cap.
8. Remove u-cup seal from end cap and replace if damaged. Lightly coat new seal with Lubriplate grease before installing; u-cup lips must face the air cylinder.
9. Insert stop pin into end cap. Slide shaft spring and stop knob onto shaft of stop pin. Use a 5/64 in. hex key to install two set screws in stop knob. Ensure knob set screws are aligned to flats on stop pin and tighten securely.

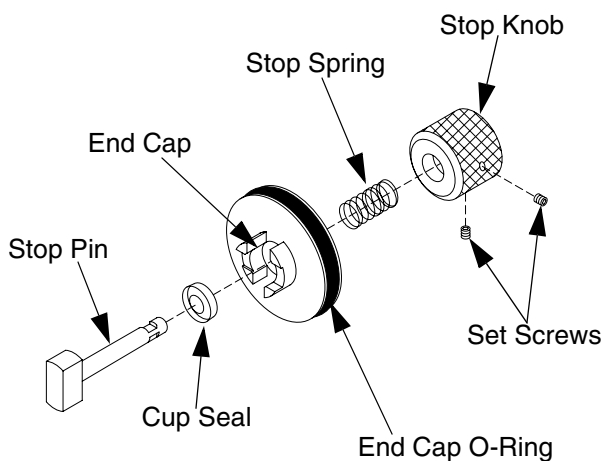



FIG. 14. Safety Stop Assembly

| | | | | | | |
|---|--|--|--|--|--|--|
| | | | | | | |
| <p>Be sure to insert retaining ring completely into groove to ensure end cap remains in air cylinder when gun is pressurized. Keep clear of end cap when reapplying air pressure or triggering gun after reassembly in case of improper retaining ring installation</p> | | | | | | |

10. Center piston spring over raised portion of piston. Align raised portion of end cap with inside diameter of piston spring. Insert end cap into air cylinder. Press end cap until it moves past undercut groove in air cylinder, which is where retaining ring nests. Maintain pressure on end cap, ensure groove remains visible, and install retaining ring using retaining ring pliers. See FIG. 13.
11. Reinstall socket head screw and cylinder clamp in rear of air cylinder.
12. Install side blocks to gun body with two mounting screws. Tighten screws alternately and evenly to prevent leakage.
13. Return gun to service. See **Daily Start-Up**, page 11.

Trigger/Air Valve




1. Follow **Pressure Relief Procedure**, page 11.
 2. Use a 5/16 in. nut driver to alternately loosen side block mounting screws. Carefully separate side blocks from gun. Wipe mating surfaces with a rag soaked in gun cleaner.
-  To repair side blocks, see **Side Blocks**, page 13.
3. If gun is configured with air inlet at base of handle (standard), remove 1/8 npt pipe plug at rear of gun.

If gun is configured with air inlet at rear, remove air hose and nipple.
 4. Remove screw and locknut holding trigger lever in place. Remove trigger lever.
 5. Remove valve retainer hex nut, which holds brass valve spool in place.
 6. Carefully grip end of valve spool with a pliers and remove it. Valve spring, which fits into spool, will come out with it. Be careful not to lose spring.
 7. Inspect spool o-rings and replace if damaged. Liberally coat new o-rings with Lubriplate grease before installing.
 8. Remove 1/16 npt pipe plug from deep in port at rear of gun.
 9. Brass spring seat is visible inside port at rear of gun. Use a 1/4 in. diameter (maximum) punch and hammer to gently tap

seat until valve liner and seat are pushed out of valve cavity.

10. Inspect the four o-rings on valve liner and replace if necessary. Apply Lubriplate grease liberally to o-rings before installing.
11. Ensure that valve cavity is free of debris. Apply a thin film of Lubriplate grease inside cavity.
12. Slide spring seat into cavity, tapered end first. Ensure it bottoms out in cavity.
13. There will be some resistance from the o-rings when installing valve liner. Push valve liner into cavity until 2 or 3 of the cavity's internal threads are visible.

 Threads allow engagement with valve retainer nut, which aligns valve liner and spool to proper depth.

14. Apply a small amount of thread sealant to 1/16 npt pipe plug and reinstall. This seals threads to prevent air leaks.

15. Reinstall 1/8 npt pipe plug, or nipple and air hose, at rear of gun.
16. Ensure that valve spring is in place, and insert valve spool into valve liner. Screw in valve retainer nut until snug. Do not over-tighten.
17. Reinstall trigger lever, screw, and locknut.
18. Install side blocks to gun body with two mounting screws. Tighten screws alternately and evenly to prevent leakage.
19. Return gun to service. See **Daily Start-Up**, page 11.

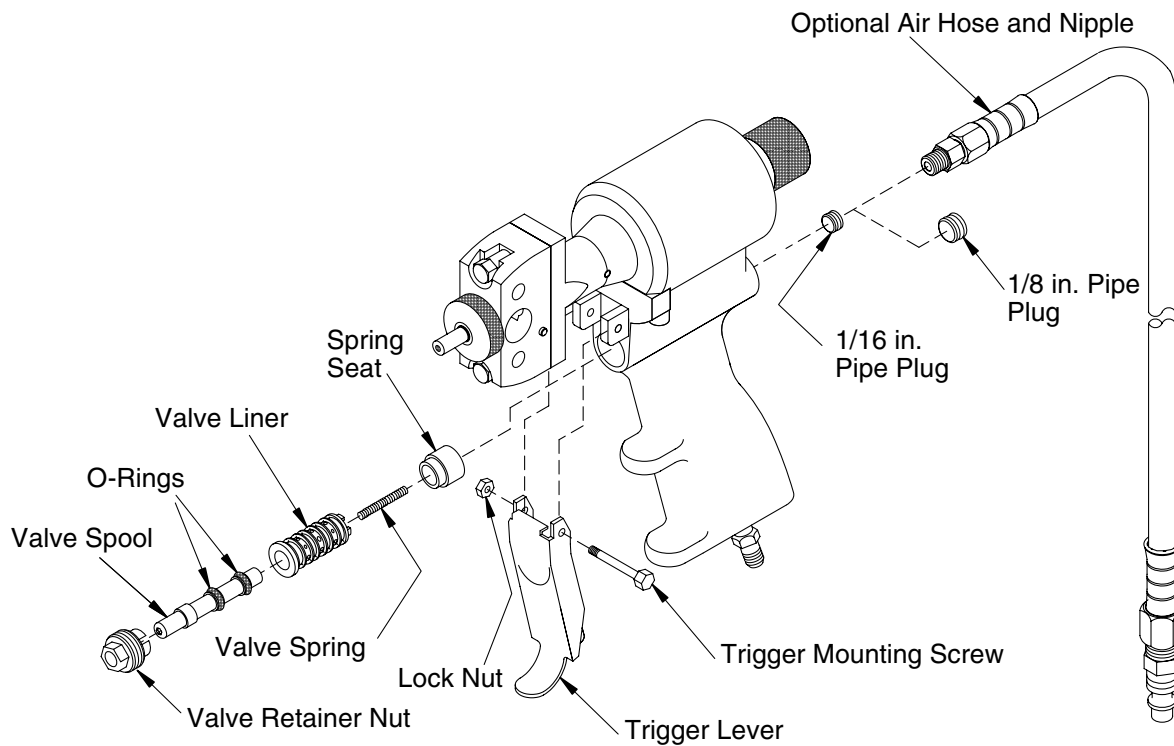



FIG. 15. Trigger/Air Valve Assembly

Air Passage Diagrams

 Use thread sealant when reinstalling any threaded components. In addition, reinstall all set screws flush to outside surface of gun handle.

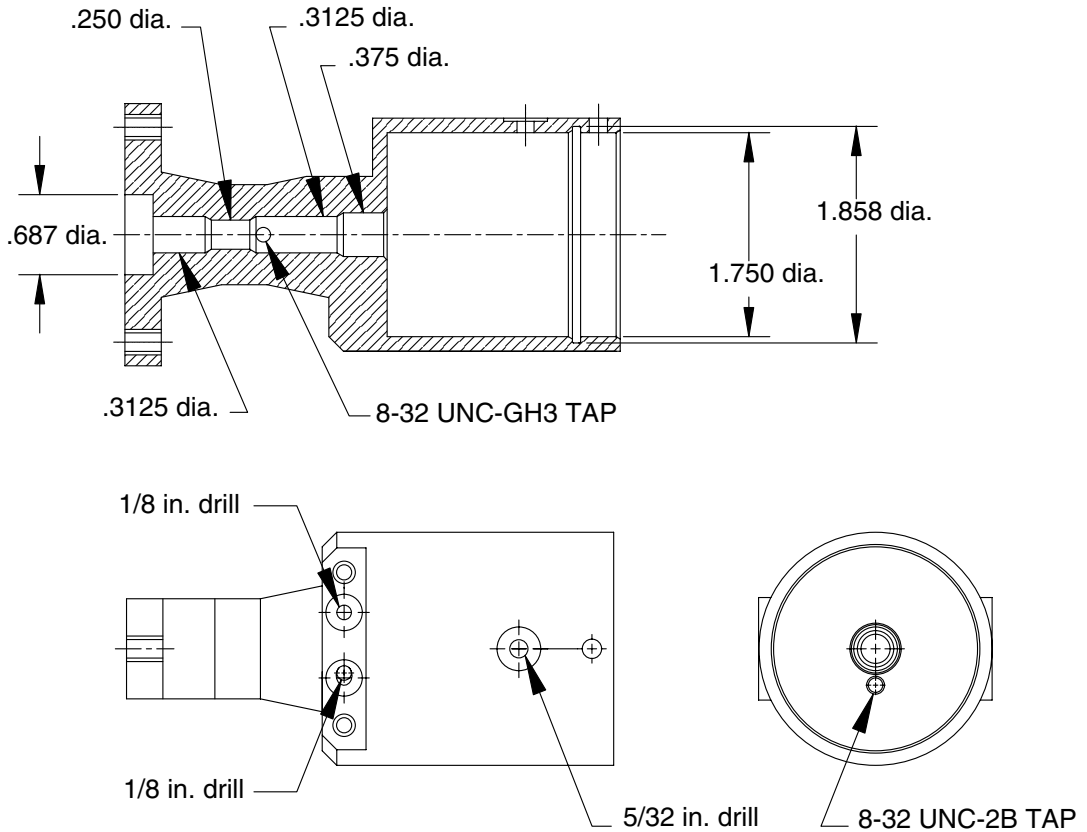


FIG. 16: Air Cylinder Air Passages

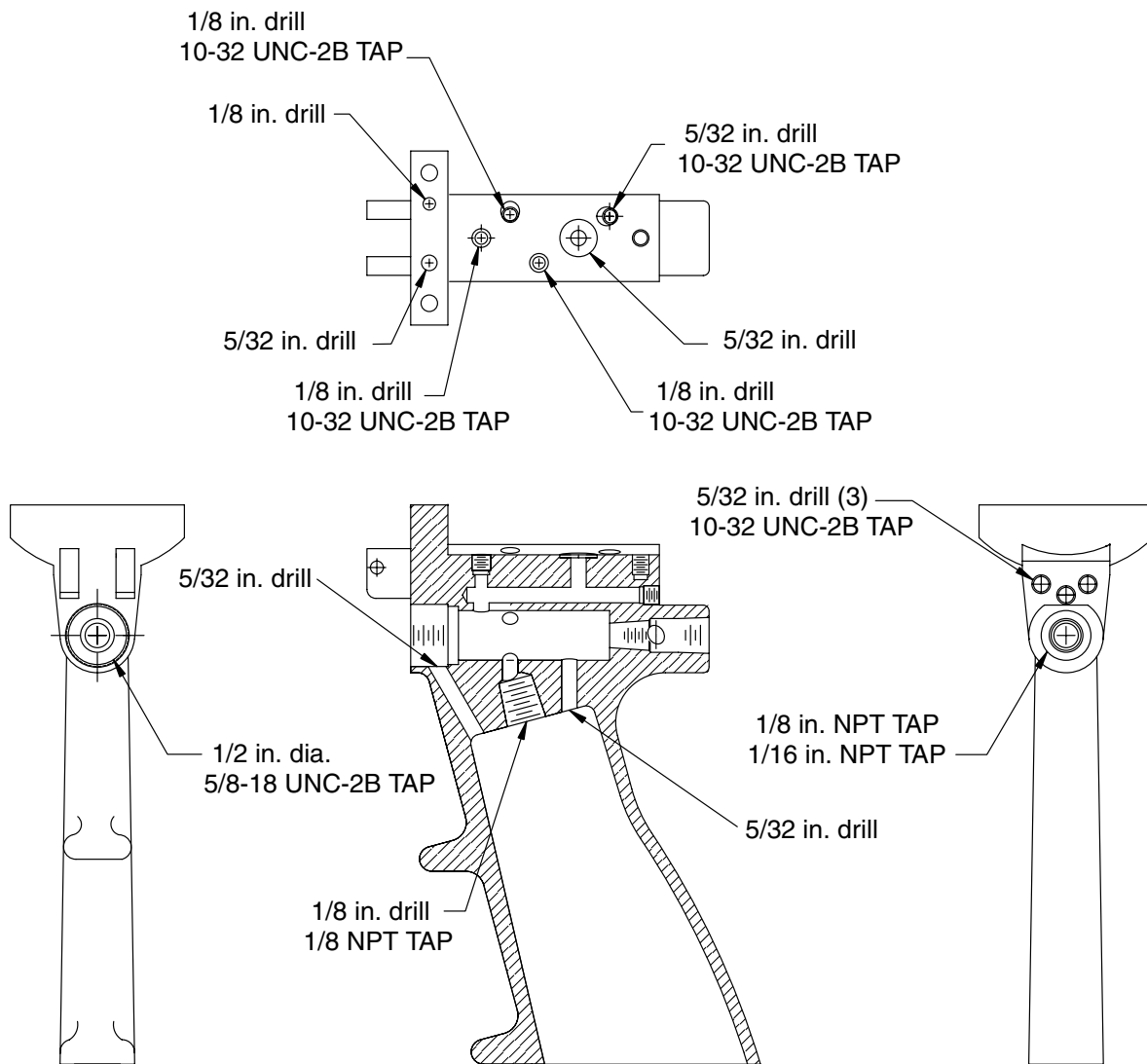


FIG. 17: Handle Air Passages

Parts

GAP Pro Spray Gun Assembly

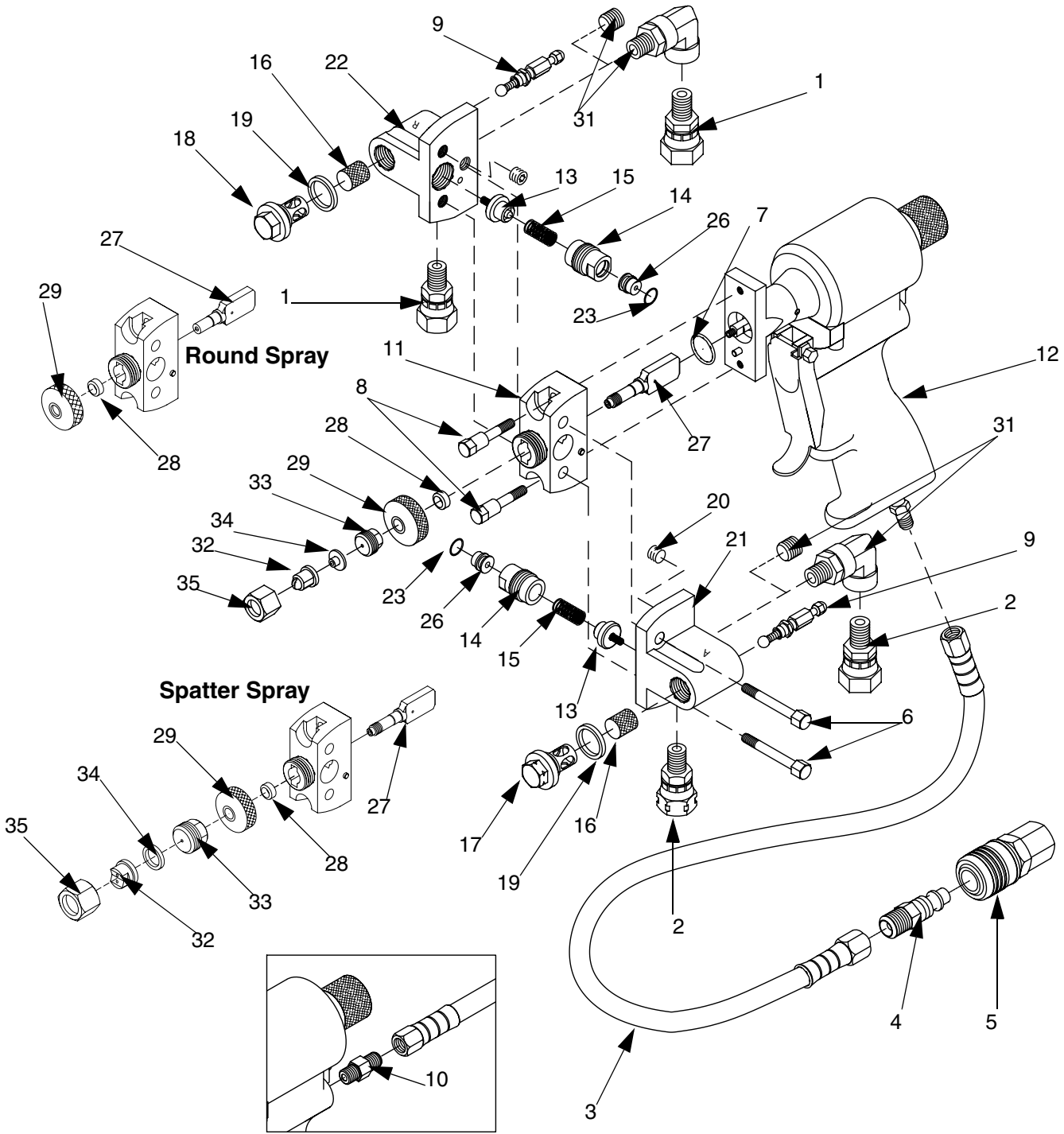


FIG. 18: GAP Pro Final Assembly

GAP Pro Spray Gun Assembly

| Ref. | | | | Ref. | | | |
|------|----------|---|------|---|----------|---------------------------------------|------|
| No. | Part No. | Description | Qty. | No. | Part No. | Description | Qty. |
| 1 | 117634 | FITTING, R-swivel | 1 | 20 | 295693 | PLUG, seal, flush; 1/16 npt | 2 |
| 2 | 117635 | FITTING, A-swivel | 1 | 21 | 296515 | BLOCK, A-side | 1 |
| 3 | 295184 | HOSE, air; 1/4 npt (fbe) x 23 in. (584 mm) | 1 | 22 | 296512 | BLOCK, R-side | 1 |
| 4 | 295596 | PLUG, coupler | 1 | 23 | 103337 | O-RING; Viton | 2 |
| 5 | 295597 | COUPLER | 1 | 26 | ❖ | SEAL, side | 2 |
| 6 | 296964 | BOLT, side block (pack of 2) | - | 27 | ❖ | MIXING CHAMBER | 1 |
| 7 | 115719 | O-RING; Viton | 1 | 28 | ❖ | SEAL, air (pack of 2) | - |
| 8 | 296963 | BOLT, gun block (pack of 2) | - | 29 | ❖ | CAP, air | 1 |
| 9 | 296970 | VALVE ASSEMBLY, manual | 2 | 30 | ❖ | FITTING, straight | 4 |
| 10 | 103656 | NIPPLE, hex; brass; 1/8 npt | 1 | 31 | ❖ | PLUG or ELBOW | 2 |
| 11 | 296521 | BLOCK, gun | 1 | 32 | ❖ | FLAT TIP; see Accessories, page 32 | 1 |
| 12 | 296960 | HANDLE, gun | 1 | 33 | ❖ | ADAPTER | 1 |
| 13 | 296953 | CHECK VALVE ASSEMBLY | 2 | 34 | ❖ | SEAL | 1 |
| 14 | 295444 | RETAINER, check valve | 2 | 35 | ❖ | NUT, retaining | 1 |
| 15 | 296959 | SPRING (pack of 2) | - | 40 | ❖ | TOOL, cleanout | 1 |
| 16 | 296939 | SCREEN; 80 mesh (pack of 10) | - | 41 | ❖ | TOOL, cleanout | 1 |
| 17 | 296940 | SCREW, screen, A-side | 1 | ❖ See Table 1 or Table 2 for part numbers by model. | | | |
| 18 | 296941 | SCREW, screen, R-side | 1 | | | | |
| 19 | 296942 | SEAL, screw, screen (pack of 2) | - | | | | |

Table 1: Flat Pattern Guns, Parts by Model Number

| Ref. No. | Flat Pattern Gun Model No. | | | | | | |
|-------------------|----------------------------|-----------|-----------|-----------|-----------|--------------|-----------|
| | 295550 | 295551 | 295552 | 295553 | 295554 | 295555 | 295556 |
| | (00 Flat) | (01 Flat) | (02 Flat) | (03 Flat) | (04 Flat) | (04 Spatter) | (05 Flat) |
| Output (lbs/min)* | 3-6 | 5-9 | 10-20 | 12-30 | 20-45 | 14-22 | 30-60 |
| 26 | 296956✳ | 296956✳ | 296956✳ | 296956✳ | 296958✳ | 296958✳ | 296958✳ |
| 27 | 296840† | 296841† | 296842† | 296843† | 296844† | 296844† | 296845† |
| 28 | 296945 | 296945 | 296945 | 296945 | 296945 | 296945 | 296945 |
| 29 | 296950 | 296950 | 296950 | 296950 | 296950 | 296950 | 296950 |
| 31 | 295662 | 295662 | 295662 | 295662 | 295662 | 295662 | 295662 |
| 32 | | | | | | 296495 | |
| 33 | 296473 | 296473 | 296473 | 296473 | 296474 | 296474 | 296474 |
| 34 | 295409 | 295409 | 295409 | 295409 | 295409 | 296947 | 296409 |
| 35 | 295423 | 295423 | 295423 | 295423 | 295423 | 296494 | 296423 |
| 40 | 118369 | 296293 | 118369 | 296296 | 296297 | 296297 | 296491 |
| 41 | 296289 | 296296 | 296297 | 296302 | 296490 | 296490 | 296302 |

* Output specifications are based upon in-house test data, which may vary depending on specific chemical system, application, and mixing chamber.

✳ Kit includes qty. 2 each of items 23 and 26.

† Kit includes (1) 27, (1) 28, and cleanout tools 40 and 41.

Table 2: Round Pattern Guns, Parts by Model Number

| Ref. No. | Round Pattern Gun Model No. | | | | | |
|----------|-----------------------------|-------------|------------|------------|------------|------------|
| | 295557 | 295558◆ | 295559 | 295560 | 295561 | 295562 |
| | (00 Round) | (00 Recirc) | (01 Round) | (02 Round) | (03 Round) | (04 Round) |
| 26 | 296956✳ | 296956✳ | 296956✳ | 296958✳ | 296958✳ | 296958✳ |
| 27 | 296846† | 296846† | 296847† | 296848† | 296849† | 296850† |
| 28 | 296946 | 296946 | 296946 | 296946 | 296946 | 296946 |
| 29 | 296951 | 296951 | 296951 | 296951 | 296951 | 296487 |
| 31 | 295662 | 112307 | 295662 | 295662 | 295662 | 295662 |
| 40 | 118369 | 118369 | 296293 | 118369 | 296296 | 296297 |
| 41 | 296289 | 296289 | 296296 | 296297 | 296302 | 296490 |

◆ This model uses qty. 2 each of items 1 and 2.

✳ Kit includes qty. 2 each of items 23 and 26.

† Kit includes (1) 27, (1) 28, and cleanout tools 40 and 41.

GAP Pro Spray Gun Handle Assembly

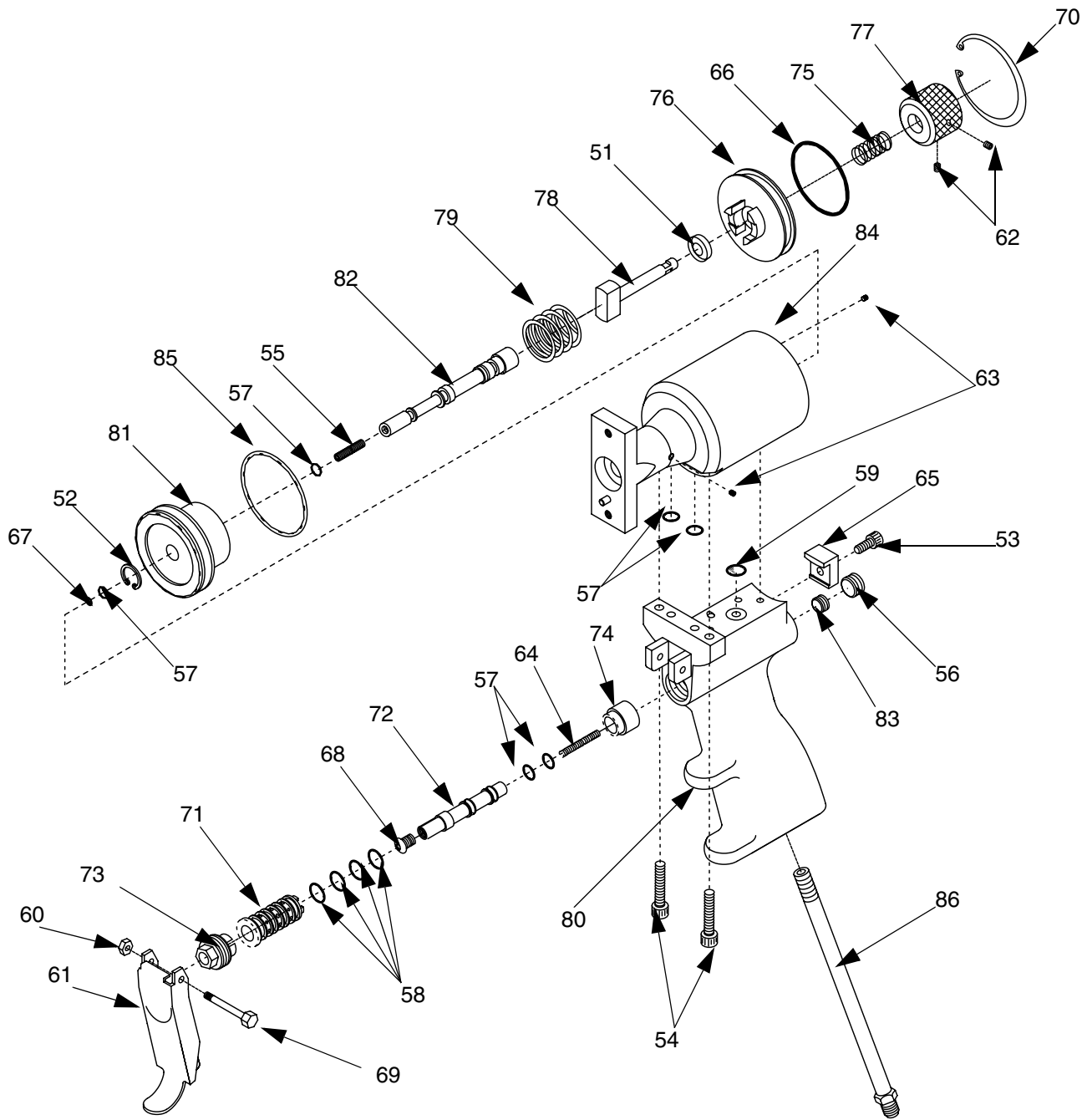


FIG. 19: GAP Pro Handle Assembly

GAP Pro Spray Gun Handle Assembly

| Ref. No. | Part No. | Description | Qty. | Ref. No. | Part No. | Description | Qty. |
|----------|----------|-----------------------|------|----------|----------|----------------------|------|
| 51* | 295435 | SEAL, u-cup | 1 | 70 | 296538 | RING, retaining | 1 |
| 52 | 295422 | RING, retaining | 1 | 71 | 296539 | LINER, valve | 1 |
| 53 | 296537 | SCREW, cap, socket hd | 1 | 72 | 296527 | SPOOL, valve | 1 |
| 54 | 106245 | SCREW, cap, socket hd | 2 | 73 | 296528 | NUT, retainer, valve | 1 |
| 55 | 296536 | SCREW, set; socket hd | 1 | 74 | 295434 | SEAT, spring | 1 |
| 56 | 295662 | PLUG, pipe | 1 | 75 | 295436 | SPRING | 1 |
| 57* | C20988 | O-RING | 6 | 76 | 296529 | CAP, end | 1 |
| 58 | 112085 | O-RING | 4 | 77 | 296530 | KNOB | 1 |
| 59* | 103337 | O-RING | 1 | 78 | 296526 | PIN, stop | 1 |
| 60 | C02032 | NUT | 1 | 79 | 295416 | SPRING, piston | 1 |
| 61 | 295692 | TRIGGER | 1 | 80 | 296961 | HANDLE, gun | 1 |
| 62 | 116624 | SCREW, set; socket hd | 2 | 81 | 296531 | PISTON | 1 |
| 63 | 102279 | SCREW, set; socket hd | 2 | 82 | 296532 | SHAFT, piston | 1 |
| 64 | 295442 | SPRING | 1 | 83 | 295693 | PLUG, pipe | 1 |
| 65 | 296535 | CLAMP, cylinder | 1 | 84 | 296962 | CYLINDER, air | 1 |
| 66* | 108103 | O-RING | 1 | 85* | 114054 | O-RING | 1 |
| 67* | 168518 | O-RING | 1 | 86 | 295665 | NIPPLE | 1 |
| 68 | 295695 | SCREW, cap; button hd | 1 | | | | |
| 69 | 295671 | SCREW, trigger | 1 | | | | |

* Included in Handle Seal Repair Kit 296938 (purchase separately).

Accessories

Tool kit 296968 for GAP Pro spray gun.

Grease syringe 296382; syringe filled with grease for gun maintenance.

Lithium grease lubricant 295890; 1.75 oz. tube for rebuilding gun.

Flat Spray Tip Kits

| Part Number | Spray Width* | Kit Ref. |
|-------------|-----------------------|----------|
| 296948 | 10-14 in. at 1500 psi | 1 |
| 296949 | 12-16 in. at 1500 psi | 2 |

* Approximately 20 in. from surface.

Gun Wand Kit

Kit 296984; extends GAP spray gun front-end 21 in.

Pour Package (296983) Components

Includes:
 Pour fitting 297078 1
 Polyflow tubing (3/8 in. diameter x 1 ft. length) 296165 1

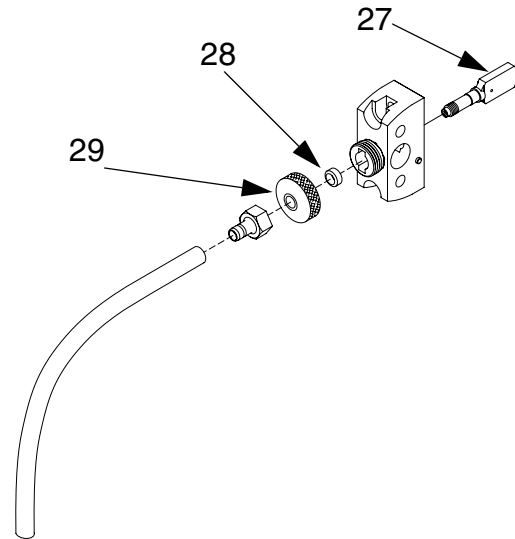


FIG. 20: Pour Package Components

Mixing Chamber Cleanout Drills

| Flat Mixing Chamber (27) | Round Mixing Chamber (27) | Mixing Chamber Nozzle Cleanout Drill | Mixing Chamber Port Cleanout Drill |
|--------------------------|---------------------------|--------------------------------------|------------------------------------|
| 296840 | 296846 | 118369 | 296289 |
| 296841 | 296847 | 296296 | 296293 |
| 296842 | 296848 | 296297 | 118369 |
| 296843 | 296849 | 296302 | 296296 |
| 296844 | 296850 | 296490 | 296297 |
| 296845 | 296851 | 296491 | 296302 |

Technical Data

| Category | Data |
|--------------------------------|---|
| Maximum Fluid Working Pressure | 3000 psi (20.7 MPa, 207 bar) |
| Minimum Air Inlet Pressure | 100 psi (0.7 MPa, 7 bar) |
| Maximum Air Inlet Pressure | 125 psi (0.9 MPa, 9 bar) |
| Maximum Output (flow rate) | 40 lb/min (18 kg/min) |
| Air Inlet Size | 1/8 npt |
| A Component (ISO) Inlet Size | -5 JIC; 1/2-20 UNF |
| R Component (Resin) Inlet Size | -6 JIC; 9/16-18 UNF |
| Length | 7 in. (17.8 cm) |
| Height | 7.25 in. (18.4 cm) |
| Width | 4.4 in. (11.2 cm) |
| Weight | 2.34 lb (1.06 kg) |
| Wetted Parts | Stainless steel, carbon steel, brass, nylon, acetal, PTFE, aluminum |

Graco Standard Warranty

Graco warrants all equipment referenced in this document which is manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Graco distributor for verification of the claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

Graco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within two (2) years of the date of sale.

GRACO MAKES NO WARRANTY, AND DISCLAIMS ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, IN CONNECTION WITH ACCESSORIES, EQUIPMENT, MATERIALS OR COMPONENTS SOLD BUT NOT MANUFACTURED BY GRACO. These items sold, but not manufactured by Graco (such as electric motors, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. Graco will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

In no event will Graco be liable for indirect, incidental, special or consequential damages resulting from Graco supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of Graco, or otherwise.

FOR GRACO CANADA CUSTOMERS

The Parties acknowledge that they have required that the present document, as well as all documents, notices and legal proceedings entered into, given or instituted pursuant hereto or relating directly or indirectly hereto, be drawn up in English. Les parties reconnaissent avoir convenu que la rédaction du présente document sera en Anglais, ainsi que tous documents, avis et procédures judiciaires exécutés, donnés ou intentés, à la suite de ou en rapport, directement ou indirectement, avec les procédures concernées.

Graco Information

TO PLACE AN ORDER, contact your Graco distributor or call to identify the nearest distributor.
Phone: 612-623-6921 or Toll Free: 1-800-328-0211, Fax: 612-378-3505

*All written and visual data contained in this document reflects the latest product information available at the time of publication.
Graco reserves the right to make changes at any time without notice.*

MM 311322B

Graco Headquarters: Minneapolis
International Offices: Belgium, China, Japan, Korea

GRACO INC. P.O. BOX 1441 MINNEAPOLIS, MN 55440-1441

www.graco.com

Printed in USA 311322B

Rev. 3/2006